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FAMILY SUPPORT OF EMERGENT LITERACY IN STUDENTS  
WITH MODERATE AND SEVERE COGNITIVE DELAYS

by  
Sr. Dianna M. Higgins, fmij

A Thesis

Submitted in partial fulfillment of the requirements of  
Master of Arts Degree  
of  
The Graduate School  
at  
Rowan University  
May 4, 2000

Approved by \_\_\_\_\_ Professor

Date Approved 5/4/2000

## **ABSTRACT**

Sr. Dianna M. Higgins, fmij

Family Support of Emergent Literacy in Students

With Moderate and Severe Cognitive Delays

2000

Dr. S. Jay Kuder

Special Education

This study sought to explore family support of emergent literacy of students with moderate and severe cognitive delays. The research question addressed was "Does family support of emergent literacy differ on the basis of the severity of the student's cognitive delay?" Data were gathered by means of a parent survey of home literacy experiences.

Research showed that students with moderate cognitive delays participated in more emergent literacy activities and exhibited higher level responses to emergent literacy activities than students with severe cognitive delays, and the parents of moderately delayed students perceived more academically oriented benefits to home literacy activities. Results were used to develop a parent education packet.

**MINI-ABSTRACT**

Sr. Dianna M. Higgins, fmij

Family Support of Emergent Literacy in Students  
With Moderate and Severe Cognitive Delays

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Dr. S. Jay Kuder

Special Education

The purpose of this study was to explore family support of emergent literacy of students with moderate and severe cognitive delays. Research showed that students with moderate cognitive delays participated in more emergent literacy activities at home than students with severe cognitive delays.

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## **CHAPTER I**

### **THE RESEARCH PROBLEM**

#### **I. Introduction**

Despite the need for carefully planned and intensive reading instruction for students with disabilities, there has been an absence of time dedicated to reading instruction in special education classrooms (Englebert, et.al., 1998). In many classrooms for students with developmental disabilities, reading instruction has been limited to a functional reading curriculum consisting of sight word vocabulary drills of common survival words such as WALK and DON'T WALK. These functional words are important to know and will be useful to students, but to end reading instruction here and to fail to provide other literacy opportunities to students with developmental disabilities is to do these students a dis-service. Many students have graduated from special education programs without any further reading instruction, without having had the opportunity to develop their literacy skills to their fullest potential, however extensive or limited that potential may be.

Special educators need to work with their students to develop to the fullest extent possible their literacy skills. To the extent that teachers develop student literacy, it will enrich the lives of their students, improving their quality of life, and opening new possibilities for students in vocational opportunities, life skills, and recreation and leisure opportunities.

In recent years, the concept of reading readiness has been replaced by that of emergent literacy. Emergent literacy is a process that is said to encompass the time between birth and the time children begin to engage in conventional reading and writing tasks (Sulzby and Teal, 1991, quoted in Craig, 1996). The process begins with early non-verbal and verbal interactions with others, awareness of the environment, and other early explorations. The process continues as the child develops language, builds concepts, has experience with books, and experiments with writing (Stratton, 1996). These early literacy experiences begin long before children enter school, as children listen to stories read to them, as they begin to recognize signs and symbols, like the McDonalds logo or their favorite cereal boxes. Children learn about reading as their parents model literacy behaviors.

Already at this early stage of literacy development, students with developmental disabilities are at a deficit. Research shows that students with developmental disabilities may experience literacy in quantitatively

fewer and qualitatively different ways than their non-disabled peers. They have little access to writing materials and experiences both at home and in school (Dziwulski, 1996). A lack of verbal responsiveness and a lack of clarity of non-verbal cues make it difficult for parents to know what children understand (Koppenhaver and Yoder, 1991, quoted in King-DeBaun, 1996). Others have found that parents of children with specific disabilities simply do not consider literacy a priority (Craig, 1996; Marvin and Mirenda, 1993), and therefore do not share literacy activities with their children.

A reading program which includes emergent literacy activities can be particularly beneficial to students with cognitive delays (i.e. developmental disabilities). Such a program will provide students with pre-requisite experiences they may not have had previously which could facilitate further reading progress. For those students with more severe cognitive delays, who will most probably not become proficient conventional readers, emergent literacy activities will provide meaningful, enjoyable and functional learning experiences to improve their quality of life.

## II. Formal Statement of the Problem

The purpose of this study is to explore family support of emergent literacy of students with moderate and severe cognitive delays in five self-contained classrooms of elementary and middle school aged

students. The research question to be addressed is: Does family support of emergent literacy differ on the basis of the severity of the student's cognitive delay? Other questions to be addressed are: What are parents' goals for their children? What kinds of literacy activities do these children participate in at home? What are students' responses to literacy activities at home? What do parents perceive are the benefits to home literacy activities?

### III. Hypotheses

The hypotheses for this study are:

Students with moderate cognitive delays will participate in more emergent literacy activities than students with severe cognitive delays.

Students with moderate cognitive delays will exhibit greater responses to emergent literacy activities than students with severe cognitive delays.

Parents of students with moderate cognitive delays will perceive more academic benefits derived from emergent literacy activities than parents of students with severe cognitive delays.

### IV. Definition of terms

**emergent literacy:** emergent literacy consists of the reading and writing behaviors that evolve from childrens earliest experiences with reading and writing that gradually grow into conventional literacy (Gunning,

1996).

**moderate cognitive delay:** For purposes of this study, the term "moderate cognitive delay" will refer to the 1992 AAMR definition of "mental retardation": "mental retardation refers to substantial limitations in present functioning. It is characterized by significantly sub-average intellectual functioning, existing concurrently with related limitations in two or more of the following applicable adaptive skill areas: communication, self-care, home living, social skills, community use, self-direction, health and safety, functional academics, leisure, and work. Mental retardation manifests itself before age 18" (AAMR, 1992, quoted in Haring, McCormick, and Haring, 1994).

**severe cognitive delay:** For purposes of this study, the term "severe cognitive delay" will refer to the 1988 Federal Register definition of "severely handicapped children and youth": "The term 'severely handicapped children and youth' refers to handicapped children who, because of the intensity of their physical, mental, or emotional problems, need highly specialized educational, social, psychological, and medical services in order to maximize their full potential for useful and meaningful participation in society and for self-fulfillment.

The term includes those children and youth who are classified as seriously emotional disturbed (including children and youth who are schizophrenic), autistic, profoundly and severely mentally retarded, and those with

two or more serious handicapping conditions such as deaf-blind, mentally retarded-blind, and cerebral palsied-deaf.

Severely handicapped children and youth may experience severe speech, language, and/or perceptual-cognitive deprivations, and evidence abnormal behavior such as failure to respond to pronounced social stimuli; self-mutilation; manifestation of intense and prolonged temper tantrums; absence of rudimentary forms of verbal control; and may also have extremely fragile physiological conditions" (Federal Register, 1988, quoted in Haring, McCormick, and Haring, 1994).

#### V. Purpose of the study

The purpose of this study is to determine the extent of family support of emergent literacy activities for students with moderate cognitive delays and severe cognitive delays. Information gathered from this study will then be used to develop guidelines and suggestions for home literacy activities to be distributed to parents in order to help parents engage their children in meaningful, enjoyable, and challenging literacy activities at home. The guidelines will also be distributed to teachers, thereby providing consistency between the home and school, the ultimate benefit being increased literacy and a better quality of life for students with moderate and severe cognitive delays.

## VI. Overview

In chapter 2, a literature review will be completed on the topic of family support of emergent literacy, particularly for students receiving special educational services. Chapter 3 will describe the research design and the procedure for gathering data. In chapter 4, data will be analyzed and results will be presented. Conclusions will be drawn and suggestions will be made for home literacy activities, and guidelines for parents will be presented in chapter 5. Suggestions for further research are also made in this chapter.

## CHAPTER II

### LITERATURE REVIEW

#### I. Reading Readiness

In years past, reading instruction was based on the readiness theory. Students in preschool and kindergarten did not receive reading instruction, as these students were not seen as mature enough to begin reading. Teachers felt that if children were rushed into reading before they were maturationally ready, they would experience frustration and even failure (Gunning, 1992).

In the early 1900's, teachers generally assumed that literacy began to develop as children received formal reading instruction in about the first grade (Morrow, 1989). The 1930's and 1940's saw the growing popularity of standardized testing. These tests served well the maturation concept upon which the readiness theory is based, as these tests measured specific skills, some of which came to be seen as elements on which to base educational experiences that would help students become ready to read (Morrow, 1989). Mastery of these skills came to be seen as pre-requisite skills for reading.



Instruction in early childhood classrooms focused on mastery of these readiness skills in order to prepare students for later reading instruction. Skills were systematically taught in a reading readiness program and might have included auditory and visual discrimination, left-to-right eye progression, visual-motor skills and gross motor skills.

The readiness theory is problematic in that it assumes that all children in a given class are at the same stage of development as they enter preschool or kindergarten. This model focuses on a specific set of skills assumed to be necessary for learning to read. It does not consider or capitalize upon previous literacy experiences children may have had, nor does it encourage interesting or meaningful experiences which would motivate students to nurture a love of reading or a love of books (Morrow, 1989).

## II. Emergent Literacy

In recent years, the concept of reading readiness has been replaced by that of emergent literacy. Emergent literacy is a process said to encompass the time between birth and the time that children begin to engage in conventional reading and writing tasks (Sulzby and Teale, 1991, quoted in Craig, 1996). Emergent literacy learning takes place in home and community settings, out-of-home care settings, and in school settings (Sulzby and Teale, 1991, quoted in Craig, 1996). It begins with early

non-verbal and verbal interactions with others and awareness of the environment, and continues as the child develops language, broadens their explorations, and builds concepts. The process progresses as the child learns about the functions of symbols, has experience with books and experiments with writing (Stratton, 1996). Through these experiences the child builds concepts about reading and writing.

Up until the present time, literacy has been defined as a cognitive process. Today, literacy is seen as a social, psychological, and linguistic process. From an emergent literacy perspective, literacy is seen as a learning activity, not as the result of a teaching activity.

Teale and Sulzby (1989) present a portrait of young children as literacy learners. First, for almost all children in a literate society, learning to read and write begins very early in life. Children are exposed to print from the earliest months of life, from alphabet blocks to bathtub books. Most children are read to from a very early age. Toddlers quickly learn to recognize their favorite cereal box or fast food logo. Second, the functions of literacy are an integral part of the child's overall learning process. Children learn about the importance of reading in everyday home experiences. They see their parents reading the newspaper each night, someone making a shopping list, or using the T.V. Guide or a cookbook. Thus, children see reading as a useful,

functional skill. Third, it is important to remember that reading and writing develop concurrently and interrelatedly in young children, and fourth, children learn through active engagement. As children encounter written language, they try to figure out what it means and how it works. Together, these early literacy learning experiences give children a foundation upon which to build their future reading instruction.

One important component of emergent literacy is reading aloud (Stratton, 1996). Research by Stratton (1996) has shown that reading aloud regularly to a child from infancy is the most important factor in building a foundation for enjoyment of and success in reading. Reading aloud to children teaches them that books are fun, that reading is enjoyable.

A second component of emergent literacy is the concept of a symbol (Stratton, 1996). Quite simply, a symbol is something that represents something else. Understanding this concept, the child will understand, for example, that a red light or a stop sign mean stop. Understanding the concept of a symbol, children can then use that concept to build upon: Children can now learn that letters are symbols for sounds, and that a written word is a symbol for that which it represents.

A third component of emergent literacy is emergent writing (Stratton, 1996). Emergent writing takes five major forms (Sulzby, Teale, And Kamberlis, 1989). At about two years of age, children use scribble,

differentiating between scribble for writing and scribble for drawing. At three years of age, children write letter-like figures and begin to write conventional-looking letters and letter strings. At age four, some children begin to use some phonetic spelling, while most children begin phonetic and invented spelling at age five or six.

A fourth component of emergent literacy is the literacy environment (Stratton, 1996). Katims (1994), in his study of the emergence of literacy in preschool children with disabilities, states that children immersed regularly in literacy rich environments learn about written language by handling books, hearing stories read aloud by adults, drawing pictures, and attempting to write about real-life experiences. According to Purcell-Gates (1996) in her study of literacy practices in twenty low-socioeconomic status homes, living in and participating in an environment in which others use print for various purposes, children infer the semiotic and functional nature of written language. She also indicated that direct mother-child interactions around print contributed to the construction of these understandings. Children who experience many uses of written language to which they attend and personally experience may have more opportunities to build the important conceptual basis of literacy development, that is that print is symbolic and serves communicative purposes (Purcell-Gates, 1996).

In light of this research, parents and educators would do well to surround children with literacy experiences. Books and storytelling need to be a part of the young child's environment (Smith, 1989). The child's environment is crucial in the development of emergent literacy. A literacy-rich environment should include 1) role models: adults making use of print, 2) exploration: opportunities to manipulate, examine, and play with written material, and 3) interaction with adults: reading experiences with adults which become opportunities for social interaction, a time to ask and answer questions and talk about the stories read together, and quality time between adult and child (Saint Laurent, Giasson, and Couture, 1997).

### III. Emergent Literacy and Developmental Disabilities

Literacy is a critical life skill for children with developmental disabilities, most of whom experience significant difficulties learning to read and write. Because of these difficulties, educators need to work toward developing the literacy skills of their students to their fullest potential. In their paper, "Instruction to Help Them All Read and Write," Allington and Koppenhaver (1996) quote Feilding and Peirson: "Anything less than a well-rounded instructional program is a form of discrimination against (persons) who have difficulty reading (or writing)."

