

Perceptions of Families and Coaches on the Importance of Emergent
Literacy Activities of Young Children with Disabilities

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Authorization to Submit Dissertation

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Abstract

The purpose of this study was to identify the perceived value family members and Idaho Infant Toddler Program coaches (ITP) place on emergent literacy activities for young children with disabilities. The study contributed to research on literacy development for infants and toddlers with disabilities by examining: 1) the perceived value of early literacy activities for children with disabilities from the perspective of families and coaches; 2) the relationship between the demographics of the families and coaches and their perceived value of early literacy; 3) the extent that families express concern about their child's skill development in communication, language, and literacy as reflected on their Individual Family Service Plan (IFSP); and 4) the extent that ITP coaches intentionally use or suggest activities that promote early literacy in sessions with families.

The results indicate that this homogeneous sample of families and providers value literacy and early literacy activities. Families engaged in routine-based interactions that tend to foster early literacy development, but did not tend to engage in purposeful activities that extend routine-based learning in language, communication, or literacy. Families expressed more concern about expressive language delays of their children than with either receptive language delays or skill development in early literacy. Family coaches indicated that during home visits they encourage the use of strategies that tend to foster early literacy development, but not to intentionally impact early literacy per se. Modest relationships between demographics and perceived value of literacy were noted. The limited relationships may be due to the homogeneous nature of the sample and the small number of families and coaches who participated in the study.

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Chapter 1

Introduction to Study

Literacy development in young children is impacted by the quality of the home literacy environment (Badian, 1998; National Early Literacy Panel, 2008; National Association for the Education of Young Children, 2009; O'Connor & Jenkins, 1999; Senechal, 2000; Whitehurst, & Angel, 1994). Early literacy development, known as emergent literacy, is enhanced when families provide a print rich setting, read, play games, sing and say rhymes, talk and label items with their young children. (Batshaw, Pellegrino, & Roizen, 2007; Bus, van Ijzendoorn, & Pellegrini, 1995; DeBaryshe, 1993; National Research Council, 2003; National Research Council Institute of Medicine, 2000; Odom & Karnes, 1988; Neuman & Roskos, 2006; Payne, Whitehurst, & Angel, 1994; Shonkoff & Meisels, 2003). Emergent literacy activities support development of vocabulary, story grammar, and alphabetic principle. (Arnold, Lonigan, Whitehurst, & Epstein, 1994; Crain-Thorsesen & Dale, 1992; Senechal, LeFevre, Thomas, & Daley, 1998). There is a positive relationship between the frequency of shared book reading during early childhood and how well a child reads later in school (Bus, van Ijzendoorn, & Pellegrini, 1995; Griffin & Morrison, 1997; Stevenson & Fredman, 1990). The quality of early literacy skills development has become a significant marker for academic and economic success later in life (Breit-Smith, 2010, Storch, 2001).

While the importance of promoting early literacy is well established and there is abundant evidence to support early literacy promotion, there are relatively few studies on emergent literacy expectations for children with disabilities (Justice, Chow,

Capellini, & Colton, 2003, Justice, Skibbe, McGinty, Piasta, Petril, 2011, Lovelace & Stewart, 2009, Light Kelfor-Smith, 1993; McNamara, Vervalke & Van Lankveld, 2008, Marvin & Mirenda, 1993). Research about young children with disabilities tends to focus on improving specific developmental skills that are impacted by specific disabilities, with little attention to pre-academic learning skills including emergent literacy or numeracy. (Bellon-Harn, 2008; Johnson-Glensburg, 2004; Soto, 2008; Walker, 1994). Similarly, professionals and families typically focus intervention goals for young children with disabilities on specific developmental delays that may not include foundational literacy activities to promote language development. Further, depending on the severity of the child's disability, early literacy and other pre-academic skills may not be viewed as a priority for either the family or the early interventionist. (Bailey & Wolery, 1992; Katims & Pierce, 1995; McBride et al., 1995; Odom et. al, 1995 Wallach & Butler, 1995).

Families who have children with disabilities often experience more stress than families who have children who are typically developing (Trachtenberg & Lewis, 1996; Johnson et al., 2005; Power, 2004; Rolland, 2003). Common stressors include a need for information and resources related to their child's disability, concerns about their child's health or developmental outcomes, or issues related to limited resources or lack of social support (Guralnick, 2001).

Stress factors may interfere with having the time and or energy to engage in activities that are not seen as essential for improving specific developmental deficits. For many families who have young children with disabilities, typical emergent literacy activities, such as rhyming games, pointing out letters, making sounds, singing songs

and reading books are not viewed as important and are replaced by activities designed to improve other more targeted developmental outcomes such as dressing and feeding oneself, improving motor skills or maintaining eye contact, are important to a child's independence and quality of life (Light & Kelford-Smith, 1993; Marvin & Mirenda, 1993; Marvin & Wright, 1997).

Increasing the quality of the home literacy environment may enhance the overall developmental outcomes for children with disabilities by increasing purposeful and enjoyable interactions between family members and their child. When approached from a whole child perspective, emergent literacy activities may facilitate development in several developmental domains, especially if the activities are embedded into everyday routines that are natural for families (Payne, Whitehurst, & Angel 1994).

Purpose of the Research

The purpose of the study was to identify family and coach perceptions of the importance of emergent literacy development for children with disabilities. The target population included: 1) families of children from birth to 36 months of age who have disabilities and who participate in the Idaho Infant and Toddler Program (ITP); and 2) professionals, designated as family coaches, who work through the ITP and serve families in their homes.

By better understanding family perspectives, actions, and insights as well as coaches' knowledge and performance, we contribute to the Guralnick (2001).

Theoretical Model of Early Development and Risk Factors. The outcome of the study provides insight into potential areas of professional development needed to enrich

family and professional knowledge and practices that support early literacy as well as language and communication development.

Research Questions

The research questions for this study were: 1) What is the perceived value of home literacy and emergent literacy activities for children with disabilities from the perspective of families and coaches?; 2) What is the relationship between the demographics of the families and coaches and their perceived value of literacy?; 3) Do families express concern about their child's skills in communication, language, and literacy, and to what extent are communication, language and literacy reflected in the IFSP? and, 4) Do ITP coaches intentionally use or suggest activities that promote emergent literacy development in sessions with families?

Limitations

The characteristics of families living in a predominantly rural state without the benefits of more urban resources may have influenced the responses of both the family members and the coaches. As a result, their responses may not be generalizable to all geographic locations. Questionnaire methodology was used, relying on volunteer self-disclosure rather than direct observation or review of documents.

Delimitations

Delimitations of this study include targeting only families and coaches, surveying only families with children birth to 36 month old, and the inclusion of children with mild through severe disabilities. Questionnaires in previous research did not thoroughly cover the scope of the four research questions, therefore a more comprehensive questionnaire was designed. A questionnaire format, rather than

personal interviews, was used to gather data due to time restraints.

Definitions of Key Terms

Routine based strategies—Strategies to support skill development that can be implemented by family members during the course of typical family routines.

Home environment—The location where the child spends most of their day, often within a child's home, with their family.

Inclusion—Every child has the right, regardless of ability, to participate in a broad range of activities as full members of families, communities, and society. The desired results of inclusive experience for children include a sense of belonging and membership, positive social relationships and friendships, and development and learning to reach their full potential. The defining features of inclusion that can be used to identify high quality early childhood programs and service are access, participation, and supports (National Association for the Education of Young Children, 1996).

Natural environment—The location of typical daily routines. A natural environment could be home, the playground, grocery store or daycare setting.

Early literacy—In general, the term refers to a period of time which begins when a child learns to read and lasts through the third grade and/or turns 10 years old.

Emergent literacy—The period between birth and when children begin to read and write (Al Otaiba, et al, 2009).

Coaching—Coaching provides a structure for developing and nurturing partnerships with the early childhood practitioner, family members and other caregivers. A coach encourages and guides a person to develop competence in a specific role and situation (Hanft, Rush, & Shelden, 2007).

Developmental disabilities—Idaho Code 66-402(5) defines a developmental disabilities as a chronic disability of a person which appears before 22 years of age and:

- Is attributable to an impairment, such as mental retardation, cerebral palsy, epilepsy, autism or other condition found to be closely related to or similar to one of these impairments that requires similar treatment or services, or is attributable to dyslexia resulting from such impairments.
- Results in substantial functional limitations in three or more of the following areas of major life activity; self-care, receptive and expressive language, learning, mobility, self-direction, capacity for independent living, or economic self-sufficiency.
- Reflects the needs for a combination and sequence of special, interdisciplinary or generic care, treatment or other services which are of life-long or extended duration and individually planned and coordinated.

People with developmental disabilities have problems with major life activities such as language, mobility, learning, self-help, and independent living. Developmental disabilities begin anytime during development up to 22 years of age and usually last throughout a person's lifetime.

Developmental delay—An individual from birth to age 9, inclusive, who has a substantial developmental delay or specific congenital or acquired condition. The person may be considered to have a developmental disability without meeting the criteria if the individual, without services and supports, has a high probability of meeting those criteria later in life.

Therapist, coach, provider, service coordinator—Professionals who provide support for

children and families to fulfill the goals on their IFSP and IEPs. States have different titles and responsibilities associated with the positions.

IFSP—An Individualized Family Service Plan documents and guides the early intervention process for children with disabilities and their families. The IFSP is the vehicle through which effective early intervention is implemented in accordance with Part C of the Individuals with Disabilities Education Act (IDEA). It contains information about the services necessary to facilitate a child's development and enhance the family's capacity to facilitate the child's development. Through the IFSP process, family members and service providers work as a team to plan, implement, and evaluate services tailored to the family's unique concerns, priorities, and resources. (Ray, Pewitt-Kinder, & George, 2009).

IEP—The Individual Education Program (IEP) is a written plan developed by the schools special education team with input from the families and specifies the students' academic goals and the method to obtain these goals. The IEP will focus only on the areas that are affected by the disability (ies). The IEP will provide a focus for the student's learning and specify a specific timeframe. The IEP should reflect as much as possible what the student's peers are learning and doing.

IDEA—Individual with Disabilities Education Act is a law ensuring services to children with disabilities. IDEA governs how states and public agencies provide early intervention, special education and related services to more than 6.5 million eligible infants, toddlers, children and youth with disabilities. Infants and toddlers with disabilities (birth-2) and their families receive early intervention services under IDEA Part C.

Chapter 2

Review of Related Literature

Introduction

The purpose of this study was to identify family and coach perceptions on the importance of emergent literacy development for children with disabilities. To establish a theoretical foundation and understanding of emergent literacy and the impact on literacy development in young children, a review of relevant literature is presented. The review includes: 1) a historical overview of research on reading and early childhood development, 2) research on emergent literacy skills that children need to be able to read, 3) the role and perceptions of families in acquisition of literacy skills for children who have developmental disabilities, and, 4) the role and perceptions of professionals in the development of early literacy. Finally, the overarching significance of the study is presented.

Historical Overview

The development of early childhood education and reading research were separate ideologies until the later decades of the 20th century. During the 1980's, researchers began to investigate the impact of the first eight years in a child's life on their educational outcomes, especially the role of oral language (Dickinson, 2001). This awareness was highlighted in 1998 when the U.S. Department of Education and the U.S. Department of Health and Human Services asked the National Academy of Sciences to establish a committee to examine the prevention of reading difficulties. The National Research Council conducted a thorough study of empirical research up to that point and determined the field of reading had advanced enough to allow substantial agreed-upon

results and conclusions (NRC, 1998). Their report, *Preventing Reading Difficulties in Young Children* concluded:

It is clear from the research on emergent literacy that important experiences related to reading begin very early in life. Primary prevention steps designed to reduce the number of children with inadequate literacy-related knowledge...at the onset of formal schooling would considerably reduce the number of children with reading difficulties and, thereby, the magnitude of the problem currently facing schools. NRC, p. 317.

A second event in 1998 highlighted the importance of blending the two essential bodies of knowledge. The National Association of Educators of Young Children (NAEYC) and the International Reading Association (IRA) released a joint position statement on emergent literacy outlining a unified perspective on the importance of supporting children's early literacy development (IRA, 1998). The primary purpose of the position statement was to provide research based guidance to teachers as well as parents of children birth through age 8. The statement consists of a set of principles and recommendations for teaching practices and public policy.

In the next few years, a series of research studies built an awareness that emergent literacy consists of a variety of skills, attitudes, and knowledge that are necessary for the development of conventional reading and literacy skills (Dickinson, 2001; Karrass & Braungart-Ricker; 2005, Molfese, Modfese, & Molfese; 2003, Justice & Ezell; 2002, Phillips & Lonigan; 2009, Snow, Tabor, & Dickinson; 2001). Even before children enter the public school setting, they demonstrate a wide range of

emergent literacy skills. The advantage they gain by entering school prepared with foundational literacy skills benefits them throughout their education (Snow, Burns, & Griffin, 1998; Browder, Mims, Spooner, Ahlgrim-Delzell, Lee, 2008; Rashid, Morris, & Sevcik, 2005). In addition, researchers have determined that children who live in lower socio-economic settings are less likely to enter an educational setting ready to learn. The growing awareness of the importance of a child's early home environment on their preparedness for education is a key element in supporting families. It is important for families to understand they play a vital role in helping their child with a disability to be as prepared as they can be for their early elementary education (Storch & Whitehurst, 2001; Hindman, 2008).

Emergent Literacy Skills

During the first three years of life, the quality of a child's interactions are predictive of emergent literacy development (Halle, 2003; NRC, 2000). During the first year, a child begins to create a knowledge base of information about language by listening and imitating the sounds they hear. DeBaryshe (2003) demonstrated that reading books to a child early in infancy is associated with improved language skills at two years. Shared reading at 6 months was predictive of acquisition of emergent literacy skills as the child entered elementary school (Tomopoulos, 2006).

Families provide the first setting for an infant's initial responses to language. Their support allows the child to make the emotional connection between communication and language (Dickinson, 2006). The child learns that vocalizing elicits a consistent response to their needs which in turn encourages future parent-child conversations. The initial bonding provides the emotional support necessary to maintain

and expand communication. Reciprocal vocalizing between caretaker and infant in early conversations is important. The child begins to understand that through conversation they are able to interact and shape their environment (Brunner, 1977). In addition, parents are able to use back and forth communication to observe and assess their child's level of language and then scaffold learning through their interactions. In a longitudinal cohort study conducted in 2006, the language development of 150 infants of at-risk mothers was followed from birth to 21 months. Those infants exposed to more reading at this early age, had better cognitive and receptive language development and were at lower risk for meeting early intervention criteria (Tomopolous, 2006). The term "Matthew Effect" was coined by Stanovich (1986) to describe the impact of an impoverished literacy environment in which a child is never able to catch up to the skills of a child reared in an environment rich in literacy activities.

By providing supportive interactions that nurture components of emergent literacy, families can increase their child's capacity to acquire foundational skills necessary for literacy development (Adams, 1990; Bowman, Donovan, & Burns, 2001; Bradley, Corwyn, Burchinal, McAdoo, & Coll, 2001; Bus, van Ijendoorn, & Pellegrini, 1995; National Center for Educational Statistics, 2004; NRC, 1998; Scarborough & Dobrich, 1994; Senechal & LeFevre, 2002; Hart & Risley, 1995, Hindman et al., 2008; Senechal, Lefevre, Hudson, & Lawson, 1996; Teale & Sulzby, 1986). Children who have a disability have a much better chance to succeed if they are exposed to literacy activities as soon as possible (Weikle & Hadadian, 2004). Families who have a child with a disability have the capacity to positively influence their child's literacy potential by becoming aware of the components of emergent literacy and adapting strategies to

meet their child's needs.

Emergent literacy components include three main skill areas 1) oral language 2) phonological awareness and 3) print awareness. The quality of the literacy environment from birth for all children, including those born with a disability, will influence the educational and life skill outcomes in each of the literacy components (Koppenhaver et al, 1991; Weikle, & Hadadian, 2004).

Oral language development. From the moment a child is born and hears a family member's voice, a child begins to develop an awareness of language. It is for this reason their role in helping a child grow and develop oral language skills cannot be overlooked. Families model the usefulness of oral and written language to solve problems and share social interactions. Family settings that encourage functional participation in literacy have been linked to development of oral language, print awareness, and phonemic awareness (NRC, 1998). Everyday language opportunities provide a supportive environment for children to learn cognitive skills important to developing literacy. Strategies such as rhyming through songs and chants, story structure through dinner table conversations and reading recipes for family meals all help to develop skills important to early emergent literacy development (NRC, 1998). This exposure to language increases the probability that they will acquire new vocabulary (DeTemple, & Snow, 2003; Hart, & Risley, 1995, 1999; Lonigan, & Whitehurst, 1998; Nagy, & Scott, 2000; Saxon, & Reily, 1998; Wasik, & Bond, 2001) which becomes especially important as a child begins to decode print.

Phonemic awareness. Phonemic awareness is defined as understanding the smallest bits of sound in spoken language. Children have phonemic awareness when

they are able to add an ending on to a word, break apart the sounds within a word and indicate individual sounds within words they have developed (NAEYC & IRA, 1998).

The acquisition of phonemic awareness is an influential skill for predicting success in reading, at least through the primary grades (Poe, Buchinal, & Roberts, 2004).

Families that read to their children often, engage in dialogic conversations, sing and chant rhymes, model supportive listening, and provide opportunity for children to develop skills associated with phonemic awareness (Poe, Buchinal, & Roberts, 2004).

Families who have a child with a disability may find that their child's literacy skills development will depend greatly on the impact of the disability. However, families have the capacity to help their child reach their full literacy potential by adapting recommended interventions to meet their child's needs.

Print awareness. The third and final skill necessary for emergent literacy development is print awareness. In order for a child to make sense of the print on a page and have knowledge of the process of reading, they need to have an understanding of how print works (Allor, & McCathren, 2003). Most children acquire these skills through exposure to print within their home and childcare settings.

