

2012

Investigating children's social support systems: comparison of interviews and interviews with pictures

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INVESTIGATING CHILDREN'S SOCIAL SUPPORT SYSTEMS: COMPARISON OF INTERVIEWS
AND INTERVIEWS WITH PICTURES

A Thesis
Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Master of Science
In
The School of Human Ecology

by
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B.S., Louisiana State University, 2009
May 2012

Table of Contents

List of Tables	iii
List of Figures.....	iv
Abstract.....	v
Chapter 1: Introduction.....	1
Chapter 2: Review of Literature	4
Introduction	4
Theoretical Framework.....	5
Children's Social Supports	7
Measures of Children's Social Supports	12
Eco-maps.....	19
Chapter 3: Methods	22
Introduction	22
Sample	22
Measures.....	22
Procedure.....	23
Analysis	25
Chapter 4: Results	26
Introduction	26
Chapter 5: Discussion.....	37
Discussion	37
Limitations	41
Implications.....	42
References	45
Appendix A: Child Interview-Only Protocol	50
Appendix B: Child Interview-With-Pictures Protocol	51
Appendix C: Recording Sheet.....	52
Appendix D: IRB Consent Form.....	53
Appendix E: IRB Assent Form	54
Appendix F: Definitions For Coding.....	55
Vita.....	56

List of Tables

Table 1: Measures of Social Supports	21
Table 2: Comparison of child responses between interviews.....	40

List of Figures

Figure 1: Number of social supports reported	28
Figure 2: Names of social supports reported	30
Figure 3: Instrumental supports identified.....	31
Figure 4: Informational supports identified	31
Figure 5: Emotional supports identified.....	32
Figure 6: Cognitive developmental supports identified	34
Figure 7: Social developmental supports identified.....	34
Figure 8: Emotional developmental supports identified	35
Figure 9: Language developmental supports identified	35
Figure 10: Physical developmental supports identified	36
Figure 11: Creative developmental supports identified	36

Abstract

The present research study seeks to improve upon prior research on child social supports by using an already existing eco-map protocol to inform two interviews on child social supports. This study will help further develop an assessment for understanding child social supports and social networks. This project examines the similarities and differences between child reports of social support using: a) child interview-only protocol and b) interview-with-pictures protocol. The two main research questions include: 1) Do children report the same number of social supports using the child interview-only protocol as the interview-with-pictures protocol? and 2) Do children report the same kind of social supports (same names, same types, and same aspects of development) using the child interview-only protocol vs. the interview-with-pictures protocol? Five randomly selected 4-5 year old children participated in both interviews. The number of social supports reported using the child interview-only protocol and the interview-with-pictures protocol were counted and compared to determine if a different number of social supports were reported between interview measures. The kinds of social supports reported using the child interview-only protocol and the interview-with-pictures protocol were compared in order to determine if children reported different social supports, types of social supports, and aspects of development supported by social supports. Results indicated that children's responses in the interview-with-pictures protocol were richer than responses in the interview-only protocol. An implication for future research includes further development of the eco-map protocol used with young children.

Chapter 1: Introduction

Current research suggests that child social supports can positively influence child developmental outcomes and should be assessed at an early age (Appleyard, Egeland, & Sroufe, 2007; Bost, Vaughn, Boston, Kazura, & O'Neal, 2004; Elias & Haynes, 2008). Child social supports and social networks have been shown to strongly influence multiple aspects of child development (cognitive, social, emotional, language, physical, creativity) (Appleyard et al., 2007; Mashburn, 2008; Vaughn, Azria, Krzysik, Caya, Bost, Newell, et al., 2000; Vaughn, Vollenweider, Bost, Azria-Evans, & Snider, 2003). According to Bronfenbrenner's ecological systems model of development, children develop in multiple contexts with multiple influences within each context (Bronfenbrenner, 1979). Bronfenbrenner's (1979) ecological systems model highlights the importance of different contexts and the relationships between contexts that influence children's development. Learning about these contexts and influences helps us to understand children's development. The ecological systems model supports studying child social supports and social networks from an ecological perspective.

Researchers interested in how children's social supports influence children's development have measured the number of social supports, the kinds or types of support being given, and the characteristics of the relationships between sources of supports and children (Appleyard, et al., 2007; Barrera, 1986; Bost, 1995; Bost, Cielinski, Newell, & Vaughn, 1994; Bost, Vaughn, Washington, Cielinski, & Bradbard, 1998). These characteristics of social supports have previously been measured using a number of methodologies including interviews, (Bost et al., 1994; Bost, 1995; Elicker, 1997; Franco & Levitt, 1997; Pino, Simons, & Slawinowski, 1984; Zelkowitz, 1989), mapping techniques

(Pearl, Farmer, Van Acker, Rodkin, Bost, Coe, et al., 1998; Sturgess, Dunn, & Davies, 2001), and surveys and checklists (Elias & Haynes, 2008; McClellan & Katz, 1992).

While previous research has focused more on either family support or classroom/peer support (Bost et al., 1994; Bost et al., 1998; Elicker, 1997; Ladd, Kochenderfer, & Coleman, 1996; Pino et al., 1984), research investigating the multiple dimensions of a child's social networks is lacking. Measurement of social supports is critical to advancing our understanding of child social supports and the resources they provide. While various methods for investigating children's social supports exist, many of the current methods are diverse, scattered, and atheoretical. Eco-maps may be an effective tool for measuring social supports because eco-maps can be used to record multiple supports as well as multiple influences being supported by each source (Baumgartner & Buchanan, 2010).

The present research study seeks to improve upon prior research on child social supports by applying an ecological perspective to the study of child social supports and social networks. Baumgartner, Burnett, DiCarlo, and Buchanan (2012) explored the use of eco-maps with children. The present study seeks to further our understanding of two components of the child eco-map protocol: the interview and the interview-with-pictures protocol. By using an already existing eco-map protocol to inform two interviews on child social supports, this study will help further develop an assessment for understanding child social supports and social networks. An interview-only protocol will be compared to an interview-with-pictures protocol in order to assess the number of social supports reported by children, the types of social supports identified, and the aspects of development identified.

The following are definitions of terms used in this paper:

- Social support- resources provided by individuals, in a social network, resources provided come in the form of informational instrumental, and emotional (Baumgartner, & Buchanan, 2010; Rossmann, McCubbin, & Patterson, 1988)
- Informational- support that informs or gives direction (how to write a letter or play a game) (Baumgartner & Buchanan, 2010)
- Instrumental- support that includes material things (shelter, food, or clothing) (Baumgartner & Buchanan, 2010)
- Emotional- support offered by listening, encouraging, or expressing feelings (conveying excitement when an achievement is made) (Baumgartner & Buchanan, 2010)
- Social networks- individuals who are connected and interact both in an emotional and material way, with others in a child's environment including structure components such as size, and strength of relationships (Bost et al., 1998; Cochran, & Brassard, 1979).
- Eco-maps- a tool used to visually represent sources of support given to a child, the type of support given, the strength of relationship, and the developmental aspects being influenced (Baumgartner & Buchanan, 2010; Curry, Fazio-Griffith, Rohr, 2008)
- Sources of support- the individuals who provide support to young children (parents, teachers, and peers) (Bost et al., 1998; Epstein, 2001)
- Aspects of development- area of development being supported by sources of social support (emotional, cognitive, and language and communication development) (Baumgartner & Buchanan, 2010)

Chapter 2: Review of Literature

Introduction

Child social supports are a major influence on developmental outcomes later in life, on school achievement, and on child well being (Bost et al., 2004; Elias & Haynes, 2008; Gabalda, Broth, Thompson, & Kaslow, 2009; Lee, Anderson, Horowitz, & August, 2009). Social supports are resources provided by individuals in a social network (Baumgartner, & Buchanan, 2010; Rossmann et al., 1988). For example, sources of social supports can be connected in numerous ways to form social networks (family members) (Bost et al., 1998). Children experience sources of social support that are different in number (how many sources of support), type (instrumental, informational, and emotional), and strength and direction of the relationship (weak or strong and positive, negative or mixed) (Baumgartner, & Buchanan, 2010). Children's social networks include structural features (number and type) and members connected to the individual's social environment (Bost et al., 1998). Aspects of developmental include areas of development (cognitive, emotional, language/communication) that are influenced by social supports and social networks (Bost et al., 2004; Elias & Haynes, 2008; Gabalda et al., 2009; Lee et al., 2009).

Bronfenbrenner's ecological systems model describes the development of a child in which the child is an active participant in their social environment (Bronfenbrenner, 1979). Bronfenbrenner's ecological systems model provides a theoretical framework for studying children's social supports and social networks. The ecological systems model states that children develop within multiple contexts with multiple influences in and between contexts (Bronfenbrenner, 1979), for example children develop in both home and school contexts with parents, siblings, teachers, and peers who not only interact with the child but also

each other. These bidirectional interactions influence children's development and provide a representation of a child's social network.

While the ecological systems model supports the importance of investigating multiple contexts and multiple influences by explaining how children develop through multiple contexts and multiple influences, current methods for investigating children's social supports are often atheoretical and come from a single source and perspective (See Table 1). The most commonly used methods include interviews with children and adults, mapping techniques, and survey and checklist instruments. Another method is eco-maps, which provide a visual representation of child social supports within and between contexts as well as a child's social network. Eco-maps may offer a theoretically sound and systematic method for measuring children's social supports. In the following, Bronfenbrenner's theoretical framework, existing knowledge of children's social supports, and current methods for investigating children's social supports is further discussed. Eco-maps and potential uses for eco-maps in measuring children's social supports that were used for developing two interview protocols used with young children is also discussed.

Theoretical Framework

Bronfenbrenner's ecological systems model includes three major concepts: multiple contexts that influence development (home and school), multiple influences (parents, siblings, teachers, peers) in these contexts that influence development, and a bidirectional influence (parent/ teacher interactions) between contexts that influence development (Bronfenbrenner, 1979). Bronfenbrenner hypothesizes that the influence on the child to actively engage in their environment and social interactions encourages positive developmental outcomes in children (Bronfenbrenner, 1979). The ecological systems

model involves the development of the human as an active participant in their social environment, while the individual's immediate environment both influences and is influenced by larger social contexts. According to Bronfenbrenner, the child is embedded in a social system, which consists of different contexts. The social system, referred to by Bronfenbrenner, is made up of the following systems: microsystem, mesosystem, exosystem, and macrosystem.

The microsystem is made up of the child and the child's immediate social interactions, which directly influences the child, for example, the child's family and peers. The mesosystem includes the relationships between influences on the child, for example the relationship between the home and school environments. The exosystem is the system that does not directly influence the child but is both influenced by and influences the system in which the child is an active participant (the microsystem), for example a parent's work place a parent may display certain behaviors like exhaustion because of work related issues, which has an impact on parenting. The macrosystem consists of the child's culture and beliefs, which are constant throughout lower level systems (Bronfenbrenner, 1979).

