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## Measuring children's social support networks: eco-mapping protocol

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MEASURING CHILDREN'S SOCIAL SUPPORT NETWORKS:  
ECO-MAPPING PROTOCOL

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  
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in

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by  
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## TABLE OF CONTENTS

List of Tables.....	v
List of Figures.....	vi
Abstract.....	vii
Chapter One: Introduction.....	1
Chapter Two: Review of Literature.....	6
Introduction.....	6
Theoretical Framework.....	6
Impact of Social Supports on Children’s Development.....	14
Measurements of Social Support Networks.....	21
Eco-mapping.....	25
Chapter Three: Methods.....	28
Introduction.....	28
Participants.....	28
Measures.....	29
Eco-mapping protocol.....	29
Adapted child eco-mapping protocol.....	29
Procedure.....	30
Parent protocol.....	30
Teacher protocol.....	32
Child protocol.....	33
Analysis.....	35
Chapter Four: Results.....	38
Introduction.....	38
We Are All Alike We Are All Different.....	38
Child portraits.....	50
Dylan.....	51
Jason.....	53
Nadia.....	56
Sandy.....	59
Zoe.....	62
Themes.....	65
The inner circle.....	65
Only strong links.....	67
Lots of shapes and colors.....	68
Symbols of support.....	75
Chapter Five: Discussion.....	79
Introduction.....	79

Similarities and Differences in Eco-maps.....	79
Children’s Social Supports and Eco-maps.....	82
The inner circle.....	82
Only strong links.....	83
Lots of shapes and colors.....	84
Symbols of support.....	86
Limitations.....	87
Implications.....	89
Research.....	89
Teaching.....	91
Conclusion.....	93
References.....	94
Appendix A: Eco-mapping Protocol Legend.....	97
Appendix B: Family Consent Form.....	98
Appendix C: Teacher Consent Form.....	99
Appendix D: Child Consent Form.....	100
Appendix E: Name Generating Questions.....	101
Appendix F: Definition Reference Sheet.....	102
Appendix G: Child Support Scoring Sheet.....	103
Appendix H: Initial Preschool Application.....	104
Appendix I: Qualitative Theme Analysis.....	106
Vita.....	126

## **LIST OF TABLES**

1. Summary of parent informant eco-map data.....	39
2. Summary of teacher informant eco-map data.....	43
3. Summary of child informant eco-map data.....	44
4. Summary of combined eco-map data.....	50

## **LIST OF FIGURES**

1. Breakdown of number and kinds of support reported by the three informants.....	41
2. Types of support reported by the three informants.....	42
3. Developmental areas of support reported by the three informants.....	45
4. Strength of relationships reported by the three informants.....	47
5. Nature of relationships reported by the three informants.....	49
6. Parent informant eco-map.....	72
7. Teacher informant eco-map .....	73
8. Child informant eco-map.....	74

## **Abstract**

The purpose of this project was to explore the use of an eco-mapping protocol for measuring children's social support networks. The project investigated two research questions: (1) what are the similarities and differences in the information provided by three informants in the eco-mapping protocol?, and (2) what information do eco-maps provide about children's social support networks? Ten four-year-old children, their families, and teacher participated in the creation of eco-maps. Each informant identified the major people in the child's support network, described relationships, and identified the type and developmental area of support provided by each individual. All the information was graphically represented into an eco-map using shapes and color coding to distinguish variations. Mixed methods were used to analyze the data in order to answer the two research questions. Parents, teachers, and children provided varied and diverse information regarding the children's social network. The use of multiple informants provided a more comprehensive picture of the child's support network. Qualitative analysis of the data sources for a subsample revealed four themes: the inner circle, only strong links, lots of shapes and colors, and symbols of support. Eco-maps with parents, teachers, and children may contribute to educational research and practice through providing detailed information about children's social support network.

*Keywords:* social supports, preschool children, eco-maps

## **Chapter One: Introduction**

The environments and relationships in a child's ecology have a significant effect on his or her development in multiple areas (Bronfenbrenner, 2005; Epstein, 2001). Sources of social support for young children have been found to impact positive social, emotional, language, academic, and peer relationship development. However, the study of children's social support networks has been limited by problems with measurement. In fact, empirical literature reflects varied and atheoretical approaches to the study of children's social support networks (Bost, 1995). In addition, many of the instruments are inaccessible to educators. Information about children's sources and types of social support could inform teachers' practices and allow them to better support children's development and learning (Foote, 2009).

Two models in the literature provide a conceptual framework for the present project. Bronfenbrenner (2005) and Epstein (2001) describe the impact of multiple contexts on development and the multiple forms of influence and overlap that occur within and between these contexts. Bronfenbrenner's model demonstrates the important influence of the individual's immediate environment known as the Microsystem. In addition to the model's Microsystem, Bronfenbrenner describes other levels of influence as nested structures. All contexts and levels of influence affect one another and the individual (Bronfenbrenner, 2005). Epstein (2001) describes three contexts (family, school, and community) and recognizes four forces of influences in her external model of overlapping spheres of influence that include the following: time; experience, philosophy, and practices of family; experience, philosophy, and practices of school; and experience, philosophy, and practices of the community. The amount of overlap between the three spheres of influence (home, school, and community), is affected by the four forces listed above. The theories and models of both Epstein and Bronfenbrenner highlight the



importance of family and school influences on young children (Bronfenbrenner, 2005; Epstein, 2001).

With the increase in acceptance of the ecological perspective, researchers have become interested in analyzing young children's social support networks, especially in connection with their social and emotional development (Bost, Cielinski, Newell, and Vaughn, 1994). In reports of children's social support networks, child and adult reports may vary in the types of people and support they identify (Bost et al., 1994). Family is consistently described as the most salient social network to children (Samuelsson, Thernlund, & Ringstrom, 1996). While parents, teachers, and children play significant roles in determining the structure of their relationships and the types of support they provide and receive, there is variation between the sources and types of social supports described by parents and children (Baum & McMurray-Schwartz, 2004; Baumgartner & Buchanan, 2010; Bost et al., 1994). To date, the child's perspective of the home-school connection is often overlooked in research (Shpancer, 1998). Parent and teacher perceptions of their roles in a child's life and education may affect how they view the child and their support systems and how the child views the parents and teachers. Therefore parent, teacher, and child perceptions should be taken into account when studying children's support networks (Doucet, 2008).

The eco-mapping protocol is an instrument that may provide an innovative and efficient way to view children's social support networks from different perspectives. An eco-map is a "graphic representation or visualization of the family and linkages to the larger social system including informal (eg., friends, extended family members) and formal (eg., early care and education providers, early intervention providers) supports" (McCormick, Stricklin, Nowak, & Rous, 2005, p.1). The eco-mapping protocol is also a tool that can be used in the classroom that

may help clear up any discrepancies between parent and teacher expectations (McCormick et al., 2005). Since the members of an individual's Microsystem appear to have a significant amount of influence on behavior and development, it is important to find an appropriate way to measure and analyze a child's social support network and the continuity of the sources and types of supports (Bost, Vaughn, Washington, Cielinski, & Bradbard, 1998; Bronfenbrenner, 2005; Epstein, 2001). Eco-maps may serve that purpose.

This exploratory study examined the information that can be learned from an eco-map. The project investigated two major research questions: (1) What are the similarities and differences in the information provided by three informants in the eco-mapping protocol? and (2) What information do the eco-maps provide about children's social support networks? A total of 10 children, their parents, and teacher participated in the study. Eco-map interviews were conducted with parents, teachers, and children and eco-maps were created in a collaborative process between the researcher and informant. An adapted child eco-mapping protocol was used with the child informants and involved a collaborative interview with a child informant using pictures taken by the children with disposable cameras of important people in their life and pictures from school to facilitate the discussions. From the data collected, the researcher created books of each child's support network using the pictures and the child's words. The data collected from the three informants was graphically represented using shapes and color coding to distinguish variations (see Appendix A). Mixed methods were used to analyze the data. Information from each informant's eco-map was used to create summary tables to answer research question one. Five child portraits (narrative child summaries) were compiled using information from the child's three maps, interviews, initial preschool application, and questions of the parents. Information was collected from the five child portrait qualitative summaries to

answer research question two. After the child portraits were created the researcher used the method of interpretation of open coding to look for themes in the data (Graue & Walsh, 1998).

The following are definitions used in the research project and paper:

- Social support networks: structural components of a child's support system which demonstrate connections between the child and other people in their environments including the overall size of the network and the strength and types of relationships (Bost et al., 1998)
- Social supports: resources provided to the child by each individual in their environments (Bost et al., 1998)
- Microsystem: the contexts, activities, relationships, and people that an individual comes in direct contact with—home and school are most common environments in a child's Microsystem (Bronfenbrenner, 2005)
- Informational type of support: provides food, clothing, shelter, toys, books, etc. to child
- Informational type of support: can help the child find out interesting things
- Emotional type of support: listens when child needs someone to talk to
- Cognitive developmental source of support: child learns thing from the individual
- Social developmental source of support: child goes places and does things with them
- Emotional developmental source of support: child is comforted by them
- Language developmental source of support: child learns words or talks a lot with them

- Physical developmental source of support: takes the child to doctor, plays sports, and feeds them
- Creative developmental source of support: Child learns about music/art from them
- Positive relationship: primarily affectionate and supportive; marked by camaraderie
- Negative relationship: primarily marked by conflict and fights
- Mixed relationship: equally marked by conflict and affection, fights and caring

## **Chapter Two: Review of Literature**

### **Introduction**

Children's environments and relationships have significant effects on multiple areas of development (Bronfenbrenner, 2005; Epstein, 2001). Young children's social support network is related to social development (Franco & Levitt, 1997), peer relationships (Bost, 1995), and development of academic skills (Skylerman, Thompson, Pryor, Becroft, Robinson, Clark, Wild, & Mitchell, 2005; Mashburn, 2008). Other areas of development significantly influenced by children's social support networks include: social (Bost et al., 1994; Bost, 1995; Franco & Levitt, 1997), emotional (Bost, 1995; Franco & Levitt, 1997; Bost et al., 1998), literacy (Mashburn, 2008; Skylerman et al., 2005), and language development (Mashburn, 2008; Larkina, 2009). Currently, there is little consistency in the instruments used to measure young children's social support networks (Wolchik, Beals, & Sandler, 1989). It is important to know about children's social support networks to build our understanding of the ways in which the sources of support impact development as well as to best inform educational practice that will support children's development and learning. An essential element to finding ways to better help children in their development and learning is finding a comprehensive and efficient way to measure social support systems (Bost, 1995; Bost et al., 1994). Bronfenbrenner's (2005) and Epstein's (2001) models of social support provide a framework for understanding social support networks and their importance.

### **Theoretical Framework**

Two models in the literature provide a conceptual framework for the proposed project. Bronfenbrenner (2005) and Epstein (2001) discuss the importance of the varying contexts that an

individual comes into contact with and the focusing on the various forms of influence and overlap that occurs within and between the multiple contexts. Epstein's (2001) theory of the overlapping spheres of influence and Bronfenbrenner's (2005) ecological systems theory provide a foundation for the importance of the immediate contexts, environments, and influencing persons to a developing individual.

Bronfenbrenner (2005) describes the important influence of the individual's immediate environment known as the Microsystem. Bronfenbrenner specifically recognizes the Microsystem as "a pattern of activities, roles, and interpersonal relations experienced by the developing person in a given face-to-face setting with particular physical and material features and containing other persons with distinctive characteristics of temperament, personality, and systems of belief" (p. 148). The individual affects and is affected in different ways by the people in the immediate environment based upon their distinctive characteristics. For example, a person who is quiet and reserved may be affected more emotionally after getting in an argument with a person who is more loud and aggressive than they might in an argument with someone more reserved. The activities and individuals a subject engages with in his or her immediate environment have the greatest effect on an individual. For example, a child might be more affected by an angry parent than by an angry new teacher. The assertion that there are multiple contexts in a child's Microsystem and ecology is an important consideration in the investigation of children's social support networks. Individuals in a child's multiple contexts in the Microsystem will have varying effects and influences on the child and will also have different perspectives on the child's life. Therefore, the use of multiple informants in the study of children's social support networks may allow the researcher to account for multiple contexts and

perspectives in a child's life and get a more complete picture of the child's experiences, relationships, and development (Bronfenbrenner, 2005).

In addition to multiple influences, Bronfenbrenner's model (2005) describes other levels of influence developed as nested structures. The central structure includes the developing person and their immediate environment, known as the Microsystem. Common environments in the Microsystem are the individual's home or school. The next level is the Mesosystem. It includes various settings the subject is involved in and how they relate to one another. For example, this may include the connections between home and school. The next level is the Exosystem, which looks at the effects of various settings that the individual is not a part of that still affect the person such as a parent's work place. The outermost structure of Bronfenbrenner's model is called the Macrosystem, which encompasses cultural influences and societal beliefs, which affect the individual. The developing individual is not only influenced by the environment and those in it; he/she shapes the environment itself and those in it as well. The relationships are interactive and reciprocal. Therefore, in the study of children's social support networks it is important to look at the child in all contexts of their life because each context in some way connects to others (Bronfenbrenner, 2005).

Children have ongoing multiple experiences in multiple contexts of their lives. Bronfenbrenner's model describes experience as the properties, people, and materials in an environment and how the person views, influences, and is influenced by them. To have substantial effects on the individual, experiences must occur somewhat regularly over a long period of time (Bronfenbrenner, 2005). Therefore, according to this model someone a child interacts with often or daily will have a more significant effect than someone they see once a month. To develop healthy ways, an individual needs increasingly more complex experiences

and relationships. The foundation for a young child's development comes from someone with whom they have created a reciprocal and lasting emotional relationship or attachment.

Bronfenbrenner makes that point when he states, "the only person who will be willing to do all the things that need to be done in order to foster the development of a young child is likely to be someone who has an irrational attachment to that child" (Bronfenbrenner, 2005, p.34). The irrational attachment he is referring to is love for a child. It is also mentioned that the point to which this relationship can be developed depends greatly on surrounding social structures and appropriate place, time, models, and reinforcement available to the individuals. According to Bronfenbrenner (2005), the experiences of a child in their immediate environment (Microsystem) are incidents that will have the most significant effects. Since family and school are the most common direct environments for young children; it is important to understand the effects of these environments on children.

An illustration of the impact of the Microsystem on development is found in the research on absent fathers (Bronfenbrenner, 2005). Indeed, this research illuminates the fact that researchers must look at the child in context. Bronfenbrenner found that father absence did not only affect the child directly, but also indirectly by impacting the behavior of mothers and other family members. Fatherhood absence was found to be most critical during the child's preschool years and had more effect on boys than girls. When a third party helps the parent/guardian in care for the child, this appears to help reinforce the parent and child relationship. This third party could be an extended family member, father figure, family friend, or fictive kin. Among African American families, fictive kin are common. Third party individuals have a significant impact on the child and other interacting family members and therefore are a part of each individual's context. Bronfenbrenner states, "The developmental processes taking place within a



setting can vary substantially as a function of the personal attributes of significant others present in the setting. Of particular significance are qualities of others that are developmentally instigative for the subject” (p. 160). As father absence was found to have a critical effect on a child’s development, it may be important to look at other providers of social supports at this period of children’s lives. The present project may provide researchers a resourceful way to study children and their sources and types of social supports in multiple contexts and perspectives (Bronfenbrenner, 2005).

In summary, Bronfenbrenner’s model (2005) demonstrates that children have multiple influences that impact multiple areas of their development. Children are embedded in social support systems throughout multiple contexts of their lives. It is important to learn about these influences and contexts in order to best understand children’s development because each influence and context connects with and impacts other parts of the child’s life. Contexts and individuals with whom a child interacts most often are found to be the most influential to the child’s development and learning. Home and school are found to be the most familiar and universal contexts for young children. Therefore, providers of social supports in home and school contexts are the most significant in a child’s development and should be the focus of research on children’s social support networks (Bronfenbrenner, 2005).

Epstein’s (2001) model of the overlapping spheres of influence recognizes family, school, and community as the contexts of influence on developing individuals, especially children. Within the model four forces of influence are described as overlapping spheres of influence including: time; experience, philosophy, and practices of family; experience, philosophy, and practices of school; and experience, philosophy, and practices of the community. The amount of overlap between the three spheres of influence (home, school, and community), is

affected by the four forces listed above. Time refers to both an individual's time in his or her life such as relating to age or grade level and the historic period of time and how that may affect the individual. At different ages parental involvement at school may be needed at different levels. For example, school involvement will be non-existent for an infant not enrolled in child care. Using the eco-mapping protocol, parents and teachers may be able to communicate the goals they have for a child and the roles and expectations that they have for one another.

Family and school experiences may increase or decrease family and school interactions. However, at every grade level there will be some amount of overlap of interaction by a parent sending their child to school. Different views of schools and families may lead to less collaboration and interactions to take place. A family's previous negative experiences with school may cause them to keep a distance. Epstein also recognizes that there are internal as well as external influences that affect a family. Interactions of individuals continually occur within and between spheres of influence (Epstein, 2001). By studying and better understanding social support networks researchers and teachers may be able to find ways to better support both the child and family.