However, those children with little or no exposure to print through books, grocery lists, and reading aloud will not have the foundational skills to build upon. It is important for families to understand how they can provide this same exposure to print by adapting common literacy activities at home, should their child have a disability. Necessary skills to develop an awareness of print include an understanding that (Allor, & McCathren, 2003):

- Text carries meaning.

- Text is read from left to right.
- The left page is read first, then the right page.
- A word has a cluster of letters surrounded by white space.
- Punctuation marks have a purpose.
- There is a front of the book and a back of the book.
- A story has a beginning, middle and an end.

These three categories rely on a slow progressive acquisition of skills over time (Neuman & Roskos, 2005). This skill building is accomplished through daily conversation, singing, reading aloud to the child; questioning and responding. Children learn the purpose for literacy through family interactions. When any child enters an educational setting with little or no background in these areas, literacy development is delayed (Snow & Griffin, 2002), which adds an additional layer of challenges to the life of a child who has a disability.

Screen time as a variable. A review of research on emergent literacy would not be complete if the impact of screen time were not discussed. Screen time is defined as exposure to any media including digital media, software programs, applications (apps), computers, broadcast and streaming media, television, e-books, the Internet, tablets, DVDs, video games, and iPhone.

Although the role and impact of media in the lives of infants, toddlers and preschoolers is unclear, researchers are beginning to add important research data to the conversation.

The Henry J. Kaiser Family Foundation conducted a research study, The Media

Family: Electronic Media in the Lives of Infants, Toddlers, Preschoolers and their Parents (Rideout & Hamel, 2003), involving 1,000 parents of children ages six months through six years of age. Their research revealed that homes are filled with media. Children's homes are packed with media options, including TVs, computers, DVD players and video game consoles. Nearly all children (99%) live in a home with a TV set, half (50%) have three or more TVs, and one-third (36%) have a TV in their bedroom. Nearly three out of four (73%) have a computer at home, and about half (49%) have a video game player (Rideout & Hamel, p. 4).

Very young children are growing up at ease with digital media. These tools have become part of the culture of families, schools, and in the community. (Kerawalla, & Crook 2002; Calvert, et al. 2005; National Institute for Literacy 2008; Buckleitner, 2009; Lisenbee 2009; Berson, & Berson 2010; Chiong, & Shuler 2010; Couse, & Chen 2010; Rideout, Lauricella, & Wartella 2011). Adding to the description of screen time, the KFF study summarized their finding by stating:

- Children today are growing up immersed in media.
- Many children six and under are active computer users
- Even the very youngest children are highly exposed to TV and other screen media.
- How much the TV is left on in the home has a significant relationship to the amount of time children spend watching it, and to the time they spend reading.

- Many very young children have a TV, VCR or video game player in their bedrooms, and these children spend more time with those media.
- Four- to six-year-olds who are “heavy” TV users spend less time reading or playing outside than other children their age.
- Many parents have faith in the educational value of electronic media.
- The vast majority of parents have seen their children imitate behavior from TV, and they are far more likely to see them copy pro-social rather than aggressive behaviors.
- Most parents have media-related rules, and the children of parents who report strongly enforcing their rules, spend less time watching TV and more time reading.
- Reading or being read to remains a constant in most children’s lives.
- Listening to music is one of the most popular media activities among young children.
- Videos and DVDs have become a staple of children’s lives.
- Playing video games is a less common activity among the six and under set, but is more popular among boys than girls.
- There do not appear to be many differences in how boys and girls use media at the youngest ages.

As the use of media increases in the homes of young children, experts are taking notice. They point out the importance of linguistic, cognitive, and socio-emotional development of very young children. The quality and quantity of interactions play a critical role in emergent literacy skills development of young children, which lays the

foundation for adult language use and thinking as documented in a large international research base (Bracken & Fischel, 2008; DeTemple, 2001; Dickinson & Newman, 2006; Hart & Risley, 1995; Newman & Dickinson, 2004; Purcell-Gates & Dahl, 1991; Scarborough, 1998; Senechal, Quelette, & Rodney, 2006; Snow, Burns, & Griffin, 1998; van Kleeck, 2003; Whitehurst & Lonigan, 1998).

The American Academy of Pediatrics (2009, 2010, 2011a, 2011b) and the White House Task Force on Childhood Obesity (2010) recommends no screen time for babies and only 1 to 2 hours per day for children 2 and older. (Funk et al. 2009; Campaign for a Commercial-Free Childhood, 2010). In a typical day however, researchers found that 61% of babies, less than two years of age, watch TV, a video, or a DVD for an average of one hour and nineteen minutes. In addition, 41% of 2-3 year olds and 43% of 4-6 year olds use screen media for 2 hours or more daily (Kaiser, 2003).

Research in the area of screen time and media use is beginning to help us learn how these technologies are used in the homes of young children, what types of media are available, and to what extent they are in use. This research base will create the foundational work needed to explore how digital media impacts the way children learn (Blanchard & Moore, 2010).

Future research will help to determine which devices, programs, DVDs, etc...should be used for learning and development and whether or not use of the media is inappropriate or will interfere with learning.

Role of Families

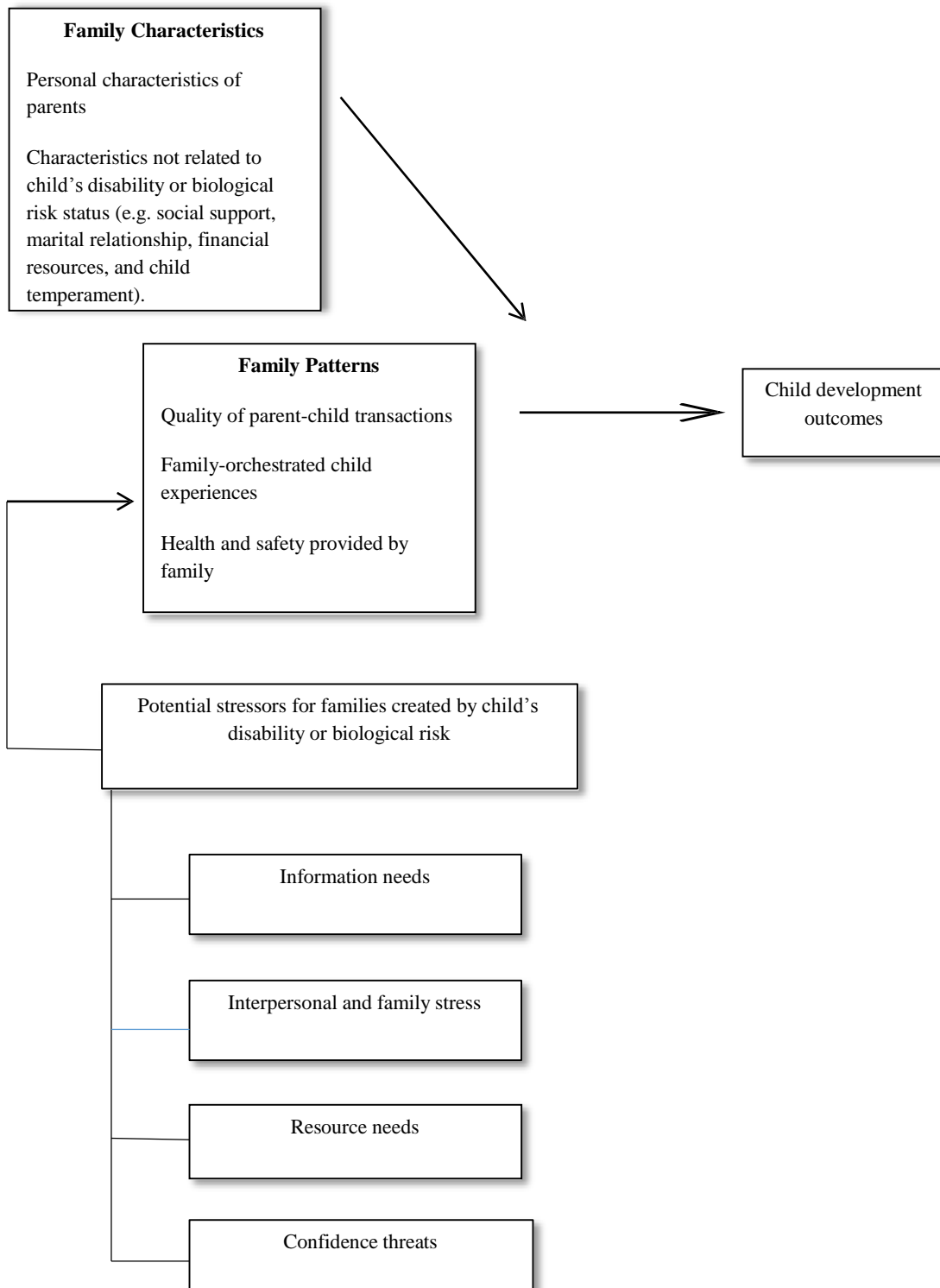
Literacy acquisition for a child is a crucial element for full community participation (van den Pol, 2003). For parents who have young children with a

disability, efforts to help their children to reach their full independent potential must begin at birth. Every child requires a strong literacy foundation very early in life for the emergent literacy skills to develop (International Reading Association, 1998). Families who have a member with a disability often find that the disability itself places demands on the family that other families do not face. Their situation, whether it is a medical, financial or troubled family dynamics may overshadow the typical interactions families provide in early literacy development. A study conducted by Martin (1994) who compared home-based literacy experience for children with single disabilities to those with multiple disabilities, determined that less than half of the families reported reading to their child or engaging in literacy activities on a weekly basis. Family dynamics for those in these situations are more complicated than those faced by a typical family. For this reason, analyzing the needs of families who have young children with disabilities through Guralnick's Early Development and Risk Factors Model (Guralnick, 2001) provides a framework to understand the challenges families face in achieving typical literacy goals.

Guralnick outlines a structure to analyze the key components that impact family patterns such as quality interactions with parent-child, providing social and recreational family-oriented opportunities, and providing a safe and healthy environment for the child. These patterns are considered to be the primary components responsible for developmental outcomes for all children (Wolery, 2001). Figure 1 outlines the basic structure of the model.

Figure 1

Guralnick's model of factors influencing children's developmental outcomes



Within Guralnick's model, there are two components that influence the success of the family patterns. The first is the general characteristics of the family. When families are at risk due to a variety of characteristics such as isolation, unstable parental relationships, unpredictable daily routines or lack of general family supports, the overall stability of their family becomes jeopardized. Families are then often unable to effectively provide quality interactions, social or family-oriented environments or to ensure the basic health and safety of their child.

The second component outlined by Guralnick is the variety of stressors created by the child's disability. The stressors are stated as the family's need for more information on the disability, interpersonal and family distress due to the disability, and lack of resources needed to access supports for their family. The final stressor is the degree of confidence a family has in their ability to make good parenting decisions. Lack of confidence may influence daily interactions and decision making which would have a negative impact on the family as a whole. These stressors impact the extent to which a family is able to maintain strong family patterns.

The degree to which they are present will determine the overall success of the child's outcomes. Guralnick's model demonstrates the importance of understanding the responsibilities and the stressors families deal with daily in order to outline guidelines for helping them to support their child's literacy development.

Family perceptions. Parent/family attitudes influence development of literacy skills (Chomsky, 1981; Anderson & Stokes, 1984; Molfese, et al., 2003). Children who read early have family members who:

- Model literate behavior and read to them regularly
 - Interact with them
 - Provide reading materials in the home
 - Believe they are as important as the professionals in providing literacy support
- (Weikle & Hadadian, 2004)

Marvin and Miranda (1993) were the first to use questionnaire methodology to compare home literacy environments involving children with disabilities. They compared the home literacy environments of three groups of children which include preschoolers enrolled in Head Start, preschoolers in special education programs, and typically developing children enrolled in the special education programs as peer models. They found different literacy environments which included: (a) families placed a lower priority on literacy (b) they provided fewer types of literacy experiences (c) they expected their child to progress slower and (d) they had lower future expectations for their children. Marvin (1994) investigated 168 preschool children enrolled in an early childhood special education program. He concluded that families involved in the program placed literacy development as the lowest priority for their child.

Results such as these describe a family mindset that is directly contrary to those of families who maintain home literacy environments for successful literacy acquisition. Although families may place a higher importance on their child's immediate needs (medical, gross/fine motor, language development), understanding the critical role they can play in the acquisition of their child's literacy skills later in life cannot be understated (Snow, Burns, & Griffin, 1998, Kaderavek & Justice 2002, Rashid, Morris & Sevik, 2005). Although adaptations of traditional in-home activities may be necessary, families

are able to increase their child's capacity for literacy. Helping families understand the importance of matching their child's abilities to developmentally appropriate literacy activities will increase the likelihood that all children will receive the literacy foundation necessary to maximize their independence later in life.

A child's level of function may determine how parents interact with them during literacy activities (Hockenberger, Goldstein & Haas, 1999; NRC, 1998). For example, if a child is very active and unable to sit with his family members long enough for them to read a short story, they may believe the task is too challenging (NRC, 1998). However, finding an alternative way to read stories, or tell stories, such as encouraging a child to act the story out will expose them to the rhythm and function of language, sequencing of words, and seeing print offers skills important to emergent literacy development which are all skills necessary for a solid literacy foundation.

Professional Perspectives

States are required through the Individuals with Disabilities Education Act (IDEA, 2004) to provide services to families of infants and toddlers with disabilities. Many states, including Idaho, also provide services to children at risk for developmental disabilities. Professionals who support families in their homes may provide physical, occupational, developmental or speech and language therapy. Coaches demonstrate supportive strategies based on the family's routines in their home which offers the unique opportunity to incorporate emergent literacy skill development in their sessions.

Recognizing their potential role in helping to develop emergent literacy skills, the American Speech-Language-Hearing Association (2001) encouraged speech and language pathologists to become involved. Researchers have since outlined ways speech and

language pathologists can incorporate the activities into their sessions with the families (Justice, Invernizzi, & Meier, 2002; Justice & Kaderavek, 2004; Kaderavek & Justice, 2002, 2004).

There is less information available to describe the role coaches play in supporting literacy development. In a research study conducted by Thatcher & Fletcher (2008), 168 providers were surveyed on the role they played in literacy development for children they support in their homes. Researchers concluded that although the providers defined literacy as, “reading, writing, and oral language” only the developmental specialists and speech and language pathologists could identify specific activities to support literacy development during their therapy sessions in the child’s natural environment. Although occupational and physical therapists reported that they incorporated literacy activities in less than 50% of their instructional time, the fact that they reported some use may indicate a willingness to incorporate use in their physical and occupation sessions.

Preschool age children with disabilities may experience fewer home literacy activities than typically developing preschoolers for a variety of reasons (Light & Kelford Smith, 1993; Marvin & Mirenda, 1993; McVicker & Thatcher, 2005). It is imperative that professionals disseminate information on literacy to families noting that children will need a variety of strategies to incorporate the skills (Goin, Nordquist, & Twardosz, 2004). Some literacy strategies, such as book reading, will not be appropriate for children who do not enjoy the activity (Kadervavek & Justice, 2002). In these situations the expertise of the coaches are needed to adapt the activities to support the child and the family.

Families are the most important predictor of the development of emergent literacy skills in children. Enriched home literacy environments that includes routine based

activities and allows families to build and expand a child's understanding of the purpose of language and print, establishes foundational skills all children need to interpret print. This is especially true for those who have a delay or disability in communication, language, or literacy.

Significance of the Study

The last few decades of literacy research has produced an increased awareness about the important role emerging literacy skills play in early reading development and later success in school and adult life. Knowledgeable families who engage in shared reading, who talk to their children, sing songs and rhymes, provide access to, and engage in purposeful early literacy development increases child competence in language, communication, as well as literacy. All children, including those with disabilities, benefit from these specific family child interactions. However, families who experience stress due to their child's health status, competing developmental therapies, social isolation, and a host of other life circumstances may not readily engage in activities they view as non-essential.

This study enhances knowledge about family and professional perceptions of early literacy development for children with disabilities and the extent that intentional use of activities are incorporated into the families daily routines and encouraged by infant-toddler professionals (coaches) working in partnership with families. By better understanding family perspectives, actions, and insights as well as the coaches' knowledge and performance, we add to the Guralnick (2001) theoretical model of early development and risk factors.

The outcome of this study provides insight into potential areas of professional development needed to enrich family and professional knowledge and practices that support early literacy as well as language and communication development. Ultimately, as we increase adult competence, we also increase child competence in communication, language, and literacy. Children with disabilities along with all children meet their challenges better when foundational learning skills are fostered in the early years of their lives.

Chapter Three Methodology

Introduction

The purpose of this study was to identify the perceived value family members and Idaho Infant Toddler Program coaches (ITP) place on literacy and emergent literacy activities for young children with disabilities. The study contributes to research on literacy development for infants and toddlers with disabilities by examining: 1) the perceived value of home literacy and emergent literacy activities for children with disabilities from the perspective of families and coaches; 2) the relationship between the demographics of the families and coaches and their perceived value of literacy; 3) the extent that families express concern about their child's skill development in communication, language, and literacy, and the extent that communication, language and literacy are reflected in the IFSP; and 4) the extent that ITP coaches intentionally use or suggest activities that promote early literacy in sessions with families.

This chapter includes the methodology used to address the research questions and the design of the study.

Research Questions

Key questions emerged through a review of literature. The study designed to answer these questions will expand conventional knowledge on emergent literacy development for children with disabilities. The research questions are:

1. What is the perceived value of home literacy and emergent literacy activities for children with disabilities from the perspective of families and coaches?

2. What is the relationship between the demographics of the families and coaches and their perceived value of literacy?
3. To what extent do families express concern about their child's skill development in communication, language, and literacy, and to what extent are communication, language and literacy goals reflected in the IFSP?
4. To what extent do ITP coaches intentionally use or suggest activities that promote early literacy in sessions with families.

Research Design

This study was conducted using survey research design. The first step of the study procedures was to develop a questionnaire based on a thorough review of the literature. Second, an expert panel determined how likely the participants were to reliably answer the questions. Third, a think aloud interview (Dillman, 2007) was conducted with a sample of coaches and family members. Fourth, a pilot study involving a group of families and coaches was conducted in a rural community in Washington State, and procedures and the questionnaire were revised. Fifth, revised questionnaires were distributed statewide. Finally, a combination of descriptive, comparative and correlative strategies were used to analyze the data.