Bronfenbrenner's ecological systems model also includes multiple influences on the child's development. The multiple influences are made up of the social interactions within and between each system. The ecological systems model also describes the direction of influence both among the systems as well as between each system. The mesosystem illustrates the multiple interactions between the setting and the child in the microsystem. An example of developmental influences in the mesosystem is the bidirectional interactions between the child and his or her family members (Bronfenbrenner 1979).

Bronfenbrenner's ecological systems theory provides a framework for the investigation of children's sources of support. Specifically, as Bronfenbrenner asserts, children's development is influenced by their participation within multiple contexts. We know children have supports from multiple contexts including: home, school and community. In addition, we know that there are multiple influences within each of these contexts, which may include: family members, teachers, and peers. Finally, we also know that there are interactions between these contexts and influences, which may include home and school partnerships.

Bronfenbrenner's ecological systems model of development can be used as a theoretical framework for understanding the contextual influences on development in early childhood (Bronfenbrenner, 1979; Miller, 2002). A child's family, school, and community are most influential in their ecological setting. Research on child social networks explains the importance of understanding those networks related to child wellbeing and developmental outcomes later in life. Evidence of an ecological perspective of child social supports and types of support suggest knowing and understanding child social networks can positively influence children's development and is vital to understanding development in young children (Bost et al., 1994; Bost, 1995; Bronfenbrenner 1979; Epstein, 1995; McCormick, Stricklin, Nowak, & Rous, 2008; Ray & Street, 2005; Simon & Epstein, 2001).

Children's Social Supports

Child social supports and social networks are important influences on young children in a number of ways. Social supports can provide young children with higher social competence (Vaughn et al., 2000), higher academic and literacy skills (Mashburn,

2008), as well as support child well-being (Dingfelder, Jaffee, & Mandell, 2010; Gabalda et al., 2009). For children that are at risk for developmental delays, research suggests that social supports are essential for well-being (Dingfelder et al., 2010; Gabalda et al., 2009). Research on child social supports and social networks illustrates the impacts made on children's later development, academic achievement, and child well being.

Social supports are defined as resources provided by individuals in the form of information, materials, or emotional support (Baumgartner & Buchanan, 2010; Rossmann et al., 1988). According to Bost et al., sources of social supports are individuals who provide resources to others (mothers or fathers). Major sources of support for young children include direct supports such as parents or families, teachers, and peers. Children also receive support indirectly from the school community, community members, religious communities, and societal and political systems (Bronfenbrenner, 1979). Sources of social supports have also been defined as individuals available for others to rely on or individuals who show that they care, love, and value others (Sarason, Levine, Basham, & Sarason, 1983). Characteristics of social supports have included the interactions between individuals, relationship quality, relationship structure, and resources provided by interactions among relationships.

Social support may be characterized in qualitative and quantitative terms (Pearson, 1986). Qualitative social support is support that is perceived among relationships and emphasizes the relationship's meaning, attitude, or feelings. For example, researchers who believe social supports are more qualitative will focus on features of the relationships between individuals, such as quality of relationships. Appleyard et al. (2007) emphasized the quality of the relationship and support given to the child, stating that high quality

support can have a positive influence on child behaviors. High quality relationships and support include caring and responsiveness by the adult as perceived by the child. An example of high quality support may be a mother's appropriate, calm, caring, responsive teaching style. Low-quality relationships are characterized by being inconsistent, unsafe, and highly disruptive. An example of low-quality support would be if the individual endangered the child. In this study, tone of interactions (negative or positive), type of contact (provider), level of involvement (active or detached), and child reactions (angry or enjoying) were taken into account in assessment of quality social supports (Appleyard et al., 2007). Relationship quality and strength are important in understanding teacher influences on child development. Positive relationships tended to have less conflict, less negative feelings, and more confiding than less positive relationships (Dunn, Davies, O'Connor, & Sturgess, 2001).

Some researchers tend to characterize social supports as being quantitative. Quantitative social support emphasizes the structural properties of relationships such as length, contact, connections, and networks. For example researchers who believe social supports are quantitative will focus on the composition of an individual's social network (Pearson, 1986). According to Bost et al., social supports include structural features and members connected to the individual's social environment. Children experience both direct and indirect sources of social support. There are different sources of social supports identified in the literature (families, teachers, and peers) (Bost et al., 1998). Social supports include parents, family members, peers, and anyone whom the child considers a protective figure and companion (Appleyard et al., 2007).

Bost's research on child social networks measures three important characteristics identified by Barrera (1986): (1) *social embeddedness* (structural: size and category of members), (2) *enacted support* (frequency of which support is actually provided), and (3) *perceived support* (beliefs and satisfaction) (Barrera, 1986; Bost, 1995; Bost et al., 1994; Bost et al., 1998). According to Barrera, social embeddedness refers to the actual connections an individual has to others that are perceived to be important in their social network. For example parents, teachers, and peers are important connections. Enacted support is what individuals in a social network actually do when providing social support. For example, parents provide food and housing and teachers may provide encouragement. This may also be seen as the types of support provided (informational, instructional, and emotional). Perceived support is the actual cognitive consideration and judgment the child gives to the support being given. This may be viewed as the direction and strength of the relationship (positive/negative and weak/strong). For example a child may recognize helpfulness when a teacher helps them solve a problem and a child may also recognize when a parent provides clothing or a meal (Barrera, 1986). Researchers have identified key characteristics of children's social support as the number of sources of support, the types of support given, and the quality of relationships.

Types of social support include instrumental support, informational support and emotional support. Instrumental support is provided when materials are provided to the child. Informational support is support that informs or provides direction. Emotional support is another type of support that provides young children with someone to talk to (Baumgartner & Buchanan, 2010). Families and parents are one source of instrumental support identified in current literature on child social supports (Harknett, 2006; Leinonen,

Solantaus, & Punamäki, 2003; Ryan, Kalil, & Leininger, 2009). Specifically Ryan et al. (2009), investigate the available material resources to low-income mothers and how material and instrumental resources provided to children impact child development. Using the *Fragile Families and Child Well-being Study* (FFCWS) and the *National Evaluation of Welfare-to-Work Strategies* (NEWWS), available material resources and children's development were analyzed. Results indicated that children, whose mothers reported a high level of available material resources, reported less internalizing and externalizing behavior and higher social competence (Ryan et al., 2009). Characteristics of family relationships are important in understanding supportive influences as well as child developmental outcomes.

Teachers can serve as an important source of emotional and informational support to children. According to Muller (2001), highly reciprocal and positive teacher-student interactions are important to academic success. When teachers are a positive social support for children, higher academic outcomes will generally occur for the child. Students were asked about their perceptions of teacher responsiveness and caring as well as their teaching and how often they praised or "put down" the students. Results indicated that students worked harder when they perceived their teacher cared about them (Muller, 2001). Teachers may also influence numerous aspects of children's development.

Children experience emotional social support from peers. In research by Bost and colleagues, children with positive reciprocated friendships seem to have higher social competence (Vaughn et al., 2000; Vaughn et al., 2003) and peer relationships seem to positively influence aspects of child social development. Vaughn et al., identified positive reciprocated friendships as friendships when both children named the other person as a

“well-liked” friend. Children with positive reciprocated friendships had more opportunities to socialize with peers, leading to higher social competence among peers (Vaughn et al., 2000). Peers may be a source of emotional support. Perceptions of peer relationships seem to play a large role in how peers, as social supports, influence children’s development.

Social supports are resources provided to individuals from sources of support often identified as parents, teachers, and peers. Social supports influence different aspects of children’s development and later developmental outcomes. Researchers often include the number of supports reported, types of supports given, relationships between individuals, and the impact of social supports on children when investigating social supports related to young children. Researchers also use a number of different methodologies to investigate social supports.

Measures of Children’s Social Supports

Different methods have been used to measure child social supports such as scales, surveys, and checklists (Elicker, 1997; Elias & Haynes, 2008; McClellan & Katz, 1992; Pino et al., 1984), interviews (Bost, 1995; Bost et al., 1994; Franco & Levitt, 1997; Zelkowitz, 1989), and mapping techniques (Pearl et al., 1998; Sturgess et al., 2001). These techniques, and their strengths and weaknesses will be described in the following discussion.

One method for investigating children’s social supports systems is surveys. In a study by Elias and Haynes (2008), child social support was measured using an adaptive version of the *Survey of Children’s Social Support* (SOCSS), originally developed by Dubow and Ullman (1989). The *SOCSS* is a multidimensional (assessing multiple characteristics of social supports) measure of perceived social support (Dubow & Ullman, 1989; Elias &

Haynes 2008) and includes questions with likert-type responses ranging from never to always. Dubow and Ullman's (1989) SOCSS measures the frequency of support, the child's appraisal of support, and the size of the child's support network. This survey was developed for use with older children in this study it was used with third grade children, who are able to read and comprehend the survey on their own. Internal reliability was established by making statistically suggested changes to the measurement, which involved taking out an item from each subscale (family, peer, and teacher support) (Elias & Haynes, 2008). Surveys are often used with older children and adults and only allow one perspective to be taken.

Checklists have also been used in measuring child's social development and social networks. The *Social Attributes Checklist* is a beneficial way for teachers to assess children's social development in the classroom (McClellan & Katz, 1992). The *Social Attributes Checklist* consists of three sections: individual attributes, social skill attributes, and peer relations attributes. Individual attributes include the mood of the child and willingness to participate. Social skills includes expression, interests in others, negotiating skills, nonverbal actions. Peer relationships include acceptance, invitations and likeability as perceived by others. Early childhood teachers complete the *Social Attributes Checklist* through classroom observations. In order for the *Social Attributes Checklist* to be a reliable measure it must be completed over a three to four week period in order to include a larger sampling of the child's behavior (McClellan & Katz, 1992). Validity is established for this measure through consultations with parents. A limitation of the *Social Attributes Checklist* is that there is limiting perspective on social relationships outside of the classroom because the teacher conducts the measure.

Another common method for investigating children's social support networks is the use of interviews. Interviews may be used to gather information on types of social supports and perceptions of social supports for young children (Bost, 1995; Bost et al., 1994; Ladd et al., 1996; Zelkowitz, 1989). In a study by Bost et al., child interviews were used to investigate social supports and social support networks as perceived by the child. The *Social Network Interview* (adapted from Zelkowitz's social network interview) was administered as interviews with children. (Bost et al., 1994). It contains questions related to social embeddedness, valance of impact, enacted support, and stress. It was developed for use with young children in order to include the child's perspective of social networks. It requires verbal interviews with individual children. Results indicated that gender and residential factors influenced children's reports of social supports. Girls reported more social supports than did boys. Also, children reported more social supports coming from household members and relatives than from anywhere else (Bost et al., 1994). The *Social Network Interview* provided information on a wide variety of influences from social supports (social embeddedness, impact, and enacted support). However, the *Social Network Interview* only provided the perspective of the child, which may have left out important information provided by parents or teachers.