Three current views relating to family and school relationships are recognized in Epstein's model. The first is that families and schools hold very separate responsibilities to children. This view encourages independence of the organizations of home and schools and sometimes may sustain conflict between the institutions. For example, the school may feel they have the ultimate responsibility for educating a child and not want the parental input into what they are teaching or how they are teaching. The second view of family-school relationships is that families and schools hold shared responsibilities to children. This view supports collaboration between the institutions and encourages family and school to coordinate with one

another because they share common goals for their children. For example, families and schools may view each other as partners in the child's development and learning and may collaborate about what they think is best for the child in relation to topics such as discipline or learning. A sequential responsibility of family and schools is the third perspective. In this perception, there is recognition of vital times of influence from teachers and parents at different stages of a child's life. According to this perspective, the early years of a child's life are most dependent on parental influence until around age five or six. Then once children enter formal schooling, the responsibility falls to the teacher. Families and schools and even individuals within these contexts may have different perspectives and each viewpoint will affect interactions between individuals. To obtain a comprehensive picture of a child's social support system would require information from multiple individuals (Epstein, 2001).

In preschool and early childhood grades, schools resemble families for young students (Epstein, 2001). At this time in the child's schooling, there are generally expectations for close ties between the parents and teachers. A teacher's attempts to encourage and support family involvement are generally more influential in getting families involved than family background variables such as social class or socio-economic status. In her research, Epstein viewed many positive results to a teacher's attempts to involve families. Epstein established that, "teachers who involve parents rate them more positively and stereotype families less" (p. 45) based upon ethnicity, parental age, social class etc. Epstein also found that "practices to involve parents at home with their children in interactions about a specific subject are likely to benefit student achievement in that subject" (p. 45). By working to understand children's social support networks, teachers may better understand families and begin positive and supportive

relationships with the families. This is important in the early years of children's lives and it helps families start with a positive attitude about schools (Epstein, 2001).

The theories and models of both Epstein and Bronfenbrenner highlight the importance of family and school influences on young children. School and home are the most frequented environments for young children and therefore the most influential to development. The amount of overlap between the contexts of home, school, and community vary significantly for different individuals. Some families are very involved in their school and community and may be involved in multiple extra-curricular activities. Other families may not be involved in any extra-curricular activities and not have time to contribute or interact with the school. Epstein's (2001) research suggests that overlap between home and school sources of support increases children's academic achievement. However, there is little research on the positive and negative effects of the inter-contextual continuity or lack of on children's development (Shpancer, 2002). Bronfenbrenner's theory emphasizes that all contexts affect the individual child in other contexts as well. Therefore, a way to effectively understand and quantify a child's comprehensive social support network is needed to allow for further research on the topic and ultimately to find ways to better support families and children in their varying contexts.

Bronfenbrenner (2005) recognizes that children have multiple influences that impact their development and therefore it is important to learn about the influences and contexts to best understand child development. This supports the gathering of information from multiple contexts of a child's Microsystem to gain a more complete understanding of children's support systems. Epstein (2001) also recognizes this in her model. While the model focuses on the developmental contexts of home, school, and community, Epstein suggests that to understand the

child's experience, one must consider the overlap and philosophies that influence overlap in the home, school, and community contexts.

### **Impact of Social Supports on Children's Development**

With the increase in the acceptance of the ecological perspective, researchers have become increasingly interested in analyzing young children's social support networks, especially in relation to social and emotional development (Bost et al., 1994). Substantial evidence links social support networks to positive results that include high academic accomplishment (Skylerman et al., 2005), peer acceptance (Bost 1995; Franco & Levitt, 1997), more advanced language development (Mashburn, 2008; Larkina, 2009), and a higher level of social and emotional functioning (Bost et al., 1994; Bost, 1995).

Strong social support systems of young children were found to be associated with positive outcomes relating to peer relationships and the development of social and emotional skills. In a study by Franco and Levitt (1997), preschool children and their mothers were interviewed about the child's social support network and social acceptance was measured using peer social ratings and teacher ratings of the child's preference and quality of relationships. The results of the study indicated that a child's positive perception of the structure and function of their social support network was related to peer acceptance in the preschool classroom. The mother's perspective was found to be less predictive of peer acceptance. The results also suggested that social support provided by siblings, friends, and extended kin highly correlates with social acceptance. Large strong and positive support systems were generally found to be connected with more positive relationships of the child with teachers and peers and a higher level of social and emotional development (Franco & Levitt, 1997).

In relation to social supports and peer relationships, Bost (1995) conducted a study to investigate the relationship between social supports and peer relationships. In the study, Bost conducted social network interviews with the mother and child. Results in the study indicated that total network size and frequency of contact with providers of social support were not significantly associated with peer acceptance. However, larger networks reported in the emotional and recreation areas of development correlated with higher maternal reports of sociometric scores. The inclusion of non-resident relatives and unrelated adults in the child's social support network seemed to also correlate with a higher level of peer acceptance. Therefore, the results of the study suggest that support from people not living with the child and support in social and emotional areas of development best supported children in peer acceptance and social development (Bost, 1995).

Other areas of development were also found to be supported by children's social support networks, including intelligence, academic achievements, literacy skills, and language skills. Skylerman et al. (2005) conducted a study to determine if stress of the mother and social support during pregnancy and the child's first years of life were associated with children's intelligence test score. Overall, the results of the study indicated that a lack of sources of social support, along with stress of the mother was connected with lower intelligence test scores of preschool children. Stress of the mother after pregnancy was found to be more significantly associated with a lower intelligence score than stress during pregnancy. However, the results also suggested that sources of social supports counteract some of the negative effects of the mother's stress on the child's intelligence score.

Sources of social support and interactions including conversations and socialization especially with a mother figure appeared to enhance young children's language development

regarding construction of narratives. Larkina (2009) measured children's narrative language development and its correlation on the social support received from the mother. Results indicated that children, who were given more independence in the conversations with their mother figure, had higher language skills especially in the creation of personal narratives. Individuals in children's social support network who talk with the child often assist in children's language and literacy development.

Mashburn (2008) examined the connection between the quality of the social and physical environments and sources of support and preschool children's academic, language, and literacy skills. Results demonstrated a positive social and emotional environment at school for young children was positively associated with higher levels of academic and literacy skills. Positive relationships between teachers and children and between peers were found to relate to higher academic and literacy skills. By learning more about children's social support networks, teachers and researchers may find ways to help children in their overall development (Mashburn, 2008).

In an investigation of children's social support, Bost et al. (1998) found that two important components of children's social development are social network and social support. A Social network encompasses the structural components of the individual's support system that denote the connections between the individual and other persons in their environments including the overall size of the network and types of relationships. For example, a child may have a large social support network of 25 people with all strong relationships. Social support is defined as the resources that are provided by each individual in their social environments (Bost et al., 1998). For example, the child's social support network may provide the child with a lot of cognitive and emotional support.

Both components of children's social development, social support and social network, are important to investigate empirically. However, there are barriers to doing this effectively. Past researchers have gotten an incomplete view of the family and have limited possible responses through the use of specific questions and a limited number of informants. Family is, first and foremost, a child's most important source of social support (Samuelsson et al., 1996). However, whom each person includes in their definition of family may differ greatly. A very important aspect of kinship networks, especially in African American families, is the presence of fictive kin, which are "relationships involving individuals not related by blood or marriage, but who regard each other as kin. Family membership is not determined only by blood but also by the name of the relationships between individuals" (Stewart, 2007, p.165).

Relationships such as fictive kinships are providers of social supports that maybe excluded with the current measurement instruments. African American children often have social support systems consisting mainly of non-kin and a significant number of non-related children (Stewart, 2007). This may be attributed to by the neighborhood environment in which these children live, which relates back to Bronfenbrenner's (2005) idea that various facets of a child's environment may define the social supports and benefits they receive. To get a complete picture of the child's true social support network, social support measurement tools must be sensitive to the inclusion of non-related adults such as fictive kin. Many of the current instruments focus specifically on at most family, school, and peer groups (Pino, Simons, & Slawinowski, 1984; Reid, Landesman, Treder, & Jaccard, 1989; Sturgess, Dunn, & Davies, 2001).

Parent and teacher perceptions of their roles in a child's life and education may affect how they view a child and their support systems and how a child views the parents and teachers.



Therefore parent, teacher, and child need to be taken into account when studying child social support networks (Doucet, 2008). In the Hoover-Dempsey and Jones (1997) study of parental role construction, parental roles were found to connect and reflect values, goals, and expectations that the parents hold for their children's development (Hoover-Dempsey & Jones, 1997). When studying children's social support networks, it is important to understand the perspective of multiple informants to get a comprehensive view of the child.

In Doucet's (2008) recent study, 25 African American parents and caregivers were interviewed and overall parents were found to have four significant perceptions of parent and teacher roles in schooling. The first perception identified in Doucet's (2008) study was that parents should be engaged in their child's schooling or education. Though many parents consider working with their children at home as being involved in education; many teachers do not. The next major perception was that parents are preparing children for life, not just for school. Therefore, another way many parents may be involved in a child's education is through extracurricular activities in which they teach life skills. Many parents clearly had the fundamental belief that activities like sports, story time at the library, visiting relatives, or going to the zoo would ultimately benefit the child.

Another important perception identified by Doucet held by some African American parents is that parents should teach their child about cultural values and race (Doucet, 2008). The final perception was that "it takes a village to raise a child" (Doucet, 2008, p. 123). This idea implies that both families and others hold primary responsibility for a child's education, but all those involved in the child's life have similar goals for a child and play important roles in a child's development (Doucet, 2008). The common goal is to present children with new experiences and help them to develop and learn. Other people who were mentioned by parents

as being involved in a child's development included: siblings, other relatives, unrelated adults (eg., church members, family friends), and neighbors. In this perception, teachers are members of the village and will contribute to the child's development, but respect certain areas as parental domains. These findings suggest a reciprocal, interdependent, and active relationship between home, school, and community (Doucet, 2008; Epstein, 2001). Family is a salient source of social support to children, therefore to fully understand the child it may also be helpful to understand family perspectives (Samuelsson et al., 1996).

Parental and child reports of an individual child's social network tend to vary in the range of people included (Baumgartner & Buchanan, 2010; Bost et al., 1994). Therefore it may be useful to have multiple informants when collecting data to allow it to be triangulated to most accurately reflect reality (Sands & Roer-Strier, 2006; Baumgartner & Buchanan, 2010). Child and parent descriptions of a child's support system may vary in the type of people and reported support. School-age children and adolescents generally classify their parents as the primary source of support. Children also frequently identify peers as sources of friendship and recreation; however, unrelated adults are usually not identified by children as sources of social support (Bost et al., 1998; Bronfenbrenner, 2005; Epstein, 2001; Shpancer, 2002).

Parental informants of children's social networks generally note a wide range of individuals as sources of social support that may include, but are not limited to relatives, adult neighbors, family friends, teachers, and some of the children's peers. When adults are the informants, they normally mention the child's peers less often and adults as sources of support more often than child informants (Bost et al., 1998; Bronfenbrenner, 2005; Epstein, 2001). According to Bost (1995) adults consistently identified a larger quantity of providers of support than children. Even though there are obvious differences between adult and child reports of a

child's support system; neither is viewed to be consistently more accurate (Bost et al., 1994). The strength and types of support received from a child's relationships may affect the reliability or validity of an individual's report of social support and the types of support received from each (McCormick et al., 2005). Someone the child has a weak relationship with may have a less significant effect on the child than someone with a strong relationship. It is important to map out the direct and indirect relationships of a social support network as the eco-map does in order to gather the most accurate and comprehensive picture of reality (McCormick et al., 2005).

Child perceptions of the relationships and supports is an important aspect to study in children's social networks as well as home-school connections (Shpancer, 1998). The child's role in the home-school connection is one that is often overlooked. However, children can significantly influence the way the adults view and interact with them (Shpancer, 1998; Shpancer, 2002). A child's behavior may not only influence the way a caregiver views the child, but also the way the caregiver views the parent (Shpancer, 1998). For example, a more well adjusted and better behaved child may be viewed as having more competent and responsible parents, while a poorly adjusted child who displays difficult behavior may be viewed as having incompetent and irresponsible parents. The way a child's providers view one another may affect the child's development and learning. The child may also influence the parent's perception of the caregiver since many parents' primary source of information about school environment is the child (Shpancer, 1998). Furthermore, the child knows more about their individual situation in all contexts than adults; therefore, children should be included as informants in research on social support networks (Shpancer, 2002).

## Measurements of Social Support Networks

Various instruments have been used to measure social support systems of young children including various scales (Pino et al., 1984; Elicker, Noppe, Noppe, & Fronter-Wood, 1997), maps (Sturgess et al., 2001; Franco & Levitt, 1997), and interviews (Franco & Levitt, 1997; Bost, Vaughn, Boston, Kazura, & O'neal, 2004; Bost, 1995; Reid et al., 1989) mostly given to child and maternal informants. The most common measures use some form of interview with maternal and child informants. The *Children's Version of the Family Environment Scale* (1984) is a measure of social support which uses pictorial drawings to allow the child to identify family structure and supports. This measure is created for use with children between the ages of five and 12. A strength of this measure is its use of visual drawings in interviews with young children. A limitation of this measure is that it focuses on family members and does not identify or discuss other sources of supports (Pino et al., 1984). The *Parent-Caregiver Relationship Scale* (1997) is another measure of social support which addresses the perceived quality of relationships between the parent and teacher of an infant/toddler. This measure is limited in that it only looks at the relationships between specific providers of supports to the child and not at the relationship between the child and their sources of support (Elicker, et al., 1997).

Sturgess et al. (2001) used the Four Field Map instrument to measure children's social support networks and, more specifically, the closeness of various relationships in the network. For the Four Field Map, children were given a blank map with six embedded circles divided into four sections. The center of the circles represented the child and the four sections of the circles represented family, school, friends/neighbors, and relatives. Children were instructed to place various people in those categories on the map based on how close they were to each person. The closer an individual was placed to the center circle represented a more close perceived

relationship with the child. The measure was used with children between the ages of four and seven. One strength of this measure was its use of a visual model with children which they could manipulate as they were talking with the researcher. Limitations of this measure are that children are the only informants for social support networks and the measure does not report information relating to the types of support each individual provides to the child and the instrument is one that may be hard for preschool children (Sturgess et al., 2001).

Franco and Levitt (1997) used an interview process similar to the Four Field Map with maternal informants to identify children's social support networks. An adapted interview process was conducted with preschool children. In the interviews, mothers were asked to place the child's support network on a three concentric circle map. Mothers were instructed to place the closest people to the child in the middle and the most distant providers of support in the outer circle. After constructing the map, the mother was asked specific questions relating to the support each individual provides to the child. In the child interviews, instead of placing individuals on a map, children were asked to name individuals who loved them the most. As children identified sources of support the names were written and a pictorial drawing was assigned to them. Then children were asked the same questions about the support that each individual provides the child. A major strength in this measure is its use of two informants providing information about the child's social support network. The visual display for both the mother and child is also a strength in the measure. A limitation of this measure is the use of five specific questions to identify the types of support provided by each individual. The questions may limit the responses from the informants and the researcher may not receive important information about the type of support each individual provides the child (Franco & Levitt, 1997).

Reid et al. (1989) used a measure called “My Family and Friends” to measure children’s perceptions of social support. In this measure children between the ages of six and twelve were asked a series of questions relating to who they approach for help and for what types of help. After identifying the people in the child’s support network, children were asked to demonstrate how satisfied they are with the relationship by manipulating a barometer with a moving level indicator. Finally children are asked to rank various sources of supports based on different areas of support provided including emotional, instrumental, informational, companionship, and conflict through the use of a social situation dialogue and ranking cards. One strength of the measure is in its use of items the child manipulated objects during the discussions with the researcher. Another strength in the measure is its identification of multiple types of support for the child. A limitation of this measure is its use of only the child as an informant. Another limitation of the measure is its procedure for determining people in the child’s social support network. The questions used to prompt the child’s identification of providers of social supports only related to individuals who help the child. Therefore limiting the individuals included in the child reports (Reid et al., 1989).

Research by Bost (1995) consistently uses a similar adapted interview measure based on Zelkowitz’s (1989) social network interview designed for preschool age children. An adaptation of Sarason, Shearin, Pierce, and Sarason’s (1987) Social Support Questionnaire was added to the interview to help measure perceived sources of support. In the interview children are first asked to identify individuals whom they know well or see on a daily basis. Then children are asked to identify how often individuals performed nine child care tasks. Finally children are asked three questions relating to perceived support including questions relating to perceptions of being loved and how to be helped. In some of studies conducted by Bost she also included a mother

informant interview about the child's social support network. The mother was first asked to identify all the people with whom the child had a significant relationship. Then the mother was asked to rate how often the child interacts with each individual and how the individual supported the child in various areas (emotional, daily maintenance, recreation, and occasional maintenance) (Bost et al., 1994; Bost et al., 1998; Bost et al., 2004; Bost, 1995). A strength of this interview measure is that it allows the researcher to involve multiple informants in gathering information about the child's social support network. Another strength of this interview process is that it allows multiple areas of support to be identified. A limitation of this measure was that it does not allow the children to manipulate objects in their discussions about their social support network. Another limitation of the measure is that involved specific rating of items and does not encourage the individual to elaborate about the sources or the types of support each provides (Bost, 1995).