Mirenda, Iacono, and Williams (1990) state that

children with severe disabilities require educators and parents to monitor their literacy learning for opportunity and access. Opportunity barriers to literacy are imposed by others upon persons with severe disabilities, and occur when the person with severe disabilities is not given the opportunity to learn. Perhaps a teacher provides no time for reading instruction or literacy opportunities because he or she believes a particular class to be profoundly retarded, therefore the class may make no literacy learning progress. Access barriers are due to the current capabilities of the individual, or the immediate support system. Perhaps a teacher allocates a great deal of time for literacy instruction, but non-speaking students may not participate because there is no augmentative communication system in place. These students lack access to participation in the lesson because they have no way to communicate.

The Primer on Literacy and Developmental Disabilities (Center for Literacy and Disabilities, 1996) states that parents and professionals become understandably preoccupied with the health and medical issues surrounding children with developmental disabilities, and therefore the childrens' life experiences lack the rich variety of print experiences available to their non-disabled peers. Children with developmental disabilities usually do not own books of their own, may not be able to hold a pencil, and may not

have the speech or communication abilities to request print materials or to interact with others during literacy activities. They are often considered to be too severely impaired to learn to read or write. Consequently, seventy to ninety percent of these children cannot read or write at the same level as their non-disabled peers (Center for Literacy and Disabilities, 1996).

Poor reading and writing abilities have negative and far-reaching consequences (Center for Literacy and Disabilities, 1996). Poor readers and writers often experience difficulty early in their school career and tend to remain poor readers throughout life (Dziwulski, 1996). They are less likely to be accepted by their peers even into adulthood and will likely be severely restricted in their vocational options.

Margery Dziwulski (1996) presents a summary of research on literacy and developmental disabilities. She states that individuals with developmental disabilities may experience literacy in quantitatively and qualitatively different ways than their non-disabled peers, and that their activities do not support the emergence of literacy. They have little access to writing materials and experiences both at home and at school, and few opportunities to interact with others during these activities. Even at school, instruction focuses, often exclusively, on individual word drills, offering students with developmental disabilities few

opportunities for actual reading and writing of texts. Caregiver perceptions also influence the emergent literacy experiences of individuals with developmental disabilities. The very fact of having a disability may cause caregivers to underestimate a child's ability and therefore adversely affect the quantity and quality of shared literacy experiences. Koppenhaver and Yoder (1991) also suggest that students with severe physical and communicative disabilities have qualitatively and quantitatively fewer literacy experiences than their non-disabled peers (quoted in King-DeBaun, 1996). Parents mention that positioning, that is trying to support a child, hold a book in position, and read, makes storybook reading extremely difficult.

Children with disabilities are often not provided with a means to actively participate in the reading process. The parent then becomes the dominant figure in the reading process, selecting books and leading the social interactions. When children lack verbal responsiveness and/or clarity of non-verbal cues because of motoric involvement, parents have difficulty knowing what the child understands, what his or her preferences are, or even if the child is interested in book reading. The child lacks the means to control or interact with the book (King-Debaun, 1996).

It is important that educators, related service providers, and parents understand that many of the conditions that facilitate literacy learning in



non-disabled individuals, such as being read to frequently and having access to print materials, appear to facilitate literacy learning in individuals with developmental disabilities (Dziwulski, 1996). Regular reading and exposure to print-related activities contribute to the development of a variety of emergent literacy skills (King-DeBaun, 1996). Children learn that books are enjoyable, that books tell stories, they learn about pictures, that they also tell part of the story, they learn book-handling skills, they take part in social interactions, they learn about print and about how stories work. These are just a few of the skills that children learn by participating in emergent literacy activities.

Literacy is a lifelong activity that begins at birth (Taele and Sulzby, 1986). No child is too young, too physically disabled, or too cognitively impaired to participate in literacy activities (King-DeBaun, 1996). Literacy is more than proficiency in reading, writing, and spelling. It is learning to enjoy stories when someone else is reading them. It is learning to love books. It is a means of building social relationships through sharing literacy experiences with friends, classmates, or family members. If we understand literacy in this way, we can also understand that all children can achieve some degree of literacy if given opportunities and exposure (Mirenda, 1993).

#### IV. Home Literacy Support

According to Leichter (1984, quoted in Morrow, 1989), families influence literacy development in three ways: interpersonal interaction, physical environment, and emotional and motivational climate.

Interpersonal interactions are the literacy experiences shared with a child by parents, siblings, and other individuals in the home. Teale (1981) summarizes that being read to at home is positively correlated with level of language development in pre-readers, vocabulary development, children's eagerness to read, and success in beginning to read in school. Teale states that reading to preschool children is positive in that through this activity children may develop interest and skill in literacy. Research by Wells (1986, quoted in Gunning, 1992) supports Teale, stating that being read to develops children's vocabulary, expands children's experiential background, makes them aware of the language of books, introduces them to basic concepts of print and how books are read, and provides children with pleasant associations with books. According to Stratton (1996), reading aloud regularly to a child from infancy is the most important factor for enjoyment of and success in reading. Literacy outcomes include the discovery that books are fun, awareness that symbols represent meaning, and the understanding that the story comes from print.

The physical environment includes the literacy materials in the home. An optimal environment is one

rich in print materials which provides the child opportunities to explore (Saint-Laurent, Gaisson, and Couture, 1997). Materials which are varied in level of reading and writing should be made available, and children should have access to a variety of materials: Storybooks, magazines, books on tape, and catalogs are just a few of the items to make available to children. Writing materials should also be made available: paper, pencils, pens, crayons, and markers, just to name a few. Children should have role models at home, family members who model literacy behaviors.

Emotional and motivational climate are the relationships among individuals in the home, especially those reflected in the parents' attitudes toward literacy and parents' aspirations for their literacy achievement. Research shows that parents of children with specific types of disabilities may not consider literacy a priority for their children (Center for Literacy and Disabilities Studies, 1996). Many of Craig's (1996) respondents returned their home literacy surveys blank and indicated that the severity of their child's disability would prevent their child from becoming literate in any medium. This type of parental attitude is detrimental to the emergent literacy of children with specific disabilities, and thus is an indicator of the necessity of parent education.

If family support of emergent literacy positively influences the literacy development of non-disabled

children, there is no reason to doubt that family support of emergent literacy will also facilitate the literacy development of students with specific disabilities.

"Children with developmental delays - just as well as children without disabilities - can profit from a print rich environment and parents and teachers who interact with them in 'emergent literacy' experiences" (Saint-Laurent, Giasson, and Couture, 1997, p.52).

#### V. Family Support of Emergent Literacy of Students with Disabilities

Much has been written about family support of emergent literacy and it's positive outcomes for the literacy development of typically developing students. Research has also been conducted regarding the home literacy experiences of students with specific disabilities.

Marvin and Mirenda (1993) surveyed 291 parents of preschoolers enrolled in Head Start and special education programs regarding the home literacy experiences offered to their children: 95 children considered at-risk, 168 children with special education needs, and 28 peer models with no developmental delays or disabilities. Results showed that respondents for children with special education needs appeared to place the lowest priority on literacy development and have the lowest expectation in this regard, and these respondents also provided fewer types of early literacy experiences for their children at

home.

Light and Kelford-Smith (1993, quoted in Light, Binger, and Kelford-Smith, 1994) conducted a survey to compare home literacy experiences of preschoolers who used AAC (augmentative alternative communication) systems to those of their non-disabled peers. The results suggested that the early literacy experiences of preschoolers who use AAC are quantitatively and qualitatively different than those of their non-disabled peers. Parents reported that children who use AAC were involved less frequently in writing and drawing activities and had less frequent access to printed materials than their non-disabled peers. Although parents of children using AAC and those of non-disabled peers both reported that they read to their children on a regular basis, the children without disabilities tended to take a more active role in story reading than children using AAC. Parents of non-disabled children reported that their children asked questions, pretended to read, and talked about the story. Children using AAC seldom asked questions, relied on parents to interpret the story, and were more involved in the physical manipulation of the book, either turning pages or pointing to pictures upon request.

Light, Binger, and Kelford-Smith (1994) conducted an observational study in order to investigate the early literacy experiences of five preschool children with severe physical and speech impairments. The children

were videotaped during two ten-minute story reading sessions with their mothers: one session with a familiar book and one reading an unfamiliar book. Results of this study showed that parent-child interactions were synchronus but assymetrical, with mothers dominating interactions and children participating less frequently with both familiar and unfamiliar books. The mothers talked a lot with infrequent pauses to allow the child to respond. None of the children had access to their AAC systems during the story readings and therefore had little means available to them to communicate during the story reading sessions.

Craig's study (1996) on the family support of emergent literacy of children with visual impairments examined the frequency and nature of parental support for the emergence of literacy of 264 children with visual impairments from newborn to eight years old. Craig found differences in support based on the primary literacy medium and the presence of additional disabilities. These differences were in areas of literacy opportunities at home and parents' expectations of and priorities for their children's literacy development. 75.6% of respondents in the print-reading group, compared to 35% of the braille-reading group, reported that their children choose books to read or to be read aloud to them. 65% of respondents in the print group, compared to 52% of respondents in the braille group, noted that their children ask questions or comment about books during

reading. 75% of respondents in the print group, compared to 40% of respondents in the braille group, indicated that their children point to pictures or examine pictures that can be felt. The Craig study also examined the extent to which reading and writing are a priority for children with visual impairments and for children with visual impairments and additional disabilities. The highest priority for children with only visual impairments was learning to read and write, followed by self-help skills and communicating effectively. The number one goal for the group with visual impairments and additional disabilities was learning self-help skills, followed by communicating effectively and learning to read and write.

## VI. Summary

This research review began with an explanation of the reading readiness theory, in which mastery of pre-requisite skills for reading is required before reading instruction begins. After an examination of the problems with the readiness theory, the review continued with an explanation of the emergent literacy concept, in which literacy is seen as a process encompassing the period between birth and the time a child begins to engage in conventional reading and writing (Sulzby and Teale, 1991, quoted in Craig, 1996).

The literature review next presented and explained four primary components of emergent literacy: reading

aloud, the concept of a symbol, emergent writing, and literacy environments (Stratton, 1996).

The review then moved on to a discussion of emergent literacy and developmental disabilities, focusing on opportunity barriers and access barriers which may face students with developmental disabilities (Mirenda, Iacono, and Williams, 1990). Other difficulties facing students with developmental disabilities were also discussed.

A discussion of the importance of home literacy support for all children followed. Families influence literacy development in three ways: interpersonal interaction, physical environment, and emotional support. If family support of emergent literacy positively influences the literacy development of non-disabled children, there is no reason to doubt that family support of emergent literacy will also facilitate the literacy development of students with specific disabilities.

The literature review next examined several studies of the family support of emergent literacy of students with specific disabilities, including Marvin and Mirenda's 1993 study of the home literacy experiences of preschoolers enrolled in Head Start and special education programs, Light and Kelford-Smith's 1993 study of the home literacy experiences of children who use AAC systems, Light, Binger, and Kelford-Smith's 1994 study of the early literacy experiences of preschoolers with severe physical and speech impairments, and Craig's 1996



study of the family support of emergent literacy of children with visual impairments. Each of these studies showed qualitatively and/or quantitatively different experiences for students with and without specific disabilities.

The purpose of the present study is to explore the family support of emergent literacy of elementary and middle school students with moderate and severe cognitive delays

## CHAPTER III

### RESEARCH DESIGN

#### I. Subjects

This research project was carried out among students attending a private school for special education. The school opened in the 1960's to serve the needs of students with special educational needs. Students in the school program are aged three through twenty-one. Students have a variety of special educational needs. Most are students with some degree of cognitive delays, from moderate cognitive delays to severe and profound cognitive delays. Other students have multiple disabilities which may include a combination of two or more of the following: Visual impairment, hearing impairment, learning disabilities, cerebral palsy, or speech and language impairments.

This private school for special education follows a functional life skills curriculum developed in the early 1980's. In more recent years, several of the instructional domains of the curriculum have been revised, including the functional academics domain,

wherein we find the reading objectives. During the revisions, reading objectives were expanded in order to include objectives such as letter sounds, word families' and reading comprehension, in addition to the functional reading objectives.

Over the last four years the school has implemented an adaptation of the Four Blocks Reading Program, developed by Patricia M. Cunningham and Dorothy P. Hall (Cunningham, 1996). In this program students work each day in four areas of reading: Guided reading, self-selected reading, writing, and working with words. In addition to beginning this literacy program, several parent workshops were held to introduce this program to parents. Surveys were sent to the parents/legal guardians of sixteen elementary students, ages six to eleven, in this private school for students with special educational needs. Nine of these students are placed in an elementary classroom for students with moderate cognitive delays. Seven of these students are placed in an elementary classroom for students with severe cognitive delays.

Surveys were also sent to the parents/legal guardians of twenty-eight middle school students, ages nine to fourteen, in the same private school for students with special educational needs. Twenty of these students are placed in two intermediate classrooms for students with moderate cognitive delays. Eight of these students are placed in an intermediate classroom for students with

severe cognitive delays.

There are two independent variables in this study: Grade level of the students and educational classification of the students

## II. Research Design

The research design for this study is a cross-sectional, parallel sample design. Samples were taken from two populations, one being students with moderate cognitive delays and the other being students with severe cognitive delays. The research question to be addressed is: Does family support of emergent literacy differ on the basis of the severity of the students' cognitive delay?

## III. Instrument

The instrument used in this study is a parent survey of home literacy experiences. The survey, containing twelve questions, examines the home literacy experiences of students with moderate and severe cognitive delays. The questions, developed by the researcher, focus on the types of home literacy experiences in which students participate in at home, printed materials which are shared with the student at home, and story reading interactions between the child and other family members at home. Questions also survey parents' goals for their child with disabilities, and parents' perceived benefits of home literacy activities. Questions were developed by

the researcher based upon information gathered in the literature review.

#### IV. Procedure

The researcher first met with the curriculum center coordinator of a private school for students with special educational needs in order to discuss the possibility of doing a research project in the school. The discussion focused on a project in the area of literacy.