Ladd et al. (1996), developed a 24-item friendship interview. It contains questions about their individual's perceptions of how peers treated them at school. It was developed for use with young children. The interview is a verbal interview developed in order to gain understanding of young children's perceptions of friendship. Peer relationships were evaluated on conflict, satisfaction, and stability. Children perceived validation and conflict as indicators of friendship satisfaction. Results also indicated that perceived peer

relationships in the classroom influence development and school adjustment (Ladd et al., 1996). While this measure addresses characteristics of peer relationships adding to our understanding of how perceptions of peers relationships influences child development, this interview limits our understanding to only peer friendships.

Franco and Levitt (1997) used *Social Network Interviews* to assess young children social networks and social acceptance. Interviews were conducted with the child and mother. Mother interviews consisted of identifying social supports in the child's life and information relating to the support given to the child. The social network interview completed by the mothers involved a social mapping of social supports as well as identifying the number of social supports given to the child. The child social network interviews were adapted for age appropriateness, by using pictures with young children, and consisted of the child naming and categorizing perceived social supports. The sociometric peer rating scale was also used in the child interviews to identify influential peers in the child's life. Test-retest reliability was established for the Social Network Interviews by randomly selecting 30 children from the original sample and re-interviewing them five to ten days after the initial interview. Intraclass coefficients were used to test reliability. Coefficients for network measures and network size fell between .40 and .75, indicating good to fair test-retest reliability (Franco & Levitt, 1997).

There are some limitations to the use of interview methodology, particularly when used with children. According to Gullo (2004), young children's responses to interviews are not as reliable or accurate because of the child's capacity to understand and be motivated by the process. Interviews are less appropriate when working with young children (birth to age 8) due to the lack of understanding young children have for the

importance of performing to their best ability (Gullo, 2004). For example, children may respond with unrelated answers because they are not paying attention to the questions. Interview answers tend to be less accurate and less reliable when working with young children. The use of only interview methodology also restricts the gathering of information to the one individual being interviewed or specific questions being asked.

Interviews can be most effective with young children when incorporating pictures (Harter & Pike, 1984). According to Harter and Pike, perceived competence and social acceptance can be measured through an interview process using pictures. Children were asked to identify pictures in which they are most like as answers to interview question. Interviews consist of asking the child a series of questions about social situations and peers. Reliability of this measure was established with an index of internal consistencies, which was found to be in an acceptable range. Convergent validity for this measure was established by asking the participants about their responses; results indicated that participants did have acceptable responses based on their perceptions. Discriminant validity was established in the cognitive domain by separating children who had been held back, in the social domain by separating children who had attended this particular school for less than two months, and the physical domain by looking at children who were identified as being premature (Harter & Pike, 1984). Pictures are easier for children to identify and understand, making responses from children more reliable.

Reid, Landesman, Treder, and Jaccard (1989) used a similar social network measurement called *My Family and Friends*. *My Family and Friends*, identifies children's perceptions of availability of support in their social network and their satisfaction with the support given. *My Family and Friends* uses pictures and dialogue in a ranking task of social

supports. Children first identified people in whom they had frequent involvement with and were asked to establish rank (how often the child goes to a certain person for a certain need), satisfaction (how satisfied the child is with the help offered by an individual), and type (identified support as emotional, informational, instrumental, and companionship) of support given to the child. Both measures use pictures and pictures allow children to have a visual, which is beneficial for young children's understanding. Test-retest reliability was established for this measure by randomly selecting 40 children out of the original sample to complete the first part of the measure three weeks later and by also selecting 49 children to complete the second part of the measure three weeks later. Results indicated that the measure was unreliable only when children experienced great amounts of stress in the home, such as divorce or separations and parental depression. Content validity was established by questioning the participants after the initial interview about their understanding of social supports, which were consistent with common research definitions on social supports (Reid et al., 1989).

The Children's Version of the Family Environment Scale is also an example of interview methodology being adapted to better assess young children's social supports. This measure is a pictorial and multiple-choice version of *The Family Environment Scale* and incorporates pictures into the interview process (Pino et al., 1984). It was developed for use with children between five and twelve. It is used in family therapy to get a better understanding of family relationships. This measure has been found to have high reliability over a four-week retest period (Pino et al., 1984). A limitation of *The Family Environment Scale* is that it only focuses on family members as sources of support, which leaves out other important social relationships that the child may have

Another technique used to measure social supports is mapping. Maps include a visual representation of the social support network. *The Four Field Map* was developed by Sturgess et al. (2001) and is used to identify social supports and closeness of those social supports to the child. *The Four Field Map* consists of a circle, in which the child is told they represent the center. The circular map consists of six rings and is divided into four equal sections, which represent family, school, friends, and relatives. The child is placed at the center of the rings and social supports are placed on the outer circles according to how close they are with the child. The child is told to place those closest to them in the inner most rings and place those who made them unhappy in the outer rings. According to Sturgess et al., the *Four Field Map* can be played as a game and therefore engages young children in participating with more accuracy. A limitation of the *Four Field Map* is that the specific questions may limit responses, which may be important in understanding the types of support given to the child.

Some researchers have combined the use of an interview with mapping techniques. Franco and Levitt (1997) asked mothers to map children's supports onto a circular map, with those that represented the closest supports near the center of the map and those supports that are more distant on the outer edge of the circular map. Children were asked to name people who loved them most and a name was placed on a pictorial drawing. This mapping technique includes perspectives of both mothers and children along with a visual display (a circular map displaying social supports from the closest to those most distant support to the child). A limitation of this measure is that specific questions were used, which may limit responses given by the participants. For example, five questions were asked in order to identify different support functions: "who plays with you?" "who takes

care of you?” “who makes you feel better?” “ who makes you feel happy?” and “who shows you how to do something?” (Franco & Levitt, 1997).

Eco-maps

Eco-maps are a promising tool for learning about the social supports and networks that influence a child’s well being. Eco-maps have been used in other areas such as counseling young children (Curry, Fazio-Griffith, & Rohr, 2008), identifying networks for organizations (Fox, McCormick, Procter, & Carmichael, 2007), and in the field of social work in order to identify perceived social support systems (Vodde & Giddings, 2000). Eco-maps have also been used in research to provide a visual representation of social support networks as well as the type and strength of the support given (Baumgartner & Buchanan, 2010). Eco-maps can be used to measure child social supports in number, type, aspect of development being influenced, and strength of support. By measuring the types of social supports given to children as well as the aspects of development influenced by social supports eco-maps can represent an ecological model of development in young children (Baumgartner & Buchanan, 2010). The adapted eco-map protocol by Baumgartner and Buchanan, specifically measures types of supports as well as relationship direction and strength as well as influences on children’s cognitive, social, emotional, language/communication, physical, and creative development.

Eco-mapping is one way in which we may gain knowledge about the social supports that influence a child’s well being. Eco-maps are used in other areas such as nursing (Ray & Street, 2005) and social work (McCormick et al., 2005). Eco-mapping is a tool that combines interviews with a visual representation of the information learned. Methods used in eco-mapping allow the participants to name and describe relationships without

using specific questions that limit responses. Eco-mapping allows for multiple perspectives that involve engaging family members in conversation about their social supports and social networks. The interview includes questions on relationship strength, frequency, and types of support provided (McCormick et al., 2005).

Eco-maps are a visual representation of the multiple dimensions of child social supports and child social networks and are currently used in other areas as a tool for measuring social networks (Curry et al., 2008, Ray & Street, 2005). Ann Hartman originally created eco-maps in 1975 as a way to visually display social supports and links between individuals in a social group (Ray & Street, 2005). Eco-maps are meant to take an ecological perspective of social supports, highlighting both the connections between individuals and the relationship between those connections (Ray & Street, 2005). An adapted eco-map protocol developed by Baumgartner and Buchanan (2010) involves identifying types of support, the strength of relationships, and the developmental aspects influenced.

The eco-map child protocol was developed and used in a study of children's social supports. Baumgartner et al. (2012) found that eco-maps could be created from interviews with young children using pictures. The present study investigated whether the information obtained from the interview-only protocol yields similar information as the interviews with pictures protocol. Although in the present study eco-maps were not created, the data from other interviews (both with and without pictures) could be used to create an eco-map. The purpose of the present study was to inform the further refinement of the child eco-map protocol. The interview-only protocol and interview-with-pictures protocols may be used at home and in classrooms in a way that classroom teachers and

parents can better foster their children's development. This project investigates the use of pictures in interviews by comparing interviews with young children completed without pictures and interviews with pictures. The child interview-only protocol and the child interview-with-pictures protocol are compared to determine if pictures are more effective when used with interview techniques with children.

Table 1: Measures of Social Supports

Measure	Multiple Perspectives	Number of Sources	Types of support	Aspect of Development Supported	Strength of Relationship	Direction of relationship
<i>Social Network Interview</i>		X	X	X	X	X
<i>Perceptions of Peer Social Support Scale</i>					X	X
<i>My Family and Friends</i>		X	X		X	
<i>The Four Field Map</i>		X			X	
<i>Survey of Children's Social Support</i>		X			X	
<i>Social Attributes Checklist</i>					X	X
<i>Eco-map</i>	X	X	X	X	X	X

Chapter 3: Methods

Introduction

This project examines the similarities and differences between child reports of social support using: a) child interview-only protocol and b) interview-with-pictures protocol. The two main research questions include: 1) Do children report the same number of social supports using the child interview-only protocol as the interview-with-pictures protocol? and 2) Do children report the same kind of social supports (same names, same types, and same aspects of development) using the child interview-only protocol vs. the interview-with-pictures protocol? In this project inter-rater reliability of the interview protocol is measured by comparing the reports from two raters. Item by item reliability is also measured for the names reported by child informants.

Sample

The sample for this project consists of five randomly selected children attending a university laboratory preschool. The preschool consists of one class made up of twenty children. The sample of children included two girls and three boys. Two children were identified as white and three children were identified as non-white. Four of the children were five years old and one child was four.

Measures

Child interview-only protocol. The first measure used in this study was the child interview-only protocol, based on the adapted eco-map protocol used by Baumgartner et al. (2012). The child interview consisted of one interview where the child was asked to identify people who are important to them. The child was asked what activities they like to do with each person, if they argue with each person, and how much fun they have with each

person. The questions in the interview were designed to inform the researcher about the child's social supports (see Appendix A).