The social support network of an individual appears to have a significant amount of influence on one's behavior and development; therefore, it is important to find an appropriate way to measure and analyze a child's support network and the continuity of the sources of support to allow teachers, parents, and researchers to best support children in their development (Bost et al., 1994; Bost et al., 1998; Bronfenbrenner, 2005; Epstein, 2001). A possible new instrument for measuring social support networks of children is the eco-map. The eco-map may allow researcher a measure that uses multiple informants and creates a picture of the whole child including their providers of social supports, types of supports, developmental areas supported, strength of relationships, and nature of relationships.

## **Eco-mapping**

An eco-map is a “graphic representation or visualization of the family and linkages to the larger social system including informal (eg., friends, extended family members) and formal (eg., early care and education providers, early intervention providers) supports” (McCormick et al., 2005, p.1). It was originally created by sociologist, Anne Hartman in 1975 to provide a visual way to depict the sources of social supports and links of an individual or group (Ray & Street, 2005). It has primarily been used to aid social workers to better understand the needs of the families and children that they worked with (McCormick et al., 2005). The term eco-map is derived from the word ecology, “the study of the connection between a living thing and its environment, and how that connection is maintained and enhanced” (Ray & Street, 2005, p. 546). The eco-map not only provides a visual representation of how an individual or group fits into a larger social network, but it also provides an important way to engage family members in conversation about their family and social networks with an interview type process through which the eco-map is created. Information collected in this interview process includes the strength of each relationship, frequency of interactions, and type of support provided. Multiple informants can be included in the discussion to make the picture as accurate and comprehensive as possible (McCormick et al., 2005).

The eco-mapping protocol may be used to clarify any discrepancies in parent and teacher expectations (McCormick et al., 2005). Many conflicts that arise between families and schools stem from misunderstandings and inconsistencies in the expectations of teachers for parents and parents for teachers (Shpancer, 1998). This eco-mapping protocol also may be used to measure continuity by compiling separate eco-maps from the contexts of interest and comparing the overlaps of the types of support received.



The members of an individual's Microsystem appear to have a significant amount of influence on one's behavior and development; so it is important to find an appropriate way to measure and analyze a child's support network and the continuity of the sources of support (Bost et al., 1994; Bost et al., 1998; Bronfenbrenner, 2005; Epstein, 2001). Eco-maps may allow researchers to further investigate those influences and continuity in children's social support networks. The eco-map is a useable and appropriate instrument that can be used by teachers to get to know young children and their families efficiently and effectively. By using multiple informants and creating multiple eco-maps of a child's network, the individual may be able to develop a more complete and comprehensive picture of the whole child. Each informant may see the individual child through a different perspective and provide more in depth information about the sources of support for the child.

What remains to be addressed in the use of eco-maps is the perspective of the child. Research with preschool aged children regarding social support systems has included interviews, many without using appropriate and tangible objects for young children to use to manipulate and talk about. The eco-map protocol may be adapted for use with children. In a study by Kent, Strickland, and Marinak (2009) cameras were used as a way of allowing immigrant children to share information about themselves with their teachers. The main finding in the study was the cameras allowed for a shift toward child control and power in their relationship with their teacher, allowing them to share information with the teacher. In other words, the cameras provided a means for allowing the child to teach others. According to Cook and Hess (2007), cameras can help others better understand how children experience their world. To facilitate children in their reports of social support networks, the eco-map protocol was adapted to incorporate child use of disposable cameras to identify people whom were important to them.

Children's social support networks have a significant effect on their development in multiple areas including academic achievement, peer relationships, social and emotional development, language development, and literacy (Bost, 1995; Bost et al., 1994; Franco & Levitt, 1997; Larkina, 2009; Mashburn, 2008). Despite this fact, there are few research instruments to measure young children's comprehensive social support networks (Wolchik, Beals, & Sandler, 1989). An effective and efficient way to measure these factors and contexts could be an essential element to find ways to better support children's development and learning.

## **Chapter Three: Methods**

### **Introduction**

This exploratory study examines the effectiveness of the eco-mapping protocol in measuring children's comprehensive social support networks. The project investigates two major research questions: (1) What are the similarities and differences in the information provided by three informants in the eco-mapping protocol?, and (2) What information do the eco-maps provide about children's social support networks? Parents, teachers, and children were used as informants. A major contribution of this project is the development of the adapted eco-map protocol for young children.

### **Participants**

Children, families, and teachers for the study were recruited from a university laboratory preschool. The preschool serves 20 children between the ages of three and four and their families. Families and the teacher of the 10 four year old children were recruited through a permission letter explaining the purpose of the study and what their participation would require (see Appendix B and C). After receiving consent from families; the children were asked to sign an assent form for their participation (see Appendix D). A total of 10 families, 10 children, and the teacher consented to participate in the study.

All 10 children participated in the study. Of the children who participated, there were five girls and five boys. Four of the children were White, two were Black, one was of mixed race, one was Korean, and one was Turkish-Australian. When recruiting families, parents were offered a choice of one or both parents participating in the interview. Of the 10 families, eight mothers and three fathers participated in the interview process. For one of the interviews both

the mother and father participated. There was incomplete data from one family. The head four-year old teacher and director participated as the teacher informant.

## **Measures**

### **Eco-mapping protocol.**

An eco-map is a graphical illustration of the relationships and connections of an individual's social system (McCormick et al., 2005). The eco-mapping protocol is a process that involves a collaborative interview with an informant, followed by the creation of a visual depiction of the data using shapes and colors to distinguish variations (see Appendix A). In the graphic representation, the eco-map identifies the types of support, developmental areas of support, strength of relationship, and nature of relationship provided by individuals in the child's social support network.

### **Adapted child eco-mapping protocol.**

The adapted child eco-map protocol is an eco-mapping process that involves a collaborative interview with a child informant using pictures taken by the children with disposable cameras of important people in their life and pictures from school to facilitate the discussions. In this adapted protocol, a team of three researchers identified the type of support and development area provided by each individual based on the child's description of the individuals and relationships. From this information, the eco-map or visual depiction of the data using shapes and colors to distinguish variations was created (see Appendix A). In the graphic representation the eco-map identifies the types of support, developmental areas of support, strength of relationship, and nature of relationship provided by the individuals in the child's social support network.

## **Procedure**

Before beginning the data collection process, IRB approval was received. Three sets of data were collected about each child using three informants. Eco-map interviews were conducted with parents, teachers, and children and eco-maps were created in a collaborative process between the researcher and informant.

### **Parent protocol.**

After consent was received, the parent interviews were scheduled at times when parents were dropping off or right before picking up the child for convenience. A sign-up poster was created and parents chose a time that was best for them in the span of one month. Only one interview was scheduled per day and each interview lasted between 30 to 45 minutes. The parent interviews were held in a reserved classroom in the preschool building. In the parent interviews, the researcher encouraged the informant to take the lead in the conversation and talk freely about the child to facilitate as accurate picture of the support network as possible. After identifying the major people in the support network, parents were asked to describe the relationships (positive or negative or mixed; very strong, strong, moderate, or weak). A positive relationship was defined as primarily affectionate and supportive and marked by camaraderie. A negative relationship was identified as primarily marked with conflict and fights. A mixed relationship was noted as equally marked by conflict and affection, both fights and caring. The informant was also asked to identify the type of support (instrumental, informational, or emotional) provided by each individual. An individual that gives an instrumental type of support provides for the child (food, clothing, shelter, toys, books, etc). A person that helps a child find out interesting facts provides an informational type of support. Someone who listens when a

child needs someone to talk to provides him or her with an emotional type of support.

Informants were also asked to identify a primary and secondary developmental area being influenced by each individual. The developmental areas include: cognitive, social, emotional, language/communication, physical, and creativity. A person a child learns information from supports a child in the cognitive area of development. A social developmental source of support is an individual the child goes places and does things with. Emotional developmental sources of support provide comfort to the child. An individual a child learns new words and talks with a lot provide a language developmental support to the child. Physical developmental providers of support take the child to the doctor, play sports, and feed the child. Individuals that teach or expose children to the arts provide a creative developmental support to the child. During the interviews the informant was provided with a reference sheet including the definitions of the types and developmental areas of support.

In the parent interviews, if the informant had trouble thinking of people in the child's social support network a list of questions or name generating strategies were used to help the informant (Mollenhorst, 2008) (see Appendix E). After completing the parent interviews, the data was reviewed and then graphically represented into an eco-map representation using shapes and color coding to distinguish variations (see Appendix A). After the parent eco-maps were created, the researcher shared the creation with the parent informant as a form of checking back with the parents to confirm that the eco-map was correct. The researcher encouraged the parent informant to take the graphic representation and key home and the parents were asked to tell the researcher if there is anything they might have missed or would like changed. No parents chose to change anything in the eco-map check backs.

### **Teacher protocol.**

Before beginning the eco-mapping protocol interviews with the teacher, consent was received from the teacher informant. The teacher interviews were held in the preschool director's office after school. The teacher interviews were scheduled at the teacher's convenience. The teacher interviews lasted between 15 to 20 minutes. In the teacher interviews, the researcher encouraged the informant to take the lead in the conversation and talk freely about the child to facilitate as accurate of picture of the support network as possible. After identifying the major people in the support network, parents/teachers were asked to describe the relationships (positive, negative, or mixed; very strong, strong, moderate, or weak) and identify the type of support (instrumental, informational, or emotional) provided by each individual. Informants were also asked to identify a primary and secondary developmental areas being influenced by each individual. The developmental areas include: cognitive, social, emotional, language/communication, physical, and creativity. The informant was provided with a reference sheet including the definitions of the types and developmental areas of support (see Appendix F). In the teacher interviews, if the informant had trouble thinking of people in the child's social support network, a list of questions or name generating strategies were used to help the informant (Mollenhorst, 2008) (see Appendix E). After collecting the data, the information was graphically represented into an eco-map using shapes and colors to distinguish variations (see Appendix A). Then the graphic representation was shown to and analyzed by the informant(s) as a form of checking back so they could tell the researcher if there is anything they might have missed or anything they would like to change. The teacher did not choose to change anything in the eco-map check backs.

### **Child protocol.**

An adapted eco-mapping protocol was utilized for the preschool children. To begin, children were given a disposable camera to take home for two weeks with instructions to take pictures of the important people in their lives. The children were also instructed on how to use the camera to take pictures and a discussion was held about when someone would and would not want their picture taken. At the end of two weeks, the cameras were collected and the pictures were developed. A few weeks later, the child was shown the pictures and asked to tell the researcher about the pictures. The child interviews were held in a small room in the preschool during morning center time. The child interview discussions took place in multiple sessions over time and were short in duration. Each interview session lasted five to 15 minutes with an average of eight sessions per child. In the interviews, the child was asked what kind of activities they enjoy doing with each individual, whether they argue with each individual (none, a little, a lot), and how much fun they have with each individual while being shown corresponding smiley faces (a lot, some, a little, or no fun).

Next each child was shown pictures of classmates and teachers from school. Only three to five pictures were shown at a time. They were asked to choose the friends they play with the most. After selecting the friends they play with the most, the child was asked what kind of activities they like to do with each friend or teacher, how much they argue with each person, and how much fun they have with each individual. Finally children were asked if there was anyone who they did not have a picture of and who was not at school that they wanted to include. If they thought of anyone else they could draw a picture of the person and the same questions were asked about the individuals in the drawings as were asked about the other reported sources of support.



From the data collected, the researcher compiled a book of important people for each child using the pictures and the child's words. Then the researcher read the book to the child as a form of checking back with them and asked them if there is anyone else they would like to add. Only one child chose to add a source of social support and chose to add a peer not previously included. To analyze the books, a team of three researchers reviewed the children's stories to determine the type of support and developmental areas of support each individual provides to the child as identified by the child informant using a code sheet (see Appendix G). The team of researchers was chosen based on experience and knowledge in the areas of education, child development, and eco-maps. When two or more of the researchers agreed on an item, it was included in the child's eco-map. When no agreement was found, the researchers reviewed the information again and came to an agreement. Then the primary researcher compiled an eco-map of the child's social support network. The researchers disagreed on six types or developmental areas of support out of a total of 398 types and developmental areas of support. In the cases of the six disagreements, the researchers reviewed the data and came to 100% agreement. For the eco-map, strength of relationship was determined by the child's response of how much fun they identified as having with the individual. The response "a lot" corresponded with a very strong relationship, the response "some" corresponded with a strong relationship, the response "a little" corresponded to a moderate relationship and the response "no fun" corresponded to a weak relationship. The nature of the relationship was determined to the child's response to how much they argued with the individual ("a lot" corresponded with a negative relationship; "a little or some" corresponded with a mixed relationship; and "none" corresponded with a positive relationship). Inter-rater reliability was only used in the adapted child protocol because adult

informants were able to verbally acknowledge the types and areas of support provided by each individual in the child's social support network.

## **Analysis**

Mixed methods were used to analyze the research questions. Analyses were completed to answer each of the identified research questions. Descriptive quantitative analysis was used to answer Research Question One: what are the similarities and differences in the information provided by three informants in the eco-mapping protocol? Descriptive qualitative analysis was used to answer Research Question Two: what information do the eco-maps provide about children's social support networks?

Information from each informants' eco-map were used to create summary tables of the information provided to answer research question one: What are the similarities and differences in the information provided by three informants in the eco-mapping protocol? The researcher used the eco-map data from the three informants to create summary tables. The total number of the different types of support, developmental areas of support, nature of relationships and the strength of relationships was counted for each informant and combined in summary for each child's support network. The summary tables were then used to answer sub-questions of research question one including the a) number of sources of supports identified, b) types of support identified, and c) nature of the various supports identified. When counting adults and children in the study, children were identified as individuals under the age of 18 years old. Adults were defined as individuals 18 years of age and older.

Information was collected from five child portrait qualitative summaries to answer research question two: What information does the eco-map protocol provide about the children's

social support networks? The five children were chosen from the sample at random and constitute half of the original sample. The race/ethnicity of the children in the descriptive narratives was two White children, two Black children, and one Asian child. The rest of the sample included two white children, one middle-eastern child, one bi-racial child (black and white) and one black child. Out of a total sample including five boys and five girls, the sub-sample of children included in the child portrait summaries included three girls and two boys. The child portrait qualitative summaries are descriptive narratives of the whole child. The child portraits were created by compiling information from multiple sources: the child's initial application questionnaire for the preschool (see Appendix H), the three informant eco-maps, comparison of the 3 eco-maps, and additional questions asked of the parents.

After the child portraits were created the researcher used interpretation of open coding to look for themes in the data. Coding is a process of labeling themes a researcher has found in the data (Graue & Walsh, 1998). A code is a tool used to simplify and analyze multifaceted ideas. First, the researcher read the data and notes without writing notes on the data. Then the researcher reread the data making marginal notes about possible themes and codes in the data. The researcher then reread the data, continuing to look for codes and themes focusing on the child portrait summaries as data, but also looking back at the original data as well (Graue & Walsh, 1998). The researcher looked for ideas including recurring themes, patterns, breaks in patterns, and other significant information to the researcher or topic compiling data into qualitative tables (see Appendix I). An initial open coding revealed eight individual codes. These individual codes were collapsed into four themes. The researcher then began to conceptualize and abstract threads or ideas to connect and explain a particular way of thinking about the data (Strauss & Corbin, 1998). After distinguishing the coding in the data, the

researcher combined the codes and read them like a story. Then the researcher listed ways the codes help an individual better understand children and their sources of social support mostly in the form of implications for research and practice (Graue & Walsh, 1998; Strauss & Corbin, 1998). Due to the hybrid nature of this qualitative research, the themes were continuously changing and difficult to develop. In the processes of coding and development of themes, the researcher returned to the data consistently to check the validity of the findings.

## **Chapter Four: Results**

### **Introduction**

A mixed method approach was used to analyze, code, and respond to the questions of interest. Quantitative methods were used to analyze data related to Research Question One: What are the similarities and differences in the information provided by parent, teacher, and child informants in the eco-mapping protocol? The data from the nine children's complete eco-maps from the three informants was used to answer this research question. Descriptive qualitative analysis was used to code and analyze data to answer Research Question Two: What information do the eco-maps provide about the children's social support networks? Qualitative data was taken from a sub-sample of five of the nine children in the study.

### **We Are All Alike, We Are All Different**

The total number of the various types and developmental areas of support reported were counted. Then the number of each nature of relationships and the number breakdown of strength of relationships were counted. This information was compiled and entered into summary tables (see Table 1, 2, and 3) that were used to answer sub-questions of research question 1 including the (a) numbers of sources of support, (b) the various types of supports, (c) the nature of the various supports identified, and (d) how each map compared.

The total number of providers of support for each child and reported by each informant was quantified. The total number of sources of support reported by all three informants ranged from 37 to 63 with an average of 47. The number of individuals reported by parent informants ranged from nine to 28 with an average of 17 supports reported. The number of sources of support reported by teacher informants ranged from four to 11 with an average of seven reported.