The researcher began a literature review on the topic of literacy and developmental disabilities. After reading several journal articles, the topic of family support of emergent literacy of students with moderate and severe cognitive delays was decided upon. The researcher then met with the vice-principal of the school in order to obtain permission to begin the project.

After completing the review of the literature, the literature review was written up. A questionnaire , "Survey of Home Literacy Experiences," was then created by the researcher (see Appendix A). A letter of transmittal was also written (see Appendix B).

The completed letter of transmittal and the survey were then presented to the vice-principal for approval. Approval was granted.

The researcher next met with the teachers of one elementary class of students with severe cognitive delays, one elementary class of students with moderate cognitive delays, and two intermediate classes of

students with moderate cognitive delays. This researcher is the classroom teacher of the intermediate class of students with severe cognitive delays. The researcher met individually with these teachers in order to explain the research project and to enlist their cooperation. All of the teachers were willing to cooperate by sending the surveys to the parents of their students.

The questionnaires and letters of transmittal were then prepared to be sent home to the students' families. The researcher obtained class lists, envelopes, and address labels for the five targeted classrooms from the school secretary.

The letter of transmittal was run off on school letterhead. The questionnaire was run off on five different colors of paper, each classroom receiving a different color. Surveys were numbered for each class, each student receiving a different number. Numbering and color-coding the survey instrument would enable the researcher to know which parents had or had not returned the survey. Color-coding would also help the researcher organize the returned surveys.

The letter of transmittal, survey, and a return envelope addressed to the researcher were prepared for each of the forty-four parents of students enrolled in the five targeted classrooms.

Packets of prepared surveys were given to the teachers on Friday, November 12, because the following week was scheduled for parent-teacher conferences.

Teachers were asked to give the surveys out at the parent conferences, if they thought that the allotted time for each conference would permit the parents to complete the survey at the conference. If the teacher would not have the extra time at the conference, they were asked to send the survey home prior to the conference and collect it at the conference time. Two teachers handed the surveys out at the conferences, and three teachers sent them home prior to the conferences. A total of forty-four surveys were sent out. Nine surveys were returned by Thursday, November 18. On Thursday, November 18, the researcher sent the non-respondents a second survey attached to a second letter of transmittal. The letter was marked "2nd Notice," and the mark was highlighted in yellow. Eleven more surveys were returned on Friday, and three were returned on Monday. Five additional surveys were returned by the end of November. The total number of surveys returned was twenty-eight.

## V. Analysis

Data was analyzed by calculating the percentage of positive responses for the survey items and then comparing the percentages for each of two groups: Parents of students with moderate cognitive delays and parents of students with severe cognitive delays. Data was analyzed by percentages rather than by a tally count because each of the two groups had a different number of students. It therefore would have been inaccurate to

simply total the number of positive responses.

A further analysis was done in order to find differences in percentages of positive responses within the moderate group, comparing the number of positive responses of the elementary moderate group to the middle school moderate group. This further analysis was also done to compare percentages of positive responses of the elementary severe group to the middle school severe group. This analysis was done because in several of the responses differences of at least 20% or more were noted within the severe and moderate groups. The results of this study are presented in Chapter IV.



## **CHAPTER IV**

### **ANALYSIS OF THE DATA**

#### **I. Introduction**

The purpose of this study was to determine the extent of family support of emergent literacy activities for students with moderate cognitive delays and severe cognitive delays. A parent survey of home literacy experiences was distributed to forty-four parents and collected from twenty-eight parents. Of these twenty-eight surveys, sixteen were completed by parents of students with moderate cognitive delays, and twelve were completed by parents of students with severe cognitive delays. This study sought to answer the research question: Does family support of emergent literacy differ on the basis of the severity of the child's cognitive delay?

#### **II. Results**

Following are the results of the data collected by the researcher regarding family support of emergent literacy.

These surveys were completed by mothers in all but six cases. Four were completed by fathers, one by a grandparent, and one by a sibling. Nearly all of the respondents checked off at least one positive response for each of the survey questions.

Respondents were asked to indicate briefly their three most important goals for their child. These indicated goals were then categorized into six categories: Academic goals (which included reading, writing, math, computers, learning and attention span), therapeutic goals (head and body control, using hands, sitting independently, weight-bearing and mobility), activities of daily living (feeding and toileting), communication, independent living and personal fulfillment.

In the area of academics, parents of students with moderate cognitive delays indicated goals in academics twelve times, with reading and writing mentioned specifically eight times. Parents of students with severe cognitive delays never indicated goals in academics for their children. In the area of therapeutic goals, parents of students with moderate cognitive delays never indicated these goals for their children, while parents of students with severe cognitive delays mentioned therapeutic goals thirteen times. In activities of daily living, parents of students with moderate cognitive delays indicated toileting goals four times, whereas parents of students with severe cognitive

delays indicated toileting twice and feeding twice. Goals in the area of communication were indicated nine times by parents in the moderate group and seven times by parents in the severe group. Independent living was indicated eleven times by parents in the moderate group and two times by parents in the severe group. In the area of personal fulfillment, parents in the moderate group indicated meeting potential, health and happiness, a total of four times for these three. In the severe group, parents indicated personal fulfillment goals a total of nine times, specifically mentioning keeping physically and mentally active, health and safety, personal comfort, happiness, pleasure and peacefulness.

Table 1 and figure 1a represent the percentage of positive responses given for each possible response to question number four of the parent survey, "Which of the following activities does your child participate in at home?" The table and graph indicate that 31% of the students with moderate cognitive delays and 25% of students with severe cognitive delays listen to books on tape; 100% of students with moderate cognitive delays and 75% students with severe cognitive delays watch public television; 43% of students with moderate cognitive delays and 16% of students with severe cognitive delays participate in library outings; 43% of students with moderate cognitive delays and 41% of students with severe cognitive delays listen to rhymes and poems; None of the parents in either group marked

"none." 62% of students with moderate cognitive delays participate in "other" activities, which included music, singing, videos, computers, "Hooked on Phonics," and recreational outings, while 75% of students with severe cognitive delays participate in "other" activities which included stories, music, reading, family outings, videos, shopping, television, vacations, listening to stories and stories on dish T.V.

Table 2 and figure 2a represent the percentage of positive responses given for each possible response to question number five of the parent survey, "Which of these printed materials do you or someone else share with your child?" The graph indicates that 81% of the students with moderate cognitive delays and 66% of the students with severe cognitive delays have birthday cards shared with them. 43% of the students with moderate cognitive delays and none (0%) of the students with severe cognitive delays have letters shared with them. 93% of the students with moderate cognitive delays and 41% of the students with severe cognitive delays have photo albums shared with them. 68% of the students with moderate cognitive delays and 25% of the students with severe cognitive delays have someone share magazines with them. 100% of the students with moderate cognitive delays and 75% of the students with severe cognitive delays have storybooks read to them. 50% of the students with moderate cognitive delays and 33% of the students with severe cognitive delays have someone share other

books with them.

Table 3 and figure 3a represent the responses given to question number six of the parent survey, "How often do you or someone else read to your child?" 18% of the students with moderate cognitive delays and 8% of the students with severe cognitive delays are read to daily. 50% of the students with moderate cognitive delays and 33% of the students with severe cognitive delays are read to 3-4 times per week. None (0%) of the students with moderate cognitive delays and 25% of the students with severe cognitive delays are read to less than once per week. 6% of the students with moderate cognitive delays and 16% of the students with severe cognitive delays are never read to.

Table 4 and figure 4a represent the responses given to question number seven, "Who most often reads to your child?" Mothers most often read to 75% of students with moderate cognitive delays and to 66% of students with severe cognitive delays. Fathers most often read to 18% of students with moderate cognitive delays and to 8% of students with severe cognitive delays. Grandparents most often read to 18% of students with moderate cognitive delays and to 16% of students with severe cognitive delays. Siblings most often read to 12% of students with moderate cognitive delays and to 33% of students with severe cognitive delays.

Table 5 and figure 5a represent the percentage of positive responses given for each possible response to

question number eight of the parent survey, "How does your child respond to literacy activities?" 50% of the students with moderate cognitive delays and none (0%) of the students with severe cognitive delays ask or answer questions. 31% of the students with moderate cognitive delays and none (0%) of the students with severe cognitive delays make comments in response to reading. 50% of students with moderate cognitive delays and none (0%) of the students with severe cognitive delays request favorite books. 93% of students with moderate cognitive delays and 8% of students with severe cognitive delays help turn pages. 81% of students with moderate cognitive delays and 8% of students with severe cognitive delays point to pictures. 100% of students with moderate cognitive delays and 50% of students with severe cognitive delays look at pictures or pages. 87% of students with moderate cognitive delays and 58% of students with severe cognitive delays smile during literacy activities. 75% of students with moderate cognitive delays and 41% of students with severe cognitive delays laugh during literacy activities. 50% of students with moderate cognitive delays and 50% of students with severe cognitive delays change facial expressions during literacy activities. None (0%) of students with moderate cognitive delays and 8% of students with severe cognitive delays show no response during literacy activities.

Table 6 and figure 6a represent the percentage of

positive responses given for each possible response to question number nine of the parent survey, "When you read to your child do you typically..." 62% of parents of students with moderate cognitive delays and none (0%) of parents of students with severe cognitive delays ask their child questions. 93% of parents of students with moderate cognitive delays and 66% of parents of students with severe cognitive delays point to pictures. 62% of parents of students with moderate cognitive delays and 8% of parents of students with severe cognitive delays ask their children to turn pages. 37% of parents of students with moderate cognitive delays and 16% of parents of students with severe cognitive delays ask their children to repeat words.

Table 7 and Figure 7a represent the responses given to question number ten of the parent survey, "How does your child use augmentative communication devices to participate in literacy activities?" 100% of parents of students with severe cognitive delays responded that their child does not have an AAC device. Of the parents of students with moderate cognitive delays, 18% responded that their child uses AAC to request favorite stories; 12% use AAC to make spontaneous comments; 18% use AAC to answer questions; 18% use AAC to read stories; 6% responded that their child has an AAC device but does not use it for literacy; 56% of parents of students with moderate cognitive delays responded that their child does not have an AAC device.

Table 8 and figure 8a represent the percentage of positive responses given for each possible response to question number 11 of; the parent survey, "What do you perceive are the benefits of home literacy activities?" 75% of parents of students with moderate cognitive delays and 50% of parents of students with severe cognitive delays marked socialization/quality time as a benefit. 56% of parents of students with moderate cognitive delays and 58% of parents of students with severe cognitive delays said home literacy activities increase attention. 75% of parents of students with moderate cognitive delays and 16% of parents of students with severe cognitive delays said home literacy activities increase interest in reading and books. 43% of parents of students with moderate cognitive delays and 25% of parents of students with severe cognitive delays said home literacy activities provide intellectual enrichment. 50% of parents of students with moderate cognitive delays and 58% of parents of students with severe cognitive delays said home literacy activities are a good leisure activity. 43% of parents of students with moderate cognitive delays and none (0%) of parents of students with severe cognitive delays responded that their child imitates reading behavior/pretends to read using pictures. 68% of parents of students with moderate cognitive delays and 33% of parents of students with severe cognitive delays responded that home literacy activities build language/vocabulary. 50% of parents of



students with moderate cognitive delays and 8% of parents of students with severe cognitive delays responded that their child has favorite books. 87% of parents of students with moderate cognitive delays and none (0%) of parents of students with severe cognitive delays responded that their child independently looks at books.

Data was further analyzed in order to find differences within the group of students with moderate cognitive delays (that is the elementary-aged students with moderate cognitive delays and the middle school-aged students with moderate cognitive delays) and within the group of students with severe cognitive delays (that is the elementary-aged students with severe cognitive delays and the middle school-aged students with severe cognitive delays). This analysis was done because in several of the responses significant differences were noted in the severe group of students with severe cognitive delays. Following is an analysis of the responses in which there was a 20% difference between the elementary and middle school groups.

Table 9 and figure 9a show that 40% of parents of elementary-aged students with severe cognitive delays responded positively that their child listens to books on tape, compared to 14% of parents of middle school-aged students with severe cognitive delays. 40% of elementary-aged students with severe cognitive delays participate in library outings, compared to none (0%) of middle school-aged students with severe cognitive

delays. 60% of elementary-aged students with severe cognitive delays participate in "other" activities, compared to 85% of middle school-aged students with severe cognitive delays. 40% of elementary-aged students with moderate cognitive delays participate in "other" activities, compared to 72% of middle school-aged students with moderate cognitive delays.

Table 10 and figure 10a show that 60% of parents of elementary-aged students with moderate cognitive delays share birthday cards with their children, compared to 91% of parents of middle school-aged students with moderate cognitive delays. 80% of parents of elementary-aged students with severe cognitive delays share birthday cards with their children, compared to 57% of parents of middle school-aged students with severe cognitive delays. 60% of parents of elementary-aged students with severe cognitive delays share photo albums with their children, compared to 28% of parents of middle school-aged students with severe cognitive delays. 40% of parents of elementary-aged students with severe cognitive delays share magazines with their children, compared to 14% of parents of middle school-aged students with severe cognitive delays. 100% of parents of elementary-aged students with severe cognitive delays share storybooks with their children, compared to 57% of parents of middle school-aged students with severe cognitive delays.

Table 11 and figure 11a show that 20% of

elementary-aged students with severe cognitive delays are read to daily, compared to none (0%) of the middle school-aged students with severe cognitive delays. 80% of elementary-aged students with moderate cognitive delays are read to once a week, compared to 36% of middle school-aged students with moderate cognitive delays. None (0%) of the elementary-aged students with moderate cognitive delays are read to 3-4 times per week, compared to 57% of the middle school-aged students with moderate cognitive delays. 40% of the elementary-aged students with severe cognitive delays are read to 3-4 times per week, compared to none (0%) of the middle school-aged students with severe cognitive delays. None (0%) of the elementary-aged students with severe cognitive delays are read to less than once a week, compared to 42% of the middle school-aged students with severe cognitive delays. None (0%) of the elementary-aged students with severe cognitive delays are never read to, compared to 28% of middle school-aged students with severe cognitive delays.