Interview-with-pictures protocol. The second measure used was the interview-with-pictures protocol, which includes pictures taken by the children of people who are important to them. The same questions asked were identical to the interview-only protocol. The questions are asked with the aid of a picture the child has taken and pictures provided of people in the child's classroom (see Appendix B).

Procedure

Child Interview-Only Protocol. After IRB approval was obtained for data collection, informed consent was obtained from the parents (see Appendix D) of each child participating in the study and assent was obtained from each child participating (see Appendix E). The first step was to interview each child. The first interview consisted of asking the child a series of name generating questions (see Appendix A). Each name the child provided was written on a half sheet of paper. After all name generating questions were asked, the child was asked if they wanted to talk about anyone else they had not mentioned. Following the name generating questions, the child was asked another series of questions regarding the activities they engaged in with each person in order to inform the researcher on the different developmental domains influenced. The child was asked if they argued with each person a *lot*, *sometimes*, or *never*, which was used to interpret the relationship between the child and each person. Children also were asked how much fun they had with each person in order to determine the strength of the relationship: *a lot*, *a little*, or *no fun*.

Interview-With-Pictures Protocol. Following the first interview, the interviewer told the child they would be able to take home a camera and would be able to take pictures of important people in their lives. The interviewer asked if the child could think of one person they would take a picture in order to determine whether the child understood the directions provided. The interviewer then discussed how to ask someone if they could take a picture of them. The child was told that they would bring the camera back to the interviewer at school and after the pictures were developed the child would get to see the pictures and talk about the people in the pictures. The child was sent home with a disposable camera and note to their parents explaining the process that was discussed with the child at school and when to return the cameras.

The interview-with-pictures protocol involved an interview with the child accompanied by the pictures taken by that child. The child was asked the same questions as in the child interview-only protocol (see Appendix B). The child was asked what activities they did with each person in order to inform the researcher on the different developmental domains influenced. The child was asked if they argued with each person *a lot, sometimes, or never*, which was used to interpret the relationship between the child and each person. Children also were asked how much fun they had with each person in order to determine the strength of the relationship: *a lot, a little or no fun*. Next, children were shown pictures of classmates and teachers at school provided by the researcher. They are asked to pick the people they are closest to at school and asked the same series of questions asked about the pictures they took at home. After all pictures were discussed, each child was asked if they wanted to add or talk about anyone not represented in the

pictures. If the child wanted to add someone they did not have a picture of, they were asked to draw a picture of that person and asked the same series of questions.

Analysis

- **Do children report the same number of social supports using the child interview-only protocol as the interview-with-pictures protocol?**

In order to answer research question one, the number of social supports reported were counted for both the child interview-only protocol and the interview-with-pictures protocol. The total number of supports from both interviews were compared in order to determine if children reported a different number of social supports when a photograph is introduced.

- **Do children report the same kind of social supports (same names, same types, and the same aspects of development) using the child interview-only protocol vs. the interview-with-pictures protocol?**

In order to answer research question two a table was used to compare child reports. The names, types, and aspects were compared between the child interview-only and the interview-with-pictures protocol using a table representing the number of the same kinds of social supports reported and the number of different kinds of social support reported. The number of same and different kinds of support reported was compared to determine differences in responses when a picture photograph is introduced.

Chapter 4: Results

Introduction

In this study two research questions were addressed: 1) Do children report the same number of social supports using the child interview-only protocol as the interview-with-pictures protocol?, and 2) Do children report the same kind of social supports (same names, same types, and the same aspects of development) using the child interview-only protocol vs. the interview-with-pictures protocol? These questions were addressed through two interviews with five children. Research question one was addressed by comparing number of social supports recorded during the child interview-only protocol and the social supports recorded using the interview-with-pictures protocol. Research question two was addressed by comparing kinds of social supports recorded using the child interview-only protocol and the kinds of social supports recorded using the interview-with-pictures protocol. The results found for each research question are reported in the following section.

Inter-observer reliability was calculated for the types of support identified and the aspects of development identified. Two researchers were used to analyze the data recorded from the child interviews, the primary researcher and one undergraduate student. The observers were trained using a set of definitions for the types of supports and developmental domains supported (see Appendix F). The observers practiced on an interview from a child in the same class as the sample. When the observers had a disagreement on the practice interview the observers reviewed the information and came to an agreement adding to the definitions proposed. The coders discussed definitions for types of support and aspects of development supported by social supports. After all

definitions were made clear and objective, the observers coded the child responses for the interview-only protocol and the interview-with-pictures protocol. A recording sheet was used to identify types of support and aspects of development supported by social supports named in both the child interview-only protocol and the interview-with-pictures protocol (see Appendix C). Researchers identified both primary and secondary supports on the recording sheet when analyzing child interviews. Agreement was determined when both researchers identified at least one type of support and aspect of development as either a primary source or secondary source. For types of support identified in the child interview-only protocol, percent agreement ranged from 82-100% with an average of 91% agreement. For aspects of development identified in the child interview-only protocol, percent agreement ranged from 67-100% agreement with an average of 83% agreement. Total agreement for the interview-only protocol ranged from 73-100% agreement with an average of 86% agreement. For types of support identified in the child interview-with-pictures protocol, percent agreement ranged from 43-100% agreement with an average of 82% agreement. For aspect of development identified in the interview-with-pictures protocol, percent agreement ranged from 57-100% with an average of 84% agreement. Total agreement for the interview-with-pictures protocol ranged from 57-94% agreement with an average of 84% agreement.

- **Research Question 1: Do children report the same number of social supports using the child interview-only protocol as the interview-with-pictures protocol?**

The number of social supports reported using the child interview-only protocol and the interview-with-pictures protocol were counted and compared, in order to determine if a different number of social supports were reported between interview measures. The

mean number of social supports reported in the child interview-only protocol was eight (range 6-10). The mean number of social supports reported using the interview-with-pictures protocol was 11 (range 8-17). Comparisons indicated that two children reported 1 more social support during the interview-with-pictures protocol than the child interview-only protocol, two children reported 2 more social supports, and one child reported 9 more social supports. Overall, children reported at 1-9 more social supports when using the interview-with-pictures protocol than when using the child interview-only protocol.

A t-test was used to determine if the difference in number of social supports reported between interviews was statistically significant. Results indicated that the difference in the number of social supports reported between interviews was not statistically different ($b=0.119$, $t=1.860$) at a 95% confidence interval.

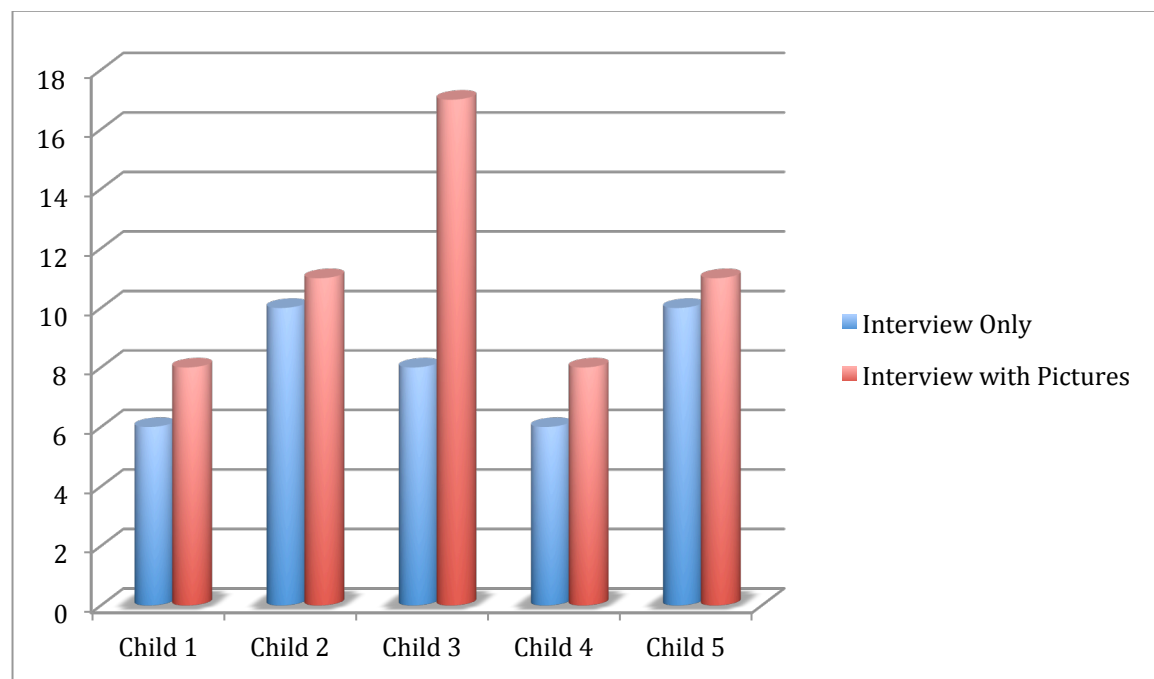


Figure 1: Number of social supports reported

- **Research Question 2: Do children report the same kind of social supports (same names, same types, and the same aspects of development) using the child interview-only protocol vs. the interview-with-pictures protocol?**

Names. The kinds of social supports reported using the child interview-only protocol and the interview-with-pictures protocol were compared in order to determine if children reported different social supports, types of social supports, and aspects of development supported by social supports. Children reported more social supports in the interview-with-pictures protocol than in the child interview-only protocol; the names of social supports were also compared between interviews to determine if children reported the same social supports or different social supports. The mean number of same names reported by the children was 4.4 (range 2-6). Children added from 4 -11 different names during the interview-with-pictures protocol, as compared to the child interview-only protocol which yielded and the mean number of different social supports reported was 6.6 (see Figure 2). Item by item analysis was calculated for the names of social supports the children reported to determine reliability between the child interview-only protocol and the interview-with-pictures protocol. The average reliability for names repeated and names different was 40% (range 25%-50%).

Types of Social Supports. The types of social supports identified in both the child interview-only protocol and the interview-with-pictures protocol included instrumental support, informational support, and emotional support.

- **Instrumental support.** Instrumental support includes social supports providing material things to the child. The mean number of instrumental supports identified in the child interview-only protocol was 0.2 supports (range 0-1). The mean number of

instrumental supports identified in the interview-with-pictures protocol was 1.4 supports (range 1-3) (see Figure 3).

- **Informational support.** Informational support includes social supports providing information to the child. The mean number of informational supports identified in the child interview-only protocol was 0.8 supports (range 0-2). The mean number of informational supports identified in the interview-with-pictures protocol was 2.6 supports (range 2-3) (see Figure 4).

- **Emotional supports.** Emotional supports include social supports providing support by listening, caring, and encouraging the child. The mean number of emotional supports identified in the child interview-only protocol was 5.8 supports (range 3-9). The mean number of instrumental supports identified in the interview-with-pictures protocol was 6.6 supports (range 2-14) (see Figure 5).