Participants/settings. Families with young children with disabilities age birth to 36 months who receive services through the Idaho Infant Toddler Program (ITP), were asked by their coaches to participate in the study. The coaches who provide primary services for the families enrolled in the ITP also participated. All participants were volunteers and signed a letter of consent prior to any data collection and lived throughout the state of Idaho. Most ITP services offered through Idaho Department of Health and Welfare are in

family homes or other natural community settings. The Idaho Department of Health and Welfare serves as a lead agency and partners with public agencies, private contractors and families to develop an Individualized Family Service Plan (IFSP) designed to provide comprehensive, family-centered services to strengthen each child's developmental potential. During the questionnaire period for this study, 3,380 infants and toddlers (Facts, 2011) and their families were served by the ITP. The state is divided into seven Idaho Department of Health and Welfare Regions. Each region maintains an Idaho ITP. The four most frequently provided services are: Developmental Therapy (special instruction), Speech/Language Therapy, Occupational Therapy, and Physical Therapy. Every effort is made to provide services during the family's normal routines with over 90% delivered in their natural environments (Facts, 2009).

A purposeful sampling procedure using a convenience sampling was used in the study. The samples were determined by ITP families who volunteered to participate in the study, and coaches (ITP staff) who volunteered for the study. All ITP families with children from birth to 36 months were eligible to participate.

Instrument. The survey items for the study were derived from existing questionnaires used by other researchers and other relevant information in the literature review. To facilitate comparison with the existing literature and research base, the present study included adapted questions from questionnaires used in previous studies on the perceptions of family members on their role in their child's literacy development (Al Otaiba, 2008 & Boudreau, 1997). The final questionnaire instruments are in Appendix A.

Two questionnaires were distributed. The first was given to volunteer families who have a child in the ITP who are range in age from birth to three years. Families had the

option of answering the questionnaire online or in paper form. A questionnaire was given to coaches working for the program who volunteered to participate. Coaches also had the option of filling out the questionnaire online or in paper form. The questionnaires were hand-delivered to families by the coaches or sent to them electronically as the family preferred. The Coach Questionnaire was delivered to the coaches via mail or electronically, as the coach requested. To assure anonymity, coach responses were not matched with family responses.

The survey was a self-report design. Both questionnaires begin with an introduction that consists of the purpose of the study and the instructions to families and coaches followed by content and demographic questions. Best practice in research design (Dillman, 2007) indicates that demographic information is more likely to be successfully completed if the section is not the first section of a questionnaire. Participants often are unsure about whether or not they want to provide personal information until they have answered a few questions and understand the purpose of the questionnaire; therefore, demographic questions were included on the last page of the questionnaire.

Content questions.

Coach questionnaire. The survey was modeled after a questionnaire of 168 coaches in an early intervention program who provided therapy to children from birth to three years old (Marvin, & Mirenda, 1993). The coach questionnaire consists of 11 items. Items one and six were used to analyze coaches' perceived value of literacy (research question 1). Items two through five were used to assess coaches' intentional use of activities that tend to foster early literacy development (research question 4). Items seven through ten were used to address the demographics of the coach sample and correlations between

perceived value and demographics (research question 2).

Item one of the questionnaire was categorical where each coach identified the earliest age to incorporate communication, language and literacy for the children they serve. Items two through 5 on the questionnaire were ordinal and were assigned intentionality based the amount of use of particular strategies between never used and very often used. All 19 sub-questions in item six were based on a four point Likert score using “Strongly Disagree=1, Disagree=2, Agree=3, and Strongly Agree=4”.

Family questionnaire. The family questionnaire contains 21 items. Items two through eight and items 11, and 12 address families perceived value of literacy for the child with a disability. Items 9 and 10 address perceived value of literacy for adults living in the family home (research question 1). Items 13 and 14 address family concerns about communication, language and literacy and whether or not those concerns are incorporated into their Individual Family Service Plan (research question 3). Items one and 15 through 21 relate to the demographics of each family participant and were used to address research question 2 related to the relationship between perceived value of literacy and specific demographic variables (i.e., relationship of participant to the child, disability category of the child, child’s age, additional children in the home, race of the participant, education level, and income).

Items three through 12 on the family questionnaire were ordinal and were assigned perceived value based on age at which family members first read to child (item three), and level of use for specific activities (none, low moderate high). Item 13 was also ordinal based on a three point Likert scale to assess family concern about their child’s development in receptive language, expressive language and early literacy.

Validity and reliability of the questionnaires

Dillman's (2007) pre-testing stages were adapted as guidelines to obtain valid and reliable data. The questionnaires were reviewed by an expert panel which included administrators from Idaho Infant Toddler Program, and content specialists from the University of Idaho. They reviewed the questionnaires and determined a) content validity, b) the reliability of the questions, and c) the appropriateness of language and format used. Recommended revisions were incorporated into the questionnaire.

The second stage recommended by Dillman is the think aloud interview. Families and coaches, who had similar characteristics to our population, were asked to participate in an interview that included telling the interviewer what they were thinking as they read and responded to the questions. This type of interview provided an insight into whether or not the questions were easily understood.

In Idaho 11% of the population is Hispanic: therefore, the third step was to translate the questionnaires into Spanish (Facts, 2010).

Pilot study. Once the questionnaires were screened through the initial steps toward establishing validity and reliability, a pilot study was conducted. A pilot site was arranged with "Boost Collaborative" in Pullman, Washington. Early Learning Services (ELS), a program of Boost Collaborative is a regional contactor for Washington State Infant Toddler Early Intervention Program and Whitman County Developmental Services. The five providers at ELS serve 30 families in the rural community.

A survey package with the questionnaire and a consent letter that provided a statement describing the volunteer nature of the pilot, the confidentiality, purpose and importance of the questionnaire was distributed to families and providers.

Pilot results. The data were analyzed in Minitab 17 using the Cronbach Alpha Coefficient of Reliability to measure the internal consistency of the questionnaires. Cronbach's Alpha is widely used in the social sciences to determine how closely related a set of items are as a group (Cohen, Manion, Morrison, 2007). The Family Questionnaire produced a return rate of 30% (9/30) with a Cronbach's Alpha of .6 and the Coaches Questionnaire produced a return rate of 60% with a Cronbach's Alpha of .65.

Although .70 is the industry standard for Cronbach's Alpha to establish reliability, .6 (family) and .65 (provider) are considered minimally reliable (George, & Mallery, 2003; Kline, 2000; Cohen, Manion, Morrison, 2007). The reliability can be strengthened by reviewing the wording of the questionnaires, standardizing and controlling the conditions in which the data collection takes place, and increasing the sample size for each questionnaire (Cooper & Schindler, 2001). These additional steps were taken and the Cronbach's Alpha for the revised questionnaire was .788 (reliable) for families and .663 (minimally reliable) for coaches (Cohen, Manion, Morrison, 2007).

Questionnaires were distributed when staff from the program visited in the homes of the families. Each family was given a return envelope and information to access the questionnaire electronically, if they wished. To increase the likelihood that the questionnaire would be returned, families were told that their names would be included in a drawing for \$50 gift certificate to Amazon.com when their questionnaire was received. Although the questionnaire was anonymous, families were required to sign the consent

form before participating in the questionnaire. Follow-up on nonresponses was not possible because families were protected by confidentiality commitments of the Early Learning Services Program. Despite the extra incentives, the pilot produced a low number of responses from both families and providers (families 9/30, providers (3/5).

Pilot summary. The pilot was a sample size of 9 out of 30 families and 3 out of 5 coaches. Reliability for both questionnaires was determined using Cronbach's Alpha. Families who participated were highly educated with an income range similar to Idaho's family average salary (\$47,015). They have a moderate to high number of children's and adult's books in their homes. In addition they include literacy activities for their child in their daily routines. Coaches have a range of experience working with young children from 1-5 years to 10+ years. They use books during their visits and also recommend books to families.

Families. The nine families who responded to the pilot questionnaire were moderately educated (\bar{x} and M=college educated) and reported a range of salaries between \$10,000 and \$60,000+ (\bar{x} =\$40,000-\$49,000, M=\$50,000-\$59,000). Two participating families have a child under the age of 12 months and seven families had children between 24 and 34 months of age. In addition, families stated they had between one and five additional children (\bar{x} =2.33, M=2). Families report they have a moderate to high number of children's books (\bar{x} =25-49, moderate, M=50+, high) and adult books (\bar{x} =25-49, moderate, M=50+, high) in their home and read 10-30 minutes to their child daily. They state they show their children that reading and writing is a part of everyday life by involving them in literacy activities during their daily routines (aggregated \bar{x} =3.53,

M=3.72 out of 4, with moderate frequency).

Coaches. A small number of coaches (N=3) responded to the pilot questionnaire., Out of the three responses, two coaches state they have 1-5 years of experience and one had 10+ years' experience. The participants were asked if they recommend or use books while visiting families. Their responses indicate they use books during 21%-50% of their visits (\bar{x} =3.00, M=3.00) and recommended books during 1%-20% of their visits (\bar{x} =2.66, M=2.00). They all agree or strongly agree that with the support of their team, they feel qualified to support literacy goals for children.

Data Collection Procedures

Prior to questionnaire distribution in the pilot study, and for the statewide study, the research proposal was submitted and reviewed by the University of Idaho, College of Education. Permission to carry out the study was obtained from by the Human Assurance Committee at the University of Idaho to assure all ethical concerns regarding the confidentiality and anonymity issues were appropriately addressed.

Initial contact with the ITP state program staff was made to describe the importance of the survey to their program. In addition, an orientation to the survey was held to provide an introduction to the regional ITP representatives during their monthly meeting.

This step was necessary to build support and credibility with the regional coaches and families.

The coaches were given talking points to help introduce the survey to the families and additional packets of questionnaires were made available for distribution to families they visited. Both coaches and families who volunteered to participate were asked to sign a consent form, fill out the questionnaire, and either mail the packet directly to the researcher or fill out the questionnaire online.

Once the questionnaires were returned the researcher attempted through several email communications and phone calls to the ITP coaches to encourage both their participation and the participation of families. Due to confidentiality, the researcher was not allowed to contact families directly; therefore, the return rate of questionnaires for families could only be encouraged by the ITP staff.

Data Analysis

Data from both questionnaires were analyzed using the statistical program Minitab17 and Excel to perform descriptive and non- parametric statistical tests. Once the data were collected, a box plot, histogram, and scatter graph in Minitab 17 were reviewed. The distributions from the data deviated from a normal curve on the majority of the variables, verifying the appropriateness of using non-parametric statistics. (Gibbon, 1993; Hollander, & Wolfe, 1999; Sprent, & Smeeton, 2007). A description of data analysis is provided for each research question.

Research Question 1. What is the perceived value of home literacy and emergent literacy activities for children with disabilities from the perspective of families and coaches?

Families. To address research question one on families' perceived value of literacy, descriptive statistics were summarized in mean and median scores as well as aggregate

mean and median scores. To assess the perceived value of adult literacy in each household, ordinal scale items 9 and 10 were used. Answers to item 9 were coded post hoc to assess value (i.e., low value, marginal value, moderate value, and high value. Item 10 on the family survey was used to assess the extent that adults engage in literacy and screen time activities. Perceived value was obtained based on the extent of “use” of each activity (i.e., Do not Use =1, Once Or Twice= 2 Once a Week= 3, Daily=4).

To assess perceived value of literacy activities for the child, Items 3 through 8 and 11 and 12 were analyzed with mean and median scores on Likert type questions. Perceived value is indicated through a post hoc scale of value (None= 1, Low=2, Moderate =3, high equals=4). Perceived value of literacy for children based on amount of time engaged in screen related activities was reversed. A score of (1) related to higher perceived value where as a score of 4 was a lessor value.

Coaches. Perceived value of literacy activities for ITP coach respondents was derived from items one and six on the coach survey and interpreted based on mean and median scores. Item one was collapsed, post hoc, for ease of interpretation in to three categories. (i.e., ages 0-12 months, 1-2 years, and 2-3+ years). Some statements (statements 3 and 6) on item six were reversed post hoc to establish orientation of agreement. These two statements were initially written so that a “Strongly Disagree” indicates a positive perceived value and “Strongly Disagree indicates a negative perceived value. The reversal allowed for a meaningful interpretation of mean and median scores across respondents.

Research Question 2. What is the relationship between the demographics of the families and coaches and their perceived value of literacy?

Spearman’s rho, a non-parametric statistical procedure was used to measure the

degree or strength of relationship between demographic variables of families and selected coach variables. There are two assumptions associated with this correlation. The first is that data are ordinal. The second assumption is that there is a monotonic relationship between the variables, in other words as the value of one variable increases so does the other or as the value increases the other variable decreases. Scatterplots were used to verify these assumptions.

Portions of the data provided for the demographic section in both coach and family questionnaires were recoded to ordinal data (i.e. coach-position held in ITP, years of experience family-relationship to the child, race, level of education, and salary range).

Research Question 3. To what extent do families express concern about their child's skill development in communication, language, and literacy, and to what extent are communication, language and literacy goals are reflected in the IFSP?

Research question three was assessed through responses to questions 13 and 14 from the family survey using descriptive statistics and cross tabulations to identify relationships between family concerns, age and disability categories. Because multiple categories of disabilities could be selected by family participants, analysis through a correlational statistics was not possible. Cross tabulation calculations were established for concern in language, communication, and literacy across age and disabilities categories.

Research Question 4: To what extent do ITP coaches intentionally use or suggest activities that promote early literacy in sessions with families?

Items two through five on the coach survey were used to assess intentional use of early literacy activities by coach participants. Descriptive statistics (mean and median scores) were calculated for each state based on the frequency of use of each strategy.

Frequency of use qualifiers (i.e., 1=Never, 2= Seldom, 3= Sometimes, 4= Often, and 5= Very Often) were incorporated post hoc and were used also to assess coaches perceived value of literacy.

Chapter 4

Results

Introduction

The purpose of this study was to identify the perceived value family members and Idaho Infant Toddler Program coaches (ITP) place on literacy and emergent literacy activities for young children with disabilities. The study contributes to research on literacy development for infants and toddlers with disabilities by examining: 1) the perceived value of home literacy and emergent literacy activities for children with disabilities from the perspective of families and coaches; 2) the relationship between the demographics of the families and coaches and their perceived value of literacy; 3) the extent that families express concern about their child's skill development in communication, language, and literacy, and the extent that communication, language and literacy are reflected in the IFSP; and 4) the extent that ITP coaches intentionally use or suggest activities that promote early literacy in sessions with families.

To collect data defining literacy perceptions and activities in the home by family members and coaches, the study participants answered one of two questionnaires. One questionnaire was given to families who participated in the (Part C) Program and the other was given to professionals who worked as family coaches through the Idaho Infant Toddler Program. The questionnaires are contained in Appendix A.

Return rates for the questionnaire varied greatly across regions of the state and in general were relatively low. Therefore the results of the study may not represent the full spectrum of families and coaches participating in the Idaho Infant Toddler Program. Generalizability of the results to a larger population is limited. Human service agencies

in Idaho are offered via seven regional geographic districts (See Appendix B for State Map of regions). For the family questionnaires, Idaho Region 6 had the highest return rate at 17% and Idaho Region 3 had the lowest at 4%. The highest rate of return for the coach questionnaire was 22% from Region 6 and the lowest rate in Region 3 at 4%. There were a total of 183 families and 72 coach questionnaires analyzed. The return rates for families and coaches by region are available in Table 1.

Table 1

Questionnaire Distribution and Return Rates

Region	Family Questionnaires		Coach Questionnaires	
	Distributed	Received	Distributed	Received
1	227	31	30	14
2	116	17	30	7
3	272	20	30	3(4%)
4	578	23 (4%)	33	12
5	169	13	33	8
6	201	34 (17%)	33	15 (22%)
7	316	45	33	13
Total	1879	183	222	72
		9.73% return rate		32% return rate

The results section of the paper is organized first by a presentation of the demographic variables of the participating families and coaches. Next, research questions will be addressed, each followed by a summary of findings. In the presentation of Research Question One, related to the perceived value coaches' place on early literacy, findings related to Question Four about coaches' intentional use of strategies that

promote literacy is also presented. Findings related to Research Questions 2 and 3 follow in order.

Demographics of Questionnaire Sample

Family demographics. The demographic variables collected on families included education, income, race, relationship of participant to the child in the family with a disability, age of the child and their disability category. The demographic variables for the ITP coaches were profession, specific role on the coaching team, years working with children 0-3, and years working for ITP.

Education. Table 2 provides information on the education level of participating family members. There were 174 participants (95% of sample) who responded to this portion of the questionnaire.

The level of education was divided into six categories ranging from some high school to graduate degree. The majority of participants (84%) indicated they had received education beyond high school. In addition, 41% of the sample earned a college degree and another 10% received graduate degrees. A total of 51% of the sample population had a college or beyond degrees compared to 24% of Idaho's overall population (US Census, 2010). The results of the study should be interpreted with caution, since the volunteer sample was not evenly distributed among education levels more common to the general Idaho public.

Table 2

<i>Highest Educational Level</i>		
Highest educational level	N	%
Some high school	9	5%
High school or GED	18	10%
Vocational training	4	2%
Some college	55	31%
College degree	71	41%
Graduate degree	17	10%
<u>Total</u>	<u>174</u>	<u>100%</u>

Salary. Family member respondents to this questionnaire were asked to choose the salary range that best represented their family's income. On the questionnaire, income levels were divided into seven \$10,000 increments. Examination of the distribution table reveals the spread of incomes across this sample was not normally distributed (Table 3). The data was bimodal with strong representation in the lower salary range (41%) and medium high (36%) salary range. The median salary was used to compare salary categories. In this case, the median salary range for families participating in the questionnaire is \$30,000-\$39,000, which is lower than the median income for Idaho which is \$47,015 (US Census, 2010).