Table 12 and figure 12a show that 20% of elementary-aged students with moderate cognitive delays ask or answer questions during literacy activities, compared to 63% of middle school-aged students with moderate cognitive delays. None (0%) of the elementary-aged students with moderate cognitive delays make comments, compared to 45% of the middle school-aged students with moderate cognitive delays. 80% of

elementary-aged students with moderate cognitive delays help turn pages, compared to 100% of middle school-aged students with moderate cognitive delays. 20% of elementary-aged students with severe cognitive delays help turn pages, compared to none (0%) of middle school-aged students with severe cognitive delays. 20% of elementary-aged students with severe cognitive delays point to pictures, compared to none (0%) of the middle school-aged students with severe cognitive delays. 60% of elementary-aged students with moderate cognitive delays laugh during literacy activities, compared to 81% of middle school-aged students with moderate cognitive delays. children. 20% of elementary-aged students with severe cognitive delays show no response to literacy activities, compared to none (0%) of the middle school-aged students with severe cognitive delays.

Table 13 and figure 13a show that 20% of parents of elementary-aged students with moderate cognitive delays ask questions during literacy activities, compared to 81% of parents of middle school-aged students with moderate cognitive delays. 80% of parents of elementary-aged students with severe cognitive delays point to pictures during literacy activities, compared to 57% of parents of middle school-aged students with severe cognitive delays. 20% of parents of elementary-aged students with severe cognitive delays ask their child to turn pages, compared to none (0%) of the parents of middle school-aged students with severe cognitive delays. 60%

of parents of elementary-aged students with moderate cognitive delays ask their child to repeat words, compared to 27% of parents of middle school-aged students with moderate cognitive delays. None (0%) of the parents of the elementary-aged students with severe cognitive delays ask their children to repeat words, compared to 28% of parents of middle school-aged students with severe cognitive delays.

Table 14 and figure 14a show that only the students with moderate cognitive delays have AAC devices, and that only the middle school-aged students with moderate cognitive delays use their devices for literacy activities at home. 20% of elementary aged students with moderate cognitive delays have AAC devices but do not use them for literacy activities.

Table 15 and figure 15a show that 80% of parents of elementary-aged students with severe cognitive delays answered positively that literacy activities increase attention, compared to 42% of parents of middle school-aged students with severe cognitive delays. 60% of parents of elementary-aged students with moderate cognitive delays answered positively that literacy activities increase interest in reading, compared to 81% of parents of middle school-aged students with moderate cognitive delays. 40% of parents of elementary-aged students with severe cognitive delays answered positively that literacy activities increase interest in reading, compared to none (0%) of the parents of middle

school-aged students with severe cognitive delays. 60% of parents of elementary-aged students with severe cognitive delays answered positively that literacy activities provide intellectual enrichment, compared to none (0%) of the parents of middle school-aged students with severe cognitive delays. 20% of parents of elementary-aged students with moderate cognitive delays answered positively that literacy activities are a good leisure activity, compared to 63% of parents of middle school-aged students with moderate cognitive delays.

Table 1: Responses to Question 4 of the parent survey

	Moderate	Severe
Independently Looks at Books	87%	0%
Child Has Fav. Books	50%	8%
Builds Vocab.	68%	33%
Imitates Reading	43%	0%
Good Leisure Activity	50%	58%
Intellectual Enrichment	43%	25%
Increases Interest in Reading	75%	16%
Increases Attention	56%	58%
Soc/Quality Time	75%	50%

**% positive responses**

Figure 1a: Responses to Question 4 of the parent survey

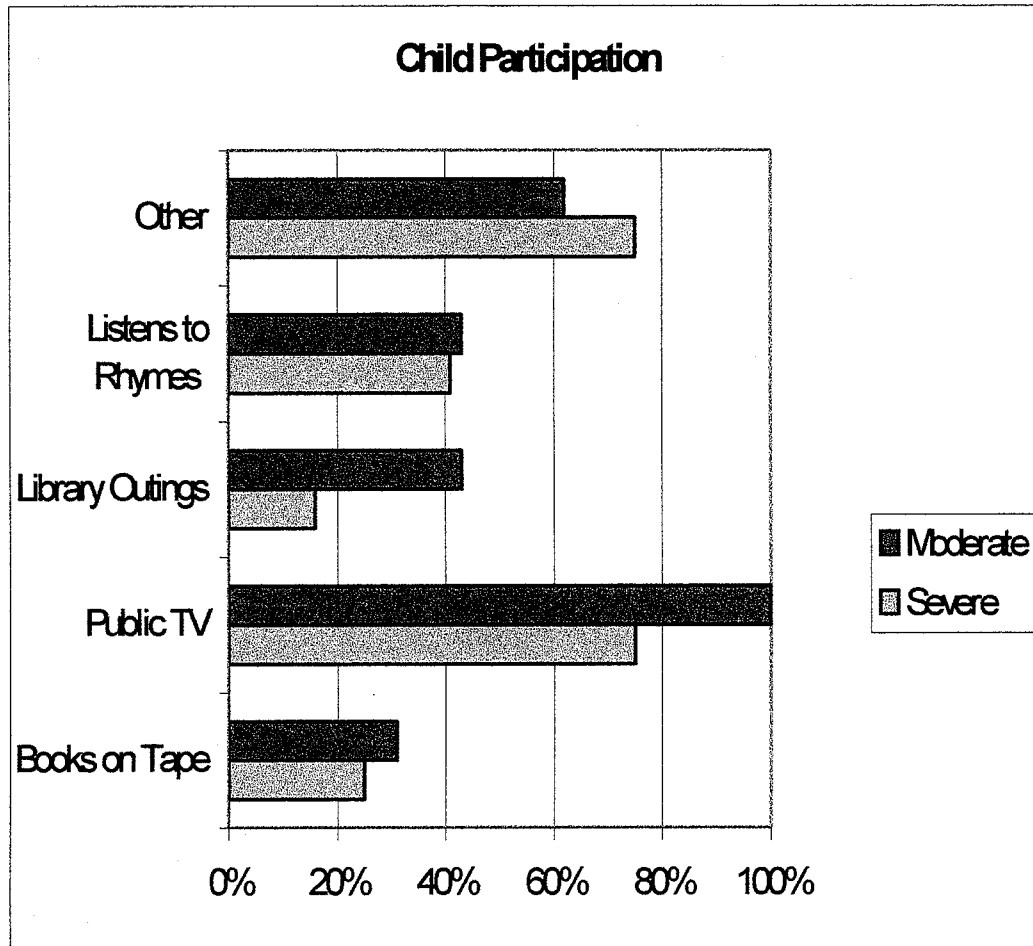


Table 2: Responses to Question 5 of the parent survey

	Moderate	Severe
Other Books	50%	33%
Storybooks	100%	75%
Magazines	68%	25%
Photo Albums	93%	41%
Letters to Child	43%	0%
Birthday Cards	81%	66%

% positive responses

Figure 2a: Responses to Question 5 of the parent survey  
Printed Materials

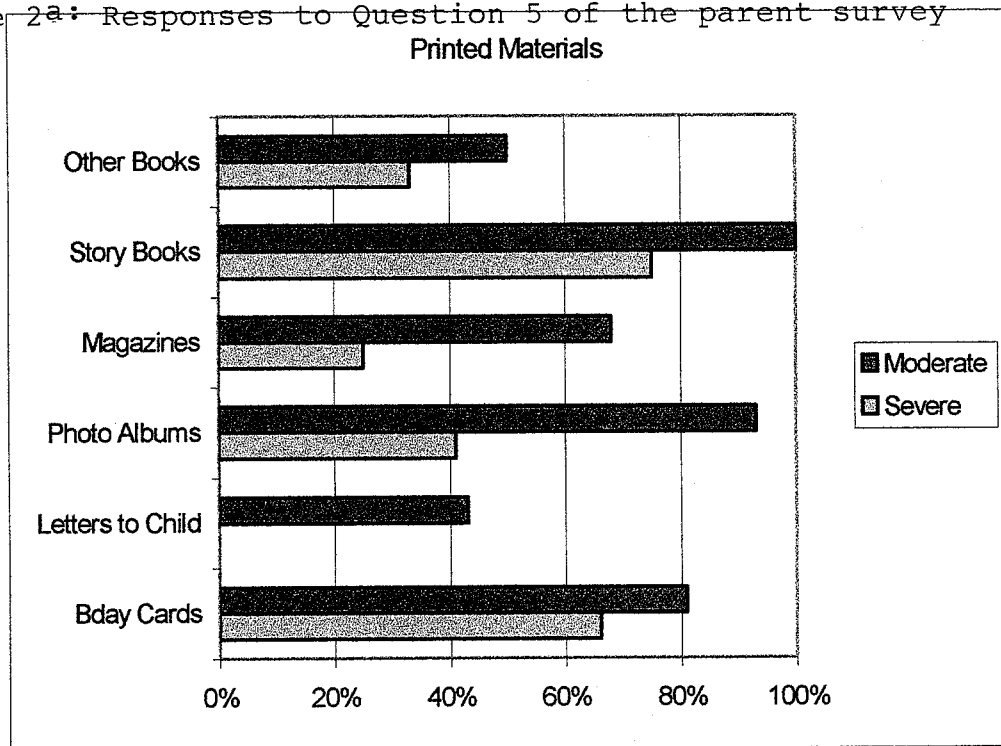




Table 3: Responses to Question 6 of the parent survey

	Moderate	Severe
Never Read to	6%	16%
Read to Less Than 1XWk	0%	25%
Read to 3-4 X Wk	25%	16%
Read to 1 X Wk	50%	33%
Daily	18%	8%

**% positive responses**

Figure 3a: Responses to Question 6 of the parent survey

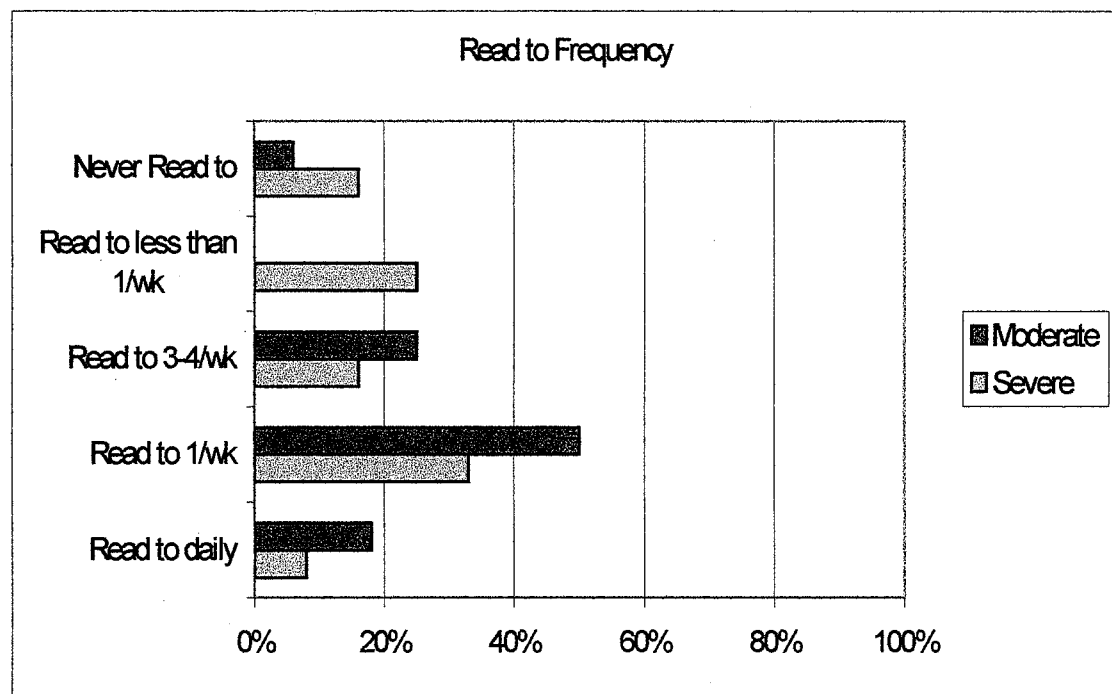


Table 4: Responses to Question 7 of the parent survey

	Moderate	Severe
Siblings	12%	33%
Foster Parent	0%	0%
Grandparents	18%	16%
Father	18%	8%
Mother	75%	66%