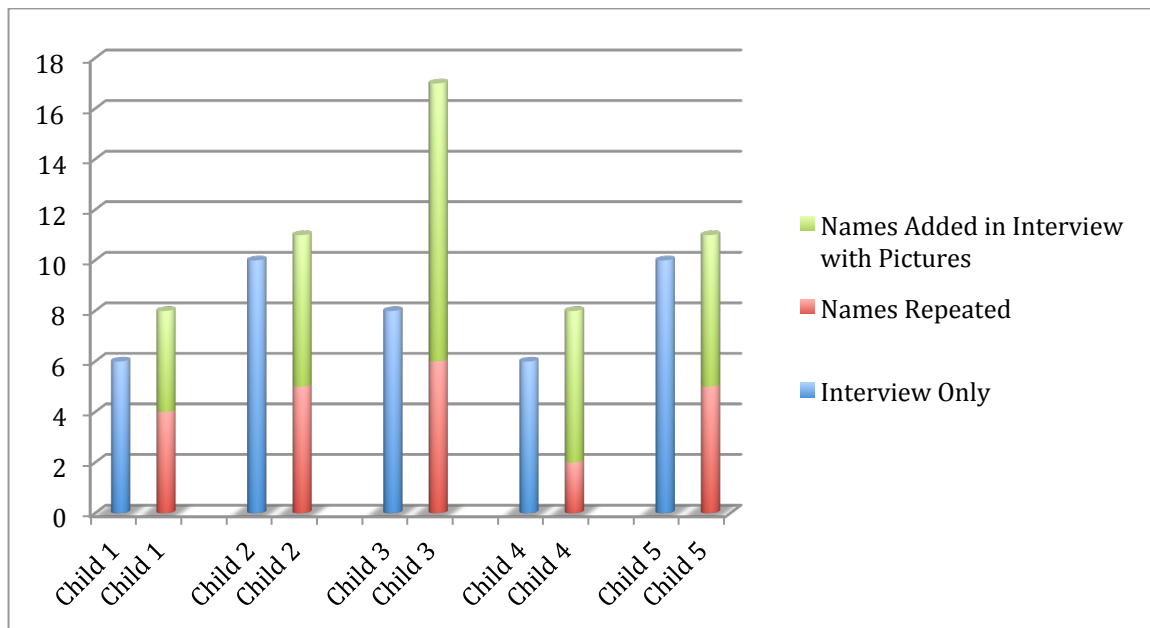


Figure 2: Names of social supports reported

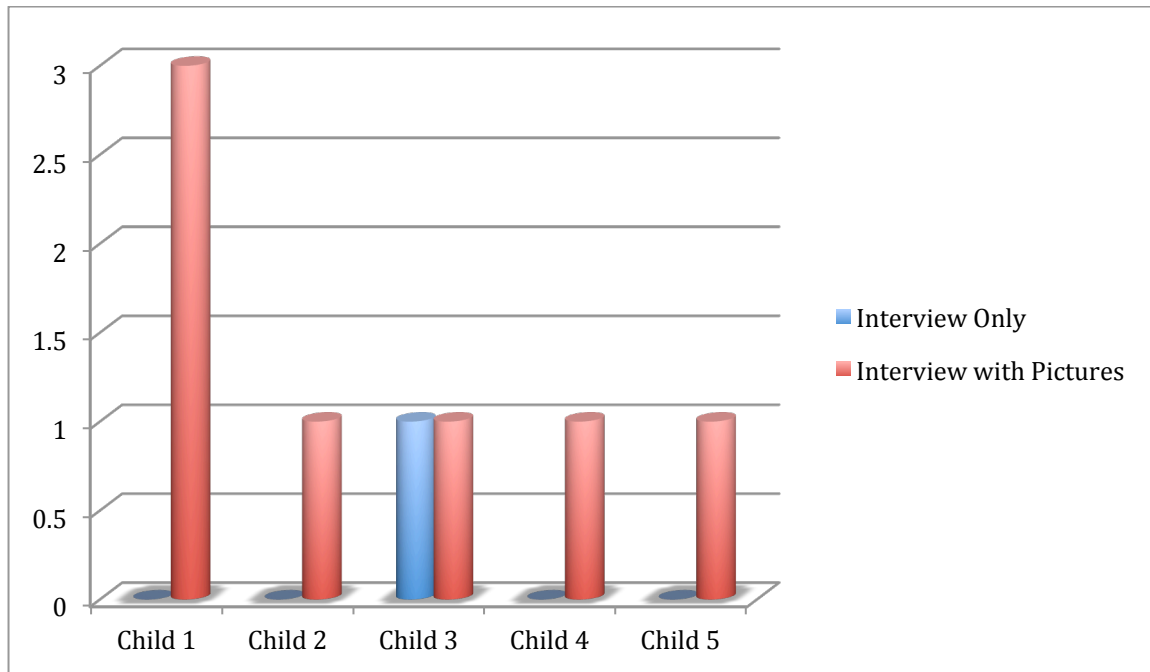


Figure 3: Instrumental supports identified

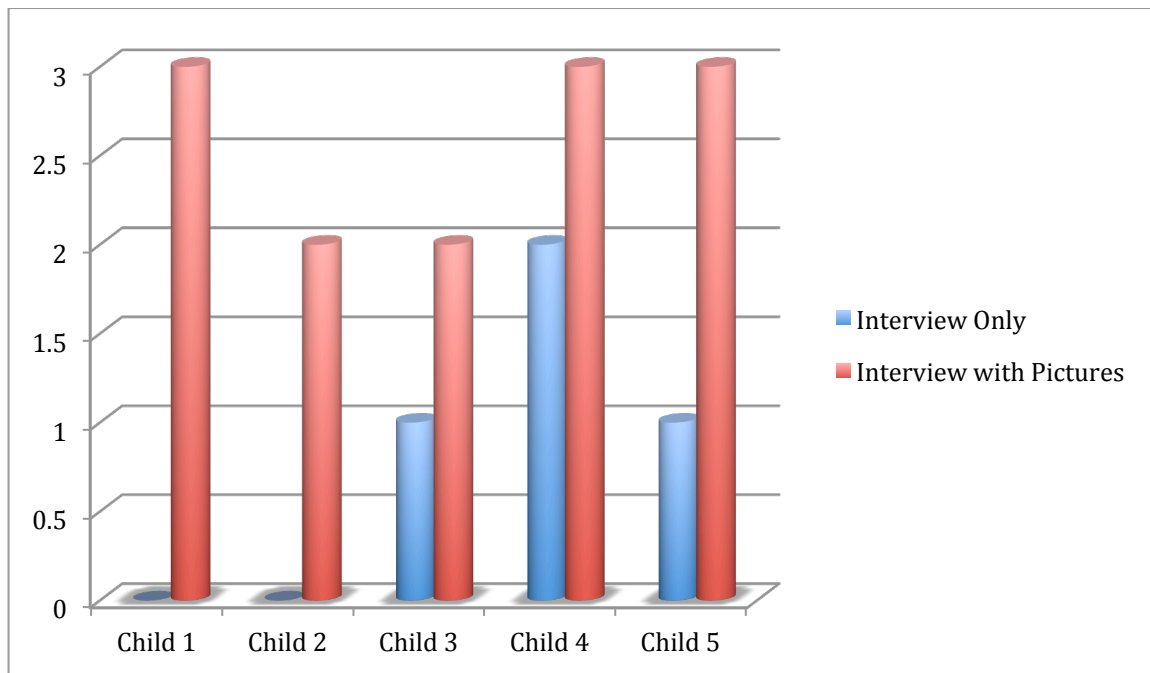


Figure 4: Informational supports identified

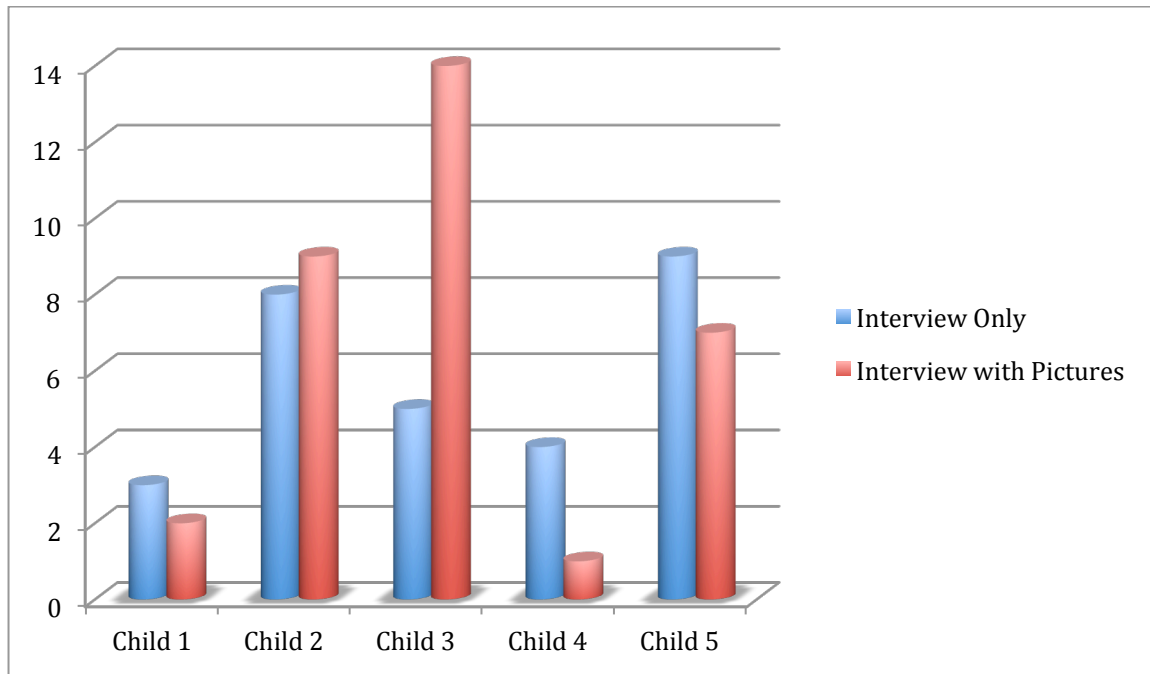


Figure 5: Emotional supports identified

Aspects of Development. The aspects of development identified in both interview protocols included cognitive, social, emotional, language, physical, and creativity.

- **Cognitive development.** Cognitive developmental sources of support were identified as a support that the child learns from. The mean number of cognitive developmental supports identified in the child interview-only protocol was one support (range 0-2). The mean number of cognitive developmental supports identified in the interview-with-pictures protocol was 2.4 supports (range 0-5) (see Figure 6).