The number of sources of support reported by child informants ranged from 17 to 29 with an average of 22 individuals reported. Overall, the child informants reported the largest number of sources of support for themselves.

Table 1: Summary of parent informant eco-map data

P	Types of Support			Aspect of Development Supported						Nature of Relationship			Strength of Relationship			
Child	Instrumental	Informational	Emotional	Cognitive	Social	Emotional	Creative	Physical	Language	Positive	Mixed	Negative	Very Strong	Strong	Moderate	Weak
1	5	12	6	7	11	2	6	3	1	20	0	0	11	9	0	0
2	3	10	9	7	8	5	1	0	2	12	0	0	2	6	4	0
3	7	10	10	7	7	4	1	4	4	11	3	0	4	7	3	0
4	13	15	5	12	7	3	8	0	6	15	3	0	4	12	2	0
5	6	13	16	8	13	13	1	4	2	13	8	0	11	8	2	0
6	5	7	6	2	3	3	2	0	9	12	0	0	3	5	3	1
7	5	25	9	10	18	9	3	0	8	28	0	0	9	11	8	0
8	2	7	8	1	2	5	2	3	3	8	1	0	6	2	1	0
9	9	15	14	14	15	4	2	1	1	21	0	0	4	17	0	0

The range, average, and percentage of adults and children identified by each informant were calculated (see Figure 1). The number of children reported as sources of support by parents ranged from zero to ten with an average of five. The percentage of children reported by parents as providers of support ranged from zero to 48% with an average of 29%. The number of adults reported by parents ranged from six to 19 with an average of 12. The percentage of adults reported by parents ranged from 52 to 100% with an average of 71%. The number of children reported by the teacher informant ranged from one to five with an average of three. The

percentage of children reported as providers of support by the teacher ranged from 20 % to 56% with an average of 41%. The number of adults reported by the teacher informant ranged from two to six with an average of four. The percentage of adults reported as providers of support by the teacher ranged from 44% to 80% with an average of 59%. The number of children reported as sources of support by the child informants ranged from six to 16 with an average of 12. The percentage of children reported as sources of support by children ranged from 33% to 65% with an average of 54%. The number of adults reported by the child informants ranged from six to 13 with an average of nine. The percentage of adults reported as sources of support by children ranged from 32% to 50% with an average of 40%. The number of pets and toys identified by children as sources of support ranged from zero to four with an average of one. The percentage of pets and toys identified as sources of support by children ranged from zero to 17% with an average of six percent. Overall, children were found to report more children as sources of support, adults were found to report more adults as sources of support, and children were the only informant to report pets as sources of support (see Figure 1).

The types of support in a child's support network identified in this project included instrumental, informational, and emotional types of support. An instrumental type of support is an individual that provides for the child. The total number of instrumental types of support reported by the three informants ranged from four to 16 with an average of ten (see Figure 2). The number of instrumental types of support reported by the parent informants ranged from two to 13 supports with an average number of six. The number of instrumental types of support reported by the teacher informant ranged from one to three with an average of one. The number of instrumental types of support reported by the child informants ranged from one to seven with

an average of three. Every informant reported at least one instrumental type of support for each child. Parents overall reported the most number of instrumental types of support (see Figure 2).

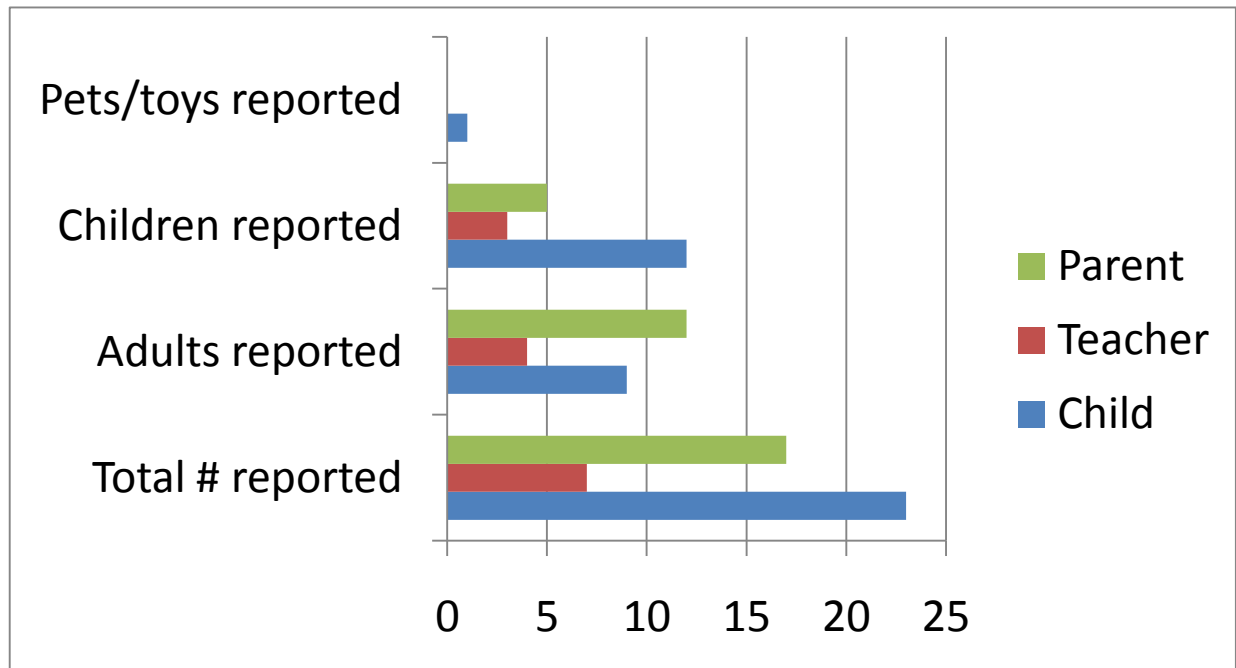


Figure 1: Breakdown of number and kinds of supports reported by the three informants

Informational types of support are individuals that help the child find out information. The total number of informational types of support reported by the informants ranged from 11 to 38 with an average of 19. The number of informational types of support reported by parents ranged from seven to 25 with an average of 13. The number of informational types of support reported by the teacher ranged from one to three with an average of three. The number of informational types of support reported by the child informants ranged from zero to ten with an average of four. Overall, parents reported the most informational types of support (see Figure 2).

When a child needs someone to talk to, an emotional type of support is an individual that listens. The total number of emotional types of support reports by the informants ranged from 28



to 51 with an average of 37. The number of emotional types of supports reported by parents ranged from six to 16 with an average of nine. The number of emotional types of support reported by the teacher informant ranged from four to 11 with an average of seven. The number of emotional types of support reported by child informants ranged from 15 to 29 with an average of 21. Overall, children reported the highest number of emotional types of support. Out of types of support, emotional types of supports were the identified most often (see Figure 2).

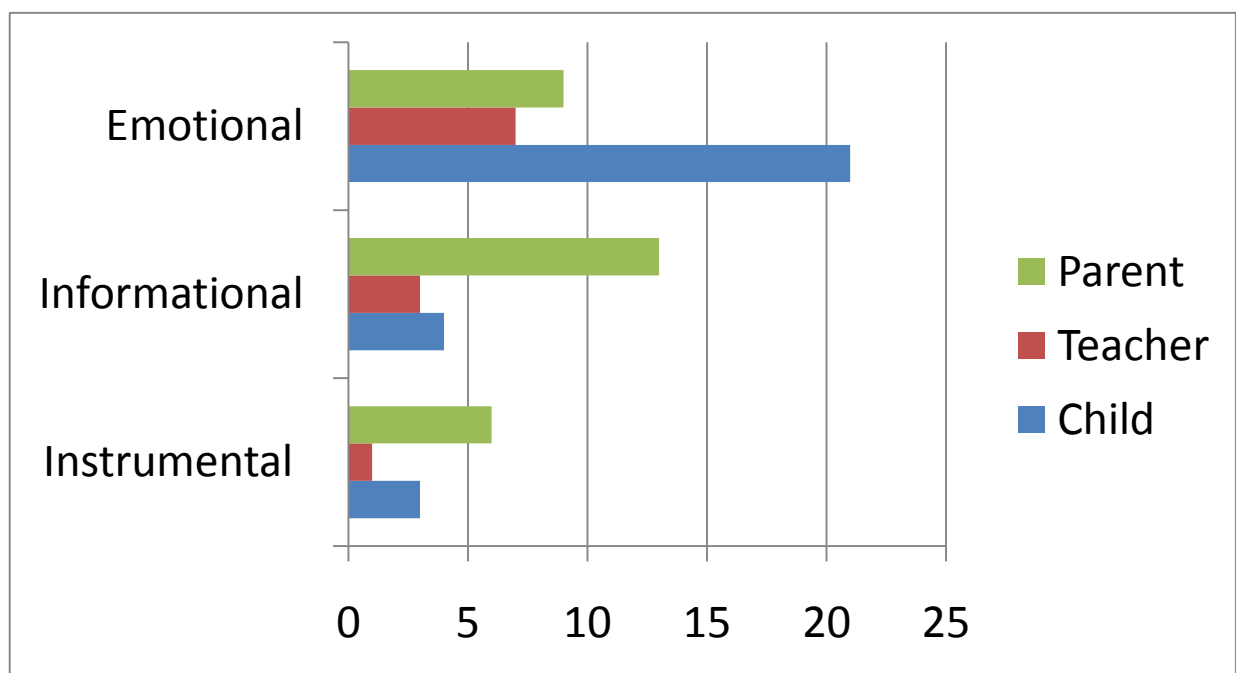


Figure 2: Types of support reported by the three informants

The aspects of development identified as being supported by various individuals in children's social support networks in this project included: cognitive, social, emotional, physical, language, and creativity. A cognitive developmental source of support is identified as someone the child learns from. The total number of cognitive developmental sources of support from the three informants ranged from five to 20 with an average of 13. The number of cognitive developmental sources of support reported by the parent informants ranged from one to 14 with

an average of eight. The number of cognitive developmental sources of support reported by the teacher informant ranged from one to five with an average of three. The number of cognitive developmental sources of support reported by the child informant ranged from zero to six with an average of two. Parents reported the most number of cognitive developmental sources of support overall (see Figure 3).

Table 2: Summary of teacher informant eco-map data

T	Types of Support			Aspect of Development Supported						Nature of Relationship			Strength of Relationship			
	Instrumental	Informational	Emotional	Cognitive	Social	Emotional	Creative	Physical	Language	Positive	Mixed	Negative	Very Strong	Strong	Moderate	Weak
1	3	3	6	4	4	5	0	0	1	5	2	0	0	5	2	0
2	1	3	9	4	7	2	0	0	1	6	3	0	3	1	5	0
3	1	2	6	2	4	3	0	0	0	5	1	0	1	4	1	0
4	1	3	7	5	6	1	0	1	0	5	2	0	2	3	2	0
5	1	3	8	3	7	1	0	1	0	1	7	0	1	3	4	0
6	1	1	4	1	4	1	0	0	0	2	2	0	2	1	1	0
7	1	3	11	3	10	2	0	0	0	9	2	0	4	7	0	0
8	1	2	5	2	4	2	0	0	0	4	1	0	1	3	1	0
9	2	3	8	4	5	3	0	0	1	6	2	0	2	5	1	0

Social developmental sources of support are identified as individuals the child goes places and does things with. The total number of social developmental sources of support from the informants ranged from 25 to 45 with an average of 34. The number of social developmental sources of support reported by the parent informants ranged from two to 18 with an average of nine. The number of social developmental sources of support reported by the teacher ranged

from four to ten with an average of six. The number of social developmental sources of support reported by the child informants ranged from 14 to 25 with an average of 19. Social sources of supports appeared to be most salient to all informants and were mentioned most frequently by parents, teachers, and children (see Figure 3).

Table 3: Summary of child informant eco-map data

C	Types of Support			Aspect of Development Supported						Nature of Relationship			Strength of Relationship			
	Instrumental	Informational	Emotional	Cognitive	Social	Emotional	Creative	Physical	Language	Positive	Mixed	Negative	Very Strong	Strong	Moderate	Weak
1	2	3	16	4	14	2	1	6	0	14	4	0	15	1	2	0
2	3	5	21	0	25	1	5	11	0	23	4	0	23	4	0	0
3	7	0	15	0	15	3	4	5	0	14	3	0	10	7	0	0
4	2	3	25	1	21	0	8	8	4	23	2	0	1	24	0	0
5	1	3	17	1	14	1	4	8	0	17	0	0	17	0	0	0
6	2	3	22	3	21	1	8	2	0	19	3	0	22	0	0	0
7	4	10	15	6	17	1	6	4	6	22	2	0	23	0	1	0
8	1	3	27	2	19	8	6	6	1	22	4	1	18	4	2	3
9	5	2	29	2	25	5	8	4	0	28	1	0	28	0	1	0

An individual that comforts the child is identified as an emotional developmental source of support. The total number of emotional developmental sources of support reported from the informants ranged from four to 15 with an average of 10. The number of emotional developmental sources of support reported by the parent informants ranged from two to 13 with an average of five. The number of emotional developmental sources of support reported by the teacher informant ranged from one to five with an average of two. The number of emotional

developmental sources of support reported by the child informants ranged from zero to eight with an average of two. Out of the three informants, parents reported the overall highest amount of emotional sources of developmental supports for their children (see Figure 3).

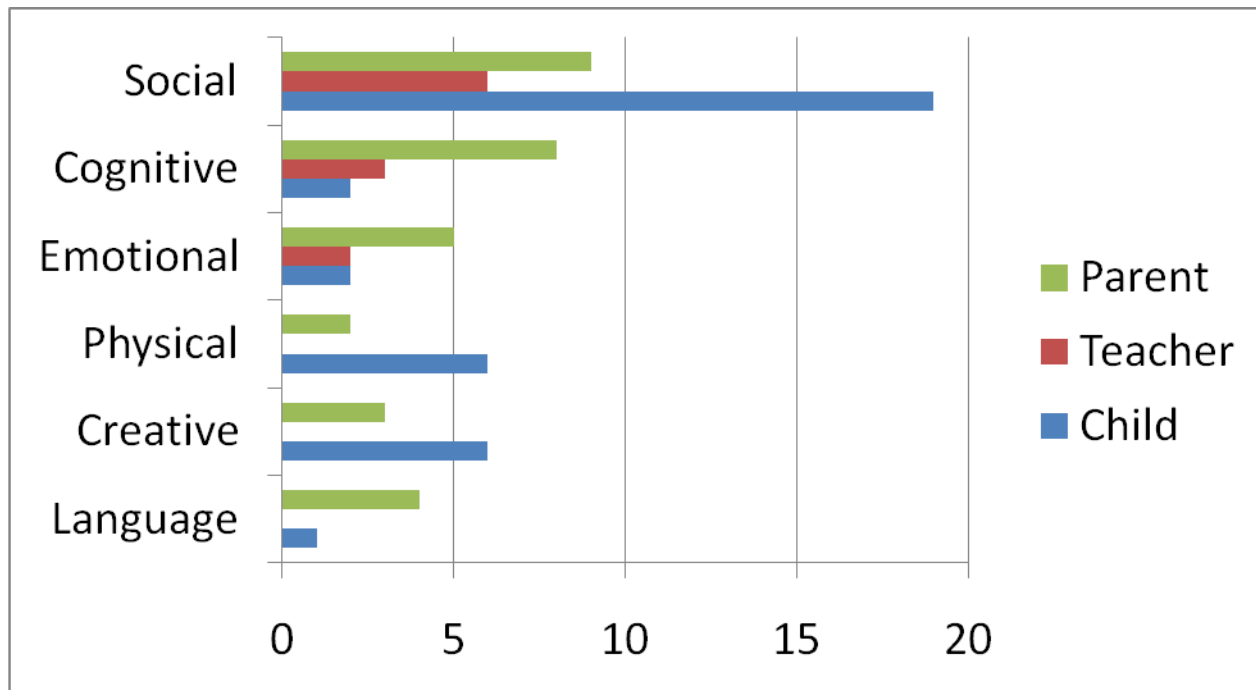


Figure 3: Developmental areas of support reported by the three informants

Creative developmental sources of support encourage the child in their participation in the arts (dance, art, music, dramatics, etc). The total number of creative sources of support reported from the informants ranged from five to 16 with an average of eight. The number of creative developmental sources of support reported by parents ranged from one to eight with an average of three. The teacher informant did not identify any creative sources of support in the children's social support networks. The number of creative sources of support reported by the child informants ranged from one to eight with an average of six. The creative developmental

area of support appeared most salient to the child informants and was not identified at all by the teacher informants (see Figure 3).

Physical developmental sources of support are individuals who do gross motor activities with the child, take the child to the doctor, or feed the child. The total number of physical sources of support reported from the informants ranged from two to 13 with an average of eight. The number of physical developmental sources of support reported by parent informants ranged from zero to four with an average of two. The number of physical developmental sources of support reported by the teacher informants ranged from zero to one with an average of zero. The average number of physical sources of support reported by the teacher was zero. The number of physical developmental sources of support reported by the child informants ranged from two to 11 with an average of six. The physical area of development was also most salient to the child informants and mentioned significantly little by the teacher informant (see Figure 3).