Table 3

<i>Families' Salary Range</i>				
Family salary	N	%	Total	
Low				
0-\$9,900	17	10%	n	41%
\$10,00-\$19,900	25	14%	71	
\$20,000-\$29,900	29	17%		
Medium Average				
\$30,000-\$39,900	20	11%	n	23%
\$40,000-\$49,900	21	12%	41	
Medium High				
\$50,000-\$59,000	14	8%	n	36%
\$60,000+	48	28%	62	
<i>M</i> =\$30,000-\$39,000	174	100%		
Total				

Race. A total of 180 respondents (98% of the sample) responded to the question identifying their predominant race as present in Table 4. The largest race category was White (87%) with Hispanic a distant second (9%). This sample aligns with the United States Census Bureau demographics for Idaho which describes the state as White at 83% and Hispanic 11% (US Census Bureau, 2013).

Table 4

<i>Race of Family Member</i>		
Race	N	%
White	156	87%
Black, African American	2	1%
American Indian	3	2%
Other Asian	1	.6%
Other Pacific Islander	1	.6%
Hispanic	17	9%
Total	180	100%

Relationship to the child. The relationship of the family member completing the questionnaire was divided into five categories. The highest participant category was Mother (90%) with the remaining categories all falling below 5%. There were a total of 183 responses (100% of sample). See Table 5 for categories, number and percent of responses.

Table 5

<i>Relationship of the Participant to the Child Enrolled in ITP</i>		
Participant categories	N	%
Mother	164	90%
Father	8	4%
Grandparents	3	2%
Foster Parents	4	2%
Other	4	2%

In addition, families were asked to indicate how many additional children lived in the home (See Table 6). Categories describing families who have one or two additional children represented 58% of the sample. There were a total of 176 responses (96% of sample).

Table 6

Additional Children in Family by Count and Percent of Total

Number of children in the family	N	%
0	3	2%
1	39	22%
2	64	36%
3	33	19%
4	21	12%
5	10	6%
6	3	2%
7	3	2%
Total	176	100%

Age of child. The date of birth for each child with a disability in the sample was calculated in months and combined into categories by years. Distribution of the data in six months intervals is represented in Table 7. A total of 171 respondents (93% of the sample) provided the age of their child.

Table 7

Age of the Child by Months

Age by months	N	%
0-5.9	8	5
6-11.9	20	12
12-17.9	8	5
18-23.9	24	14
24-29.9	39	23
30-36	72	42
Total	171	100

Category of disability. The three main categories of disability that qualify children for ITP services were listed as: 1) developmental delay with subcategories (motor development, cognitive development, communication development, social or emotional development, and adaptive development); 2) medical diagnosis; and 3) at risk for delay with subcategories (biological, environmental, and other risk factors such as low birth weight or premature birth). Participating family members were able to mark more than one category and subcategory to describe their child's delay or disability. Therefore, up to ten different qualifying subcategories were identified by families in this sample.

Table 8 displays categories of disabilities identified for the children of the participating family members. Developmental delay was identified by the largest number of families, and medical diagnosis was identified by the smallest number of family participants. Across all subcategories, communication was identified by the most respondents, and environmental risk factors were identified by the least number of participants. However, the majority of the families described their child as having multiple disabilities or delays.

Table 8

Categories of Qualification as Identified by Families

Qualifying category 1	N	Qualifying category 2	N	Qualifying category 3	N
Developmental delay		Medical diagnosis	57	Risk Factors	26
Developmental delay	104			Biological	29
Motor development	57			Environmental	14
Cognitive development	39			(3%)	
Communication	117			Other	15
development (23%)					
Social or emotional	36				
development					
Adaptive development	23				
Total	73%	11%	57	16%	84

Coach Demographics. Positions. A total of 72 professionals (coaches) completed the questionnaire. The sample consisted of staff or contractors working with families for the Infant Toddler Program (ITP). All respondents were considered the primary coach for at least one family in the infant toddler program. The question on the questionnaire asked respondents to “indicate the position(s) you hold with the Infant Toddler Program”. Thus, more than one category could be marked. For example, 43 respondents indicated they were a primary coach but may have also indicated they were considered a developmental specialist, or a speech pathologist. Table 9 lists the professional positions of the respondents completing the ITP coach questionnaire.

Table 9

Number of ITP Staff Participating by Position

Positions	N	%
Primary coach	43	55
Developmental specialist	21	27
Occupational therapist	4	5
Physical therapist	0	0
Speech and language therapist	8	10
Social worker	1	1
Service coordinator	0	0
Other	1	1

Years of working in the field. Family coaches indicated how many years they had worked with infants and toddlers. A total of 63 coaches responded to the question (86% of the sample). A total of 74% indicated they had six or more years of experience in the field. Coaches new to working with young children (less than one year) were 6% of the participants. See Table 10 for years of experience for ITP coach participants.

Table 10

<i>Years Working in the Field</i>		
Years	N	%
Less than one year	4	6
1-5 years	12	19
6-9 years	14	22
10+ years	33	52
Total	63	100

Years at ITP. Participating coaches were asked how long they had worked for the Infant and Toddler Program specifically. There were 61 responders to this question (85% of the sample). Again, a large portion of the participants (64%) indicated they have been employed with ITP for more than 6 years. Coaches new to the ITP program represented 13% of respondents. The categories and number of responses are located in Table 11.

Table 11

<i>Years Employed at ITP</i>		
Years	N	%
Less than 1	8	13
1-5	14	23
6-9	13	21
10+	26	43
Total	61	100

Summary of demographic information. There were a total of 183 family members and 72 ITP coaches who responded to the questionnaire. In the family questionnaire, 90% of those who participated indicated that they were the mother of the child in the ITP program. The majority of family participants indicated that they have additional children ranging from one additional child to seven. The ages of young children with disabilities living with the responding family members ranged from 12 months or younger (17 % of the sample), 24 months (19% percent of sample) and 36 months (65% of the sample). The majority of the families indicated that their child who qualified for ITP services has multiple disabilities/delays and the largest qualifying category was developmental delay (73%). Table 8 lists the categories of qualification.

Families are represented by two main categories for race (White (87%) and Hispanic (9%)). Additional races were represented by only one or two participants. These percentages align with the general population in Idaho. It is important to note that 51% of the participants stated they had completed a college or graduate degree (24% is typical for Idaho, U.S. Census). However, the income levels of families who participated in the survey were bi-modally distributed in both the lower salary range and medium high salary range. The median income for the sample was between \$30,000 and \$39,000, lower than Idaho's median income or \$47,015/family, (U.S. Census, 2008-2012). Income and education levels of families represented within sample is an important variable to consider because previous researchers have determined that income and education are considered to be highly influential variables for emergent literacy development (Snow et al, 1998; Brooks-Gunn, Duncan, 1997; Klebanov, Brooks-Gunn, McCarton, & McCormick, 1998;

Whitehurst, 1997; NRC, 2000, Hecht, et al, 2000; Noble, 2006; McDowell, 2007; Aikens, 2008; Morgan, Farkas, Hillemeier, & Maczuga, 2009; Hall, 2011). While the median income level was lower than the median income for all Idahoans, the education level reported was higher. Also, a large number of respondents' income was reported in the medium high range.

The ITP coaches represented experienced staff and contractors. The majority (52%) indicated they had been working with infants, toddlers, and their families for 10+ years and 22% of the participants had 6-9 years of experience. There is a similar distribution to describe number of years participants had been worked for ITP. Those with 6-9 years represented 21% of the sample and 10+ years represent 48% of the sample. Responses by participants represent staff and contractors with a high number of years working with children and familiarity with the ITP model of delivering services.

Results of the study should be considered with caution. The sample size was small due to a low return rate. The education of the families who participated was relatively high in comparison to the average education level for Idaho families and the income levels reported were not normally distributed and even though the income levels were bimodal many participants were in the upper range of the low to medium income and even more were in the higher income bracket. Thus, due to the homogeneous nature of the sample it is difficult to generalize to a broader population.

Analysis of Research Questions

Research question 1: What are the perceived values of literacy and emergent literacy activities for children with disabilities from the perspective of families and coaches?

Families Perceived Value of Adult Literacy. Perceived value of literacy for adults living in the family home was derived from items 9 and 10 on the family questionnaire (See Appendix A). Item 9 asked family member participants to identify the number of books other than children's books located in the family home. The responses are located in Table 12 and categorized as low value (0-9 books), marginal value (10-24 books), moderate value (25-49 books), and high value (more than 50 books). A comprehensive international study using data from 27 nations and analyzing over 70,000 cases, determined that as few as 20 books in the home has a positive impact on the development of emergent literacy skills for children. If the home has less than 20 books there appears to be no impact (Evans, 2010).

Table 12

Families' Perceived value of Adult Literacy Number of Books, Other than Children's Books

Variable	1 0-9 (Low)	2 10-24 (Marginal)	3 25-49 (Moderate)	4 More than 50 (High)
Estimate the total number of books, other than children's books, in your home.	18 10%	28 16%	24 13%	108 61%
N 178 Mean 4.21/Median 5.00 SD 1.15				

A total of 178 family members (97% of the sample) responded to this question. The results show that a large portion of sample (61%) indicated they had over 50 non-child related books in their homes. While only 10% of the sample indicated that they had zero to nine books in their homes. Overall, 74% of the sample (n=132) identified the number of non-child related books in the home in the moderate to high level of value.

Item 10 on the questionnaire asks family members to respond to the kinds of activities in which adults in the home engage that are linked to perceived value of literacy. Table 13 displays the results for adult literacy activities. Total participants for this section range from 146 to 161 (74%-76% of sample). A four-point Likert scale ranging from ‘do not use’ to ‘use daily’ was analyzed to identify participants’ perceived value of adult activities.

Table 13

Perceive Value of Literacy based on Adult Reading Activities

Variable	1	2	3	4
Descriptive Statistics	Do not use (None)	Once or twice per week (Low)	Once a week (Moderate)	Daily (High)
Read books N 161 Mean 3.53 Median 4.00 SD .8806	8 5%	18 11%	15 9%	120 75%
Read magazines N 155 Mean 2.25 Median 2.00 SD .972	38 25%	59 38%	38 25%	20 13%
Read catalogs N 154 Mean 1.78 Median 2.00	75 48%	47 31%	23 15%	9 6%
Read newspapers N 146 Mean 2.13 Median 2.00 SD 1.17	64 44%	27 18%	27 18%	28 19%
Aggregated mean	2.78			
Aggregate median	3.00			

In this sample, 75% of the respondents indicated that they read books daily. Other activities (i.e., reading magazines, catalogs, and newspapers) were rated as occurring less often than “reading books” which resulted in an overall mean across activities of $\bar{x} = 2.78$,

with an aggregate median at 3.00. However, because book reading was so prevalent among the sample (n=161) and the number of books overall in family homes tended to be high among this group, the interpreted finding is that the sample of family members who participated in the study value adult-based literacy. This may or may not be representative of all families' participating in the Idaho ITP and because of the homogeneous nature of the sample this finding should not be generalized to a broader population.

Family member respondents in this sample also indicated that they often participate in screen-time activities. See Table 14.

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Family member respondents in this sample also indicated that they often participate in screen-time activities. See Table 14.

Table 14

Adult Reported Screen Time Activities

Adult screen time variables descriptive statistics	1 Do not use	2 Once or twice	3 Once a week	4 Daily
How often do you use computers for internet searching? N 170 Mean 3.52 Median 4.00 SD .986	19 11%	4 2%	16 9%	131 77%
How often do you use social media? N 175 Mean 3.34 Median 4.00 SD 1.170	27 15%	8 5%	19 11%	121 69%
How often do you use ipad/tablets? N 165 Mean 2.39 Median 2.00 SD 1.422	80 48%	6 4%	13 8%	66 40%
How often do you play games on computers or other electronic devices? N 176 Mean 2.60 Median 3.00 SD 1.273	56 32%	22 13%	33 19%	65 37%

A large percent of the sample (n=131, 77%) indicated that they use computers for internet searching at least daily and another 69% of the sample (n=121) indicated that they use social media daily as well. Use of iPads or other tablets for this population was distributed bi-modally between do not use and use daily. Computer game use was distributed between do not use and use daily with 32% of the sample indicating that do not use and 37% indicating that they use computer games daily. Screen time for adults in this sample does not seem to reflect on perceived literacy value in the home. But the computer literacy of the sample is interesting to note and may be due to the relatively higher education level than would be expected in Idaho.

Perceived value of early literacy activities for the child. Family members' perceived value of early literacy activities for children with disabilities was derived from items 3, 8, 11, and 12 on the family questionnaire. Table 15 displays family participant responses about how often books are read with their child and Table 8 displays how many children's' books are in the home.

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Perceived value of early literacy activities for the child. Family members' perceived value of early literacy activities for children with disabilities was derived from items 3, 8, 11, and 12 on the family questionnaire. Table 15 displays family participant responses about how often books are read with their child and Table 8 displays how many children's' books are in the home.

Table 15

Amount of Time Reading to Child and Number of Children's' Books in the Home

Variables	1	2	3	4
Descriptive Statistics	None (none)	10 minutes or less (low)	between 10 and 30 minutes (moderate)	more than 30 minutes (high)
How much time do you or your family members spend reading to your child each day?	5 2.87%	53 30%	95 55%	21 12%
N	174			
Mean	2.76			
Median	3.00			
SD	.6962			

On the question of how much time do you read to your child per day, 32.87% of the sample (n=58) indicated that they read between zero to 10 minutes or less per day. Another 116 family respondents indicated that they read to their child with a disability between 10 minutes a day to more than 30 minutes a day. As described in Table 8, a total of 59% of the sample (n=106) indicated that they had more than 50 children's books in the home and 22% indicated they had 25 to 40 children's books in the home. Only a relatively small number indicated they had none or 10 to 24 children's books. Taken together, the number of children's books in family homes and the average amount of time family members read to their children with disabilities indicates that this sample of families value literacy at least moderately. It should be noted that the categories in both questions may have been too broad to estimate perceived value. For example, the difference between reading 10 minutes or less a day and reading between 10 and 30 minutes a day may not accurately reflect the actual amount of time families spend reading to a child, since both categories could have reflected 10 minutes of reading. The crude metrics makes an overall conclusion difficult.

Another variable related to perceived value of early literacy is the amount of screen time available to a child in the home. More screen time is inversely related to literacy development (Rideout et al, 2003), Vandewater, et al, 2007). The American Academy of Pediatrics recommends no screen time for children under 2 and no more than 2 hours for children older than two (AAP, 2009, 2010, 2011a, 2011b). Table 16 reflects the number of minutes of screen time across categories of screen types (TV, computer, videos, and other media). Again, the measure is relatively crude and should be interpreted with caution.

Table 16

<i>Amount of Screen Time for Children</i>				
Child Screen Time Variables	None	Less than 30 minutes	Between 30 and 60 minutes	Between 60 or more minutes
Descriptive Statistics	1	2	3	
How much time per day does your child spend watching TV? N 180 Mean 2.54 Median 3.00 SD 1.135	43 24%	46 26%	41 23%	50 28%
How much time per pay does your child spend watching videos or other media? N 177 Mean 2.11 Median 2.00 SD 1.102	71 40%	42 24%	37 21%	27 15%
How much time does your child spend interacting with a computer or tablet such as an iPad? N 178 Mean 1.60 Median 1.00 SD .885	106 60%	50 28%	9 5%	13 7%

The amount of television watched by children in this sample was bimodal with 51% of the sample (n= 91) indicating that their children watched television for 30 to 60 plus minutes a day. While 50 % (n=89) indicated that their children watched either no television or less than 30 minutes per day. For videos and other media, 40% of the respondents (n=71) indicated that their children did not watch videos or other media at all. While another 24% (n=42) indicated that their children watched 30 minutes or less of videos and other media per day. A large number of respondents indicated their children did not interact with computers or tablets at all (n=106, 60%). While 50 respondents (28%), indicated their children interacted with a computer or tablet less than 30 minutes per day. It is apparent that computers, tablets, videos, and other media were not common activities for children in this sample, even though many responding family members indicated that they use computers often themselves.

The data presented on screen time, number of children books, and number of minutes children are read to suggest that families in this sample seem to value early literacy at least to a moderate degree. Again, because the distinction between categories was relatively crude, it remains difficult to makes conclusions with certainty.

Table 17 displays family member responses on how often they participate in various early literacy activities with their child (Item 11 on the family questionnaire).

Table 17

Early Child Literacy Activities

Descriptive statistics	Do not use	Once or twice per month	Once per week	Daily
	(None) 1	(Low) 2	(Moderate) 3	(High) 4
How often do you make lists with your child? N 170 Mean 1.78 Median 1.00 SD 1.08	102 60%	21 12%	29 17%	18 11%
How often do you write words with your child? N 170 Mean 2.11 Median 1.50 SD 1.07	86 50%	14 8%	38 22%	32 19%
How often do you color with crayons, markers with your child? N 179 Mean 3.13 Median 3.00 SD 1.0495	25 14%	13 7%	55 31%	86 48%
How often do you paint with your child? N 176 Mean 2.06 Median 2.00 SD .9571	63 36%	51 29%	50 28%	12 7%
How often do you use chalk with your child? N 171 Mean 1.97 Median 2.00 SD 1.0142	76 44%	38 22%	43 25%	14 8%
How often do you label items with your child? N 172 Mean 1.967 Median 1.00 SD 1.213	95 55%	22 13%	21 12%	34 20%
How often do you participate in puzzles with your child? N 174 Mean 2.72 Median 3.00 SD 1.11	35 20%	32 18%	53 30%	54 31%
How often do you use magnetic letters with your child? N 172 Mean 2.22 Median 2.00 SD 1.263 Aggregate Mean 1.85 Aggregate Median 1.94	78 45%	23 13%	27 16%	44 26%

Overall, family member participants indicated that early literacy activities with their children is limited with the exception of coloring (48%, n=86). The categories that were represented in 'do not use' were much more frequent. Families indicated they 'do not' make lists (60%), label items (55%), write words (50%), provide magnetic letters (45%), or use chalk (44%). The aggregate mean for early literacy activities was $x = 1.85$ and the $M=1.94$. Table 18 displays responses related to how often families engage in routines with their child that promote early literacy skill development. As shown, family respondents in the sample indicated that they name objects in everyday settings daily (97%, n=169), talk to their child during routine household tasks (93%, n=162), repeat a child's string of sounds (92%, n=161), point to print while reading to child (87%, n=151), sing and play rhyming games (83%, n=145), and reread a favorite book (83%, n=145). The lowest response "do not use" indicated by 55% of the families (n=95) was "encourage child to tell about their drawing and write down their words" which supports the notion that while this group of families engage in a lot of verbal routine activities that are known to encourage literacy development, the families don't tend to engage with their children with disabilities in more concrete early literacy tasks such as writing and drawing.