- **Social development.** Social developmental sources of support were identified as a support the child went places with and does things with. The mean number of social developmental supports identified in the child interview-only protocol was 3.6 supports (range 2-6). The mean number of social developmental supports identified in the interview-with-pictures protocol was 4.8 supports (range 2-11) (see Figure 7).

- **Emotional development.** Emotional developmental sources of support were identified as a source of comfort to the child. The mean number of emotional developmental supports identified in the child interview-only protocol was 0.2 supports (range 0-1). The mean number of emotional developmental supports identified in the interview-with-pictures protocol was 0.8 supports (range 0-3) (see Figure 8).
- **Language development.** Social supports providing language developmental support were identified by teaching the child new words and talking or reading to the child. The mean number of language developmental supports identified in the child interview-only protocol was 0.2 supports (range 0-1). The mean number of language developmental supports identified in the interview-with-pictures protocol was 1.2 supports (range 0-3) (see Figure 9).
- **Physical development.** Physical developmental sources of support engage in gross motor activities with the child and provide nutrition to the child. The mean number of physical developmental supports identified in the child interview-only protocol was 3.6 supports (range 2-5). The mean number of physical developmental supports identified in the interview-with-pictures protocol was 6.2 supports (range 3-11) (see Figure 10).
- **Creative development.** Creative developmental sources of support provide encouragement to the child in the arts. The mean number of creative developmental supports identified in the child interview-only protocol was 1.2 supports (range 0-5). The mean number of creative developmental supports identified in the interview-with-pictures protocol was 1.4 supports (range 0-4) (see Figure 11).