**% positive responses**

Figure 4a: Responses to Question 7 of the parent survey

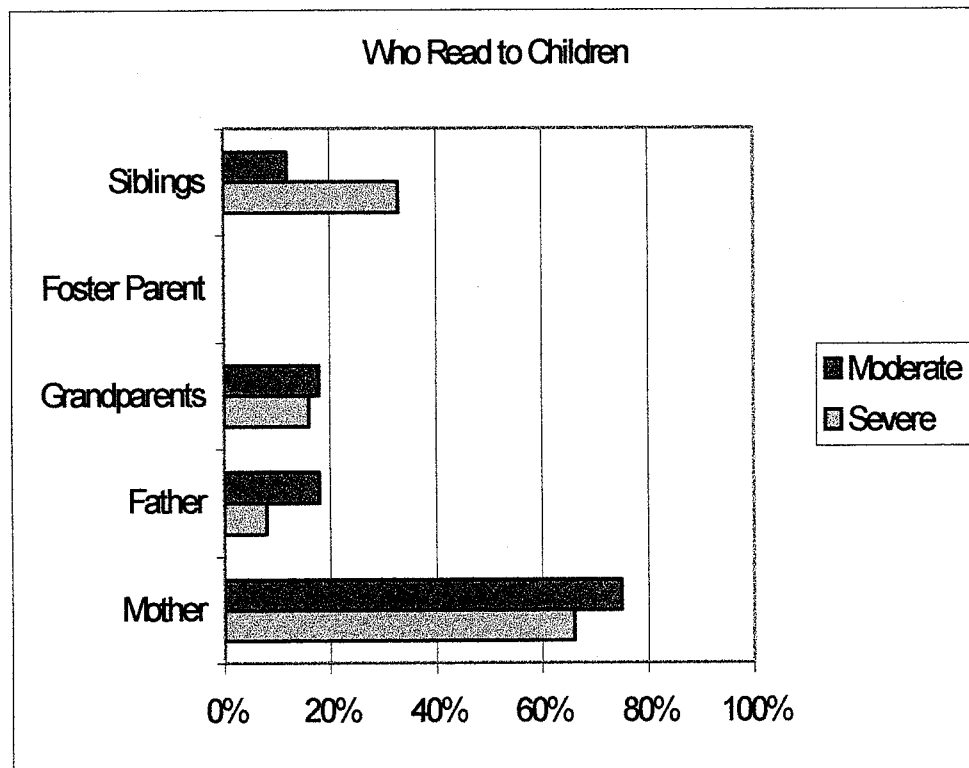


Table 5: Responses to Question 8 of the parent survey

	Moderate	Severe
Shows No Response	0%	8%
Changes Face	50%	50%
Laughs	75%	41%
Smiles	87%	58%
Looks at Pgs./Pics	100%	50%
Points to Pictures	81%	8%
Helps Turn Pgs	93%	8%
Requests Fav. Books	50%	0%
Makes Comments	31%	0%
Asks/Answers Questions	50%	0%

**% positive response**

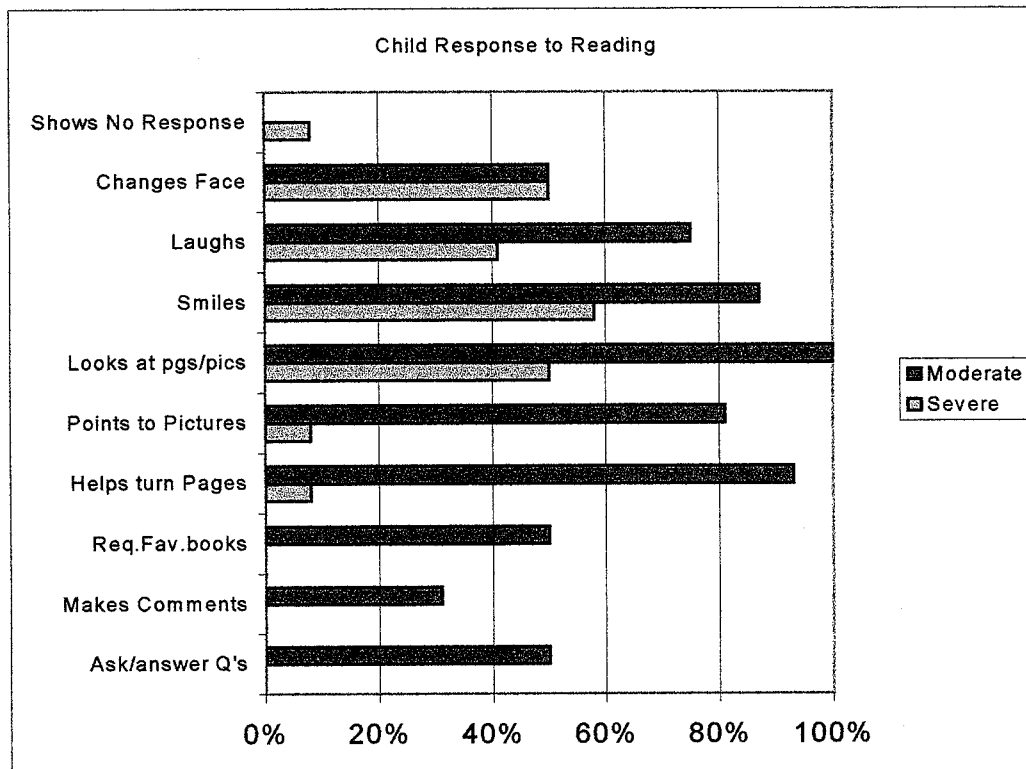


Figure 5a: (above) Responses to Question 8 of the parent survey

Table 6: Responses to Question 9 of the parent survey

	Moderate	Severe
Asks Child to Repeat	37%	16%
Asks Child to Turn Pages	62%	8%
Reader Points to Pictures	93%	66%
Reader Asks Questions	62%	0%

**% percent positive responses**

Figure 6a: Responses to Question 9 of the parent survey

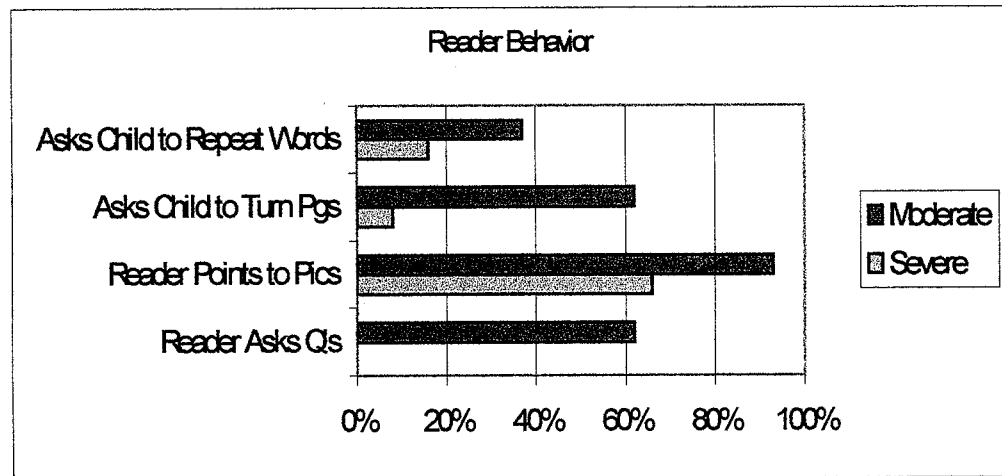


Table 7: Responses to Question 10 of the parent survey

	Moderate	Severe
Does not have AAC	56%	100%
Has but Does Not Use for Literacy	6%	0%
Read Stories	18%	0%
Answer Questions	18%	0%
Make Comments	12%	0%
Requests Stories	18%	0%

**% positive responses**

Figure 7a: Responses to Question 10 of the parent survey

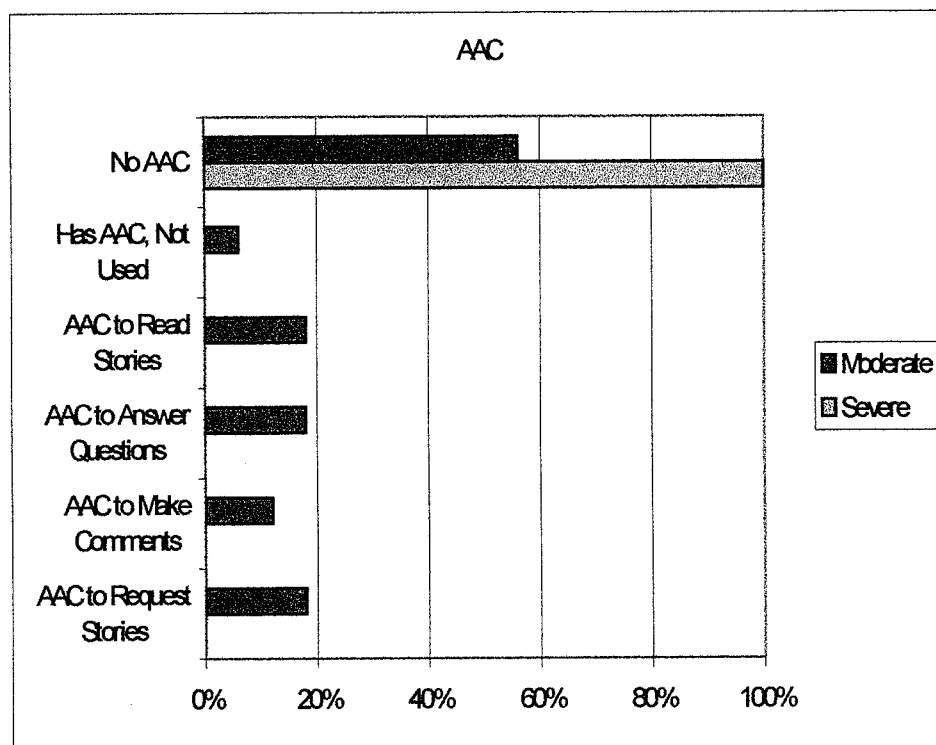


Table 8: Responses to Question 11 of the parent survey

	Moderate	Severe
Independently Looks at Books	87%	0%
Child Has Fav. Books	50%	8%
Builds Vocab.	68%	33%
Imitates Reading	43%	0%
Good Leisure Activity	50%	58%
Intellectual Enrichment	43%	25%
Increases Interest in Reading	75%	16%
Increases Attention	56%	58%
Soc/Quality Time	75%	50%

**% positive responses**

Figure 8a: Responses to question 11 of the parent survey

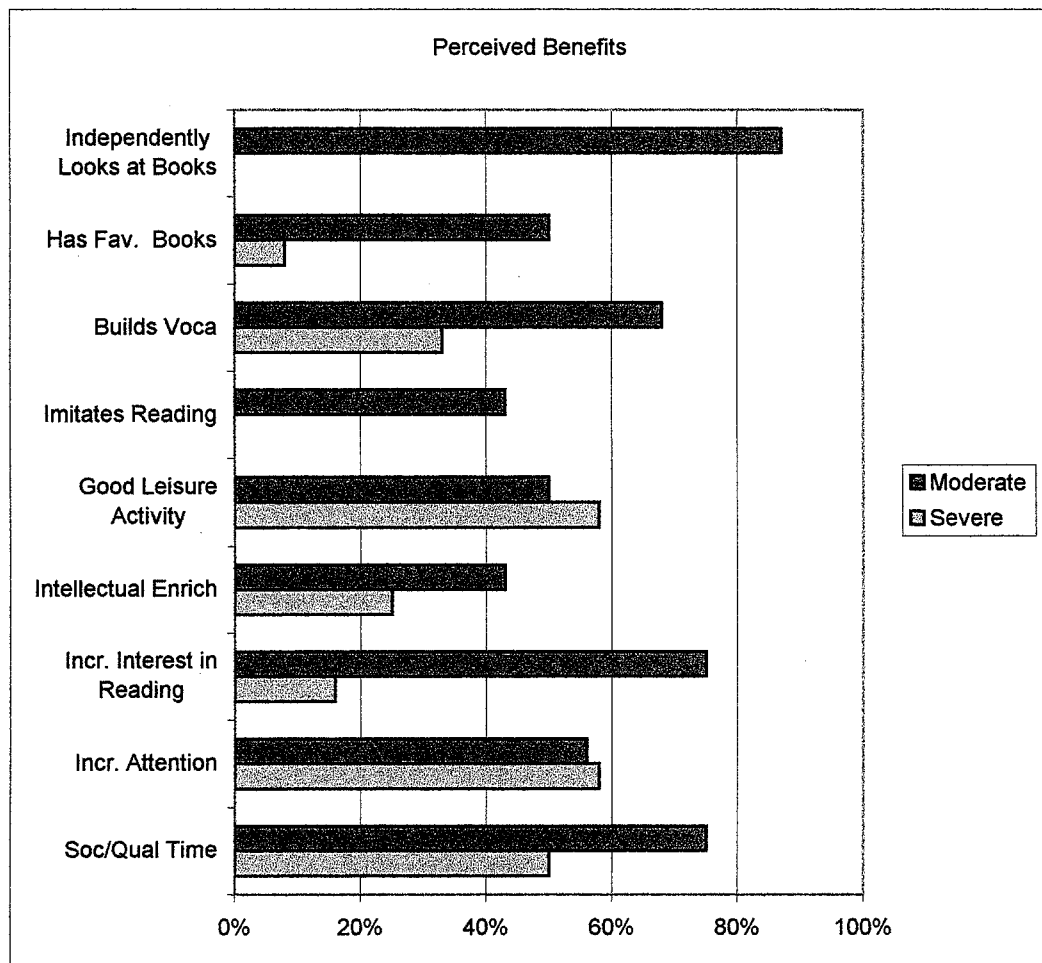


Table 9: Responses to Question 4 of the survey by age

	Elem-Mod	Mid-Mod	Elem-Sev	Mid-Sev
<b>Other</b>	40%	72%	60%	85%
<b>Listens to Rhymes</b>	40%	45%	40%	42%
<b>Library Outings</b>	40%	45%	40%	0%
<b>Public Outings</b>	100%	100%	80%	71%
<b>Books on Tape</b>	20%	36%	40%	14%