Table 18

Family Routines that Incorporate Early Literacy Activities during Daily Routines

Descriptive statistics	Do not use (None) 1	Once /twice per month (Low) 2	Once per week (Moderate) 3	Daily (High) 4
How often do you talk to your child while completing routine activities (shopping, etc.)? N 174 Mean 3.90/Median 4.00 SD .3663	0	4 2%	9 5%	162 93%
How often do you name objects and people in everyday settings? N 174 Mean 3.95/Median 4.00 SD .344	2 1%	0	3 2%	169 97%
How often do you repeat your child's strings of sounds? N 175 Mean 3.82/Median 4.00 SD .6500	7 4%	3 1%	4 2%	161 92%
How often do you draw your child's attention to print you see throughout the day? N 175 Mean 2.94/Median 3.00 SD 1.190	37 21%	18 10%	39 22%	81 46%
How often do you engage your child in singing, nursery rhymes, and rhyming games? N 175 Mean 3.74/Median 4.00 SD .6385	5 3%	4 2%	21 12%	145 83%
How often do you reread your child's favorite book(s)? N 173 Mean 3.75/Median 4.00 SD .6115	3 2%	7 4%	20 11%	145 83%
How often do you focus your child's attention on books by pointing to words and pictures as you read? N 174 Mean 3.79/Median 4.00 SD .6229	5 3%	4 2%	14 8%	151 87%
How often do you provide materials to encourage drawing and scribbling (e.g. crayons, paper, markers, finger paints)? N 175 Mean 3.34/Median 4.00 SD 1.0314	21 12%	10 6%	33 19%	111 64%
How often do you encourage your child to describe or tell a story about his/her drawing and write down the words? N 173 Mean 2.08/Median 1.00 SD 1.290 Aggregated Mean 3.47 Aggregated Median 3.56	95 55%	12 7%	24 14%	42 25%

The aggregate mean and median scores (3.47 and 3.56 respectively) indicate that families tend to engage in routines that involve verbal interaction more than drawing and writing activities. These two early activities are appropriate for children within ITP, especially since the demographics of the questionnaire indicate 65% of the children are between ages 24 and 36 months. The low responses in these areas indicate an area of emergent literacy development that coaches could highlight in their family visits.

Coaches' perceived value of early literacy for children served in the ITP and intentional use of early literacy activities (Research Q1 and Q4). Perceived value of literacy and intentional use of early literacy activities for ITP coach respondents were derived from six coach questionnaire items (Items 1, 2, 3, 4, 5, and 6 in Appendix A). Item 1 on the coach questionnaire asked participants to determine the earliest age in which to incorporate communication, language, and literacy goals for children in the program. For ease of interpretation, five response categories were collapsed to three categories (i.e., ages 0-12 months, ages 1-2 years, and 2-3+ years). The results are summarized in Table 19.

Table 19

Earliest Age to Incorporate Emergent Literacy Goals

Coaches perceived value of literacy	2-3+ years	1-2 years	0-12 months
In your opinion, what is the earliest age to incorporate communication, language and literacy goals for children in the program? N=69 Mean=2.86 Median=3.00 SD=.394	1 1%	8 12%	60 87%

Overall, the coach responses (n=60, 87%) indicate support for introducing literacy goals in the youngest category (ages 0- 12 months) suggesting they place value on early literacy for children with disabilities. Only a few coaches indicated early literacy should begin at ages 1-2 years (n=8 12%), and only one coach indicated that early literacy should begin with children at age 2-3+ years.

To further assess ITP coaches' perceptions on the value of early literacy, four statements from item six on the coach questionnaire related specifically to literacy were analyzed (i.e., statements 3, 6, 9, and 12). Responses that related to language and communication were not included in the analysis because they did not seem to differentiate perceived value of early literacy. That is, the responses between literacy, language and communication statements were all very similar across statements. To view a summary of all the responses to item 6 on the coach questionnaire see Appendix B.

To accurately assess perceived value of literacy from the coach perspective, a mean score was required. For each of the statements used in the analysis a Likert scale response was divided into four categories: strongly disagree, disagree, agree, and strongly agree. However, in two of the four statements a strongly disagree indicated a higher perceived value of literacy. Therefore, for interpretation purposes and to obtain overall mean and

median scores, the two statements were reworded and the obtained responses were reversed so all response ratings would reflect either a high value (strongly agree) or a low value (strongly disagree). Table 20 displays the results. The reversal did not change the direction of value.

Table 20

Coaches' Perceived Value of Literacy

Coaches perceived value of literacy	Strongly disagree (low) 1	Disagree (moderately low) 2	Agree (moderate) 3	Strongly agree (high) 4
Every primary coach or provider involved with the team should discuss literacy strategies with families/caregivers if the child has goals in that area. N =68 Mean 3.58 Median 4.00 SD .851	5 7%	1 1%	11 16%	51 75%
Literacy goals should be addressed by all ITP coaches and not only by speech and language therapists. (Reversed Question and Responses) N 69 Mean 3.67 Median 4.00 SD .4972	3 4%	2 3%	10 14%	54 78%
Supporting literacy goals should not be addressed only through the activities and materials I provide for the family. (Reversed Question and Responses) N=69 Mean=3.75 Median=4.00 SD .4972	0	2 3%	3 19%	54 78%
Supporting literacy goals should only be addressed through the activities and materials found within their natural setting. N=69 Mean=2.62 Median=3.00 SD .893 Aggregated mean =3.41 Aggregated median =3.75	8 12%	21 30%	29 42%	11 16%

Overall, on the first three statements the majority of coaches indicated strong agreement (75%, 78%, and 78% respectively) suggesting that they value early literacy. The fourth statement was more equivocal. That is, only 16% of the sample indicated that they strongly agreed that coaches should support literacy goals only through activities and materials found in the natural setting. While 42% agreed with the statement and 30% disagreed. In retrospect, this statement neither supports nor doesn't support perceived value of early literacy. The results simply indicate that coaches don't agree that materials should only be used from the natural environment. The point of distinction is the word "only". It is considered "best practice" to use materials found in the family home or natural environment to support learning activities of infants and toddlers with disabilities (Bruner, & Dunst 1999, Hart, & Risley, 1995; Odom, Favazza, Brown, & Horn 2000, Raab, M. & Dunst, C. J. (2004)), however, in some circumstances, materials in the natural environment might be scarce, thus the necessity to occasionally supplement materials, and consequently, the equivocal responses by the experienced coaches in this sample.

Items 2-5 on the coach questionnaire were used to assess intentional use of early literacy activities in home-based sessions with families and children. Intentional use is also an indication of perceived value. Table 21 displays the results for each items based on a percent of sessions literacy type activities are incorporated with the families from never to very often.

Table 21

Coaches Intentional Use of Literacy Activities

Indicate the percentage of sessions during which books are used.	0	17 25%	22 32%	26 28%	3 4%
N=68 Mean=3.22 Median=3.00 SD=.878					
Indicate the percentage of sessions during which books are recommended to families.	0	10 15%	24 36%	29 43%	4 6%
N=67 Mean=3.40 Median=3.00 SD=.878					
Indicate the percentage of sessions during which rhymes, songs and finger plays are used.	0	22 32%	29 43%	13 19%	4 6%
N=68 Mean=2.99 Median=3.00 SD=.872					
Indicate the percentage of sessions during which rhymes, songs and finger plays are recommended to families each visit.	0	19 28%	27 40%	19 28%	3 4%
N=68 Mean=3.09 Median=3.00 SD=.859					
Aggregate Mean 3.18 Aggregate Median 3.00					

As shown, 60 % (n=48) of the coaches indicated that they use books with families sometimes or often. Coaches who indicated they recommended books for families either sometimes or often was a bit higher at 79% (n=53). Coach use of rhymes, songs, and finger play during sessions with families was indicated by 62 % (n=42) of the coaches and 68% (n=46) of the coaches recommended these strategies to parents. The aggregate mean (\bar{x} = 3.12) indicates that the majority of the coach respondents report that they engage in important literacy activities or recommend literacy activities with families at least some of the time or often. Although, as pointed out earlier, the lack of clear differences between categories makes interpretation difficult. It would seem, however, that this group of

coaches value incorporation of strategies that support literacy development of young children with disabilities.

Summary of perceived value of literacy by families and coaches.

Family perceived value of literacy. Family participants indicated that as adults they tend to read and use computers more often than they engage in other media activities. The family participants also indicated that their children with disabilities don't engage in a lot of screen time activities with the exception of some television. The number of hours of screen time is conversely related to early literacy development. However, overall, this group of family participants indicated that screen time for the children with disabilities was limited. Families did not tend to engage in early literacy activities that were specific to writing and drawing with their children, but did engage in routine activities that involved verbal interactions related to fostering early literacy. Families were able to identify activities they do throughout the day that benefited their child's literacy growth. However, when activities were listed out of context of daily routines, families stated they were less involved, perhaps indicating a limited knowledge of how to support their child in these areas. Because family participants indicated that they had no or low participation in writing and drawing type activities, this is a potential area of training and greater involvement by infant-toddler coaches.

Also, because the questionnaire instrument included categories with overlapping responses, it was difficult to clearly identify the value families place on early literacy. A recommendation for future research would be to use very distinct categories that don't overlap and other methods for gathering family perception, like focus groups and interviews.

Coach perceived value of literacy. Overall, the coaches who participated in the questionnaire seemed to value early literacy activities for young children with disabilities. Many of the coaches indicated that early literacy should start before age 12 months and the majority used books or recommended use of books to families at least some of time or often. Coaches also indicated they use or encourage use of early literacy type activities such as rhymes, songs, and finger play in their sessions with families at least sometimes or often.

Overall, coaches agreed or strongly agreed that literacy activities should be presented to families by the primary coach rather than just a speech language specialist. They also agreed or strongly agreed that literacy activities should not only be addressed by materials and activities brought into the home but also to include materials available in the natural environment.

Coaching is a relatively new approach to intervention services for young children (birth to age 3). The coaching service relies heavily on the family to build skills and help their children overcome developmental delays, primarily through routine based interactions within the home and other natural environments. The perceptions of coaches in this study seem oriented toward family-based routines that encourage literacy, language, and communication skill building.

Further, the coach responses to this questionnaire could be more reflective of their adoption of the “coaching” model of service delivery, rather than on perceived value of early literacy activities. The statements in item 6 on the questionnaire more specifically relate to coaching rather than early literacy per se. In future research, a clear distinction between activities that promote early literacy and the coaching process as an intervention model should be assessed.

Research question 2: What is the relationship between demographic variables and perceived value of literacy of families and coaches?

Relationship between perceived value of literacy and demographics variables.

Perceived value of literacy for family participants was derived from responses to questions related to: 1) adult literacy activities, 2) child and adult early literacy activities, and 3) family routines that tend to promote literacy development. Correlational analyses between family and child demographics and perceived value are presented for adult literacy and then child related literacy. Coach responses were analyzed to identify relationships between perceived value and years of experience in general, and years of experience specifically in the ITP.

The questionnaires for both families and coaches produced ordinal scale data and did not approach a normal distribution which violates the assumptions of using a Pearson Product Correlation. Correlation coefficients were calculated using the non-parametric test Spearman's Rho Correlational Coefficient. Interpretation of the Spearman's Rho describes relationships as: 0-0.1 (weak), .11-.30 (modest), .31-.50 (moderate), .51-.80 (strong), and .81 and above (very strong). The levels of interpretation were provided by an educational statistics text often cited as an industry standard (Cohen, 2007). A test of statistical significance indicates the probability or the level of confidence we have that the correlation was not achieved by chance alone. Because there were only modest correlations identified across all variables, tests of statistical significance are not interpreted but can be supplied upon request.

Relationship of perceived value of adult literacy and family demographics. Table 22 provides the correlation coefficients between items indicating the perceived value adults

place on their own literacy activities and demographic variables (i.e. education, salary, number of children in the household and age of the child with a disability). The results indicate that there were no moderate or high relationships between perceived value of adult literacy and any of the demographic variables. How often do adults read books achieved a modest correlation with age of the child ($r = .19$), indicating that perhaps as the child grows, the responding family member has more time to read books. There were also modest correlations between education and salary with the number of children's books present in the family home ($r = .14$, and $r = .188$) indicating, perhaps, that salary and education co-vary with the number of books one can expect in a home.

As shown, 60 % ($n=48$) of the coaches indicated that they use books with families sometimes or often. Coaches who indicated they recommended books for families either sometimes or often was a bit higher at 79% ($n=53$). Coach use of rhymes, songs, and finger play during sessions with families was indicated by 62 % ($n=42$) of the coaches and 68% ($n=46$) of the coaches recommended these strategies to parents. The aggregate mean ($\bar{x} = 3.12$) indicates that the majority of the coach respondents report that they engage in important literacy activities or recommend literacy activities with families at least some of the time or often. Although, as pointed out earlier, the lack of clear differences between categories makes interpretation difficult. It would seem, however, that this group of coaches value incorporation of strategies that support literacy development of young children with disabilities.

Summary of perceived value of literacy by families and coaches.

Family perceived value of literacy. Family participants indicated that as adults they tend to read and use computers more often than they engage in other media activities.

The family participants also indicated that their children with disabilities don't engage in a lot of screen time activities with the exception of some television. The number of hours of screen time is conversely related to early literacy development. However, overall, this group of family participants indicated that screen time for the children with disabilities was limited. Families did not tend to engage in early literacy activities that were specific to writing and drawing with their children, but did engage in routine activities that involved verbal interactions related to fostering early literacy. Families were able to identify activities they do throughout the day that benefited their child's literacy growth. However, when activities were listed out of context of daily routines, families stated they were less involved, perhaps indicating a limited knowledge of how to support their child in these areas. Because family participants indicated that they had no or low participation in writing and drawing type activities, this is a potential area of training and greater involvement by infant-toddler coaches.

Also, because the questionnaire instrument included categories with overlapping responses, it was difficult to clearly identify the value families place on early literacy. A recommendation for future research would be to use very distinct categories that don't overlap and other methods for gathering family perception, like focus groups and interviews.

Coach perceived value of literacy. Overall, the coaches who participated in the questionnaire seemed to value early literacy activities for young children with disabilities. Many of the coaches indicated that early literacy should start before age 12 months and the majority used books or recommended use of books to families at least some of time or often. Coaches also indicated they use or encourage use of early literacy type activities

such as rhymes, songs, and finger play in their sessions with families at least sometimes or often.

Overall, coaches agreed or strongly agreed that literacy activities should be presented to families by the primary coach rather than just a speech language specialist. They also agreed or strongly agreed that literacy activities should not only be addressed by materials and activities brought into the home but also to include materials available in the natural environment.

Coaching is a relatively new approach to intervention services for young children (birth to age 3). The coaching service relies heavily on the family to build skills and help their children overcome developmental delays, primarily through routine based interactions within the home and other natural environments. The perceptions of coaches in this study seem oriented toward family-based routines that encourage literacy, language, and communication skill building.

Further, the coach responses to this questionnaire could be more reflective of their adoption of the “coaching” model of service delivery, rather than on perceived value of early literacy activities. The statements in item 6 on the questionnaire more specifically relate to coaching rather than early literacy per se. In future research, a clear distinction between activities that promote early literacy and the coaching process as an intervention model should be assessed.

Research question 2: What is the relationship between demographic variables and perceived value of literacy of families and coaches?

Relationship between perceived value of literacy and demographics variables.

Perceived value of literacy for family participants was derived from responses to

questions related to: 1) adult literacy activities, 2) child and adult early literacy activities, and 3) family routines that tend to promote literacy development. Correlational analyses between family and child demographics and perceived value are presented for adult literacy and then child related literacy. Coach responses were analyzed to identify relationships between perceived value and years of experience in general, and years of experience specifically in the ITP.

The questionnaires for both families and coaches produced ordinal scale data and did not approach a normal distribution which violates the assumptions of using a Pearson Product Correlation. Correlation coefficients were calculated using the non-parametric test Spearman's Rho Correlational Coefficient. Interpretation of the Spearman's Rho describes relationships as: 0-0.1 (weak), .11-.30 (modest), .31-.50 (moderate), .51-.80 (strong), and .81 and above (very strong). The levels of interpretation were provided by an educational statistics text often cited as an industry standard (Cohen, 2007). A test of statistical significance indicates the probability or the level of confidence we have that the correlation was not achieved by chance alone. Because there were only modest correlations identified across all variables, tests of statistical significance are not interpreted but can be supplied upon request.

Relationship of perceived value of adult literacy and family demographics. Table 22 provides the correlation coefficients between items indicating the perceived value adults place on their own literacy activities and demographic variables (i.e. education, salary, number of children in the household and age of the child with a disability). The results indicate that there were no moderate or high relationships between perceived value of adult literacy and any of the demographic variables. How often do adults read books achieved a

modest correlation with age of the child ($r = .19$), indicating that perhaps as the child grows, the responding family member has more time to read books. There were also modest correlations between education and salary with the number of children's books present in the family home ($r = .14$, and $r = .188$) indicating, perhaps, that salary and education co-vary with the number of books one can expect in a home.