A language developmental source of support is identified as someone the child learns new words for or someone the child talks with a lot. The total number of language sources of support reported from the informants ranged from two to 14 with an average of six. The number of language developmental sources of support reported by parent informants ranged from one to nine with an average of four. The number of language developmental sources of support reported by the teacher ranged from zero to one. The number of language developmental sources of support reported by the child informants ranged from zero to six with an average of one. The area of language developmental sources of support was most salient to parent informants and was identified notably little by the teacher informant (see Figure 3).

In the eco-mapping protocols, strength of relationships was scored on a four sectioned scale. Relationships were determined to be weak, moderate, strong, or very strong. The total number of very strong relationships reported by the informants ranged from seven to 36 with an average of 25. The number of relationships scored as very strong by parent informants ranged from two to 11 with an average of six. The number of very strong relationships scored by the teacher informant ranged from zero to four with an average of two. The number of very strong relationships scored by the teacher informant ranged from zero to four with an average of two. The number of very strong relationships scored by the child informants ranged from one to 28 with an average of 17. Child informants identified the most very strong relationships in their support networks. Very strong relationships were identified the most overall (see Figure 4).

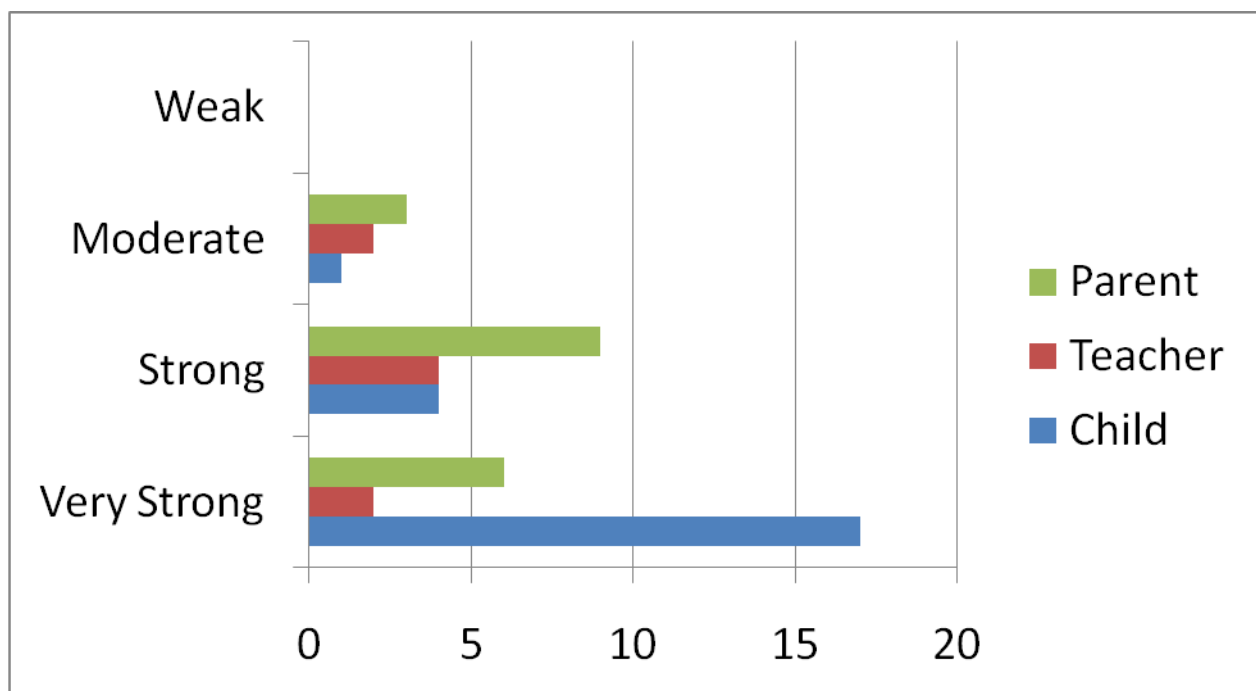


Figure 4: Strength of relationships reported by the three informants

Strong and moderate relationships were identified most often by adult informants. The total number of strong relationships reported by the informants ranged from six to 39 with an

average of 17. The number of relationships scored as strong by parent informants ranged from two to 17 with an average of nine. The number of strong relationships scored by the teacher ranged from one to seven with an average of four. The number of very strong relationships scored by the child informants ranged from zero to 24 with an average of four. The total number of moderate relationships reported by the informants ranged from two to nine with an average of five. The number of relationships scored as moderate by parents ranged from zero to eight with an average of three. The number of moderate relationships scored by the teacher ranged from zero to five with an average of two. The number of moderate relationships scored by the child informants ranged from zero to two with an average of one. Adults appeared to identify a larger range in the strength of the relationships than children did overall (see Figure 4).

Weak relationships were scored least often by all three informants. The total number of weak relationships reported by the informants ranged from zero to three with an average of zero. The number of relationships scored as weak by parents ranged from zero to one with an average of zero. The teacher informant did not score any relationships as weak. The number of weak relationships scored by the child informants ranged from zero to three with an average of zero. Only one child and one parent informant scored weak relationships (see Figure 4).

In the protocol, the nature of each relationship was scored as positive, negative, or mixed. A positive nature of relationships was considered primarily affectionate and supportive marked with camaraderie. The total number of positive relationships reported by the informants ranged from 30 to 59 with an average of 41. The number of relationships identified by parents as positive ranged from eight to 28 with an average of 16. The number of relationships identified by teachers as positive ranged from one to nine with an average of five. The number of relationships identified by the child informants as positive ranged from 14 to 28 with an average

of 20. Overall, positive relationships were identified most often by all three informants (see Figure 5).

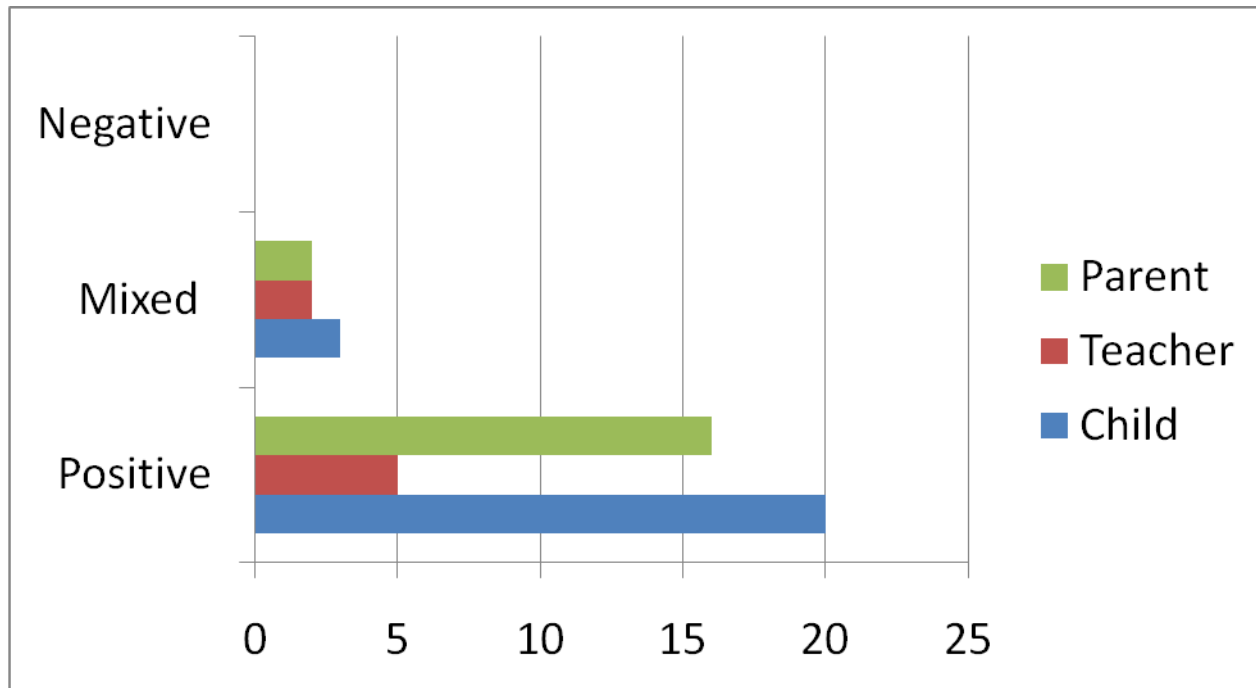


Figure 5: Nature of relationships reported by the three informants

A mixed nature of relationship was defined as equally marked by conflict and affection. The total number of mixed relationships reported by the informants ranged from three to 15 with an average of seven. The number of relationships identified by parents as mixed ranged from zero to eight with an average of two. The number of relationships identified by the teacher as mixed ranged from one to seven with an average of two. The number of relationships identified by the child informants as mixed ranged from zero to four with an average of three. Mixed relationships were mentioned similarly by the three informants (see Figure 5).

A negative nature of relationship was defined as primarily marked with conflict and fights. The total number of negative relationships reported by the informants ranged from zero



to one with an average of zero. None of the parent informants identified any of the reported relationships as negative. The teacher informant did not identify any of the reported relationships as negative. The number of negative relationships reported by child informants ranged from zero to one with an average of zero. Weak relationships were identified least often by all three informants (see Figure 5). Only a child informant reported a negative relationship (see Table 3 and 4).

Table 4: Summary of combined eco-map data

S	Types of Support			Aspect of Development Supported						Nature of Relationship			Strength of Relationship			
	Instrumental	Informational	Emotional	Cognitive	Social	Emotional	Creative	Physical	Language	Positive	Mixed	Negative	Very Strong	Strong	Moderate	Weak
1	10	18	28	15	29	9	7	9	2	39	6	0	26	15	4	0
2	7	18	39	11	40	8	6	11	3	41	7	0	28	11	9	0
3	15	12	31	9	26	10	5	9	4	30	7	0	15	18	4	0
4	16	21	37	18	34	4	16	9	10	43	7	0	7	39	4	0
5	8	19	41	12	34	15	5	13	2	31	15	0	29	11	6	0
6	8	11	32	6	28	5	10	2	9	33	5	0	27	6	4	1
7	10	38	35	19	45	12	9	4	14	59	4	0	36	18	9	0
8	4	12	40	5	25	15	8	9	4	34	6	1	25	9	4	3
9	16	20	51	20	45	12	10	5	2	55	3	0	34	22	2	0

## Child portraits

Child portraits or narratives describing the whole child were compiled for a subsample of five of the nine children in the study. The child portraits were composed from information from the three eco-mapping protocols, each child's initial school application, and supplemental

questions asked of the parents as needed. Descriptive qualitative analysis was used to code and analyze the data and uncover themes. The child portrait data and analysis were used to answer research question two: What information do the eco-maps provide about the children's social supports networks? Below are the child portraits of the five children used in the qualitative analysis. All names of children and sources of supports have been changed to ensure confidentiality.

### **Dylan.**

Dylan is a four year three month old child in preschool. His mother identified his race as black. He lives with his mother who works at a medical research center. Dylan's father lives in North Carolina. Dylan enjoys throwing sport balls and dancing with his family. His family church affiliation is Christian. Dylan is a very active child and he really likes sport and enjoys playing with any kind of sports ball. He also enjoys singing, dancing, reading, and playing with other children. At home, Dylan has a room of his own and his responsibilities at home include cleaning up after himself following play and dinner. His mom describes him as a child who is "very attentive to moods and cares about the well-being of others." At home, Dylan often plays alone. He is afraid of storms and insects. His favorite television programs are several television programs on the Disney channel including: Hannah Montana, The Suite Life of Zack and Cody, Phineas and Ferb, and Yo Gabba Gabba. Dylan has traveled out of town on a few occasions including to DeRidder and California. Some of his favorite foods include rice, sushi, pizza, and ice cream. He does not eat much beef or bread.

In Dylan's parent-informed eco-map, the individuals in his social support network include his mom, dad, both sets of grandparents, his great grandmother, and 6 family friends. In

the parent-informed eco-map there were a total of 14 sources of support identified, none of them were children and 14 were adults. Out of the types of support Dylan's mother identified, she reported the most informational and emotional types of support and the least instrumental types of support. In the parent report, Dylan's mother reported the most cognitive and social developmental sources of support and the least creative developmental sources of support. Most of the relationships reported in the parent-informed eco-map are strong positive relationships.

According to Dylan's teacher-informed eco-map, the individuals in his social support network include: his mom, his two main teachers at school, and three of his close friends from school. In the teacher informed eco-map, there were a total of six providers of supports reported, three children and three adults. Out of the types of support the teacher reported the most emotional types of support and only one instrumental type of support. Dylan was reported as having the most social developmental sources of support and no creative, physical, or language developmental sources of support by the teacher informant. Most of the relationships in his teacher informed social support network were strong positive relationships.

The individuals in Dylan's child informed social support network include: his parents, his cousin, Jesus, two of his teachers at school, ten friends from school, and a family friend. In the child informed eco-map, there were a total of 17 providers of support reported, including 11 children, and six adults. Out of types of support, Dylan reported the most emotional types of support and no informational types of support about the individuals in his social support network. In the child eco-map, he reported the most social developmental sources of support and no cognitive or language developmental sources of support for his social support network. All of Dylan's self reported relationships in his social support network were very strong or strong and most of them were positive.

Dylan included many inanimate objects in his pictures of people/things that were important to him. He included the radio, television, his mom's exercise things, and the vacuum cleaner. About the radio Dylan said, "I have my Michael Jackson CD in the radio. Sometimes we turn it on louder." He included 4 pictures of his mom. About his mom Dylan said, "This is my mom. My mom is eating yogurt and the horse came to her. She licked the yogurt and said "Whoo." My mom and I play with toys together. My favorite toy is magnets." About one of his friends from school, Dylan said "Sandy and I do choreography together dancing to music." Dylan said he enjoyed pretend play with at least three of his friends at school. For example he said, "Jason and I like to play monsters and sharks together."

Based on the information gathered from all informants, it appears that Dylan is a very active child who enjoys music and dancing. He also seems to enjoy pretending in creative ways as he does when playing monsters, sharks, tiger, or swords. Dylan's mom was the only source of support consistently mentioned by all three informants. Dylan's dad, a family friend, and three of his close friends at school were identified by two of the informants. According to all three informants Dylan's relationships were primarily strong and positive. Out of developmental sources of support reported by all three informants, he had the most social developmental supports (26) and the lowest number of language developmental supports with only four in his social support network. In types of support, overall Dylan had the highest number of emotional sources of support with 31 in his reported social support networks.

### **Jason.**

Jason is a four year three month old child in preschool. His parents identified his race as white. He lives with both his parents and his sister Jane who is three years older than him.

Jason's dad works at a large state university as a professor and his mom currently works as a homemaker. With his family, Jason enjoys playing games and water play. His family church affiliation is Presbyterian. Jason loves animals and enjoys bringing stuffed animals around with him. He has a pet dog named Molly, lots of Koi fish, and a goldfish. At home he has a room of his own and his chores include helping to pick up toys and feeding the dog. His parents describe him as a "happy kid who laughs a lot and that not many things phase him." Jason really enjoys musical activities especially playing the drum. He also enjoys playing sports and physical games. Jason's favorite movie is "Finding Nemo" and he enjoys any cartoons with animal characters. Outside of school Jason is enrolled in gymnastics. Jason has traveled out of town on several occasions to places including Tennessee; the beach; California; Washington D.C.; and Sea World in San Antonio. His favorite foods include fish, fruit, and sweets and he is resistant to eating red meats.

According to Jason's parent-informed eco-map, the individuals in his social support network include his mom, dad, sister, both sets of grandparents, a family friend and her daughter, his babysitter, his teachers at school, his Sunday School teacher, and his closest friend at school. In the parent-informed eco-map there were a total of 18 providers of support identified, three of them were children and 15 were adults. Out of types of support, his mother reported the most informational types of support and the least emotional types of support in Jason's social support network. In the parent's report, Jason had the most cognitive developmental reports and he had no physical developmental reports in his social support network. Most of the relationships in Jason's parent-informed eco-map were strong positive relationships.

The individuals in Jason's teacher informed eco-map of his social support network include: his parents, his sister, his two main teachers at school, and two of his close friends from

school. In the teacher informed eco-map, there were a total of seven providers of support reported, three children and four adults. In the teacher's report, Jason was reported as having the most emotional types of support and only one instrumental type of support in his social support network. Out of developmental areas sources of support, the teacher reported Jason as having the most social developmental sources of support and no creative or language developmental support in his social support network. Most of the relationships in Jason's teacher informed social support network were strong positive relationships.