% positive responses

Figure 9a: Responses to Question 4 of the survey by age

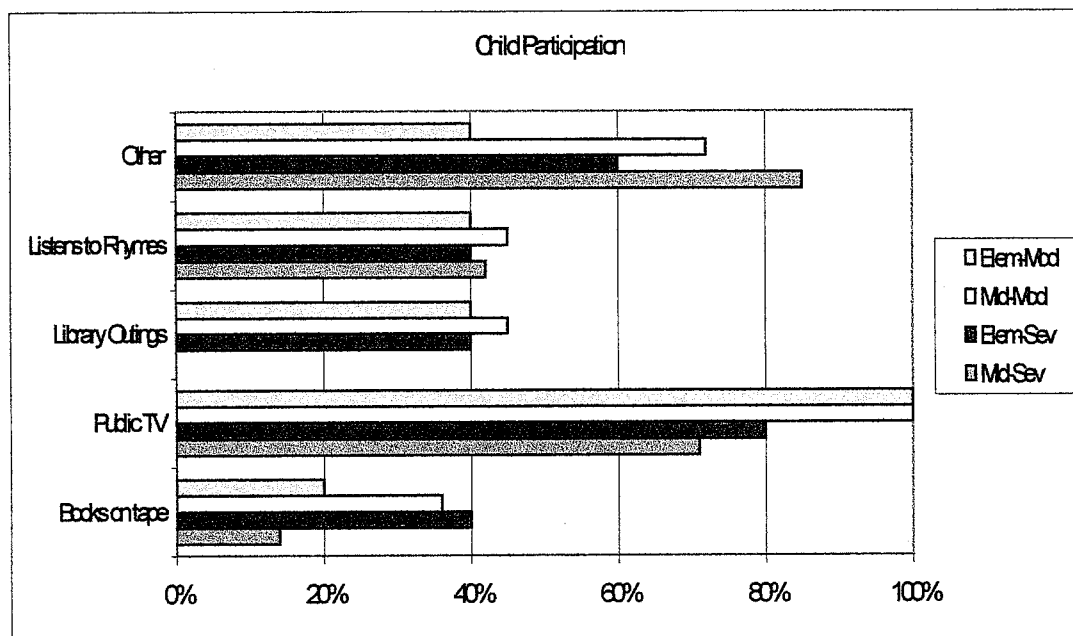


Table 10: Responses to Question 5 of the survey by age

	Elem-Mod	Mid-Mod	Elem-Sev	Mid-Sev
Other Books	60%	45%	40%	28%
Story Books	100%	100%	100%	57%
Magazines	80%	63%	40%	14%
Photo Albums	100%	91%	60%	28%
Letters to Child	40%	45%	0%	0%
Birthday Cards	60%	91%	80%	57%

**% positive responses**

Figure 10a: Responses to Question 5 of the survey by age

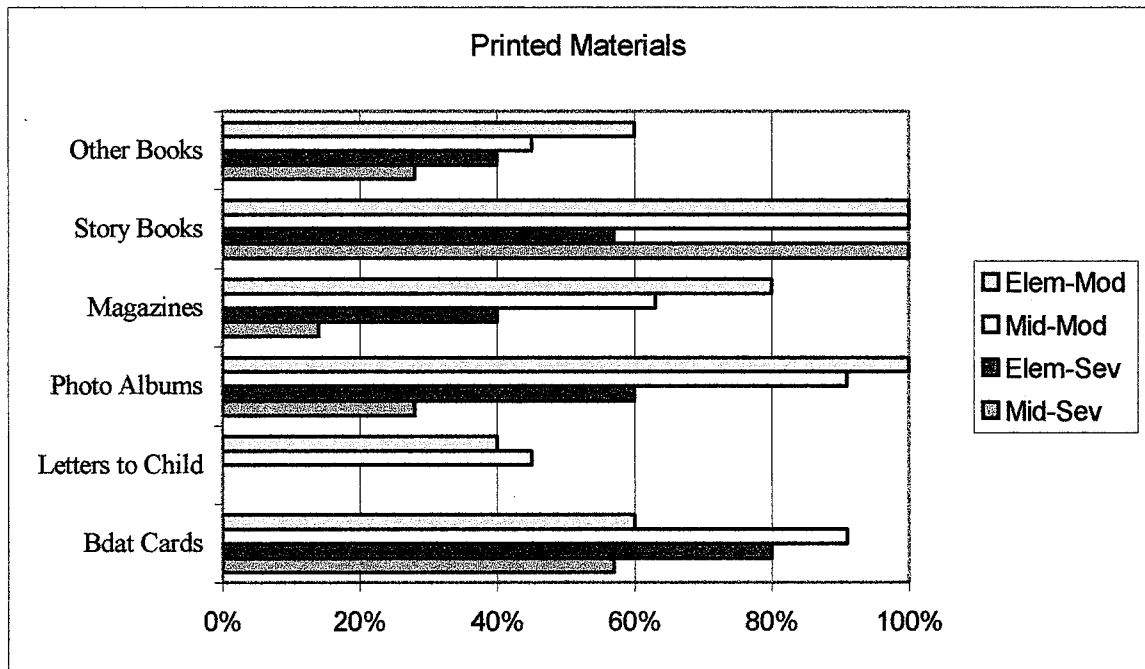




Table 11: Responses to Question 6 of the survey by age

	Elem-Mod	Mid-Mod	Elem-Sev	Mid-Sev
Never Read to	0%	9%	0%	28%
Read to less that 1/wk	0%	0%	0%	42%
Read to 3-4/wk	0%	57%	40%	0%
Read to 1/wk	80%	36%	40%	28%
Read to Daily	20%	18%	20%	0%

**% positive responses**

Figure 11a: Responses to Question 6 of the survey by age

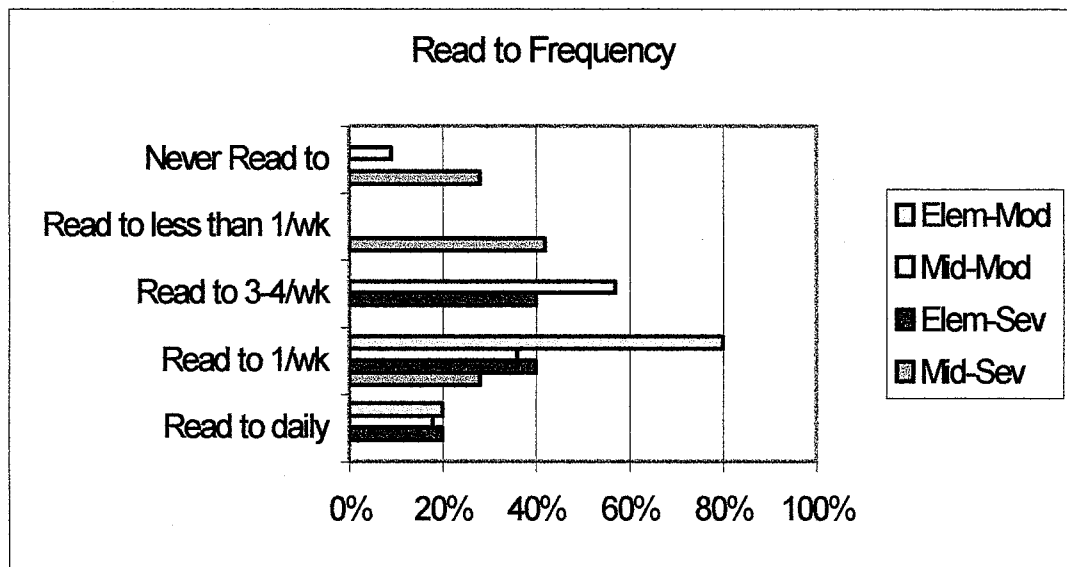


Table 12: Responses to Question 7 of the survey by age

	Elem-Mod	Mid-Mod	Elem-Sev	Mid-Sev
Shows no Response	0%	0%	20%	0%
Changes Face	40%	54%	40%	57%
Laughs	60%	81%	40%	42%
Smiles	80%	91%	60%	57%
Looks at Pgs/Pics	100%	100%	40%	57%
Points to Pics	80%	81%	20%	0%
Helps Turn Pgs	80%	100%	20%	0%
Req. Fav. Books	40%	54%	0%	0%
Makes Comments	0%	45%	0%	0%
Ask/Answer Q's	20%	63%	0%	0%

**% positive response**

Figure 12a: Responses to Question 7 of the survey by age

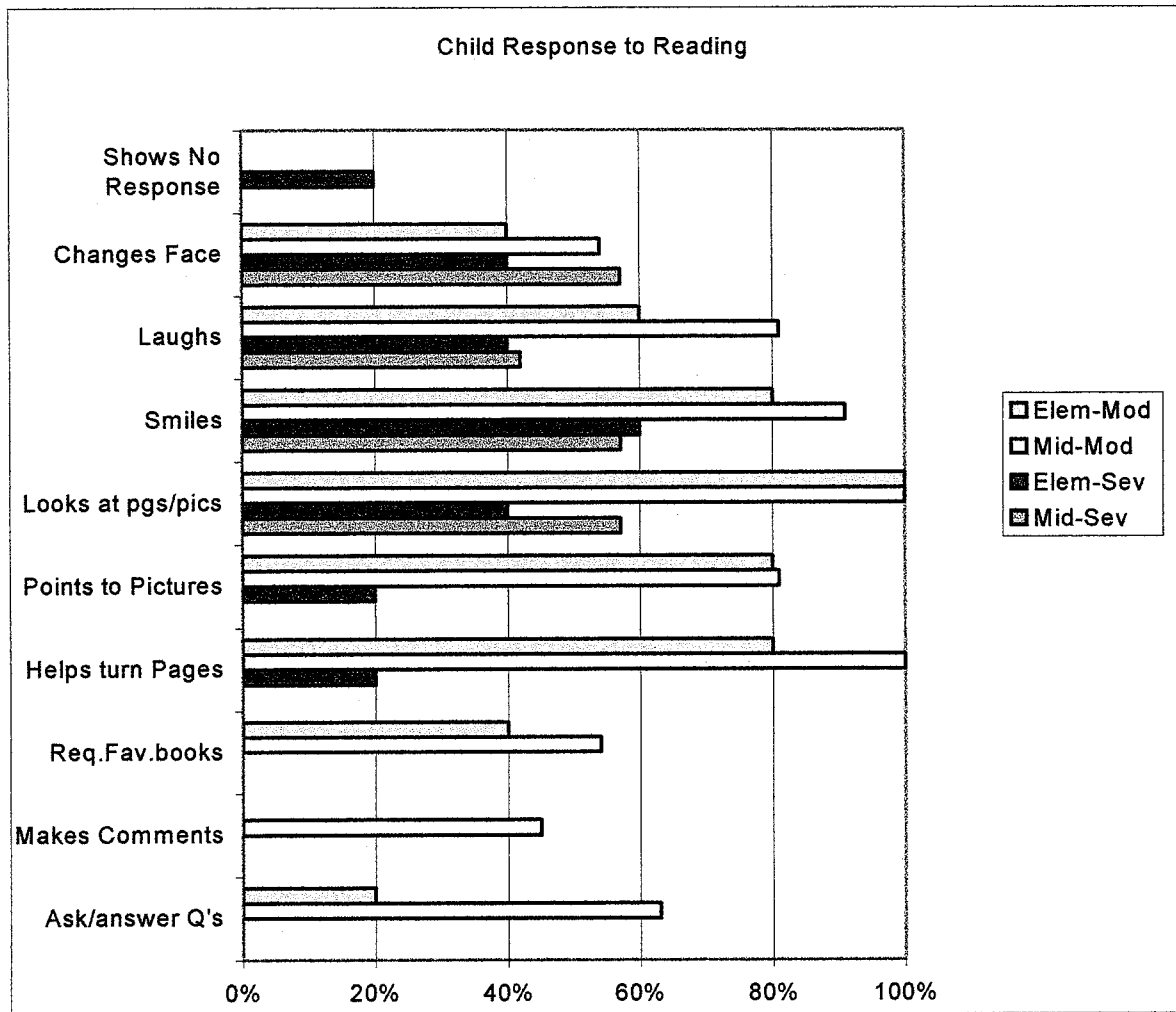


Table 13: Responses to Question 8 of the survey by age

	Elem-Mod	Mid-Mod	Elem-Sev	Mid-Sev
Asks Child to Repeat Words	60%	27%	0%	28%
Asks Child to turn Pages	60%	63%	20%	0%
Reader Points to Pictures	100%	90%	80%	57%
Reader Asks Questions	20%	81%	0%	0%

**% positive responses**

Figure 13a: Responses to Question 8 of the survey by age

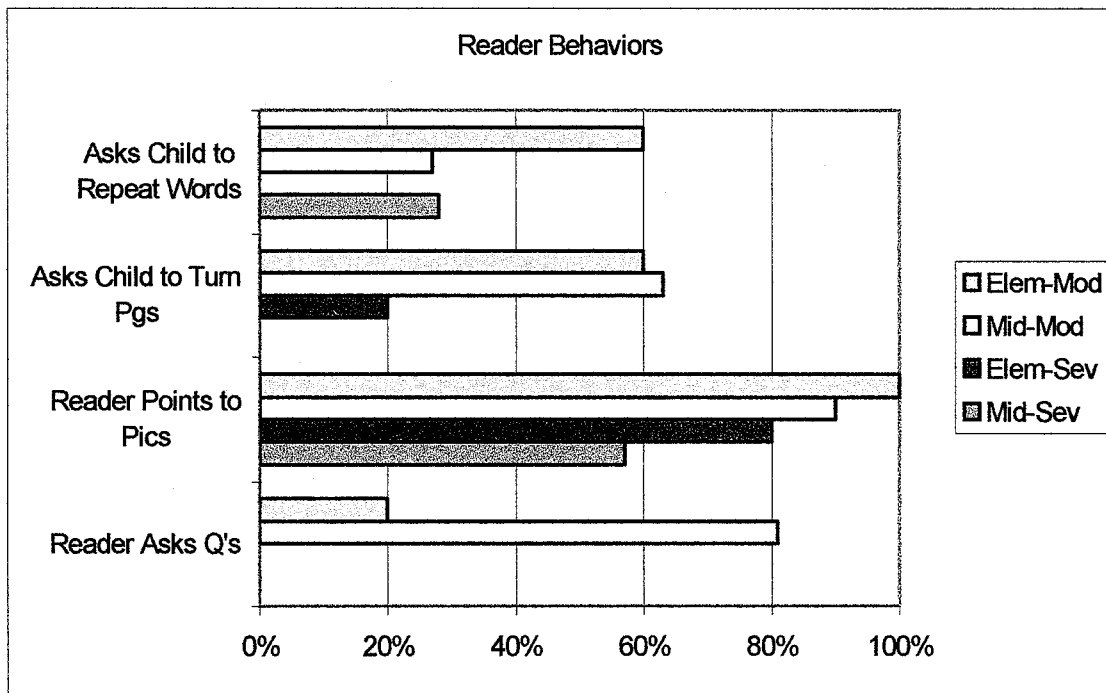


Table 14: Responses to Question 9 of the survey by age

	Elem-Mod	Mid-Mod	Elem-Sev	Mid-Sev
No AAC	80%	45%	100%	100%
Has AAC, Not Used	0%	9%	0%	0%
AAC to Read Stories	0%	27%	0%	0%
AAC to Answer Questions	0%	27%	0%	0%
AAC to Make Comments	0%	18%	0%	0%
AAC to Request Stories	0%	27%	0%	0%