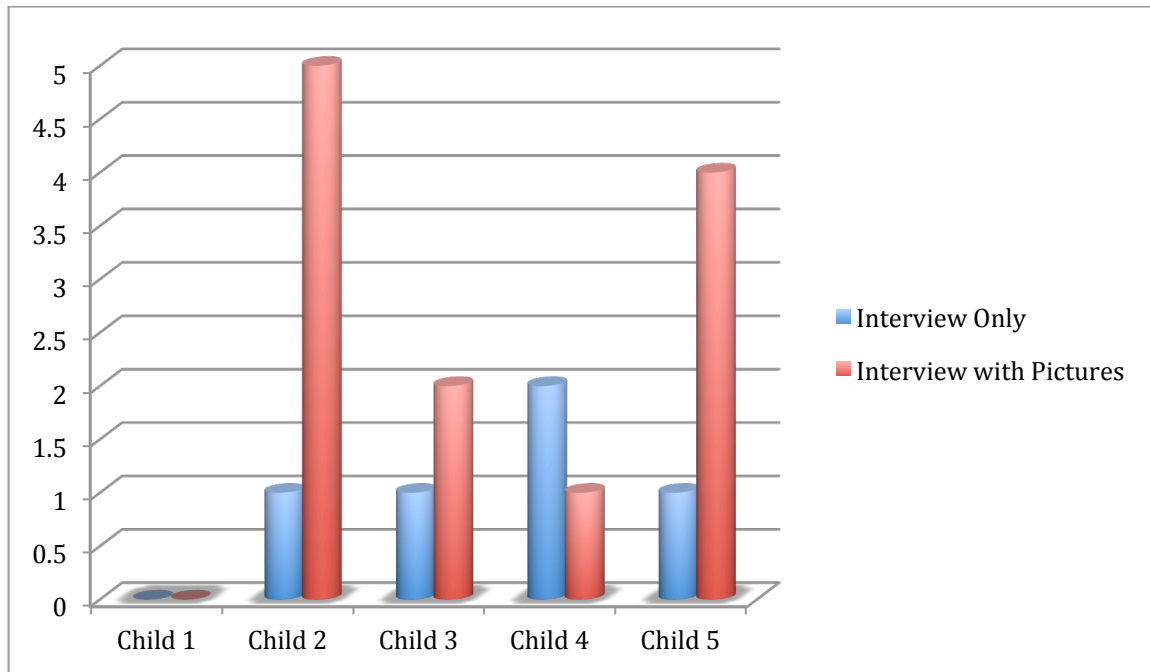


Figure 6: Cognitive developmental supports identified

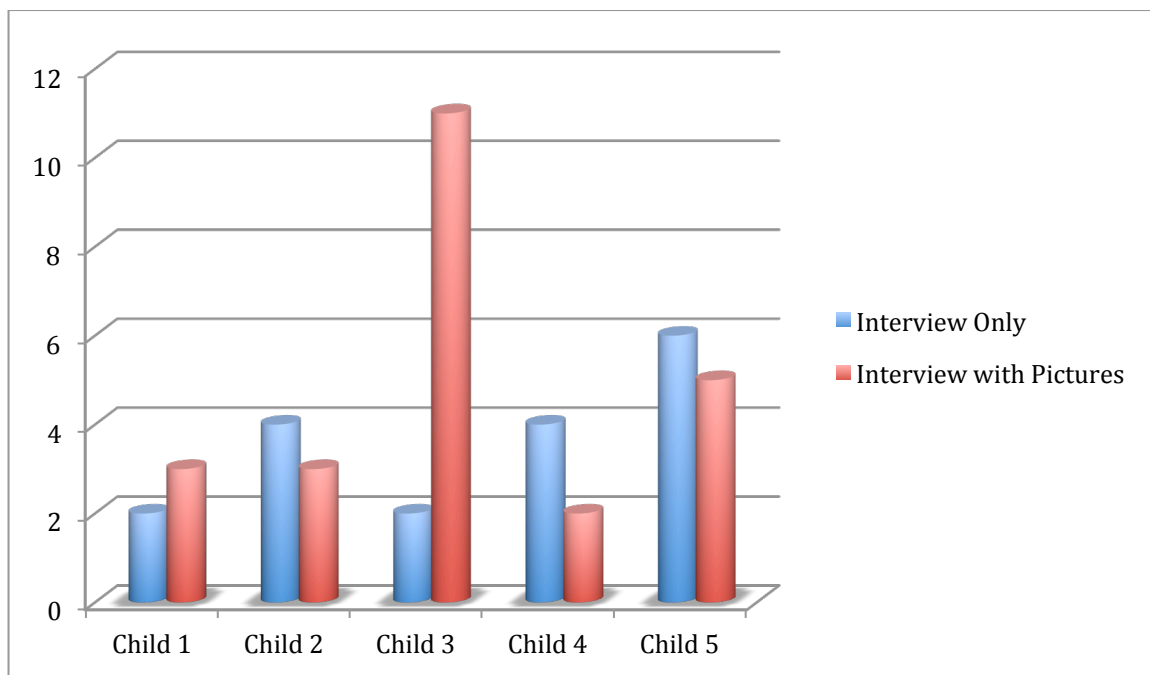


Figure 7: Social developmental supports identified

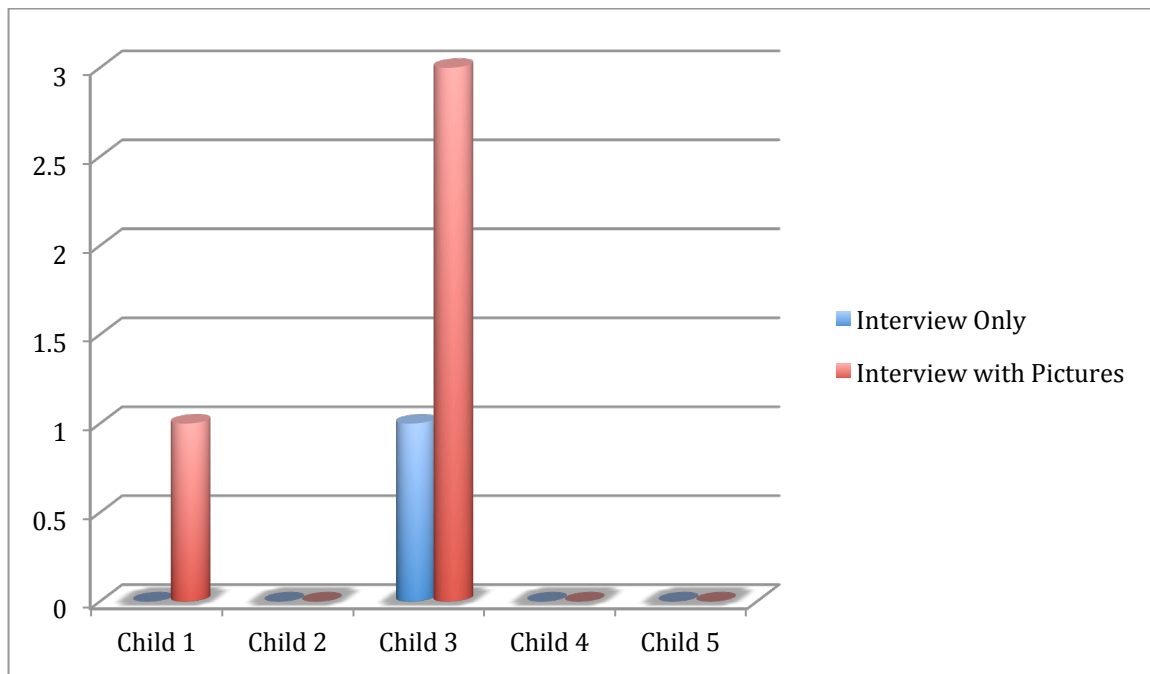


Figure 8: Emotional developmental supports identified

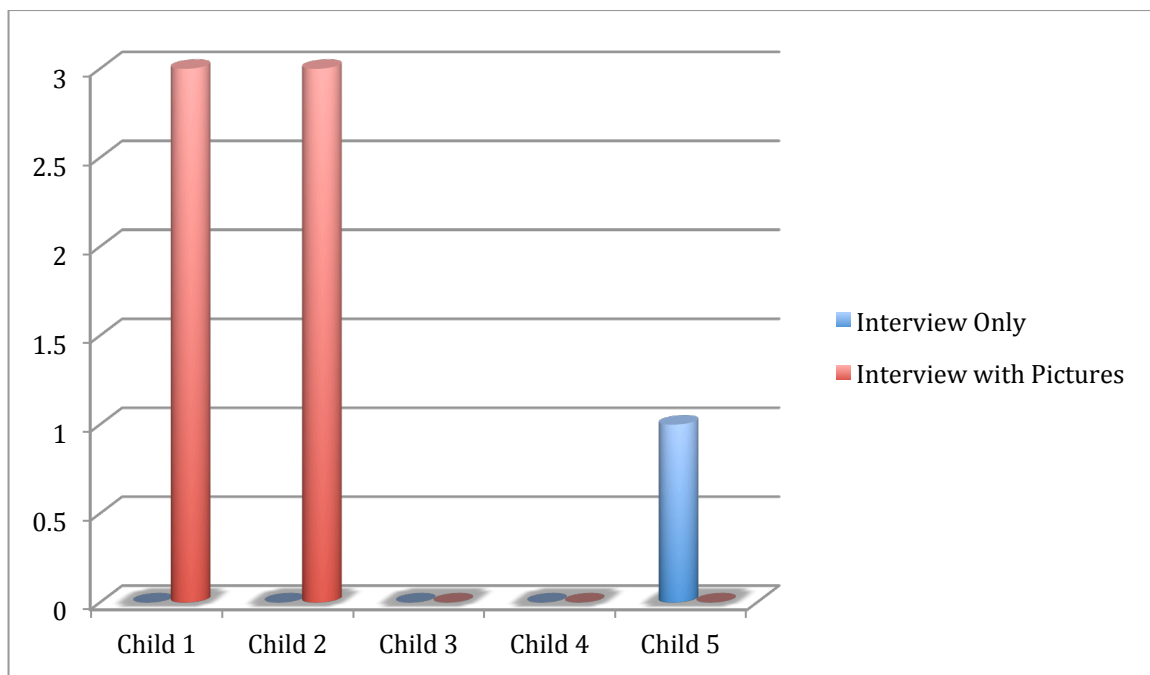


Figure 9: Language developmental supports identified

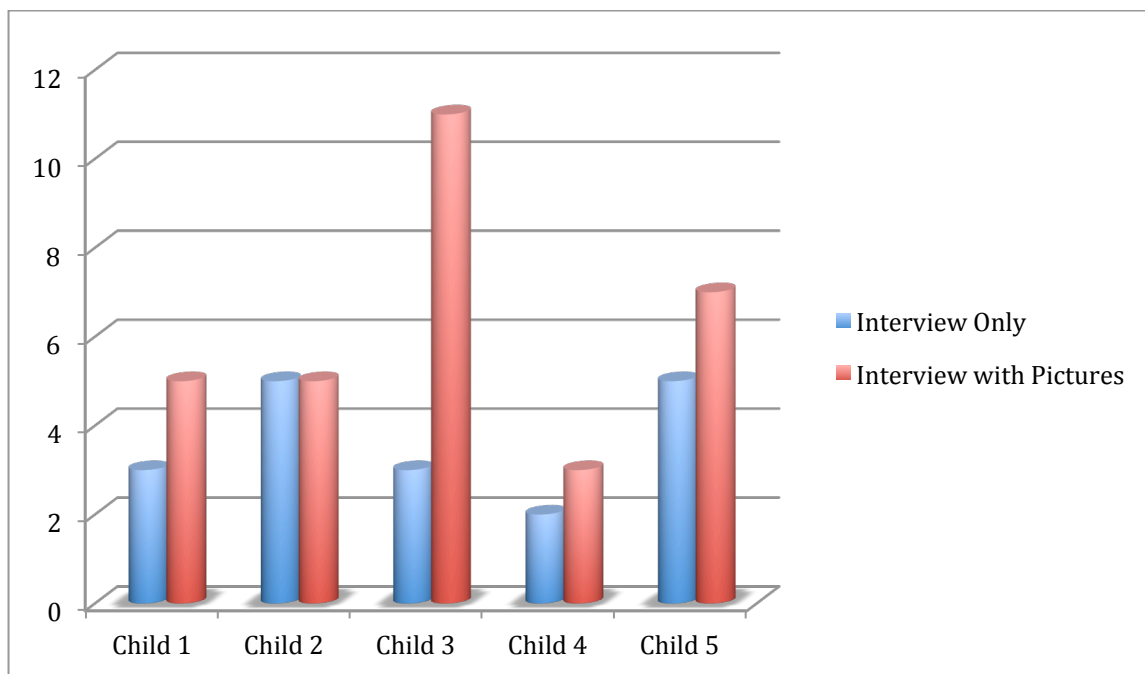


Figure 10: Physical developmental supports identified

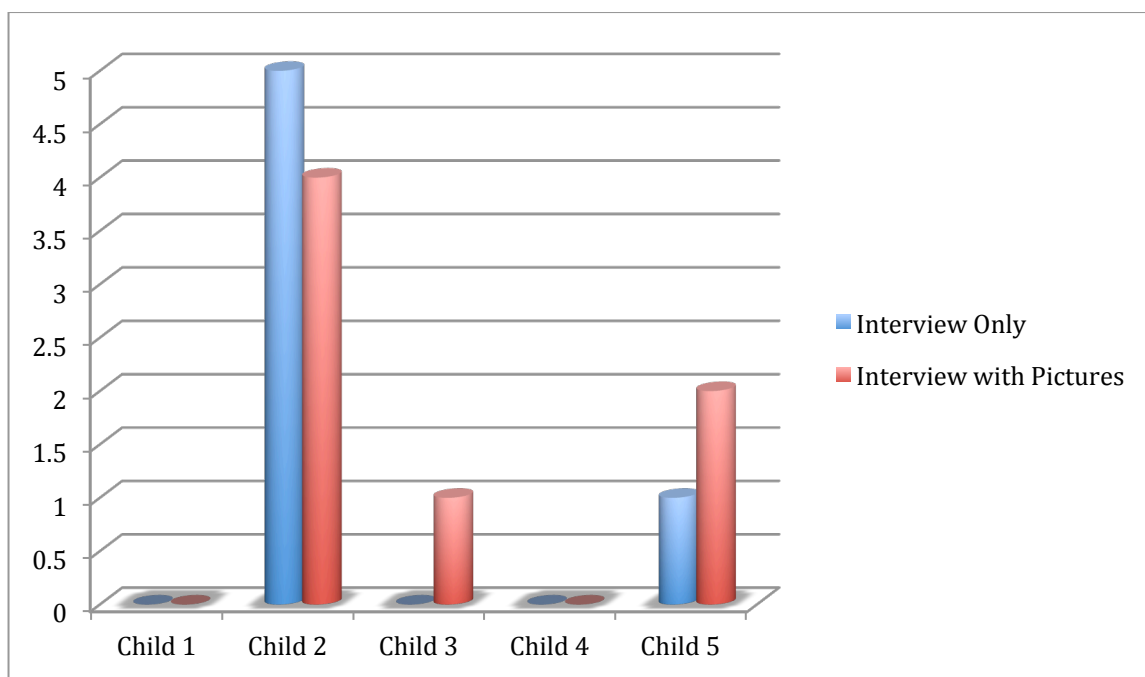


Figure 11: Creative developmental supports identified

Chapter 5: Discussion

Discussion

Data collected using a child interview-only protocol and the interview-with-pictures protocol were compared for similarities and differences in social supports reported by children. In regards to research question 1) Do children report the same number of social supports using the child interview-only protocol as the interview-with-pictures protocol?, results indicated that children reported more sources of social support in the interview-with-pictures protocol. Children reported more social supports using the interview-with-pictures protocol. Children may have reported more supports in the interview-with-pictures protocol due to the amount of pictures taken at home, combined with the pictures used from school, as well as the additional names added that were not prompted by pictures. Consistent with previous research, results support the use of pictures along with interviews, when working with young children because pictures helped generate names of social supports from the child (Harter & Pike, 1984; Reid et al., 1989).

In order to answer research question 2) Do children report the same kind of social supports (same names, same types, and the same aspects of development) using the child interview-only protocol vs. the interview-with-pictures protocol?, the child interview-only protocol and the interview-with-pictures protocol were compared. In regards to the names children reported, all children reported both the same names of some supports and different names of some reports. All five children reported their immediate family members using both the child interview-only protocol and the interview-with-pictures protocol, with the exception of one, child who did not have a picture of his father and did not add him in the interview-with-pictures protocol. Other names mentioned in both

interview protocols varied from relatives to friends. Children may have reported more of the same names if asked to name people who are important to them before pictures are discussed in the interview-with-pictures protocol. By having the child talk about the people in the pictures first, the interview-with-pictures may limit the child to only talking about people in the pictures. Many of the children did not want to add people who were not in the pictures after having discussed them.

Types of social supports were analyzed between both interview protocols to examine differences and similarities. Overall, fewer types of social supports were identified using the child interview-only protocol than the interview-with-pictures protocol with a total of 32 types of support identified using the interview-only protocol and 61 identified using the full protocol. Both protocols revealed children identified fewer instrumental supports than any other type of support, and identified more emotional supports than any other type of support. These results are consistent with previous results using the interview-with-pictures protocol (Burnett, 2010). This is consistent with previous research in which children identified many peers as sources of support (Vaughn et al., 2000; Vaughn et al., 2003). Reasons for finding less instrumental types of support and more emotional types of support may have occurred due to the questions asked in the interview. The child was never asked to talk about things the person provides for the child, rather the child was asked to talk about activities the child participates in with each person. The child's descriptions of activities may lack in details of material things provided to the child.

Physical and social development were identified as the most supported aspects of development in both the interview-only protocol and the interview-with-pictures protocol.

Emotional and language development were identified as the least supported aspects of development for both the interview-only protocol and the interview-with-pictures protocol. This finding is also consistent with previous findings, which also found that children identified less emotional, and language developmental support (Burnett, 2010). Social development may have been identified more often in both interviews because the activities described were based primarily on social interactions. Many children described games they played with each person that involved physical activities such as sports and outdoor games, which may have lead to more physical developmental influences identified. The children tended to talk about engaging games and high-energy activities when asked about what activities they did with each person, which may have lead to less reports about how often the child talked or read with each support. The children were not prompted to talk about their feelings which is why emotional support may have been identified less often than other types of support

When child responses were compared between interviews, results indicated that children shared richer and more detailed responses when looking at and talking about people in pictures. Children often mentioned what the people in the pictures were doing as a shared activity. The pictures may have influenced what the child said about each person, which may have prompted the children to talk more about each person. In the following table three responses are compared between the interview-only protocol and the interview-with-pictures protocol.

Table 2: Comparison of child responses between interviews

Social Support	Interview-Only	Interview-With-Pictures
Dad	"We do art and like to play games. We watch tv and go to Chucky Cheese."	"I play tic-tac-toe and chess and checkers with my dad. My dad knows how to play checkers but he doesn't know how to play chess. My babysitter taught me. I like to do some art with my dad."
Sister	"We play whatever she wants to do."	"We play with balls. We play house. We pretend we are buying stuff. We run."
Sister	"All she does is open her eyes and says "goo" and I say "goo" back. She says hello, that is how you say hello to the baby. I feed her. "	I can do this little thing and the name of it is "tummy time" and you bend and stretch her legs. It is for big sis/little sis and it is a follow the leader game.