In Jason's child informed eco-map, the individuals in his social support network include: his parents, his sister, seven of his teachers at school, two friends from gymnastics, his dog, and 12 friends from school. In the child informed eco-map, there were a total of 25 supports reported, including 15 children, nine adults, and one animal. In the child reported eco-map, Jason had the most emotional types of support and the least instrumental types of support. In the child eco-map, Jason had the most social developmental sources of support and no emotional developmental sources of support. All of Jason's self reported relationships were strong and most of them were positive. Jason enjoys playing with his dog, Mary. Jason said, "I like to play fetch with her. She is really fun to play with." About his mom Jason said, "I like to play with her. We play ball together and I put the garbage out with her." About his dad Jason said, "I play football and watch football with him. I write with him too." When asked about his sister Jane, Jason said "I like to kick the ball when she throws it. We like to play with the bunny together and ride on a boat." From the activities that Jason identified as enjoying with these four people, it appears he really enjoys playing ball and physical sports.

Jason took at least nine of his pictures at gymnastics, most of them including his friends Angie and Lara. Since he took so many pictures there it appears that gymnastics is an important

activity and part of his life. About his friend Angie, Jason said “We play spy together and we go to gymnastics together. At gymnastics Angie and I do bars, jump, swing on the bars, and walk on the beam.” Jason also included 12 of his friends from school in his social support network. About one friend, Jason said “He is my favorite best friend. We walk and play together.” About another friend he said, “We play hide and seek together. She gets scared sometimes. We also play blocks and talk.” Jack mentioned pretending and dramatic play with five of his friends from school. For example, he said “Jarrod and I like to play divers together.” And “Winston and I play deer together.” Jason mentions reading books together as one of his favorite thing to do with both of his main teachers at school.

Based on the information gathered from all informants, it appears that Jason is a very active child who enjoys movement activities. He also seems to enjoy pretending in creative ways as he does when playing spy, deer, or divers. He also appears to have a few close friends from school and gymnastics. Both of Jason’s parents, his sister, his two main teachers at school, and his friend Jarrod from school were consistently mentioned by all three informants.

According to all three informants Jason’s relationships were mostly strong and positive. Overall in his social support network, he had the highest number of social developmental sources of support with a total of 34 and the lowest number of emotional developmental sources of support with only four. In his reported social support network, Jason had the lowest number of instrumental types of support (16) and the highest number of emotional types of support (37).

### **Nadia.**

Nadia is a four year five month old child in preschool. She was adopted from South Korea. Her birth mother made an adoption plan for her. She lived with a foster family for five

months before being placed with her current family. Nadia's family is multi-ethnic with White parents and Asian children. She lives with her adoptive parents and her two brothers who are also adopted. One of her brothers is two years older than her and the other is one year younger. Nadia's dad works as an assistant operator at a large oil and gas corporation and her mom works as a social worker at an adoption center. With her family, Nadia enjoys activities, games, listening to music, outings, and visiting extended family. Her family church affiliation is a Korean church and Catholic Church. Nadia has two pet dogs, a cat, two pet frogs, and a pet fish. At home she has a room of her own and her chores include: picking up toys, picking up dishes after eating, and putting trash in the trash can. Nadia's parents describe her as easy-going, sensitive, clever, witty, artistic, and that she pays attention to detail. Some of her favorite activities include: art—painting, drawing, or coloring. She loves music especially Korean children's songs and she also enjoys playing with baby dolls and putting on tea parties. Nadia's favorite television program is Ni Hao Kai-lan. Outside of school she is enrolled in a Korean language school, dance, and she recently joined a children's soccer team. Nadia has traveled out of town on a few occasions to Texas and Alabama. She really likes to eat chicken. Nadia often participates in a variety of play situations and with children of various ages; she is generally limited to play in the yard and goes to two homes frequently.

In Nadia's parent-informed eco-map, the individual's in her social support network include: her parents, brothers, extended family, teachers from her various activities, and friends from schools. In the parent-informed eco-map, a total of 28 providers of support were identified, nine were children and 19 were adults. In Nadia's support network, the mother reported the most informational types of support and the least instrumental types of support. In the parent report, Nadia had the most social developmental sources of support and the no physical developmental



sources of support. Most of the reported relationships in Nadia's parent-informed eco-map were strong relationships and all of them were positive.

According to Nadia's teacher-informed eco-map, the individuals in her social support network include: her parents, brothers, her two main teachers at school, and four of her close friends from school. In the teacher informed eco-map, there were a total of 11 providers of support reported, five children and six adults. The teacher reported the most emotional types of support and only one instrumental type of support in Nadia's social support network. In the teacher report, Nadia had the most social developmental sources of supports and no creative, physical, or language developmental sources of support reported. All of the relationships in Nadia's teacher informed social support network were strong or very strong and most were positive relationships.

The individuals in Nadia's child informed social support network include: her parents, her brothers, three cousins, two grandparents, seven of her school teachers, three friends from school, three pets, and an aunt. In the child informed eco-map, there were a total of 24 providers of support reported, including eight children, 12 adults, and four pets. In the child reported eco-map, Nadia had the most emotional types of support and the least instrumental types of support. In the child eco-map, she had the most social developmental sources of support and the least emotional developmental sources of support. Most of Nadia's self reported relationships were very strong and positive.

Nadia has a large family and she is involved with many out of school activities as well including: dance, soccer, and Korean language school. Nadia mentions animals several times in her discussion of important people in her life. For example she says, "That is my dog. He is a

boy. I like to play with him. Sometimes I like to run around with him in the garden.” Nadia mentions eating with her family four times in her discussion about her family. This appears to be an activity the family chooses to do together regularly. For example Nadia says, “That is Mommy, Daddy, and Tsu. We all like to go eat somewhere together.” In the discussion with Nadia of her social support network, she talked about enjoying reading with other individuals six times. For example she says, “There is Mama and my dog. We like to play together and read together.” Nadia also identifies that she enjoys doing puzzles with four of her sources of support. She also identifies enjoying singing, learning new songs, and doing art projects. Nadia said, “Nana teaches me songs. She taught me Annie Mae and the alligator song.”

Based on the information gathered from all informants, it appears that Nadia is a child who enjoys learning and participates in a large variety of activities. She also appears to like animals and really enjoys reading. Nadia’s parents, two brothers, two main teachers at school, and one close friend at school were the only providers of support consistently mentioned by all three informants. According to all three informants Nadia’s relationships were mostly very strong or strong and positive. She had no negative reports of relationships. Overall, Nadia had the highest number of social developmental sources of support with a total of 45 and the lowest number of physical developmental sources of support with four. Overall Nadia had the lowest number of instrumental types of support with ten and the highest number of informational types of support with 38.

### **Sandy.**

Sandy is a four year five month old child in preschool. Sandy’s family identified her race as white. Sandy lives with her grandmother and step-grandfather that are her legal guardians and

have had full custody of her since she was nine months old. She refers to them as mom and dad. Her Uncle and cousin Mimi also live with her. Sandy's three step-uncles also live with her sometimes and she views them as brothers. Sandy's birth mother had her when she was only 16 years old and no longer lives with the family, but visits sometimes. Sandy's grandmother works as an office manager at a bank and her step-grandfather works as a service technician. With her family, she enjoys playing outside and doing crafts. Her family church affiliation is Catholic. She has a pet cat. At home, Sandy has a room of her own, which she sometimes shares with her baby cousin to sleep and her chores include helping to clean up. Sandy's guardians describe her as very independent. "She always wants to do everything herself." At home, she often plays with many children. She is afraid of storms. Her favorite television shows include Wow wow Wubbzy and Dora. Sandy has traveled out of town to the beach in Alabama. When it comes to food, Sandy is not a picky eater and she loves vegetables. She is a very active child and enjoys physical activities. Some of her favorite activities are coloring, painting, playing with her dolls, swinging, bike riding, and outdoor water/mud play.

The individuals identified in Sandy's parent informed social support network include her legal guardians, birth mother, great grandparents, her three step uncles, and her uncle. In the parent-informed eco-map there were a total of nine providers of support identified, three of them were children and six were adults. The guardian reported the most emotional types of support and the least instrumental types of support. In the parent report, Sandy had the most emotional developmental sources of support and the least cognitive developmental supports. Most of the relationships in Sandy's parent-informed eco-map are strong positive relationships.

According to Sandy's teacher-informed eco-map, the individuals in her social support network include: her female guardian, her birth mother, her two main teachers at school, and

one of her close friends from school. In the teacher informed eco-map, there were a total of five providers of support reported, one child and four adults. The teacher reported the most emotional types of support and only one instrumental type of support. In the teacher report, Sandy had the most social developmental sources of support and no creative, physical, or language developmental sources of support. Most of the relationships in Sandy's teacher informed social support network are strong positive relationships.

In Sandy's child informed eco-map, the individuals in her social support network include: her guardians, two step uncles, her uncle, her cousin, her birth mother, her great grandmother, her neighborhood friend, five teachers from school, 12 friends from school, and her stuffed animal. In the child informed eco-map, there were a total of 27 providers of support reported, including 16 children, ten adults, and one stuffed animal. In the child reported eco-map, Sandy had the most emotional types of support and the least instrumental types of support. In the child eco-map, Sandy had the most social developmental sources of support and the least language and cognitive developmental sources of support. Most of Sandy's self reported relationships were strong and positive. She mentioned enjoying painting with five of her sources of support. For example she said, "Jason and I do a lot of painting together." Sadie identified enjoying pretend play activities with 4 of her identified providers of support. Sadie said, "Jarrod and I also like to do the creature crouch together," and "Sometimes, Brandon and I like to call each other different names." Sandy also said, "Dylan and I like to pretend in the kitchen together." Sandy also identified many physical activities she enjoyed doing with her identified sources of support including climbing trees, playing hopscotch, swimming, and dancing. She also discusses and addresses many emotional words and activities in her discussion of her support network. For example Sandy said, "Ms. Zachary smiles at me a lot." About her guardians she said, "That's

mom and dad. They were kissing because they love each other.” and “that is my daddy. He always takes care of me.” Sandy also included many inanimate objects in her pictures of people that are important to her. She included pictures of her stuffed lambie, Halloween decorations, the fan, the living room her bed, and the floor. About her lambie Sandy said, “That is my good lambie. I like to smell her.” About the living room she said “I like to do good things in the living room.”

Based on the information gathered from all informants, it appears that Sandy is a very socially and emotionally oriented child who enjoys laughing, giving hugs, and being silly. She also appears to be a creative child who enjoys painting and pretending in creative ways as she does when playing in the kitchen or during music activities. Sandy also appears to be an active child who enjoys physical activities including: hopscotch, dancing, climbing, and swimming. Sadie’s female guardian and birth mother were the only providers of support consistently mentioned by all three informants. The male guardian, uncle, grandmother, two step-uncles, her two main teachers at school, and one of her close friends at school were all identified by two of the informants. According to all three informants Sandy’s relationships were mostly strong and positive. Overall, Sandy had the highest number of social developmental sources of support with a total of 25 and the lowest number of language and cognitive developmental sources of support with four and five respectively. Overall Sandy had the lowest number of instrumental types of support with four and the highest number of emotional types of support with 40.

### **Zoe.**

Zoe is a four year ten month old child in preschool. Her parents identified her race as black. She lives with both of her parents and is an only child. Zoe’s dad works as an architect

and her mom is currently a graduate student. With her family, Zoe enjoys reading and going to the park. Her family church affiliation is non-denomination and her uncle is a pastor of the church. Zoe does not currently have any pets. At home, she has a room of her own and her chores include helping to pick up toys. Her parents describe her “outgoing, talkative, and dramatic with a strong personality.” Some of her favorite activities include: writing, playing with baby dolls, doing puzzles, reading books, and blowing bubbles. She also enjoys singing, dancing, coloring, and learning about animals. Zoe’s favorite television programs include: Lazytown, Word Girl, Super Why, and Sesame Street. Some places Zoe has traveled out of town include: Florida, Indiana, and California. Her favorite foods include fruit, macaroni and cheese, red beans and rice, bacon, and biscuits and she dislikes some vegetables. At home, Zoe usually plays with older children and is generally limited to the yard for play. She goes into about four houses frequently.

In Zoe’s parent-informed eco-map, the individuals in her social support network include her parents, grandparents, aunts, uncles, cousins, a friend from school, and many friends (both adult and children) from church. In the parent-informed eco-map, a total of 21 providers of support were identified, 10 of them were children and 11 were adults. The parents reported the most informational types of support and the least instrumental types of support. In the parent report, Zoe had the most social developmental sources of support with 15 and the least physical and language developmental sources of support (one each). Most of the relationships in her parent-informed eco-map are strong positive relationships.

The individuals in Zoe’s child informed social support network include: her parents, her two main teachers at school, her grandmother, her aunt, her cousin, and one of her close friends from school. In the teacher informed eco-map, there were a total of eight providers of support

reported, two children and six adults. The teacher reported the most emotional types of support and the least instrumental types of support. In the teacher report, Zoe had the most social developmental sources of support and no creative or physical developmental sources of support reported. Most of the relationships in Zoe's teacher informed social support network are strong positive relationships.

According to Zoe's child informed eco-map, the individuals in her social support network include: her parents, five cousins, two mentions of aunts and uncles, two grandparents, four of her teachers at school, six friends from school, three friends from church, and her stuffed animal. In the child informed eco-map, there were a total of 29 providers of support reported, including 15 children, and 13 adults and one stuffed animal. In the child reported eco-map, Zoe had the most emotional types of support and the least informational types of support. In the child eco-map, Zoe had the most social developmental sources of support and no language developmental sources of support. Most of Zoe's self reported relationships were very strong and positive.

Zoe mentions church when discussing four of her important relationships. For example she says, "This is Ms. Esther. She comes to my church too. I like to watch her sing. She sings in the choir. I like to jump to the music. That is what I always do with her." Zoe also appears to look up to her teenage cousins and friends. About some of them she says, "Those are my favorite best friends that I love to hang out with and follow around." With five of her friends at school, Zoe mentions enjoying pretending with them. For example Zoe says, "Sandy and I like to pretend to work in the ice cream shop together." About two of her teachers, Zoe says she enjoys doing artwork with them. Zoe also used a lot of emotional language when talking about people who were important to her. For example she said, "I have a lot of fun with my dad. He

smiles with me when we take a picture. I love him.”She also identified her stuffed animal cat named Nadia as someone who was important to her.

Based on the information gathered from all informants, it appears that Zoe is a very socially and emotionally involved child who enjoys music and dancing. She is very connected to her family and her church and most of her sources of support come from family, church and school. Zoe appears to enjoy pretending as she does when she plays baby and ice cream shop. She also appears to enjoy using creativity in artwork. Zoe’s parents, grandmother, aunt, cousin, and close friend from school were the only providers of support consistently mentioned by all three informants. According to all three informants Zoe’s relationships were mostly strong and positive. Overall, Zoe had the highest number of social developmental sources of support with 45 and the lowest number of language developmental sources of support with only two. Overall, Zoe had the highest number of emotional types of supports with 51 and the lowest number of instrumental types of support with 16.

## **Themes**

Qualitative data was coded and analyzed to uncover themes to address research question two: What information does the eco-map protocol provide about the children’s social support networks? Four overall themes emerged from the data. The themes were: the inner circle, only strong links, lots of shapes and colors, and symbols of support.

### **The inner circle.**

In the report of children’s social support network, the results indicate that the three informants agreed on a small group of people as in the children’s support network. The individual’s mentioned by all three informants include family members, school friends, and



teachers. Mothers were mentioned by all three informants for all five children and fathers were mentioned by all three informants for three of five children. Siblings were included by all informants for those children that had siblings. A peer was also included often by all three informants with at least one of children's school friends being mentioned for three of five children. Teachers were included by all the informants, but not as often (only two of the five children). The individuals mentioned by all three informants appear to be the relationships most salient in the child's life and possibly more significant for the child's development.

Within these "inner circles" of support, the way in which children were supported was considered. When looking at the individuals agreed on by three informants, the mother figure was one mentioned for the five children. When reporting on the types of supports the child was receiving, all informants agreed on at least one type of support the child was receiving from the mother figure. For example, Sandy identified her mother as an emotional type of support when she said, "I love to hug mommy. She plays with me and my cousin." and when she says, "That is my mom and dad again. They were kissing because they love each other." The three informants for four out of the five children agreed that the mother provided an emotional type of support to their child. The informants for Zoe agreed that the mother provided an instrumental type of support to her child. However the teacher and child informants also both agreed that she provided an emotional type of support to her child as well.

For the five children, an overall total of 20 sources of support were identified by all three informants. For all except three of these individuals, the three informants had agreement on at least one type or developmental area of support provided such as instrumental type of support or cognitive developmental area of support. There were three individuals identified that the three informants did not have full agreement about. These three individuals included a father, brother,

and a teacher. In these cases there was agreement of at least two informants in at least one type and one developmental area supported by the individual. For all five children, there was at least agreement of two informants about one of the types and one of the developmental areas supported by each individual in the child's reported inner circle of support. Therefore, even though there was some variation in their reports of type and area of development supported there was also some basis in similarity for all children.

### **Only strong links.**

Weak and negative are words that participants avoided in their descriptions of children's support networks. In the eco-mapping protocols, the only negative relationship was identified by a child. Sandy described a negative relationship with a peer saying, "We don't play together anymore because he is always bad to me." During the check backs with the eco-maps, parents informed the researcher that the reason they did not identify negative relationships was because they tried to "keep their children away from negative relationships." The teacher avoided describing negative relationships. Overall, there was significant agreement on negative relationships not being a part of children's social support networks across informants.