**% positive responses**

Figure 14a: Responses to Question 9 of the survey by age

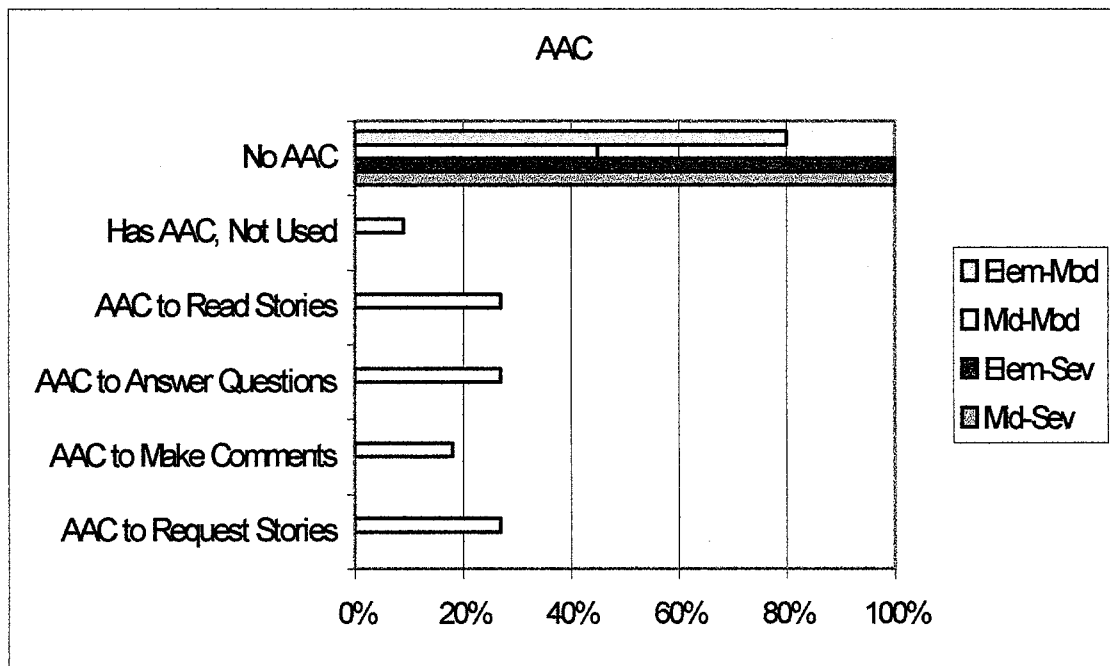
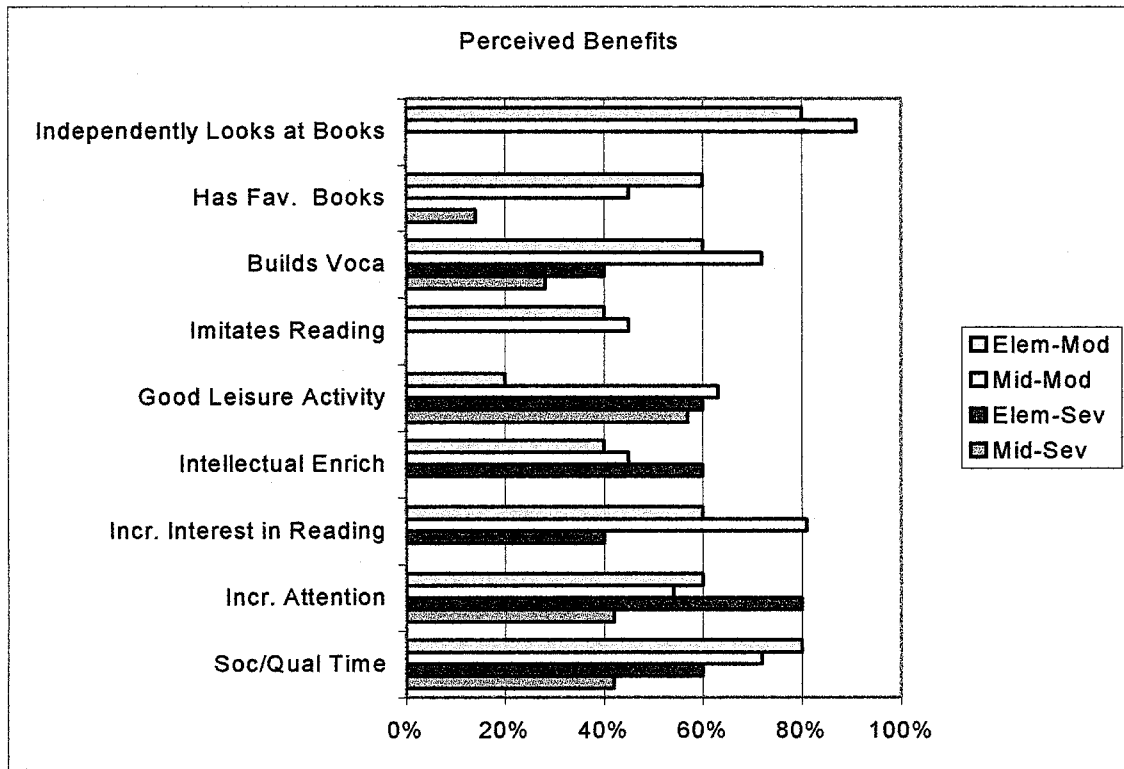


Table 15: Responses to Question 10 of the survey by age

	Elem-Mod	Mid-Mod	Elem-Sev	Mid-Sev
Independently Looks At Books	80%	91%	0%	0%
Has Fav. Books	60%	45%	0%	14%
Builds Vocab.	60%	72%	40%	28%
Imitates Reading	40%	45%	0%	0%
Good Leisure Activity	20%	63%	60%	57%
Intellectual Enrich	40%	45%	60%	0%
Incr. Interest in Reading	60%	81%	40%	0%
Incr. Attention	60%	54%	80%	42%
Soc/Qual Time	80%	72%	60%	42%

**% positive responses**

Figure 15a: Responses to Question 10 of the survey by age



## **CHAPTER V**

### **DISCUSSION AND CONCLUSION**

#### **I. Introduction**

The purpose of this study was to determine the extent of family support of emergent literacy activities for students with moderate cognitive delays and severe cognitive delays. The study sought to answer the research question: Does family support of emergent literacy differ on the basis of the severity of the student's cognitive delay? Information was collected using a parent survey of home literacy experiences. Data were analyzed by calculating the percentage of positive responses for the survey items and then comparing the percentages for two groups: parents of students with moderate cognitive delays and parents of students with severe cognitive delays.

#### **II. Discussion**

The data analysis reveals that parents' goals differed on the basis of the severity of their child's cognitive delay. Parents of students with moderate

cognitive delays most often indicated goals in academics and independent living, whereas parents of students with severe cognitive delays most often indicated therapeutic and personal fulfillment goals for their children.

The research indicated that nearly all of the parents surveyed are providing some emergent literacy experiences for their children. The research further indicated that students with moderate cognitive delays participate in more home literacy activities than students with severe cognitive delays. Students with moderate cognitive delays are also exposed to more printed materials in the home than students with severe cognitive delays. Students with moderate cognitive delays are read to more often than students with severe cognitive delays. Students with moderate cognitive delays exhibit higher level responses to home literacy activities. Although students with severe cognitive delays do not show high level responses to home literacy activities, they do show some responses to home literacy activities. Parents of students with moderate cognitive delays indicated more academic benefits of home literacy activities than parents of students with severe cognitive delays.

Data were further analyzed to find differences within the group of students with moderate cognitive delays (that is between the elementary-aged students with moderate cognitive delays and the middle school-aged students with moderate cognitive delays) and within the

group of students with severe cognitive delays (that is between the elementary-aged students with severe cognitive delays and the middle school-aged students with severe cognitive delays)

Middle school-aged students with moderate cognitive delays participate in slightly more home literacy activities than elementary-aged students with moderate cognitive delays. Elementary-aged students with severe cognitive delays received higher percentages of positive responses for listening to books on tape, public television, and library outings. The middle school-aged students with severe cognitive delays received a significantly higher percentage of positive responses in the "other" category, however it should be noted that many of the "other" activities mentioned by parents were not literacy activities.

Elementary-aged students with severe cognitive delays received a significantly higher percentage of positive responses in nearly all of the categories of printed materials shared with a family member.

Elementary-aged students with both moderate and severe cognitive delays are read to more frequently than the middle school-aged students of the same educational classification. Although middle school students with moderate cognitive delays are read to less frequently than elementary-aged students with moderate cognitive delays, the middle school-aged students with moderate cognitive delays displayed the highest level responses to



literacy activities.

Previous research by the Center for Literacy and Disabilities (1996) has shown that often times parents and professionals become pre-occupied with the health and medical issues surrounding children with developmental disabilities and they therefore do not provide the rich variety of print experiences that are available to their non-disabled peers. Similarly, this research found that parents of students with moderate and severe cognitive delays have different priorities for their children. Parents of students with moderate cognitive delays often chose academic goals for their children and never chose therapeutic goals for their children, whereas parents of students with severe cognitive delays often chose therapeutic goals for their children and never chose academic goals.

Past research has also indicated that students with disabilities receive quantitatively and qualitatively different literacy experiences than their non-disabled peers. Marvin and Mirenda (1993), in their study of preschoolers in Head Start and special education programs, found that parents of children with special education needs placed the lowest priority on literacy development and had the lowest expectations in this regard. This research found a similar result, in that parents of students with severe cognitive delays placed a lower priority on literacy and academics than parents of students with moderate cognitive delays. Light and

Kelford-Smith (1993) found that students using AAC seldom asked questions and were more involved in the physical manipulation of the book, either turning pages or pointing to pictures. Students in this study were involved in the same way, often involved with the physical manipulation of books. As Craig (1996) found differences in family support of emergent literacy of children with visual impairments based upon the primary literacy medium and the presence of additional disabilities, so has this researcher found differences in family support of emergent literacy based upon the severity of the student's cognitive delay.

It is interesting to note that while elementary-aged students with moderate cognitive delays participate in slightly more home literacy activities than middle school-aged students with moderate cognitive delays, the elementary-aged students with severe cognitive delays are participating in significantly more home literacy activities than middle school-aged students with severe cognitive delays. This could be because the parents of students with moderate cognitive delays see minimal progress and therefore maintain some interest in developing their children's literacy skills, whereas parents of students with severe cognitive delays see very little progress or perhaps no progress and perhaps become discouraged or lose interest in literacy for their children.

On a positive note, the present study suggests that

parents are indeed encouraging some literacy development in their children with moderate and severe cognitive delays. Nearly all of the parents are working at some level to develop literacy in their children.

### III. Limitations

Because of the small sample size, this research cannot be generalized to any other population. Most of the previous research compared students with disabilities to students without disabilities. Most of these were preschoolers. It was impossible to compare subjects in this study with their non-disabled peers because elementary and middle school students without disabilities are well beyond the level of emergent literacy and do not participate in these types of activities with family members. A final limitation of this study is the question of the accuracy of parent reports. It is possible that parents may have given some inaccurate information, perhaps desiring to give the information the researcher was looking for. This limitation needs to be taken into consideration.

### IV. Suggestions for Further Research

It would be beneficial to do a follow-up survey with the parents of the elementary aged students with severe cognitive delays after their children begin middle school to see if these parents continue their support of emergent literacy. It would also be beneficial to test

the current reading levels of the students with moderate cognitive delays to see if there is a correlation between family support of emergent literacy and reading ability.

#### V. Implications

The findings from this study can be used first of all for parent education. Parents need to be educated about the benefits of home literacy activities for their children with cognitive delays. Perhaps if parents are educated and encouraged, they will provide more literacy opportunities for their children.

It should be noted that better communication skills was mentioned several times by parents as a goal for their children, yet it appears that only a few of the children are using augmentative communication devices. Parents need to be informed about the use of and benefits of augmentative communication, especially in light of their desired goal of better communication skills for their children.

This research can be used to develop a parent packet for supporting emergent literacy, with hints about positioning, AAC, library use and children's literature. Some valuable parent information can be found in Appendix C.

It will also be useful to share this information with classroom teachers, thus providing students with a consistent approach to literacy development at home and in school.

## VI. Conclusion

This study sought to explore family support of emergent literacy of students with moderate and severe cognitive delays. The research question addressed was "Does family support of emergent literacy differ on the basis of the severity of the student's cognitive delay?" Data was gathered by means of a parent survey of home literacy experiences. Research showed that students with moderate cognitive delays participated in more emergent literacy activities at home than students with severe cognitive delays, students with moderate cognitive delays exhibited higher level responses to emergent literacy activities, and parents of students with moderate cognitive delays perceived more academic benefits of literacy activities than parents of students with severe cognitive delays. Results were used to develop a parent education packet about emergent literacy.