Table 22

Correlations between Adult Literacy Activities and Demographics

Adult literacy activities	Demographics	Spearman's Rho	p - value
How often do you read magazines?	Education	.044	.585
	Salary	-0.137	.097
	# of children	.083	.316
	Age of child	-0.056	.493
How often do you read newspapers?	Education	.085	.312
	Salary	-0.050	.561
	# of children	-0.024	.784
	Age of child	-0.096	.255
Estimate the total number of books, other than children's books, in your home.	Education	.144	.059
	Salary	.188	.014
	# of children	.058	.455
	Age of child	.132	.084
How often do you read books?	Education	-0.029	.719
	Salary	0.039	.630
	# of children	-0.016	.843
	Age of child	.193	.016

Relationship between early literacy activities, daily routines, and demographic variables. The correlation coefficients between child literacy activities and demographics are contained in Tables 23 and 24 representing early literacy activities encouraged by families and early literacy activities incorporated into daily routines respectively.

As shown in Table 23, there are five modest correlations noted between early literacy activities and demographic variables. The number of children's books in a family home was modestly related to salary ($r = .19$) and number of children in the family home ($r = .168$). This is not a surprising finding. One would expect the number of books in a

household to increase as salary increases and as the number of children in a household increase. There was a slightly stronger relationship between the age of the child and how often family members color with crayons and markers with their child ($r = .236$). Also not surprising since one would expect coloring activities to increase as young children grow. Finally, how often families indicate they put puzzles together with their child was modestly correlated to salary ($r = .15$).

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Table 23

Correlations between Early Child Literacy Activities and Demographic Variables

Child early literacy activities	Demographics	Spearman's Rho	Degrees of Freedom	p-value
Estimate the total number of children's books in your home.	Education	.058	30	.453
	Salary	.190	30	.013
	# of children	.111	30	.029
	Age of child	-.005	12	.891
How often do you make lists with your child?	Education	-0.044	18	-.011
	Salary	.075	18	.224
	# of children	-.043	30	.590
	Age of child	-.004	12	.861
How often do you write words with your child?	Education	-0.116	18	.138
	Salary	.010	18	.894
	# of children	.022	18	.781
	Age of child	.097	6	.697
How often do you color with crayons, markers with your child?	Education	-0.125	18	.100
	Salary	-.046	18	.550
	# of children	.105	18	.174
	Age of child	.236	6	.002
How often do you paint with your child?	Education	-0.064	18	.409
	Salary	-0.072	18	.349
	# of children	0.034	18	.656
	Age of child	.104	6	.177
How often do you use chalk with your child?	Education	-0.123	18	.113
	Salary	.061	18	.437
	# of children	.020	18	.801
	Age of child	.141	6	.001
How often do you label items with your child?	Education	-0.065	18	.408
	Salary	-0.003	18	.974
	# of children	.070	18	.373
	Age of child	.068	6	.590
How often do you participate in puzzles with your child?	Education	.043	18	.582
	Salary	.154	18	.176
	# of children	.073	18	.346
	Age of child	.119	6	.000
How often do you use magnetic letters with your child?	Education	.062	18	.429
	Salary	.098	18	.252
	# of children	.108	18	.166
	Age of child	.105	6	.118

Table 24

Correlations between Early Literacy Routines and Demographic Variables

Child literacy activities	Demographics	Spearman's Rho	Degrees of Freedom	p-value
How often do you talk to your child while completing routine activities (shopping, etc.)?	Education	.025	12	.743
	Salary	-0.011	12	.885
	# of children	.015	12	.842
	Age of child	-0.048	4	.532
How often do you name objects and people in everyday settings?	Education	.124	12	.107
	Salary	.042	12	.593
	# of children	-0.049	12	.529
	Age of child	.065	4	.398
How often do you repeat your child's strings of sounds?	Education	.016	18	.835
	Salary	-0.037	18	.635
	# of children	.078	18	.316
	Age of child	-0.061	6	.430
How often do you draw your child's attention to print you see throughout the day?	Education	.061	18	.429
	Salary	.096	18	.439
	# of children	-0.039	18	.612
	Age of child	.030	6	.828
How often do you engage your child in singing, nursery rhymes, and rhyming games?	Education	-0.103	18	.178
	Salary	-0.044	18	.574
	# of children	-0.108	18	.164
	Age of child	-0.074	6	.339
How often do you reread your child's favorite book(s)?	Education	.047	18	.540
	Salary	.124	18	.110
	# of children	-0.114	18	.143
	Age of child	.027	6	.732
How often do you focus your child's attention on books by pointing to words and pictures as you read?	Education	.024	18	.752
	Salary	.069	18	.373
	# of children	-0.086	18	.267
	Age of child	.0586	6	.823
How often do you provide materials to encourage drawing and scribbling (e.g. crayons, paper, markers, finger paints)?	Education	-.006	18	.936
	Salary	-.004	18	.955
	# of children	-0.31	18	.688
	Age of child	.217	6	.004
How often do you encourage your child to describe or tell a story about his/her drawing and write down the words?	Education	-0.034	18	.665
	Salary	-0.075	18	.336
	# of children	.100	18	.201
	Age of child	.158	6	.041

As noted in Table 24, there were only two modest correlations identified between routines that encourage early literacy and demographic variables. How often materials are provided to encourage drawing and scribbling and how often parents encourage their child to tell a story about a drawing were modestly correlated to the age of child ($r=.217$, $r=.158$, respectively). Again, despite the modest size of the relationship between these variables, one would expect that as children grow, parents would provide more opportunities for them to

draw/scribble, and also, as language emerges, parent would encourage their children to talk about their drawings.

Coaches' perceived value of literacy activities correlated by demographics.

Spearman's Rho was used to identify existing relationships between coaches' years of experience in the field and years of experience participating in the ITP with perceived value of literacy. Perceived value of literacy was interpreted based on responses to questions 1-6 on the coach questionnaire. Table 25 displays the results of the correlational analysis of coach experience and perceived value of literacy. Eight modest relationships were identified. Two relationships emerged on the cusp of weak to modest ($r = .113$ and $.117$ respectfully) and for this reason were not consider of interest.

Table 25

Coach Literacy Perspective Correlated by Demographics

Literacy perspective	Demographics	Spearman's Rho
In your opinion, what is the earliest age to incorporate communication, language and literacy goals	Years	.102
	ITP	.144
Indicate the percentage of sessions during which books are used	Years	.208
	ITP	.220
Indicate the percentage of sessions during which books are recommended to families	Years	.141
	ITP	.157
Indicate the percentage of sessions during which rhymes, songs and finger plays are used	Years	.113
	ITP	.171
Indicate the percentage of sessions during which rhymes, songs and finger plays are recommended to families each visit	Years	.030
	ITP	-0.002
Every coach should discuss literacy strategies with families/caregivers if the child has goals in that area.	Years	.117
	ITP	-0.058
Literacy goals should not be addressed by speech and language therapists only.	Years	.088
	ITP	.045
Supporting literacy goals should not be addressed only through the activities and materials I provide for the family.	Years	.075
	ITP	.047
Supporting literacy goals should only addressed through the activities and materials found within their natural setting.	Years	.213
	ITP	.146

Years of experience in the ITP was modestly related to the earliest age in which to introduce language and literacy goals ($r = .14$) and the percentage of sessions during which rhymes, songs and finger play was used with a slightly stronger relationship ($r = .17$). The percentage of sessions in which books are used was modestly correlated with years of experience ($r = .208$) and years of working in ITP ($r = .22$). The relationship between the percentage of sessions in which books are recommended to families was slightly lower for both types of experiences ($r = .14$ years of experience, and $r = .157$ years in the ITP). Both years of experience and experience in the ITP were correlated with “supporting literacy goals through activities found in the natural setting”. Interestingly, the relationship between years of experience and use of materials in the natural setting was slightly stronger ($r = .21$) than the relationship between years working in ITP and use of materials in the natural environment ($r = .146$). The coaching model embraced by the Idaho ITP encourages the use of activities based on family routines and the use of materials found in the home environment or other natural settings. Therefore the slightly stronger relationship to by coaches with more overall general experience rather than specific ITP experience is surprising.

Summary of families and coaches perceived value correlated with demographics. For both groups, families and coaches, there were only modest relationships found between some demographic variables and perceived value of literacy. Overall, adult literacy tended to co-vary, albeit modestly with age of the child, income, and education level. The results indicate that there may be a tendency for families to read more often as children grow. Not surprisingly, the number of books in a family home was noted to increase along with education and salary.

Several other modest relationships were identified between some early literacy activities and routines and demographic variables. Notably, the number of children's books tended to increase with the child's age and the number of children in a home. Also, writing, drawing and scribbling activities tended to co-vary with age of the child, which also makes sense. As very young children grow, they develop fine motor skills that increase their ability to draw, write, and scribble. Age of the child was also related to family members encouraging their children to describe their pictures. The use of puzzles was the only literacy related activity that was modestly related to family salary, suggesting perhaps that as income increases families have the financial ability to purchase more early learning materials, such as puzzles.

The limited strength of the relationships identified between both early literacy activities and routines families engage in with their children and demographic variables may be largely due to the homogeneous nature of the families who chose to participate. Had the sample been more diverse, stronger relationships in more categories may have been identified? Another factor related to the modest correlations, as indicated previously, is that the categories of choice on the questionnaire were overlapping thus making clear distinctions between responses difficult to interpret. Given the overlapping nature of the categories in the questionnaire, even the modest correlations identified lend support for future research to use methodology that would more clearly establish important relationships between perceived value of literacy and demographic variables.

The relationships identified between perceived value of literacy and experiences of the coaches were also in the modest range. Years of experience in the ITP was related to promoting early literacy activities with the youngest age children. Also, more ITP

experience was modestly related to use of rhymes, songs, and finger plays. Both general experience and ITP experience modestly co-varied with books used in session with families and books recommended to families. Both experience types were also modestly related to use of materials and routines in the home.

Because general experience and ITP experience may have been difficult for respondents to distinguish, it would be valuable in future research to assure a larger sample size. The small number of coaches who responded made it difficult to run correlational analyses on other variables such as “type of provider” (e.g., speech language, occupational therapist). Also, as with the family questionnaire, categories of choice for most items were overlapping. Future studies should focus on more distinct categories and the use of strategies such interviews and focus groups that encourage more in-depth and explanatory responses.

Research question 3: To what extent do families express concern about their child’s skills in communication, language, and literacy, and to what extent are communication, language and literacy reflected in the Individual Family Service Plan (IFSP)?

Research question 3 was assessed through responses to questions 13 and 14 from the family questionnaire using descriptive statistics and cross tabulations to identify relationships between family concerns, age and disability categories. The findings about the contents of the family IFSP is followed by family concerns in general and then cross tabulated by age and disability categories.

The extent that communication, language and literacy are reflected in the IFSP. On question 14 family respondents were asked if their child had language, literacy,

or communication goals on their IFSP. Family respondents were able to mark more than one qualifying area. As presented in Table 26, 17% (n=44) indicated that their child did not have communication, language, or literacy goals in their IFSP. Only 9% indicated that literacy was represented on the family IFSP. The majority of respondents indicated that communication (n=106, 41%) and language goals (n=86, 33%) were identified on the IFSP.

Table 26

Frequency and Percent of Responses on Families' Knowledge of IFSP Goals

My child has an Individual Family Service Plan (IFSP) with goals in:	N	Percent of the total
Communication	106	41
Language	86	33
Literacy	23	9
None of these	44	17
Total Responses	259	100

The extent that families are concerned about their child's skill development in language and literacy. Table 27 displays results for family concerns regarding receptive and expressive language and early literacy development of their young children. Out of the three categories families were most concerned about their child's development of expressive language (40%, n= 70) and another 62% (n=35) expressed a little concern. Most families were not very concerned with their child's receptive or emergent literacy skill development. Although some were, 42 participants, 24 % indicated they were very concerned about their

child's literacy development and 28 participants, 15% indicated they were very concerned about their child's receptive language skills.

Table 27

<i>Families' Concern for their Child's Emergent Literacy Development</i>			
Descriptive Statistics	Not concerned (Low) 1	A little concerned (Moderate) 2	Very concerned (High) 3
Receptive-Understand Words they understand N=174 Mean=2.08 Median=1.00 SD=1.289	95 55%	51 29%	28 15%
Expressive-Use Words they use N=175 Mean=1.615 Median=1.00 SD=.7496	43 25%	62 35%	70 40%
Emergent Literacy Interest and ability in pre- reading and writing activities N=175 Mean=2.16 Median=2.00 SD=.8006	78 45%	55 31%	42 24%

Analysis of families' concerns by age of child. A cross tabulation strategy was used to show correspondence between the age of child in the sample and family concern for the child's development in receptive, expressive, and early literacy skills. Family respondents provided the date of birth to describe the age (in months) for their child with a disability which is reported as (0-12 months, 13-24 months, and 25-36 months).

Family participant concerns about receptive language development of their child with a disability by age group are shown in Table 28, and corresponding scores of central tendency across ages and concerns is presented in Table 29.

Table 28

Level of Families' Concern for Child's Receptive Language Cross Tabulated by Age

Age by months/years	Not concerned 1	A little concerned 2	Very concerned 3	Total
0-12 (1 year)	12	10	7	29
	41%	34%	24%	
13-24 (2 years)	22	13	3	38
	58%	34%	8%	
25-36 (3 years)	60	25	18	103
	59%	25%	18%	
Total	94	48	28	170
%	55%	28%	17%	100%

Table 29

Central Tendency of Families' Concern for Child's Receptive Language Cross Tabulated by Age

Age by months	N	Mean	Median	SD
0-12	29	1.83	2.00	.805
13-24	38	1.50	1.00	.647
25-36	102	1.60	1.00	.774

Only a few family respondents expressed concern about the receptive language skills of their child across age groups. Interestingly, a large number of families with children in the 25-36 month age range reported the least amount of concern. Although, across age group concern did tend to systematically increase, but only slightly. Table 30 presents family respondents' concerns about expressive language by age and Table 31 presents corresponding scores of tendency across concern levels and ages.

Table 30

Level of Families' Concern for Child's Expressive Language Cross Tabulated by Age

Age by months/year	Not Concerned 1 (Low)	A Little Concerned 2 (Moderate)	Very Concerned 3 (High)	Total
0-12 (1 year)	13 43%	9 30%	8 27%	30
13-24 (2 years)	13 34%	12 31%	13 34%	38
25-36 (3 years)	16 16%	38 37%	48 48%	102
Total	42 25%	59 34%	69 41%	170 100%

Table 31

Central Tendency of Families' Concern for Child's Expressive Language Correlated by Age

Age by months	N	Mean	Median	SD
0-12	30	1.833	2.000	.834
13-24	38	2.000	2.000	.838
25-36	102	2.314	2.000	.730

For expressive language, concern increased as age increased. Concern across categories (not concerned, a little concerned, and very concerned) was more evenly distributed for younger children, 0-12 months and, 13-24 months, than for the older group, 25-36 months. This is not surprising since delays in expressive language are often more apparent to family members than receptive language skills. By the time a time children approach three, most families expect children to be able to speak. When expressive language is delayed, there is often heightened concern which often corresponds to increased referrals for services.

Tables 32 and 33 reflect family concern about the literacy development of children across ages and corresponding scores of central tendency, respectfully.

Table 32

Level of Families' Concern for Literacy Development by Age

Age by months	Not concerned 1 (Low)	A little concerned 2 (Moderate)	Very concerned 3 (High)	Total
0-12	14 46%	8 27%	8 27%	30
13-24	24 62%	8 21%	7 18%	39
25-36	37 37%	37 37%	27 27%	101
Total	75 44%	52 31%	42 25%	179
%				100%

Table 33

Descriptive Statistics of Families' Concern for Literacy Development by Age

Age by months	N	Mean	Median	SD
0-12	30	1.800	2.00	.847
13-24	39	1.564	1.00	.788
25-36	101	1.901	2.00	.793

As reflected in tables 32 and 33, most family participants expressed either no concern or only a little concern about their child's literacy development across ages. Although, concern at the 25-36 months of age seemed to be more evenly distributed across concern levels indicating that families may expect more from their children as they grow, and when skills are not present or lacking, concern may be elevated.

Item 15 on the Family Questionnaire ask respondents to report on the type of developmental delay or disability that qualified their child for ITP services. There were three main categories with subcategories available for specific responses. Many families marked more than one category and subcategory. Only the three main categories of delay of disability were used to cross tabulate family concerns about language and literacy.

Tables 34-39 provide cross tabulations and scores of central tendency of concern about receptive, expressive, and literacy skills by disability categories. The categories of disability were not mutually exclusive so numbers across categories may be duplicated

Table 34

Level of Families' Concern for Child's Receptive Language Correlated by Disability

Category of disability	Not concerned (Low) 1	A little concerned (Moderate) 2	Very concerned (High) 3	Total
Developmental disability/delay	82 55%	44 29%	24 16%	150
Medical	48 56%	21 25%	16 19%	85
Risk factors	12 33%	14 39%	10 28%	36
Total	142	79	50	271
%	51%	29%	20%	100%

Table 35

Descriptive Statistics of Families' Concern for Child's Receptive Language

Category of disability	N	Mean (1-3)	Median (1-3)	SD
Developmental disability/delay	150	1.613	1.00	.7489
Medical	88	1.6235	1.00	.7864
Risk factors	36	1.944	2.00	.791

As can be seen in Tables 34 and 35, the majority of respondents concerns about receptive language did not differentiate by disability category. Across the board, most responses were in the “Not concerned at all” category or the “A little concerned category” Although, the concern seems to be greater proportionately for children in the “at-risk group of disabilities.

Tables 36 and 37 show cross tabulations and scores of central tendency between disability categories and concerns about expressive language. Across all three disability categories there was more concern expressed at the moderate and high levels than for receptive language.