Weak relationships were also significantly absent in the informants' reports of children's social support networks. The teacher did not identify any weak relationships. Only one parent identified a weak relationship and this single relationship was between her four year old and an 18 month old. Only one child identified weak relationships. That particular child identified three weak relationships and was the same child that identified the negative relationship. Overall, there was agreement among informants that weak relationships are not a significant part of young children's social support networks. There was a notable agreement about the basic and

most salient sources of support to a child, some of the types and developmental areas of support they provide, and about the absence of weak and negative relationships in a child's social support network.

### **Lots of shapes and colors.**

Although informants were found to agree about at least one type of support in the inner circle of support; there was variation represented about the perceived support each individual provided to the child. In the parent, teacher, and child reports on children's social support networks, the informants had varied perspectives on the types and developmental areas of support they attuned to in their reports. Each informant in the eco-mapping protocol illuminated new information about the child and together created a more comprehensive picture of the child. The most common developmental support identified by parents, teachers, and children was social. Overall children tended to report more physical supports than other informants. In relation to physical developmental supports, the teacher only identified a physical support for one of the five children. Zoe identified her cousin as a physical support when she said, "We love to play digging outside. We buried the horse and now we cannot find it." Other activities that children identified doing with their physical sources of support included: riding bikes together, playing ball, doing gymnastics, climbing trees, and dancing. Nadia identified her grandfather as someone who cooks dinner for her family, which identifies another kind of physical support to her. The child informants allowed the researcher to get a more specific picture about what kind of activities the child and their sources of support participate in together.

Language developmental sources of support are essential in children's development of language and literacy skills. Of the informants, parents overall reported the most language supports. In relation to language developmental supports, the teacher only reported a language

support for one of the five children. Only three of the children reported language sources of support. When children identified reading books and stories with their sources of support they were reporting support in language development. When Jason said, “The teacher and I walk and talk together,” he was also identifying another type of language support. Reading books or stories was the most common type of language support identified by children. By including parents as informants the researcher was able to get a more comprehensive picture through the inclusion of the language developmental sources of support.

Creative developmental support was an area of development not often mentioned by all informants. Creativity appears to be an area of support more often reported by children than adults. The teacher did not report any creative developmental sources of support for the five children. Parents each identified at least one creative source of support in their child’s life. All five children identified multiple creative sources of support in their report and often identified enjoying pretend play with the individuals in their support network. For example when Jason said, “Sometimes we play spy and secret agent together,” he was identifying one of his friends from gymnastics as a creative source of support with whom he enjoys participating in pretend play. When Zoe said, “We pretend to work in the ice cream shop together,” she was also identifying a friend from school as a creative source of support in the area of pretend play. Based on the results, pretend play appears to be a very important activity to all of the children. By including children in the eco-mapping process, the researcher learns more about the children’s creative interests and sources of support. Dancing, singing, and art projects were also common creative activities reported by children. Dylan said, “We do choreography together dancing to music” about one of his friends at school. When Dylan said, “We play with toys and make music together” he was identifying another of his friends from school as a creative source

of support. When Nadia said, “My grandmother teaches me songs. She taught me Annie Mae and the alligator song” she also identified her grandmother as a creative source of support.

Creative sources of support appeared to be most salient to child informants.

Emotional developmental sources of support appeared overall salient to most informants. Both the parent and teacher informants identified emotional sources of support for all five of the children. All of the children except Jason identified emotional sources of support. Two of the female children discussed a significant amount of emotional sources of support and appear to be more emotionally oriented children overall. Sandy used the word “love” eight times in her descriptions of her family and friends. She also used “cares” once and “hug” four times. When Sandy said, “That’s mom and dad again. They were kissing because they love each other” she is identifying her emotionally based understanding of her life. About one of her teachers Sandy said, “She smiles at me a lot.” Zoe also used “love” 8 times in her descriptions about her family and friends. About her mom Zoe said, “I love to play with her. She acts silly with me and I love that.” Both Sandy and Zoe also included a stuffed animal that they sleep with in their report of their social support networks. The language used by the children helped the researcher to identify children that were more emotionally driven than the others.

Overall, the parent and teacher informants both identified several cognitive sources of support. Other than Nadia, the children only reported one to two cognitive sources of support. Overall, parents identified the most number of cognitive developmental sources of support. Jason identified his father as a cognitive source of support and said, “I write with him too.” Reading and puzzles were also common cognitive activities mentioned by the child informants. Nadia also identified her pets as cognitive sources of support through pet responsibilities. Zoe identified two cognitive sources of support from which she learned about cooking. Zoe said, “I

like to go to her house and watch her cook.” Support in the cognitive area of development appeared to be most salient to adults.

All of the informants identified significant amounts of social developmental sources of support and this developmental aspect appears to be the most visible quality in young children (See Figures 6, 7, and 8). Emotional development was reported most by adults (both teacher and parent). However, children who were identified as more emotionally driven reported even more emotional developmental information than the adults. The teacher’s focus in reports appeared to be in the areas of cognitive, social, and emotional reports. Based on the data, the aspect of cognitive developmental sources of support may be one very visible to an educator and possibly being an educator to preschool age children makes the areas of social and emotional development also more visible. Children provided more information about the creative and physical developmental sources of support. The activities that children report enjoying in the eco-map protocol, especially in the areas of creativity and physical development, provide the researcher with information that helps to understand the whole child including how they learn, what they enjoy, and how they interact with people in their social support networks. Overall, the adapted child protocol also provided a more in depth and comprehensive view of the child based on the numerous activities reported from the child.

Emotional types of support were the most commonly identified by teachers and children informants. For all five children, the teacher identified all of the supports reported as an emotional type of support. The teacher identifies important relationships to be connected with emotional support. Children also identified a significant amount of emotional types of support. When Dylan said, “She got my cords. I let her play with it” about his baby cousin he is identifying her as a source of emotional type of support and demonstrating caring and sharing.

When Jason said, “We play hide and seek together. She gets scared sometimes. We also play blocks and talk.” about his friend at school he is showing her as a source of emotional support and demonstrating his understanding of empathy and caring. As mentioned previously, both Zoe and Sandy appear to be very emotionally driven children. Sandy used emotionally charged words in her descriptions including: love, hug, cares, laugh, smile, silly, bad, and sick. About one of her teachers Sandy said, “She makes me laugh a lot and makes silly faces.” Emotional words Zoe included in her description were: love, family, together, silly, and fun. About her family Zoe said, “We like to be a family together.”

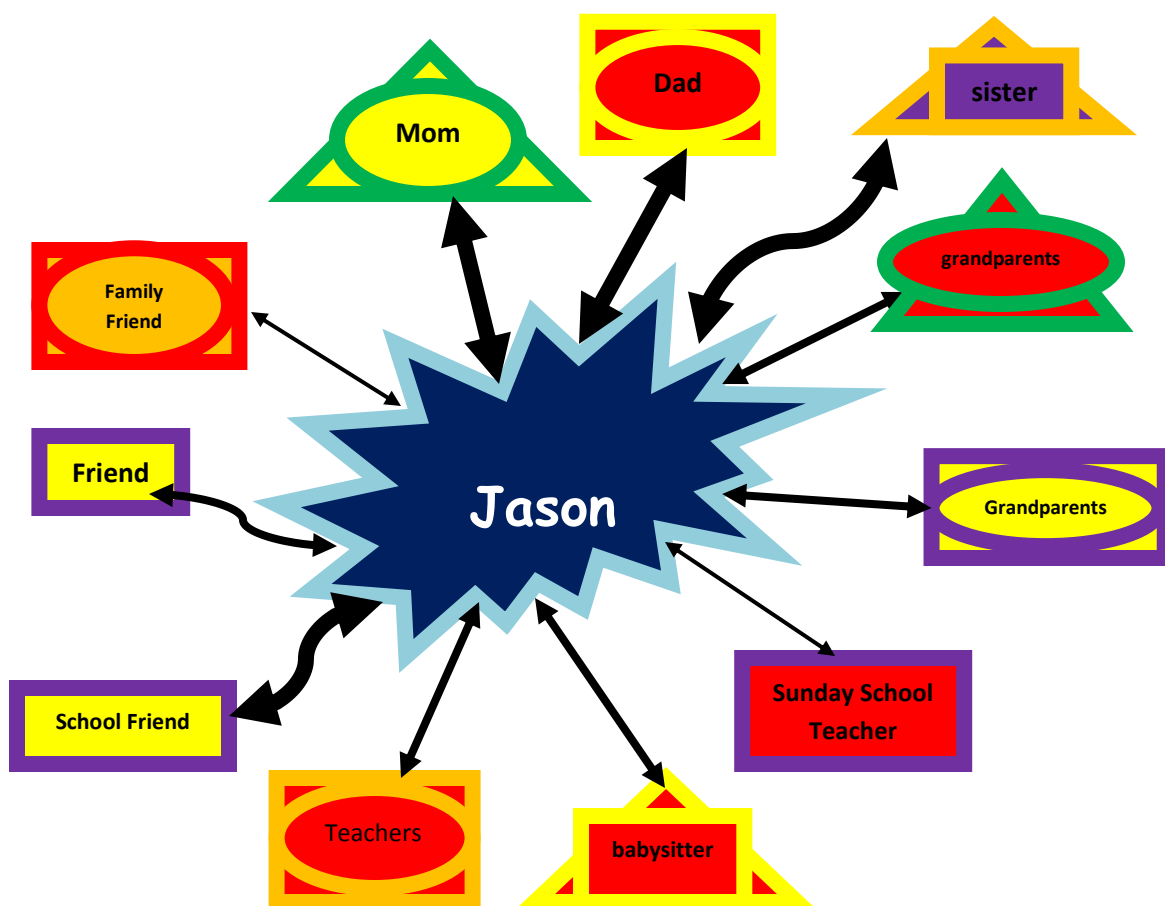


Figure 6: Parent informant eco-map

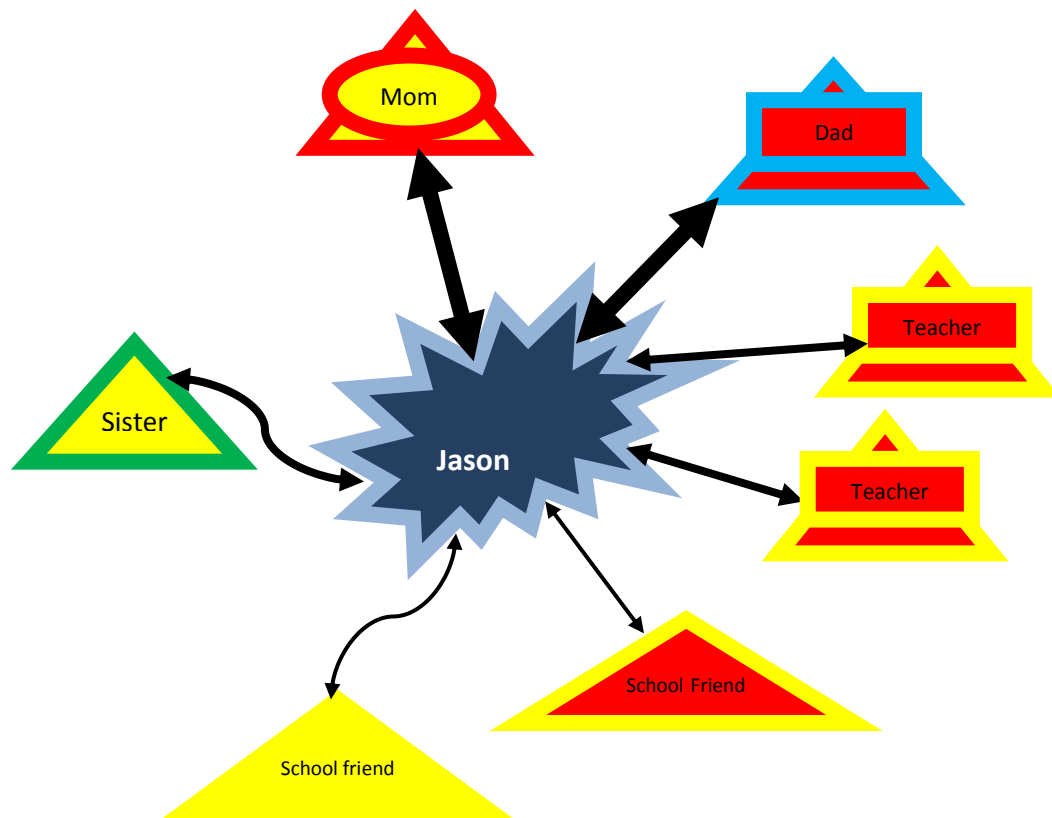


Figure 7: Teacher informant eco-map

Parents clearly identified the most informational types of support for their children. The teacher identified at least two informational types of support for all five children, always including the two main teachers as informational supports. All except one of the children identified at least two informational types of support in the protocol. Nadia identified her grandparents as informational types of supports when she said, “This is my Nana and Papa. I like to play games with them like Candy Land and the teapot game. If you get on a bee you lose some pieces.” Sandy also identified a grandparent as an informational type of support when she said, “MawMaw always gets in a hospital bed because she is sick.” Other ways children identified individuals as informational supports included participating in activities including: reading books, learning songs, and watching and helping adults cook.



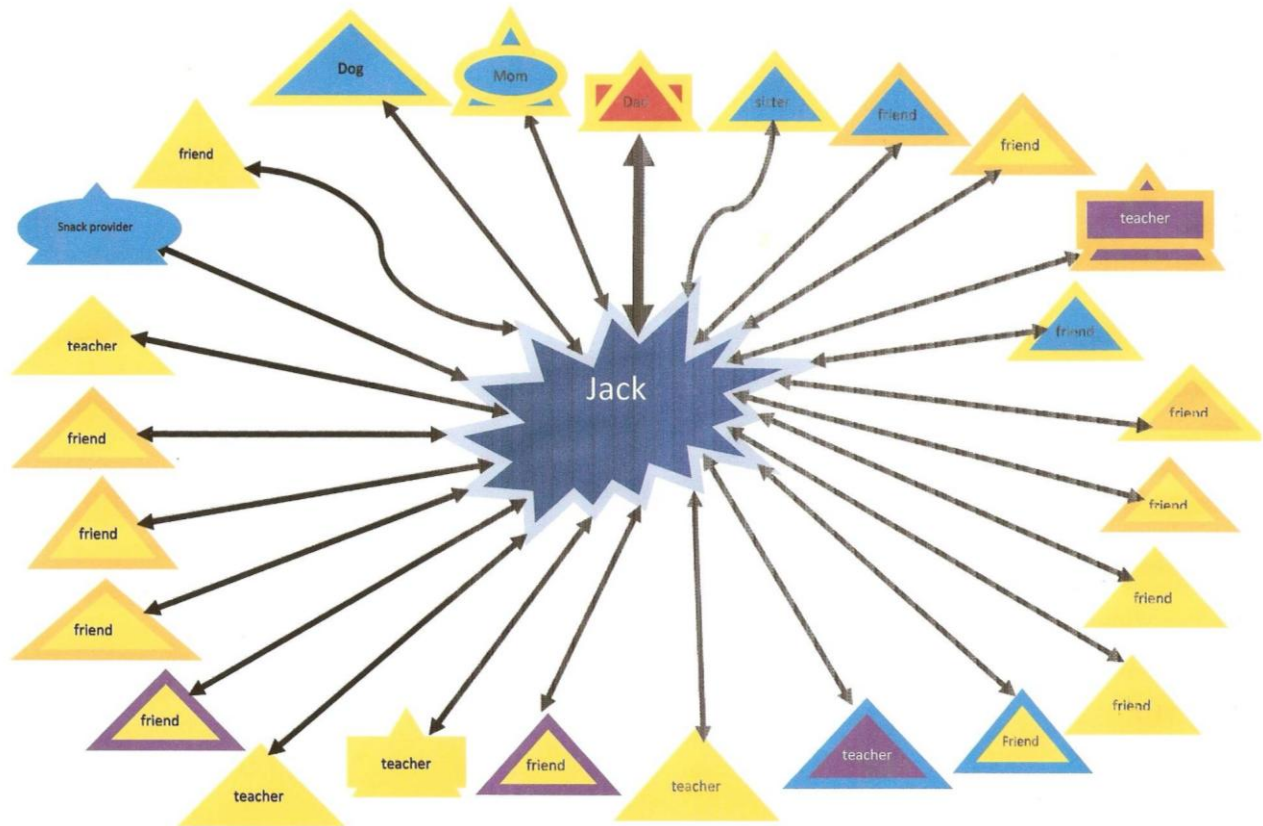


Figure 8: Child informant eco-map

All three informants identified at least one instrumental type of support for each child. Mother figures were the most commonly identified source of instrumental support. The other most commonly identified instrumental sources of support included: dad, grandparents, aunts, and family friends. Dylan identified his mother as an instrumental source of support when he said, “I help my mom clean the house a lot.” Jason also identified his mom as a source of instrumental support when he said, “I put th Jason out with her.” Nadia identified her dad as an instrumental source of support and said, “Daddy takes us to Chick-Fil-A to eat sometimes.” and “Daddy takes me places when I am sick.” Sandy also identified her father figure/legal guardian as an instrumental source of support when saying, “That is my daddy. He always takes care of me.”