## References

- Allington, R.L. and Koppenhaver, D.A. (1996). Instruction to help them all read and write. In 5th Symposium on Literacy and Developmental Disabilities. Chapel Hill: University of North Carolina.
- Center for Literacy and Disability Study (1996). A primer on literacy and developmental disabilities. In 5th Symposium on Literacy and Developmental Disabilities. Chapel Hill: University of North Carolina.
- Craig, C.J. (1996). Family support of the emergent literacy of children with visual impairments. Journal of Visual Impairment and Blindness, 99, 194-200.
- Cunningham, P.M., and Hall, D.P. (1996). The four blocks: A framework for literacy in primary classrooms. In 5th Symposium on Literacy and Developmental Disabilities. Chapel Hill: University of North Carolina.
- Dziwulski, M. (1996). Developing literacy skills for persons with developmental disabilities: Some considerations. In 5th Symposium on Literacy and Developmental Disabilities. Chapel Hill: University of North Carolina.
- Englebert, C.S., Mariage, T.V., Garmon, M.A., and Tarrant, K.L. (1998). Accelerating reading progress in early literacy classrooms: Three exploratory studies. Remedial and Special Education, 19, 142-159.

Gunning, T.G. (1992). Creating reading instruction for all children. Needham Hts., MA: Allyn and Bacon.

Haring, N.G., McCormick, L., and Haring, T.G. (1990). Exceptional children and youth. New York: Macmillan College Publishing Co.

Katims, D.S. (1994). Emergence of literacy in preschool children with disabilities. Learning Disability Quarterly, 17, 58-69.

King-DeBaun, P. (1996). Babes in bookland: Using stories to enhance parent-child interactions. In 5th Symposium on Literacy and Developmental Disabilities. Chapel Hill: University of North Carolina.

Koppenhaver, D. and Yoder, D. (1991). The implications of emergent literacy research for children with developmental disabilities. American Journal of Speech and Language Pathology, 1(1), 38-44.

Leichter, H.P. (1994). Families as environments for literacy. In H. Goelman, A. Oberg, and F. Smith (eds) Awakening to Literacy. Exeter, NH: Heinemann Educational Books.

Light, J., Binger, C., and Kelford-Smith, A. (1994). Story reading interactions between preschoolers who use AAC and their mothers. Augmentative and Alternative Communication, 10, 255-268.

Light, J., and Kelford-Smith, A. (1993). The home literacy experiences of preschoolers who use augmentative communication systems and of their non-disabled peers. Augmentative and Alternative Communication, 9, 10-25.

Marvin, C. and Mirenda, P. (1993). Home literacy experiences of preschoolers enrolled in Head Start and special education programs. Journal of Early Intervention, 17, 351-367.

Mirenda, P. (1993). ACC: Bonding the uncertain mosaic. Augmentative and Alternative Communication, 9, 3-9.

Mirenda, P., Iacono, T. and Williams, R. (1990). Communication options for persons with severe and profound disabilities: State of the art and future directions. Journal of the Association for Persons with Severe Handicaps, 15, 3-21.

Morrow, L.M. (1989). Literacy development in the early years: Helping children read and write. Englewood Cliffs, NJ: Prentice-Hall Inc.

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

Saint-Laurent, L., Giasson, J. and Couture, C. (1997). Parents + children + reading activities = emergent literacy. Teaching Exceptional Children, Nov-Dec, 52-56.

Smith, C.B. (1989). Emergent literacy: An environmental concept. The Reading Teacher, March, 528.

Stratton, J.M. (1996). Emergent literacy: A new perspective. Journal of Visual Impairment and Blindness, 99, 177-182.



Strickland, D.S. and Morrow, L.M. (1989). Emergent Literacy: Young children learn to read and write. Newark, DE: International Reading Association.

Sulzby, E. and Teale, W. (1991). Emergent literacy. IN R. Barr, M.L. Kamil, P.B. Rosenthal, and P.D. Pearson (eds), Handbook of Reading Research, vol.2 (pp. 227-257). New York: Longman.

Sulzby, E., Teale, W. and Kamberelir, (1989). Emergent writing in the classroom: Home and school connections. In D.S. Strickland and L.M. Morrow (1989). Emergent literacy: Young children learn to read and write. Newark, DE: International REading Association.

Teale, W.H. (1981). Parents reading to their children: What we need to know. Language Arts, 58, 902-912.

Teale, W. and Sulzby, E. (eds) (1986). Emergent Literacy: Writing and Reading. Norwood, NJ: Ablex.

**APPENDIX A**  
**SURVEY OF HOME LITERACY EXPERIENCES**

### Survey of Home Literacy Experiences

1. Student's age: (in years and months) \_\_\_\_\_

Student's class: (circle one)      elementary      middle

Student's disabling conditions: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

2. Respondent's relation to student: (circle one)

Mother      Father      Grandparent      Foster parent      Other

3. Indicate briefly your three most important goals for your child:

a. \_\_\_\_\_  
 b. \_\_\_\_\_  
 c. \_\_\_\_\_

4. Which of the following activities does your child participate in at home? (check all that apply)

_____ books on tape	_____ listening to rhymes/ poems
_____ public television	_____ none
_____ outings to the library	_____ other _____

5. Which of these printed materials do you or someone else share with your child? (check all that apply)

_____ birthday cards	_____ magazines
_____ letters to child	_____ storybooks
_____ photo albums	_____ other books

6. How often do you or someone else read to your child? (check only one)

_____ daily	_____ less than once a week
_____ once a week	_____ never
_____ 3-4 times per week	_____ other _____

7. Who most often reads to your child? (check only one)

_____ Mother	_____ Father
_____ Grandparent	_____ Foster parent
_____ Siblings	_____ Other _____

(OVER PLEASE)

8. How does your child respond to literacy activities? Check all that apply.

- |   |   |
|---|---|
| <input type="checkbox"/> asks or answers          | <input type="checkbox"/> smiles                     |
| <input type="checkbox"/> makes comments           | <input type="checkbox"/> laughs                     |
| <input type="checkbox"/> requests favorite books  | <input type="checkbox"/> changes facial expressions |
| <input type="checkbox"/> helps turn pages         | <input type="checkbox"/> my child shows no response |
| <input type="checkbox"/> points to pictures       | <input type="checkbox"/> other _____                |
| <input type="checkbox"/> looks at pages/ pictures |   |

9. When you read to your child do you typically...

- |  |   |
|--|---|
| <input type="checkbox"/> ask questions           | <input type="checkbox"/> ask child to repeat a word |
| <input type="checkbox"/> point to pictures       | <input type="checkbox"/> other _____                |
| <input type="checkbox"/> ask child to turn pages |   |

10. How does your child use augmentative communication devices to participate in literacy activities?

- |   |  |
|---|--|
| <input type="checkbox"/> to request favorite stories  | <input type="checkbox"/> my child has a device, but does not use it for literacy |
| <input type="checkbox"/> to make spontaneous comments | <input type="checkbox"/> my child does not have a device                         |
| <input type="checkbox"/> to answer questions          |  |
| <input type="checkbox"/> to read stories              |  |

11. What do you perceive are the benefits of home literacy activities?

- |  |   |
|--|---|
| <input type="checkbox"/> socialization/quality time          | <input type="checkbox"/> child imitates reading behavior/ pretends to read using pictures |
| <input type="checkbox"/> increases attention                 | <input type="checkbox"/> builds language/vocabulary                                       |
| <input type="checkbox"/> increases interest in reading/books | <input type="checkbox"/> child has favorite books/stories                                 |
| <input type="checkbox"/> intellectual enrichment             | <input type="checkbox"/> child independently looks at books                               |
| <input type="checkbox"/> good leisure activity               |   |

12. Do you have anything else you'd like to share about your child's literacy activities, feelings, reflections?

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*Thank you for answering these questions.*

APPENDIX B

**LETTER OF TRANSMITTAL**



# *St. John of God Community Services*

*Archbishop Damiano School • Early Intervention Program • Vocational Rehabilitation/Adult Services*

November 12, 1999

Dear Parents/ Guardians,

I am the classroom teacher for the middle school eligible for day training class at Archbishop Damiano School. I am currently enrolled at Rowan University in the Master's program in Special Education.

My research at Rowan University currently involves the family support of the emergent literacy skills of students with moderate and severe cognitive delays. As parents/ guardians, you can provide valuable information about your child's emergent literacy skills to educators like myself. Besides being part of the research findings, your completed and returned survey will be used to modify and improve classroom programming in our elementary and middle school class.

I ask you to set aside 5 minutes of your time to complete this survey. Please bring the completed survey with you to next week's parent conference. If you are not scheduled to come in for a conference, please return it to your child's teacher by Friday, November 19, 1999.

Know that when this research is reported, no personal or instructional identifiers will be used.

Thank you for your gracious assistance and willingness to participate in this study.

Sincerely,

*Sr. Dianna M. Higgins fmij*

Sr. Dianna M. Higgins, fmij

1145 Delsea Drive • Westville Grove, NJ 08095-0490  
609-848-4700 (Voice) • 609-848-4598 (TTY) • General Fax: 609-584-1512 • School Fax: 609-848-5965

*The Hospitaller Order of St. John of God serves the needs of people in over forty-six countries.*

**APPENDIX C**  
**RESOURCES FOR PARENTS**

## Children's Book List

"There's a Nightmare in My Closet" by Mercer Mayer  
"The Napping House" by Audrey Wood  
"Where the Wild Things Are" by Maurice Sendak  
"If You Give a Mouse a Cookie" by Laura J. Numeroff  
"Caps For Sale" by Esphyr Slobodkina  
"The Jacket I Wear in the Snow" by Shirley Neitzel  
"Little Cloud" by Eric Carle  
"If You Give a Moose a Muffin" by Laura J. Numeroff  
"Chicka Chicka Boom Boom" by Bill Martin  
"Polar Bear, Polar Bear" by Bill Martin  
"The Very Quiet Cricket" by Eric Carle  
"The Very Busy Spider" by Eric Carle  
"Are You My Mother?" by P.D. Eastman  
"The Giving Tree" by Shel Silverstein  
"The Carrot Seed" by Ruth Krauss  
"The Runaway Bunny" by Margaret Wise Brown  
"The Little Engine That Could" by Watty Piper  
"Over in the Meadow" by John Langstaff  
"Why Mosquitoes Buzz in People's Ears" by Verna Aardema  
"It Looked Like spilt Milk" by Charles G. Shaw  
"Alexander and the Terrible, Horrible, No Good, Very Bad Day" by Judith Viorst  
"The Very Hungry Caterpillar" by Eric Carle  
"Make Way For Ducklings" by Robert McCloskey  
"Goodnight Moon" by Margaret Wise Brown  
"Rosie's Walk" by Pat Hutchins  
"The Little House" by Virginia Lee Burton  
"Cloudy With a Chance of Meatballs" by Judi Barrett  
"Stone Soup" by Marcia Brown  
"Harry the Dirty Dog" by Gene Zion  
"The Three Billy Goats Gruff" by Paul Galdone  
"Brown Bear, Brown Bear" by Bill Martin, Jr.  
"Patrick's Dinosaur" by Carol Carrick  
"Big Red Barn" by Margaret Wise Brown  
"Good Night, Owl" by Pat Hutchins  
"May I Bring a Friend?" by Beatrice DeRegniers  
"Harry and the Terrible Whatzit" by Dick Grackeback  
"A Pocket for Corduroy" by Don Freeman  
"Corduroy" by Don Freeman  
"The Snowy Day" by Ezra Jack Keats



## Libraries

### **Gloucester County Library**

389 wolfert Station Rd.  
Mullica Hill NJ  
856-223-6000

### **Gloucester County Library-Logan Township Branch**

101 Becket Rd.  
Logan Township NJ  
856-421-0202

### **Gloucester County Reach Complex**

200 Holly Dell Drive  
Hurffville NJ  
856-589-2001

### **Camden County Library**

203 Laurel Rd.  
Vorhees Twp. NJ  
856-772-1636

### **Camden County Library-Gloucester Township Branch**

15 South Black Horse Pike  
Blackwood NJ  
856-228-0022

### **Camden County Library-Winslow Township Branch**

State Highway #73  
Braddock NJ  
609-567-9770

### **Camden County Library-Haddon Township Branch**

15 MacArthur Blvd.  
Haddon Township NJ  
856-854-2752

### **Camden County Library-Merchantville Branch**

130 South Centre  
Merchantville NJ  
856-665-3128

## Resources for Augmentative Communication

### **Zygo Industries**

P.O. Box 1008  
Portland, OR 97207-1008  
for:  
Macaw 3  
Great Green Macaw  
Optimist

### **Mayer-Johnson Co.**

P.O. Box 1579  
Solano Beach, CA 92075-7579  
1-800-588-4548  
for:  
Boardmaker Programs (Creates picture boards/AAC overlays)  
Picture Communication Symbols Books  
Hand Held Voice  
Tech/Speak  
Tech/Talk  
Tech/Span

### **Dynavox Systems**

2100 Wharton St.  
Pittsburgh, PA 15203  
1-888-697-7322  
for:  
DynaVox  
DynaMyte  
DynaMo

### **Enabling Devices-Toys for Special Children**

385 Warburton Ave.  
Hastings-On-Hudson, NY 10706  
for:  
Cheap Talk 8 - 6 level  
Cheap Talk 4  
Shadow Talker  
Rocking Say It Play It  
Twin Talk  
Step Talk  
Hip Talk

### **AbleNet**

1081 Tenth Ave  
Minneapolis, MN 55414-1312  
for:  
Big Mack  
Step By Step Communicator  
Speak Easy  
One Step Communicator

## Home Literacy Activities

Photo Albums

Books on tape (commercial or home recorded)

"Reading Rainbow" or other educational programs

Children's magazine subscriptions

Weekly library outings

Create a Children's Library in your home

Establish a regularly scheduled time each day to read to  
your child

Put favorite books on slides to view together or for your  
child to view independently

When reading to your child, Put book on an easel or  
cardboard stand to free your hands to hold your  
child, **or** position child across from you or next to  
you so you can hold book securely.

Always keep books and writing materials available for  
your child.