Table 36

Level of Families' Concern for Child's Expressive Language

Category of disability	N	Not concerned 1 (Low)	A little concerned 2 (Moderate)	Very concerned 3 (High)
Developmental Disability/Delay	152	34 23%	53 35%	65 42%
Medical	84	21 25%	32 38%	31 37%
Risk Factors	43	9 21%	19 44%	15 35%
Total %	279	64 25%	104 35%	111 40%

Table 37

Descriptive Statistics for Level of Families' Concern for Child's Expressive Language

Category of disability	N	Mean	Median	SD
Developmental disability/delay	151	2.20	2.00	.7833
Medical	84	2.12	2.00	.7824
Risk factors	36	2.167	2.00	.7370

Tables 38 and 39 show cross tabulations and scores of central tendency between concern levels for literacy development and disabilities categories. As with the cross tabulations by age, there were some respondents who were very concerned about their child's literacy development, but the majority of the responses fell into the low or moderate levels of concerns, "not concerned" or "a little concerned" respectively

Table 38

Level of Families' Concern for Literacy Development by Disability

Category of disability	Not concerned (Low) 1	A little concerned (Moderate) 2	Very concerned (High) 3	Total
Developmental disability/delay	67 45%	46 31%	37 25%	150
Medical	40 48%	27 32%	17 20%	84
Risk factors	15 42%	10 28%	11 31%	36
Total	122 45%	83 31%	65 24%	270 100%

Table 39

Descriptive Statistics of Families' Concern for Literacy Development by Disability

Category of disability	N	Mean	Median	SD
Developmental disability/delay	150	1.80	2.00	.8110
Medical	84	1.73	2.00	.7816
Risk factors	36	1.89	2.00	.7923

Summary IFSP goals and family concerns. A majority of families indicated that language and communication goals were identified on the Individual Family Service Plan (IFSP) while only a very few indicated that literacy goals were identified. This is somewhat surprising since the majority of coaches who work with the families in Idaho, indicated that they valued literacy activities for the children and families they serve. However, since there was no attempt to match coaches with the responding families, it maybe that there was little correspondence between the two in this sample. More likely, coaches may not readily differentiate between language and literacy activities since activities that support both tend to be similar.

Because of the increase in evidence that explicit strategies used to promote early literacy is important for all children (Justice, & Kaderavek, 2004; Whitehurst, & Lonigan, 1998; Roskos, Christie, & Richgels, 2003; Al Otaiba, & Hosp, 2004) training provided for coaches on intentionally embedding early literacy activities may be warranted. Further, to corroborate stories between coach and family, future research should focus on assessing families and their corresponding early intervention coaches in pairs. Using the pair approach may provide a more cohesive picture and understanding of strategies used in the home to promote literacy.

Family concerns about language and literacy in general, across age groups, and disability categories, were the greatest in the area of expressive language and the least in early literacy.

Similarly, family participants did not express much concern for receptive language skills in general or across categories. This may be an important finding. First, receptive language is important for a child's overall development. It maybe that parents did not express concern because receptive skill acquisition is internal to the child, whereas expressive language is external and readily apparent. Further, literacy development fosters receptive language skills. As parents talk and read to their young children, point out words, play rhyming games, vocabulary expands as along with receptive language.

Chapter 5

Discussion

Introduction

The purpose of this study was to examine the perceived value of early literacy for children with disabilities by Idaho families who participate in the Infant Toddler Program (ITP), and ITP professionals who work with families. The findings contribute: 1) to the field's collective knowledge on the extent to which early literacy activities are valued by coaches and families and incorporated into the Individual Family Service Plans (IFSP); and 2) to the identification of potential barriers and misperceptions related to the importance of integrating early literacy activities to enhance progress across developmental domains (i.e., language, communication, social, cognitive, and motor). This chapter presents the major findings of the study, limitations and recommendations for future research, followed by summary and conclusions.

Major Findings

Demographics of participants.

Families. The families who chose to participate were, for the most part, highly educated. Their income levels spanned both the lower and medium high income range, although the median income reported for the sample was just below the average income for all Idaho families. Income and education are considered to be highly influential variables for emergent literacy development (Snow et al, 1998; Brooks-Gunn, Duncan, 1997; Klebanov, Brooks-Gunn, McCarton, & McCormick, 1998; Whitehurst, 1997; NRC, 2000; Hecht, et al, 2000; Noble, 2006; McDowell, 2007; Aikens, 2008; Morgan, Farkas, Hillemeier, & Maczuga, 2009; Hall, 2011).

The families were largely white with a small number representing the Hispanic population. Further, the vast majority (90%) of family respondent were mothers. The majority of the children represented in the sample were between ages 2 and 3 (65%). A large number of the children were said to have multiple developmental disabilities.

ITP coaches. The majority of ITP coaches (74%) indicated they had 6 plus years of experience working with young children and their families. Similarly, another (64%) had six plus years working directly in the ITP. Overall, the years of experience represents a professional core of staff and contractors with a high level of experience working with infants and toddlers with disabilities and their families. Most of the responding coaches were developmental specialist and only a few indicated that they had other professional credentials (i.e. speech language pathology, occupational therapy).

Perceived values of literacy.

Family perceived value of literacy. Family participants in this study indicated that as adults they tend to read and use computers more often than they engage in other media activities. The family participants also indicated that their children with disabilities don't engage in much screen time activity with the exception of some television. The number of hours of screen time is conversely related to early literacy development (Rideout, et al, 2003; Vandewater, E. et al 2007). Overall, this group of family participants indicated that screen time for the children with disabilities was limited.

Most families in the study indicated that they regularly engage in daily routines with their children that support early literacy development. Families reported that they talk to their child while completing routines, name objects and people in everyday settings, repeat their child's string of sounds, sing and play rhyming games, and reread their

children's favorite books. Through their responses on the questionnaire, this family group of participants indicated that they have a high degree of routine based involvement with activities that support early literacy development.

One key variable in emergent literacy research is the frequency in which families read to their children and is considered a robust indicator of a positive emergent literacy foundation (Bus, van Ijzendoorn, & Pellegrini, 1995). Nationally 42% of families indicate they read to their child daily, while 62% of the families in this study indicated they read between 10 minutes or more than 30 minutes per day to their child. Again, this sample may not represent the typical family in Idaho due to higher than average education levels. Also, because the information in this study was based on self-report, the high response rate may have been due to overlapping categories of response choices. This is an overarching concern throughout the study and will be addressed in limitations.

When asked how often families participated with their child in purposeful writing, and drawing activities, families rated their involvement much lower. This is not a contradiction to the above outcome. Purposeful activities that include writing, labeling, and drawing extend learning that occurs through every day routines. Daily and purposeful participation in this type of activity implies a deeper understanding of ways to promote literacy development.

In a study of 4 to 6 year olds, children who were exposed to higher-level literacy events in their home, had a higher level of knowledge about the uses of written language, a deeper understanding of the components of writing, and an awareness of the functions of print on entering school (Purcell-Gates, 1996). By participating in purposeful activities with their child, families scaffold a child's immature language and literacy skills through

back and forth dialog. (Bruner, 1977; Rogoff, Mistry, Goncu, & Mosier, 1993; Landry, 2006). Participants in this study indicated that they provide the basic literacy interactions within their daily routines, however, may not have the knowledge to purposely build on those skills.

Another possibility is that families with young children who have multiple developmental delays may not have awareness of ways to engage purposefully in tasks that promote literacy development for children with more complex learning and movement issues. It is also possible that families may not devote time to activities viewed as less important to their child's overall development. Since early literacy, language and communication are interrelated, this maybe an area in which coaches need more explicit training so they can better support family engagement in purposeful literacy building activities that also correspond to language and communication development.

Coaches perceived value of literacy and intentional use of early literacy strategies.

Coaches, regardless of their position or experience within the ITP, uniformly defined their role as a professional who should discuss early literacy strategies with families who have literacy goals in their IFSP. Coaches agreed or strongly agreed that literacy activities should be presented to families by the primary coach rather than just a speech language specialist. These statements align with the ITP coaching model that families through every day routines foster child development and the professional should act in a coaching role to help families imbed intervention strategies within daily routines (Friedman & Woods 2012).

Although their responses were somewhat equivocal, coaches also appear to support the notion that intervention materials found in the natural setting should be used in preference to materials brought into the home by the coach. This view also supports the coaching model. However, the equivocation in responses may be due to the fact that sometimes specialized equipment, assistive technology, and modified accessories maybe necessary and beneficial to a specific child's development.

When asked about the earliest age in which to incorporate communication, language and literacy goals in an IFSP, almost all coaches indicated that intervention should begin in the birth to 12 month age category. Researchers encourage parents to talk to their infants and respond to their babbling from birth to initiate the reciprocity of communication and to develop the features of language (Anderson, 1977, Bornstein & Tamis-LeMonda, 1989, Snow, 1977, Bruner, 1977, Zero to Three, 2008, Landry, 2006). An infant's first experience with communication begins at birth and by three months babbles in response to someone talking to them. Coaches support of the introduction of communication, language and emergent literacy in the earliest months may underscore for families a deeper understanding of the important role they play in their child's development.

An additional way to interpret perceived value of literacy was to analyze the coaches' intentional use of emergent literacy strategies while visiting families. For the most part, coaches indicated that they use books at least sometimes or often within sessions, and they recommend books to parents sometimes or often. They also used rhymes, songs, and finger play sometimes or often. The coach data suggests that this sample of early intervention providers engage in important early literacy activities or

recommend early literacy activities for the families they serve. The other possibility is that coaches use these strategies more to support goals in communication and language, which does strengthen the overall home literacy environment. Albeit, may be unintentional.

Correlations between perceived value and demographics. For both groups, families and coaches, there were only modest relationships found between some demographic variables and perceived value of literacy. Overall, adult literacy tended to co-vary, albeit modestly with age of the child, income, and education level. The results indicate that there may be a tendency for families to read more often as children grow. Not surprisingly, the number of books in a family home was noted to increase along with education and salary.

Several other modest relationships were identified between some early literacy activities and routines and demographic variables. Notably, the number of children's books tended to increase with the child's age and the number of children in a home. Also, writing, drawing and scribbling activities tended to co-vary with age of the child, which also makes sense. As young children grow, they typically develop fine motor skills that increase their ability to draw, write, and scribble. Age of the child was also related to family members encouraging their children to describe their pictures. The use of puzzles was the only literacy related activity that was modestly related to family salary. Suggesting perhaps that as income increases families have the financial ability to purchase more early learning materials, such as puzzles.

The relationships identified between perceived value of literacy and experiences of the coaches were also in the modest range. Years of experience in the ITP was related to promoting early literacy activities with the youngest age children. Also, more ITP

experience was modestly related to use of rhymes, songs, and finger plays. Both general experience and ITP experience modestly co-varied with books used in session with families and books recommended to families. Both experience types were also modestly related to use of materials and routines in the natural environment, although, a bit surprising, the correlation was a bit stronger for the coaches with more general experience rather than specific infant toddler experience.

IFSP goals and family concerns. A majority of families indicated that language and communication goals were identified on the Individual Family Service Plan (IFSP) while only a very few indicated that literacy goals were incorporated. This is somewhat surprising since the majority of coaches who work with the families in Idaho, indicated that they valued literacy activities for the children and families they serve. However, since there was no attempt to match coaches with the responding families, it maybe that there was little correspondence between the two in this sample. More likely, coaches may not readily differentiate between language and literacy activities since activities that support both tend to be similar.

Family concerns about language and literacy in general, across age groups, and disability categories, were the greatest in the area of expressive language and the least in early literacy.

Similarly, family participants did not express much concern for receptive language skills in general or across categories. This may be an important finding. First, receptive language is important for a child's overall development. It maybe that parents did not express concern because receptive skill acquisition is internal to the child, whereas expressive language is external and readily apparent. However, literacy

development fosters receptive language skills. As parents talk and read to their young children, point out words, play rhyming games, the child's vocabulary expands along with receptive language. These facts may not be well understood by families in the sample and therefore, not presented as a concern.

Limitations of the study, implications, and recommendations for future research.

Overall, the results of this study are somewhat limited. First, the sample was drawn from families and providers who volunteered to participate and the data was self-reported. Further, the sample size was small due to a low return rate. The education of the families who participated was relatively high in comparison to the average education level for Idaho families and the income levels reported were not normally distributed and even though the income levels were bimodal, many participants were in the upper range of the low to medium income, and even more were in the higher income bracket. Thus, due to the homogeneous nature of the sample it is difficult to generalize to the broader population in Idaho or the nation. In future research, methodology that stratifies the sample across income, education, regions of the state, ages of children, experience levels and type of service provider is recommended. By examining the perceptions of a more heterogeneous group of families and coaches we better predict relationships of perceptions, knowledge, and demographic variables.

Also, because general experience and specific ITP experience may have been difficult for coach respondents to distinguish, it would be valuable in future research to assure a larger sample size. The small number of coaches who responded made it difficult to

run correlational analyses on other variables such as “type of provider” (e.g., speech language, occupational therapist).

Because the questionnaire instrument for both family participants and coaches included categories with overlapping responses, it was difficult to clearly identify the value participants’ place on early literacy. Future studies should focus on more distinct response categories and the use of strategies such as interviews and focus groups that encourage more in-depth and explanatory responses.

Another clear limitation was that coach responses to the questionnaire could have been more reflective of their adoption of the “coaching” model of service delivery, rather than on perceived value of early literacy activities. The statements in item 6 on the questionnaire more specifically relate to coaching rather than early literacy per se. In future research, a clear distinction between activities that promote early literacy and the coaching process as an intervention model should be assessed.

A study of this scope cannot be conducted without bias. The overall bias in this study is to promote early emergent literacy skill development for children who have a disability or delay. The implications of the findings are therefore slanted toward highlighting the attitudes of both the coaches and the families they serve by first addressing attitudes and second by addressing changes that need to occur to increase and extend the emergent literacy activities provided in the families’ home.

In order to minimize potential bias several strategies were implemented in the design of the research. First, questions were carefully crafted to ensure clarity in the intent of the question and accuracy of the responses. Second, questions were reviewed by professionals in the field and family members who were representative of our sample to

ensure comprehension and readability. Finally, the questionnaire structure was a specific format which included an introduction, assurance of confidentiality, and the importance of the questionnaire. All these strategies were designed to lessen the potential bias that can occur with large questionnaires.

There were two areas of special concern in reviewing the data for bias. As previously mentioned, theoretically, every family within the Idaho ITP was given the opportunity to participate (1,879), however only a small portion (183, 9.73%) actually turned in their questionnaires. In addition, every region of the state was represented; however, there were some regions with minimal participants (4%). The same concern can be described with the coaches' questionnaire. When one region is significantly underrepresented, the unique perspectives of that region are not included in the data.

The second area of bias falls into the category of questionnaire environment. The questionnaires were given to each of the seven Idaho Department of Health and Welfare offices. The offices trained their coaches and the coaches personally gave the questionnaires to families. In the ideal situation the questionnaire environment would be controlled and the researcher would interact directly with the participating families. In this study there were several levels of interactions separating researcher and the participants which allowed for a wide variation in the way the questionnaire was handled. The interest in the questionnaire by the coaches could have influenced whether or not families were interested in participating in the research. For example, the highest number of questionnaires returned by coaches was in Region 6 which also has the highest rate of return for the families.

Conclusions

Overall, both coaches and family participants represented a small homogenous group participating in the ITP. Families and coaches valued early literacy and engaged in activities that promote language, communication, and early literacy, although families did not often participate with their children in explicit activities that promote literacy development. Instead they relied on everyday routines as a way to encourage language and expand vocabulary.

An important finding that bears future inquiry is that a large number of families expressed concern about their child's expressive language development but much less concern about receptive language or early literacy skill development. This finding is important for several reasons. First, it implies that perhaps the families, although more highly educated than the average Idaho family, may not understand the important interdependence between expressive and receptive language, nor the relationship between language, communication, and literacy development. Second, this finding implies that perhaps ITP coaches either don't understand the corresponding relationship between these variables or more likely, they provide activities that foster all three categories without distinguishing the interdependence between all three when suggesting activities to families. Finally, this finding points to the need for future research on understanding the interdependency of language, communication, and literacy in terms of active promotion to cross link strategies and to expand family awareness of why they engage in an array of suggested activities. Perhaps a more clear understanding by families about why certain kinds of strategies are important would heighten their overall concern across language, communication, and literacy development.

Further research is also needed to: 1) include a wider cross section of families and coaches participating in the ITP; 2) include the use of questionnaire questions with clear distinct categories that do not overlap and methods that encourage a deeper description of participant roles, values, and knowledge; 3) determine ways to increase family knowledge and use of purposeful literacy promoting activities that scaffold language and emergent literacy skills; 4) investigate the coaches knowledge and skills to promote intentional use of higher-level emergent literacy strategies with families; and 5) corroborate stories between coach and family. Future research should focus on assessing families and their corresponding early intervention coaches in pairs. Using the pair approach may provide a more cohesive picture and of knowledge and practices used to promote early literacy.

Because of the increase in evidence that explicit strategies used to promote early literacy are important for all children (Justice, and Kaderavek, 2004; Whitehurst, and Lonigan, 1998; Roskos, Christie, & Richgels, 2003; Al Otaiba, and Hosp, 2004) training for coaches on intentionally embedding early literacy activities may be warranted. Families could benefit from supports to expand language and emergent literacy activities to expose their children to higher level conversations. Input from parents in play oriented problem solving (puzzles, block building, shared book reading, writing labels together, etc.) enhances children's cognitive and memory skills and studies have shown later school-aged decoding and reading comprehension are positively influenced (Landry, Miller- Loncar, Smith, & Swank, 2002). Parental use of sophisticated words while assisting their preschool children in play impacts later literacy skills (Landry, Smith, 2006). For example, this type of scaffolding has been attributed to 40% of the variance in vocabulary skills in kindergarten and second grade (Weizman & Snow, 2001). Families should be encouraged to

support and extend their child's communication and literacy development and give them the confidence to feel they can make a difference.

Family awareness and support of literacy development is especially important for those children who are delayed in the area of receptive language, expressive language, and early emergent literacy. The National Reading Council's Committee on the Prevention of Reading Difficulties in Young Children encourages families and providers to promote the development of language and literacy skills in very young children in order to strengthen the child's early foundation for reading (1998). We know through research that experiences with talking and listening in a child's early years can prepare them to learn to read and write during their early elementary school years. "Children who enter school with weaker verbal abilities are much more likely to experience difficulties learning literacy skills than those who do not" (American Speech-Language-Hearing Association, 2006).