Children rarely reported arguing or fighting with social supports identified in both interview protocols. Although the children knew the interviewer and were interviewed in a familiar setting, children may not have wanted or felt comfortable admitting to arguing with the people they mentioned as important to them. Using different language in the interview may help the child feel more comfortable talking about arguing or fighting. Instead of asking the child if they ever fought with the person the interviewer might ask if the child ever disagreed the each person. Children also mostly reported having a lot of fun

with the supports named in both interviews. When a child did report not a lot of fun was had with an identified person, the child almost always had a reason. For example, a child may have said they did not have a lot of fun with a parent because the parent was always working.

Limitations

There are some limitations to the present study including: sample size, order and spacing of the two interviews, teacher as researcher, and type of camera used. The sample only consisted of five children attending the same half-day preschool. The size of the sample may limit how representative the results are of a larger population. A larger sample of children from a more diverse school setting may contribute to the generalizability of the interview-with-picture protocol. While the present small sample is ethnically diverse, particularly as compared to the population of the community, future research with a larger, diverse sample would increase the generalizability of the results.

An additional limitation of the study was the order and spacing of the interviews. All five children participated in both interviews in the same order; which may have lead to the first interview informing the interview-with-pictures protocol. This was done within the context of the classroom and due to timing of the research project by the teacher-researcher. However, future research should vary the order of the measures before an accurate comparison can be made.

A third limitation to the study is that the primary researcher was a teacher in the classroom. This may have influenced the administration of the interviews with the children, as well as biased the interpretation of the data. The teacher as the primary researcher may have led the children to feel uncomfortable discussing certain relationships

with their own teacher. Interpretation of the data may have been biased to the level at which the teacher is familiar with the child and their social network. One step taken in order to eliminate these issues is that the interviews were held outside of the classroom in a calm and controlled setting.

Another limitation to the study was the use of cameras with young children. The children may not have been knowledgeable or comfortable operating the camera used in the study, which may have lead to less pictures actually taken and less pictures clear enough to be usable in a discussion with the child. In future research, picture quality may benefit with a tutorial on how to use the specific camera being used. Instead of disposable cameras, researchers may choose to use digital cameras so the child and or parent can ensure an appropriate picture was taken.

Implications

Research. The interview-with-pictures protocol sought to investigate children's social support systems through an ecological theoretical framework. However, difficulties were encountered in replicating the procedure used by Burnett (2010). First, there are no direct questions for identifying types of support and aspects of development. Questions asked should be examined in order to better address the specific kinds of social supports in a child's network. Researchers may decide to ask more specific questions about types of support and aspects of development influenced by social supports. In addition, a standardized procedure for prompting children's discussion may be beneficial. One suggestion may be to rearrange the order of questions asked in the interview-with-pictures protocol in order to identify more sources of support. More sources of support may be identified if children are asked to name people most important to them before discussing

the pictures they have already taken. Also, multiple questions should be asked about each support in order to insure a more thorough discussion about each support.

Teaching. The information obtained through the interview with picture protocol with children is useful in the classroom for teachers to gain a better understanding of the individual children in their classroom. According to the National Association for the Education of Young Children, knowledge of individual children and their social contexts are considered core knowledge for developmentally appropriate practices in early childhood classrooms (Copple & Bredekamp, 2009). The interview-with-pictures protocol may help teachers become more aware of the developmental needs of the child and identify gaps in different areas of developmental support and better support children's development in the classroom. For example, if a teacher identifies that one child receives a high amount of support in one aspect of development (cognitive development) and reports a low number of developmental support for another aspect (language development) the teacher may be able to address a gap in support by encouraging the child to look at books or spend time in the writing center. Also, teacher may use the information identified through the interview-with-pictures protocol to better understand relationships the child has in their home. If the child reports weak and negative relationships with supports in their home, the teacher may have a better understanding of the child's behaviors in the classroom with teachers and peers.

By using the interview-with-pictures protocol to involve families in the education of the child, a teacher can ensure that both the home and school contexts are similar in fostering appropriate development (Carlisle, Stanley, & Kemple, 2005; Knopf, & Swick, 2008; Weigel, Martin, & Bennett, 2005). Which is a recommended practice in early

childhood education (Copple & Bredekamp, 2009). Teachers may also use the data collected through the interview-with-pictures protocol to communicate a better understanding of a child's developmental needs to parents. As a communication tool with parents, teachers may use the interview-with-pictures protocol at different times during the school year to talk about children's development. Teachers may meet with parents to review child reports of social supports and involve families in a collaborative plan for fostering their child's development.

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Appendix A: Child Interview-Only Protocol

ID# _____

Child Interview-only Protocol:

Let the child know you are about to ask them some questions about important people in their life and that you will be writing down what they say.

Write each name on a half sheet of paper.

1. Can you tell me the names of some people who help you?
2. Can you tell me the names of some of the people in your family?
3. Can you tell me the names of some of your friends?
4. Sometimes you may not get along with some people. Can you tell me the names of some people you may fight with sometimes?

After all names are written go through each name with the child and ask:

1. What activities do you like to do with this person?
2. Do you argue with this person? If yes, ask a little or a lot?
3. How much fun do you have with this person? A lot, a little, or no fun?

Record what the child says under each name.

Appendix B: Child Interview-With-Pictures Protocol

ID# _____

Child Interview-with-pictures Protocol:

Let the child know you are about to ask them some questions about pictures they took of important people in their life and that you will be writing down what they say.

Show each picture to the child one at a time. Ask the child to tell you the name of the person in the picture and record it on a sheet of paper. Then ask the child these three questions about the person in the picture:

1. What activities do you like to do with this person?
2. Do you argue with this person? If yes, ask a little or a lot?
3. How much fun do you have with this person? A lot, a little, or no fun?

Record what the child says under each name.

After all pictures are talked about, ask the child if they want to talk about someone they did not take a picture of. Add those people on another sheet of paper and ask the child the same three questions.

After all other people are added ask the child to name their very best friends at school and show the child a picture of the children they name. Add each child to another sheet of paper, along with their picture, and ask the child the same three questions.

After those pictures are discussed, show the child a picture of each teacher at school. Ask the child to pick the most important teachers to them. Add each teacher to a sheet of paper and ask the same three questions about the teacher.

Appendix C: Recording Sheet

ID: _____

Coder: _____

Instrument:_____

[illegible]

Appendix D: IRB Consent Form

LSU Consent Form Measuring the Reliability and Validity of Eco-maps as a Measure of Child Social Supports

Dear Parent,

Your child's class has been selected to participate in a study conducted by Louisiana State researcher, Dr. Jennifer Baumgartner. The study is designed to find out about the lives of young children. We would like to interview your child in a playful game-like setting to find out about their family and friends. All individual information will remain completely confidential.

Participation in this project is entirely voluntary. If you indicate on this form that you would rather your child did not participate, that is fine. There will not be any negative consequences for you or your child. If you agree to let your child participate but your child does not want to do the interview or wants to stop at anytime, that is also fine with us. In fact, if your child seems uncomfortable at any time, we will stop the interview immediately. Please indicate below if you would like for us to call you if your child seemed unusually uncomfortable.

If you have *any* questions about any of this at *any* time, please call or write one of us. Our phone numbers and e-mail addresses are listed below.

Sincerely,

Jennifer Baumgartner

225-578-0312

jbaum@lsu.edu

'The study has been discussed with me and all my questions have been answered. I may direct additional questions regarding study specifics to the investigators. If I have questions about my child's rights or other concerns, I can contact Robert C. Mathews, Chairman, LSU Institutional Review Board, (225)578-8692. I agree to let my child participate in the study described above and acknowledge the researchers' obligation to provide me with a copy of this consent form if signed by me.'

Parent Signature

Date

(Check one of the statements below)

☐ No, I would prefer that my child not participate in this project.

☐ Yes, my child can participate in the entire project. I do want to know if my child shows signs of distress during the research. My phone number is ____-____-____.

☐ Yes, my child can participate in this entire project. I do not need to know if my child shows signs of distress during the research task.

Study Approved By:
Dr. Robert C. Mathews, Chairman
Institutional Review Board
Louisiana State University
203 B-1 David Boyd Hall
225-578-8692 | www.lsu.edu/irb
Approval Expires: 4/15/2013

One copy of this is for you to keep.
We can't begin the study until you return the other copy to your child's teacher so please return it soon.
Thank you for your help!

Appendix E: IRB Assent Form

LSU Assent Form

Measuring the Reliability and Validity of Eco-maps as a Measure of Child Social Supports

"I would like to be part of this research. I know that people will ask me a lot of questions for me to answer. If I change my mind later and don't want to do this anymore I don't have to. I can go back to my classroom any time I want. If I don't like this, I will tell the people so they will know that I don't have to do this. If I get upset, the people can tell my parents about how I'm feeling."

Child's Signature: _____

Date: _____

Child's Age: _____

Witness:

Parent or Guardian: _____

Study Approved By:
Dr. Robert C. Mathews, Chairman
Institutional Review Board
Louisiana State University
203 B-1 David Boyd Hall
225-578-8692 | www.lsu.edu/irb
Approval Expires: 2/15/2013

*One copy of this is for you to keep.
We can't begin the study until you return the other copy to your child's teacher so please return it soon.
Thank you for your help!*

Appendix F: Definitions For Coding

Type of support:

- **Informational**- support that informs or gives direction (teaches or informs the child, support is going to the child)
- **Instrumental**- support that provides material things (shelter, food, or clothing, games, support is going to the child)
- **Emotional**- support offered by listening, encouraging, or expressing feelings (conveying excitement when an achievement is made, listens when the child needs someone to talk to, and comforts the child)

Aspects of development: (support is bidirectional)

- **Cognitive**- the child learns from the support (teaching a game, learning, problem solving)
- **Social**- the child goes places and interacts in a social way with the support (engages in social play, an activity involving both the child and the person)
- **Emotional**- the child is comforted by the support and is able to share feelings with the support (if the child expresses feeling or shares a bond such as sleeping with the support, the child uses expressive language such as crying or hurtful)
- **Language**- the child learns words and talks with the support often (writing, talking, or teaching new words, reading)
- **Physical**- the support provides physical care to the child, the child plays sports with the support, and the support provides nutrition to the child (taken to the doctors, plays sports or outdoor physical activity, is fed activities include building with blocks and Legos)
- **Creativity**- the child learns or participates in activities involving music or art with the support (plays an instrument and participates in art activities, including dances as expressive)

Vita

Leah Hebert was born in 1987 in Thibodaux, Louisiana. She graduated from Edward Douglas White Catholic High School in 2005. She received a Bachelor of Science in early childhood education at Louisiana State University and was certified to teach preschool to third grade children. As an undergraduate she interned and student taught in preschool, kindergarten, first, and second grade classrooms in various locations. She worked as a graduate assistant in the Louisiana State University Child Development Laboratory Preschool during graduate school. She looks forward to teaching young children after receiving a Master of Science in human ecology.