Summary. Development of literacy skills depends on the rich language background a child experiences in their early daily lives. When a child has a delay or disability, family stress, economics, and health concerns add an additional layer of influence on the child's literacy development. With understanding and supports needed for their child's specific literacy needs, families can strengthen the foundational skills their child may be lacking.

Further research is needed 1) to support families to use more direct, strategic activities to promote early literacy and thus potentially impact collateral skills in communication and language development; 2) to determine coach training and skills that are necessary to understand the interdependence and mechanisms that foster language

communication and literacy; and 3) to identify strategies that communicate the importance of direct, strategic goals for literacy development within IFSPs. Finally, the assumption that must be tested through additional research is that when families plan extensions to basic literacy activities, they can make a difference for a child who is experiencing a delay in communication, language, and literacy.

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Appendices

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Appendix A

Early Literacy for Young Children Family Questionnaire



Please answer these questions about your child. If you have more than one child in the Infant Toddler Program, answer the questions for your youngest child. You may also fill out the questionnaire by going to website listed in the attached consent form.

Think about how you and your child use books, magazines, writing materials and other literacy items in your home. Please place an X in the box next to the response that best represents your answer.

1. What is your relationship with the child in the Infant Toddler Program?
 - mother
 - father
 - grandparent
 - foster parent
 - other; please describe _____

2. Do you or a family member read to your child?
 - Yes No

3. If you answered No, please skip down to #5.
 If you answered Yes, how old was your child when you began to read to them?
 - before age 1
 - between 1 and 2
 - between 2 and 3

4. How much time do you or family members spend reading to your child each day?
 - none
 - 10 minutes or less
 - between 10 and 30 minutes
 - more than 30 minutes

5. How much time per day does your child spend watching TV?
 - none
 - about 30 minutes
 - between 30 and 60 minutes
 - between 60 and 120 minutes
 - more than 120 minutes

6. How much time per day does your child spend watching videos or other media?
- none
 - about 30 minutes
 - between 30 and 60 minutes
 - between 60 and 120 minutes
 - more than 120 minutes
7. How much time per day does your child spend interacting with a computer or tablet such as iPad?
- none
 - about 30 minutes
 - between 30 and 60 minutes
 - between 60 and 120 minutes
 - more than 120 minutes
8. Estimate the total number of children's books in your home. Please include library books you have currently checked out.
- none
 - 1-9
 - 10-24
 - 25-49
 - More than 50
9. Estimate the total number of books, **other than children's books**, in your home. Please include library books you have currently checked out.
- none
 - 1-9
 - 10-24
 - 25-49
 - More than 50

10. Indicate with a check mark, how often you do the following activities. Consider both electronic and traditional versions for some activities.

Activity	Electronic Version				Traditional Version			
	Do not use	Once or twice a month	Once a week	Daily	Do not use	Once or twice a month	Once a week	Daily
Read Books								
Magazines								
Catalogs								
Newspapers								
Listen to Radio-talk								
Music								
Audio-Tape/CD								
Watch TV								
DVDs								
Other _____								
Use Computers For internet searching								
Social media Facebook, Twitter, etc...								
iPad/tablet								
Games on computer or other electronic devices such as smartphones								
Other _____								

11. Indicate with a check mark, how often you participate in these reading and writing activities **with your child**.

Activity	How often			
	Do not use	Once or twice a month	Once a week	Daily
Making lists				
Writing words				
Color with crayons, markers				
Painting				
Use chalk				
Label items				
Puzzles				
Magnetic letters				

12. There are things you may do throughout the day to show your child that reading and writing are a part of everyday life. Below is a list of possible activities. Please indicate how often they are part of your daily routine by placing an X in the appropriate category.

Activities	Do not use	Once or twice a month	Once a week	Daily
Talk to your child while completing routine activities such as grocery shopping, bathing, or mealtimes				
Name objects and people in everyday settings				
Repeat your child's strings of sounds (e.g. dadada)				
Draw your child's attention to print you see throughout the day, such as traffic and store signs and food labels				
Engage your child in singing, rhyming games, and nursery rhymes				
Reread your child's favorite book(s)				
Focus your child's attention on books by pointing to words and pictures as you read				
Provide materials to encourage drawing and scribbling (e.g. crayons, paper, markers, finger paints)				
Encourage your child to describe or tell a story about his/her drawing and write down the words				

13. Now consider your involvement with the Infant Toddler Program. To what extent are you concerned about your child's development in the categories listed below? Please mark the appropriate level of concern with an X.

Categories	Range of family concern about child's development		
	Very concerned	A little concerned	Not concerned
Receptive Language <i>-words they understand</i>			
Expressive Language <i>-words they use</i>			
Early Literacy <i>-interest and ability in pre-reading and writing activities</i>			

14. My child has an Individual Family Service Plan (IFSP) with goals in:

Communication Language Literacy None of these areas

15. Please indicate the reason your child was referred to the Infant Toddler Program.

More

than one may apply.

- Developmental Delay
 Motor development
 Cognitive development
 Communication development
 Social or emotional development
 Adaptive Development
 Medical diagnosis resulting in a developmental disability
Please describe: _____
 Risk Factors
 Biological
 Environmental
 Other _____

Next, tell us a little about you and your family. Please mark the response that best represents your answer.

16. Child's birthdate is: ___/___/___

17. How many additional children are living in your home?

0 1 2 3 4 5 6 or above

18. Your race:

- | | | |
|---|-------------------------------------|---|
| <input type="checkbox"/> White | <input type="checkbox"/> Chinese | <input type="checkbox"/> Native Hawaiian |
| <input type="checkbox"/> Black, African American | <input type="checkbox"/> Filipino | <input type="checkbox"/> Guamanian |
| <input type="checkbox"/> American Indian, Alaska Native | <input type="checkbox"/> Korean | <input type="checkbox"/> Samoan |
| <input type="checkbox"/> Asian Indian | <input type="checkbox"/> Vietnamese | <input type="checkbox"/> Other Pacific Islander |
| <input type="checkbox"/> Other Asian | <input type="checkbox"/> Japanese | <input type="checkbox"/> Hispanic |
| <input type="checkbox"/> Other race _____ | | |

19. What is your highest level of education?

- Some high school
 High school or GED completed
 Vocational training
 Some college
 College degree
 Graduate degree

20. What is the salary range that best represents the income of your family this year?

- 0-\$9,900
 \$10,000-19,900
 \$20,000-\$29,900
 \$30,000-\$39,900
 \$40,000-\$49,900
 \$50,000-\$59,900
 \$60,000+

21. Do you have any comments you would like to add? _____

Thank you for filling out this statewide survey. Remember, your name will be added to a Drawing for a new iPad, and you will be notified if your name is selected. The survey results Will be posted on the Center on Disabilities and Human Development website (www.idahocdhd.org) for public review. The information you have provided will add to the current research on young children and their families. Thank you for your contribution.

Early Literacy for Young Children

Primary Coach Questionnaire



Please answer these questions based on your experiences as a primary coach for the Infant Toddler Program. Using a pen or pencil, mark your answers by placing an X in the appropriate box or by filling in the requested information. You may also complete the questionnaire electronically by going to the website listed in the attached consent form.

In this section we would like to address questions specific to development of early literacy skills. We define early literacy development as a gradual process that takes place over time from birth until a child can read and write in a conventional sense. A key to literacy is the interrelatedness of all parts of language: speaking, listening, reading, writing and viewing. Think about your interactions with families and the goals on their IFSP as you answer the following questions:

1. In your opinion, what is the earliest age to incorporate communication, language and literacy goals for children in the program?
 - 0-6 months 7-12months 1-2 years 2-3 years after 3 years

2. Indicate the percentage of sessions during which books and other pre-literacy items are used.
 - 0
 - 1-20%
 - 21-50%
 - 51-99%
 - All sessions

3. Indicate the percentage of sessions during which books or other pre-literacy items are recommended to families.
 - 0
 - 1-20%
 - 21-50%
 - 51-99%
 - All sessions

4. Indicate the percentage of sessions during which rhymes, songs and finger plays are used.
- 0
 1-20%
 21-50%
 51-99%
 All sessions
5. Indicate the percentage of sessions during which rhymes, songs and finger plays are recommended to families each visit.
- 0
 1-20%
 21-50%
 51-99%
 All sessions
6. Think about your perspective on families and their role in helping their child meet goals within the Infant Toddler Program. Please respond to each statement by circling the number on the scale which best describes your perspective. Values range from strongly disagree=1 to strongly agree=4.

Statement	Strongly Disagree	Disagree	Agree	Strongly Agree
Every primary coach or provider involved with the team should discuss communication strategies with families/caregivers if the child has goals in that area	1	2	3	4
Every primary coach or provider involved with the team should discuss language strategies with families/caregivers if the child has goals in that area	1	2	3	4
Every primary coach or provider involved with the team should discuss literacy strategies with families/caregivers if the child has goals in that area	1	2	3	4
Communication goals should only be addressed by speech and language therapists	1	2	3	4

Language goals should only be addressed by speech and language therapists	1	2	3	4
Literacy goals should only be addressed by speech and language therapists	1	2	3	4
Supporting communication goals should only be addressed through the activities and materials I provide for the family	1	2	3	4
Supporting language goals should only be addressed through the activities and materials I provide for the family	1	2	3	4
Supporting literacy goals should only be addressed through the activities and materials I provide for the family	1	2	3	4
Supporting communication goals should only be addressed through the activities and materials found within their natural setting	1	2	3	4
Supporting language goals should only be addressed through the activities and materials found within their natural setting	1	2	3	4
Supporting literacy goals should only be addressed through the activities and materials found within their natural setting	1	2	3	4
Coaches should have training in communication for infants and toddlers	1	2	3	4
Coaches should have training in language for infants and toddlers	1	2	3	4

Coaches should have training in literacy for infants and toddlers	1	2	3	4
I feel qualified to support communication goals for children in the Infant Toddler Program.	1	2	3	4
I feel qualified to support language goals for children in the Infant Toddler Program.	1	2	3	4
I feel qualified to support literacy goals for children in the Infant Toddler Program.	1	2	3	4
With the support of my team, I feel qualified to support literacy goals for children in the Infant Toddler Program.	1	2	3	4
Every primary coach or provider involved with the team should discuss literacy strategies with families/caregivers if the child has goals in that area	1	2	3	4
Communication goals should only be addressed by speech and language therapists	1	2	3	4
Language goals should only be addressed by speech and language therapists	1	2	3	4
Literacy goals should only be addressed by speech and language therapists	1	2	3	4
Supporting communication goals should only be addressed through the activities and materials I provide for the family	1	2	3	4

Supporting language goals should only be addressed through the activities and materials I provide for the family	1	2	3	4
Supporting literacy goals should only be addressed through the activities and materials I provide	1	2	3	4
Supporting communication goals should only be addressed through the activities and materials found	1	2	3	4
Supporting language goals should only be addressed through the activities and materials found	1	2	3	4
Supporting literacy goals should only be addressed through the activities and materials found	1	2	3	4
Coaches should have training in communication for infants and toddlers	1	2	3	4
Coaches should have training in language for infants and toddlers	1	2	3	4
Coaches should have training in literacy for infants and toddlers	1	2	3	4
I feel qualified to support communication goals for children in the Infant Toddler Program.	1	2	3	4
I feel qualified to support language goals for children in the Infant Toddler Program.	1	2	3	4

I feel qualified to support literacy goals for children in the Infant Toddler Program.	1	2	3	4
With the support of my team, I feel qualified to support literacy goals for children in the Infant	1	2	3	4

We would like to know more about your role within the Infant Toddler Program. Please Answer the following questions by marking all that apply.

7. Please indicate the position(s) you hold with the Infant and Toddler Program:

- Primary Coach
- Developmental specialist
- Occupational therapist
- Physical therapist
- Speech and language therapist
- Other _____

8. Indicate whether you are a staff member or contractor working for the Infant Toddler Program

- State staff
- Contractor

9. Indicate the number of years you have been working with infants, toddlers and their families:

- less than a year
- 1-5 years
- 6-9 years
- 10+ years

10. How long have you been working for the Infant and Toddler Program?

- less than a year
- 1-5 years
- 6-9 years
- 10+ years

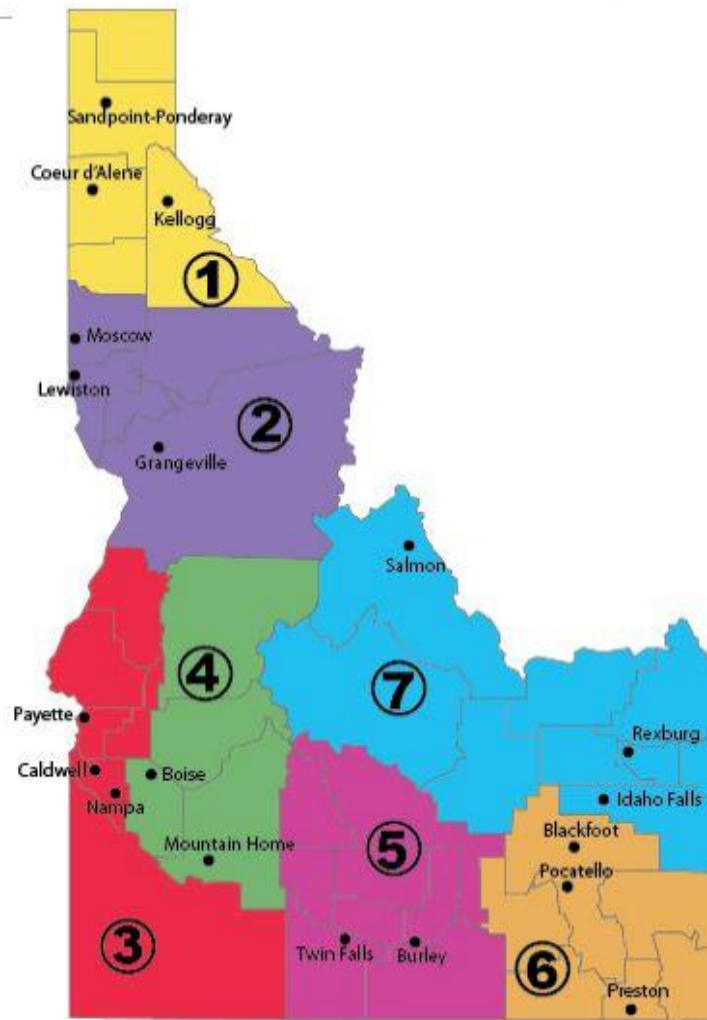
11. Do you have any comments for us? _____

Thank you for participating in this questionnaire. The questionnaire results will be posted on the Center on Disabilities and Human Development website (www.idahocdh.org) for public viewing. The information you have provided will add to the current research on young children and their families. Thank you for your contribution.



Appendix B

Idaho Department of Infant and Toddlers Regions



Appendix C
Coaches Response to Item Six

Statement	Strongly Disagree	Disagree	Agree	Strongly Agree	Total
	1	2	3	4	
Every primary coach or provider involved with the team should discuss communication strategies with families/caregivers if the child has goals in that area $\bar{x} = 3.77$	3 4%	0	7 10%	59 86%	69
Every primary coach or provider involved with the team should discuss language strategies with families/caregivers if the child has goals in that area $\bar{x} = 3.71$ $M = 4.00$	3 4%	1 2%	9 13%	55 81%	68
Every primary coach or provider involved with the team should discuss literacy strategies with families/caregivers if the child has goals in that area $\bar{x} = 3.59$ $M = 4.00$	5 7%	1 2%	11 16%	51 75%	68
Communication goals should only be addressed by speech and language therapists $\bar{x} = 1.29$ $M = 1.00$	54 78%	11 16%	3 4%	1 2%	69
Language goals should only be addressed by speech and language therapists $\bar{x} = 1.30$ $M = 1.00$	52 75%	14 20%	2 3%	1 2%	69
Literacy goals should only be addressed by speech and language therapists $\bar{x} = 1.23$ $M = 1.00$	56 81%	11 16%	1 1.5%	1 1.5%	69
Supporting communication goals should only be addressed through the activities and materials I provide for the family $\bar{x} = 1.23$ $M = 1.00$	54 78%	14 20%	1 2%	0	69
Supporting language goals should only be addressed through the activities and materials I provide for the family $\bar{x} = 1.22$ $M = 1.00$	55 80%	13 19%	1 1%	0	69

Supporting literacy goals should only be addressed through the activities and materials I provide for the family — \bar{x} =1.25 M =1.00	54 78%	13 19%	2 1%	0	69
Supporting communication goals should only be addressed through the activities and materials found within their natural setting — \bar{x} =2.68 M =3.00	9 13%	17 25%	30 43%	13 19%	69
Supporting language goals should only be addressed through the activities and materials found within their natural setting — \bar{x} =2.75 M =3.00	6 9%	17 25%	34 49%	12 17%	69
Supporting literacy goals should only be addressed through the activities and materials found within their natural setting — \bar{x} =2.62 M =3.00	8 12%	21 30%	29 42%	11 16%	69
Coaches should have training in communication for infants and toddlers — \bar{x} =3.65 M =4.00	1 1%	0	21 31%	46 68%	68
Coaches should have training in language for infants and toddlers — \bar{x} =3.55 M =4.00	3 4%	0	22 32%	44 64%	69
Coaches should have training in literacy for infants and toddlers — \bar{x} =3.57 M =4.00	2 3%	0	23 34%	43 63%	68
I feel qualified to support communication goals for children in the Infant Toddler Program. — \bar{x} =3.39 M =4.00	3 4%	4 6%	25 36%	37 54%	69
I feel qualified to support language goals for children in the Infant Toddler Program. — \bar{x} =3.30 M =4.00	6 9%	3 4%	24 35%	36 52%	69
I feel qualified to support literacy goals for children in the Infant Toddler Program. — \bar{x} =3.31 M =3.00	3 4%	5 7%	28 40%	33 48%	69

<p>With the support of my team, I feel qualified to support literacy goals for children in the Infant Toddler Program.</p> <p>\bar{x} =3.68 M=4.00</p>	<p>2 3%</p>	<p>1 2%</p>	<p>14 20%</p>	<p>52 75%</p>	<p>69</p>
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