### **Symbols of support.**

While it was hypothesized that adults would report different types of supports such as adults would report more adults and children more children. Pets were found to be a salient source of support to children. Three of the five children were reported as having pets and two of the three included pets in their social support networks. However, neither parent or teacher informants identified any pets in children's social support networks. About his dog, Jason said, "This is my dog Mary! I like to play fetch with her. She is really fun to play with." About one of her dogs Nadia said, "That is my dog. He is a boy. I like to play with him. Sometimes I like to run around with him in the garden."

Children also unexpectedly included many pictures of inanimate objects when taking pictures of people who were important to them. The inanimate objects appear to be symbols for people and experiences that are important to the child. For example, most of Dylan's reported inanimate objects appeared to be framed around his mother as a source of support. Dylan included the radio, CDs, his mom's exercise things, the television, a present from his mom and the vacuum cleaner. About the radio and CDs Dylan said, "I have my Michael Jackson CD in the radio. Sometimes we turn it on louder." The radio and CDs appeared to be very important items in Dylan's everyday life. These items were representative of the times when Dylan and his mother listened to music together and the creative influence that she had on him. About his mother's exercise equipment Dylan said, "That is my mommy's things. Those are exercise things. My mommy does lots of exercise." The inclusion of his mother's exercise equipment demonstrates his mother's example to him in the area of physical development and possibly in the area of cognitive development and learning how to stay healthy. Through the child's descriptions of the inanimate objects, the child may be communicating information about the

people who support them, the types and developmental areas supported, and the frequency of interactions with the particular providers of support. All five of the children included inanimate objects in their pictures of their support network.

The inanimate objects that Jason included in his social support network framed family activities and transportation. Jason took a picture of the inside of the van he rides in regularly, which his mom drives him in often. About the van Jason said, “This is my van. I go to preschool in the van. We also go to the beach, sea world, and Lara’s house in the van. I get bored sometimes.” The van is obviously a very important part of Jason’s life and he has spent a lot of time in it with his family. Jason’s identification of the van and how it is used also demonstrates the social area of developmental support provided by his family, especially his mother. Jason also included pictures of other cars in his identification of his social support networks. About the other car Jason said, “This is a car when we were about to get a new car for my dad. We got a shiny gray car. I liked going to see the cars.” This picture of a car was representative to Jason of a social activity he did with his family that he enjoyed. Both of these inanimate objects reinforce the aspect of social development being supported by his family.

In her report of her social support network, Nadia included pictures of the kitchen at her house and a lamp in the living room. By including pictures of these rooms she is possibly identifying them as important areas of her house where interactions occur often. Eight of the pictures of her family were taken in the living room area, which backs up the idea that many of the interactions with her family occur in this area. Five of Nadia’s pictures are taken in the kitchen and dining areas. In Nadia’s description and pictures she mentions her family eating together or cooking five times. This provides the researcher with knowledge of the physical and

social developmental sources of support being provided by her family members in the kitchen area identified by Nadia.

Sandy's identification of her social support network included pictures of her dad's bedroom, a picture and other items on a dresser, jewelry, her room, her stuffed animal, a fan, the living room, Halloween decorations, and the floor. About the jewelry Sandy said, "This is jewelry at MawMaw's house. She always gets in a hospital bed because she is sick." The jewelry that Sandy took a picture to her represents her relationship with her MawMaw. Through her description, the researcher is able to identify sources of cognitive and emotional developmental areas of support from MawMaw. Through this identified source of support, Sandy is learning about sickness in her family and the emotion of sadness about someone being ill. Another picture Sandy included was of a picture and other items on a dresser. Sandy said, "That is Brandon in the picture. I just wanted to take pictures of these things." The inclusion of this photograph of her step-uncle that she sees as her brother, suggests a strong relationship bond between them and also possible source of social and emotional developmental areas of support between them. About the living room Sandy said, "That is my living room. I like to do good stuff in the living room." This suggests to the researcher that the living room area is a place where Sandy enjoys interacting with her family and demonstrates the social developmental area of support being provided by her family.

The only inanimate object identified by Zoe was her stuffed animal cat. About her stuffed cat Zoe said, "This is me and Nadia (cat). I sleep with her. She has her pajamas on." Zoe named her stuffed animal after one of her close friends at school. Through this security item, Zoe is demonstrating the emotional source of support provided by her close friend from school.

Both Sandy and Zoe, included their security items in their social support network. Sandy took a picture and identified her stuffed animal, Lambie. About her stuffed animal Sandy said, “That is my good Lambie. I like to smell her.” Both Sandy and Zoe were also children who appeared more emotionally driven due to the language they used in their descriptions of their social support networks. These security items appear to provide and/or represent these children’s emotional sources of support.

Multiple findings emerged from the quantitative and qualitative analysis of the eco-map data. The quantitative data demonstrated that overall children reported more providers of supports than adults and were more likely to report children as supports than adults. Children were the only informant that identified pets as a source of support. The quantitative results also showed that different informants generally focused on areas more salient to them and the area of social development was the most salient in young children for all informants, which was confirmed in the qualitative analysis.

Qualitative results revealed that for each child the three informants agreed on a small nuclear group of people in the child’s support network and within this agreement there was also some agreement as to the type of support provided by these individuals. Based on the results, agreement was also found that negative and weak relationships generally did not have a place in children’s social support networks. Qualitative results also revealed that children often used inanimate objects to represent their sources of support, the types and areas of development supported by the individual(s), the strength of the relationships, and the nature and frequency of the relationship. Overall, the study provided progress into better studying and understanding children’s social support networks.

## **Chapter 5: Discussion**

### **Introduction**

Descriptive quantitative and qualitative analysis were used to analyze, code, and respond to the questions of interest. Quantitative methods were used to analyze data related to research question one: What are the similarities and differences in the information provided by parent, teacher, and child informants in the eco-mapping protocol? The data for all nine children's complete eco-map data from the three informants was used to answer research question one. Descriptive qualitative analysis was used to code and analyze data to answer research question two: What information do the eco-maps provide about the children's social support networks? Qualitative data was taken from a sub-sample of five of the nine children in the study.

### **Similarities and Differences in Eco-maps**

Results demonstrated that, on average, children reported a greater number of providers of support than parents or teachers, contrary to previous findings in which mothers were found to report larger support networks (Bost, 1995). It was also found that the teacher and parent informants reported more adults as sources of support while the child informants reported more children as sources of support. According to Bost et al. (1994) child and parent informants on a child's social support networks may vary in the types of people identified as sources of support. Children more frequently identified peers as sources of social support. Contrastingly, parent informants often report child peers less often and adults more often.

In relation to types of support, the parent informants reported the most informational sources of support. Overall, parents also reported more informational types of support than the teacher or child informants, while teachers and children reported more emotional types of

support. According to Doucet (2008) parent and teacher perceptions on their roles in a child's development may affect how they view the child and the child's various sources of support. It is also possible that these differences reflect different underlying values held by the informants. Hoover-Demsey and Jones (1997) reported that parental role construction reflects the values, goals, and expectations that parents have for their child's future and development. Therefore, parents may identify more informational sources of support because they view their child at a learning point in their life. The children in the study are at the beginning of their schooling and many parents are concerned about informational and cognitive tests that will allow them admission into a preferred kindergarten. Early childhood teachers may identify more emotional sources of support because of an educational philosophy that values the social and emotional wellbeing of children as a foundation for later learning.

Of the three informants, children reported the most social developmental sources of support. However, all three informants reported a significant number of social sources of support and appeared attuned to that developmental area. Therefore, based on the results social development is the most salient area in preschool children's development. According to Franco and Levitt (1997), large social support networks were found to be connected with positive social relationships and a higher level of social and emotional functioning. Parents were most attuned to the social, emotional, cognitive, and language areas of development and of the three informants reported the most emotional, cognitive, and language areas of developmental sources of support. Parents more often appeared to give a more rounded report of the children's developmental sources of supports always reporting sources of support in at least five developmental areas. The teacher informant was most attuned to the cognitive, social, and emotional developmental areas of support. The teacher appeared significantly not attuned to the

developmental sources of support in the areas of creativity, physical, and language development. In fact, the teacher informant did not identify any creative developmental sources of support for any of the children in the study.

Children were most attuned to the developmental areas of creativity, social, and physical development. The areas of creativity and physical development are two of the three areas most lacking in the teacher reported data. Children may be more attuned to these areas of development because they are developmental areas which one might consider more hands-on and movement oriented. Since preschool children are in Piaget's preoperational stage of development, they are unable to think abstractly and therefore learn best through hands on learning and experience with concrete objects. Therefore, these may be the areas in their lives that are most salient to them (Berk, 2003; Hoover-Dempsey & Jones, 1997).

With combined data from all three maps, children's informants described social support networks with mostly sources of social developmental supports, significantly more than any other developmental area. The second most common developmental area of support for children was cognitive developmental sources of support. Overall, children were reported as having the least language developmental sources of supports in the combined map data. This may have implications for both teachers and researchers in the area of literacy. Mashburn (2008) found that positive social and emotional environments in the classroom are positively associated with higher development of academic and literacy skills. Larkina (2009) found results that children who receive more independence in the conversations with individuals in their support network, especially mothers have higher language development. This may have occurred because the area of cognitive development is more salient than that of language. Another reason language developmental sources of supports may have been least represented in the data is because adults



may view children of this age as already having language and this may have been reported differently if children were learning to talk. Overall, low numbers of sources of support in the area of physical development were also reported by the three informants, especially the adults. This may indicate a lack of priority that adults in our culture and society place on physical activity and may have implications relating to the high rate of childhood obesity in the American society.

### **Children's Social Supports and Eco-maps**

A subsample of data from five children was analyzed using descriptive qualitative methods and open coding. Information from the three eco-mapping protocols, the children's initial school application, and questions of the parent informants was combined to compile a child portrait or narrative describing the whole child. Four themes were identified through the analysis of the narratives. The themes included: the inner circle, only strong links, lots of shapes and colors, and symbols of support.

#### **The inner circle.**

Results indicate agreement from the three informants about the inclusion of a small "inner circle" of people in children's social support networks. The individual's mentioned by all three informants include family members, school friends, and school teachers. Bronfenbrenner (2005) identifies home and school as the most common contexts in a Microsystem for a young child. The interactions that a child has in their immediate environments or Microsystem are the experiences that have the most significant effects on the child. Therefore, it may be expected that individuals from home (family) and individuals from school (friends and teachers) would be the frequently mentioned by all three informants.

The way in which children were supported in these “inner circles” was considered. The mother was identified by all three informants for all five children and the informants all agreed on at least one of the types of support being provided by the mother in the child’s support network. For most of the other individuals agreed on, the informants also had agreement on at least one area of development or type of support being provided and for all the sources of support there was agreement of at least two informants in one type and developmental area of support being provided. As informants were encouraged to report two areas or types of support for each individual, there was also some variation in the reports from the informants.

### **Only strong links.**

Participants in the study avoided weak and negativity in their descriptions of children’s social support networks. The reason most of the participants avoided identifying negative relationships may be due to the wording and how the questions were asked. For example, children were told to identify the important people in their lives. The children associated positive themes with the word important. When picking from their peers children were asked to pick the friends they played with the most. It is likely that if a relationship is negative, the child would not play with them often. Parents informed the researcher that the reason they did not identify negative relationships was because they tried to “keep their children away from negative relationships.” The teacher avoided negative relationships possibly due to the wording of the questions and by trying to avoid looking at families negatively. The reason I believe not many weak relationships were identified was again the wording of the questions. Many people would not necessarily identify weak and negative relationships as important in a child’s life. However, it should be noted that weak relationships are not always bad and strong relationships are not

always good. Due to the negativity that informants associated with the word weak, the wording of this part of the protocol may need to be altered.

### **Lots of shapes and colors.**

More information and a more comprehensive picture of the whole child was represented through the use of the three informants in the eco-mapping protocol. In areas of developmental support, overall all three informants identified a significant number of sources of social support. Children reported more creative and physical developmental sources of support. The activities that children reported as enjoying in all developmental areas, but especially in the areas of creativity and physical development provide the researcher with information that helps to understand the whole child including how they learn, what they enjoy, and how they interact with people in their social support networks. Parents reported more language, cognitive, and emotional sources of support, therefore by including parents the researcher was able to get a more comprehensive picture of the child in those areas of development. Hoover-Demsey and Jones (1997) reported that parental role construction reflects the values, goals, and expectations that parents have for their child's future and development. Therefore, parents may have been more focused on language and cognitive developmental areas based on their current goals for their child, which include getting into kindergarten. Social and emotional developmental areas might also be a significant focus of parents because of its significant focus in the preschool years and therefore it may currently be an important value for them. Of the informants, overall parents appeared to give a more rounded report of the children's developmental sources of support always reporting at least five developmental areas of support. The teacher's report focused on emotional and cognitive sources of support. The teacher did not report many physical and language sources of support and did not report any creative developmental sources of support.

Based on the data, the aspect of cognitive development appears to be one more visible to an educator, possibly based on the fact that school is a place highly associated with cognition. The teacher also reported a high number of social and emotional sources of support, which may be more salient to her as a teacher of very young children and reflects a philosophy of education that focuses on the wellbeing of children's social and emotional development. In the area of physical development, low numbers of sources of support were reported by the three informants, especially by adults. This may indicate a lack of priority that adults in our culture and society place on physical activity and may have implications relating to the high rate of childhood obesity in the Louisiana and American society. Perhaps the culture of Louisiana keeps people from attending as well to physical needs.

The adapted child eco-mapping protocol interviews added more depth to the data and allowed the researcher to get a more comprehensive picture about what kind of activities the child and supports participate in together. Child perceptions of important relationships in his or her life are also an important aspect in studying children's social support networks. A child's perception and role in the connection between home and school is one that is often overlooked (Shpancer, 1998). Including the children in the eco-mapping protocol allows the researcher to address this issue and collect a more comprehensive picture of a child's social support network. In the results, all five children identified enjoying pretend play with their creative sources of support. Based on these results, pretend play appears to be a very important activity to all of the children. According to Ahn and Filipenko (2007), children use pretend play as a way to make sense of themselves and their experiences. Pretend play allows children to test various situations in various ways and through this they learn socially. By including children in the eco-mapping

process, the researcher learned more about the children's creative sources of support and interests.

Overall, all of the informants identified significant amounts of social sources of support and this developmental aspect appears to be the most visible quality in young children. Emotional development appeared to be most reported by adults (both teacher and parent). However, children who appeared more emotionally driven tended to report even more emotional developmental information than the adults. The language used by the children helped the researcher to identify, which children were more emotionally driven than the others.

### **Symbols of support.**

While it was expected that adults and children would report varied support networks, unexpectedly it was found that pets were a salient source of support to young children. In the data it was also found that only the child informants reported pets in their support networks. According to Poresky and Hendrix (1989), there are developmental benefits of young children having pets mostly in the area of social development. These benefits included social competence and empathy. In addition, pets can help young children to better cope with ambivalent, sad, or angry emotions toward individuals in their lives.

Surprisingly, children also included many pictures of inanimate objects when taking pictures of people that were important to them. The inanimate objects appeared to represent symbols for important people in their support networks and important experiences with individuals in their support networks. Through the child's descriptions of the pictures, the child was able to communicate information about the people in their support network, the type and developmental area of support provided, and the strength and frequency of the interactions with the individuals. For example, a symbol that Sandy used was the jewelry that reminded her of her

sick grandmother, which demonstrates the cognitive and emotional support provided by her grandmother. Another example of an important symbol was the van that Jason took a picture of that he rides in everywhere he goes with his family, which allows the researcher to recognize the social developmental support provided by his family.

Overall, the children referenced inanimate objects to describe important people, times, items, or events in their lives. This may have important implications for how researchers and teachers should communicate with children and how they should interpret items they find important. The child may be communicating information about the people who support them, the types and developmental areas supported, and the frequency of interactions with the particular supports through the child's descriptions of the inanimate objects. In Piaget's preoperational stage of development, children begin to develop the ability of dual representation, the ability to view an item as the object itself and a symbol for something. Identification of the types or areas of developmental support an individual provides involves thinking abstractly, which children are unable to do in the preoperational stage. Therefore children used dual representation for identified inanimate objects to communicate the types and areas of developmental support provided by individuals in their support networks. Using the objects gave children concrete objects to talk about and communicate ideas through (Berk, 2003).

## **Limitations**

Many of the limitations in this research related to the sample size and population. The sample size was very small and only included ten children and families. While the sample was somewhat diverse in race/ethnicity, all of the children included in the sample attend the same university laboratory preschool and the majority of families were middle class. The preschool

setting was also a half day program and 4 day a week program, which may affect how well the teacher informant knows the child and family and how strong the child's relationship with sources of social support in the school. A larger sample could provide a more representative sample of the population and increased the generalizability of the results to the public.

Furthermore, only one teacher was interviewed as an informant for all of the children. This is a limitation due to the fact that the interviews conducted with the teacher could help inform one another and the teacher themselves may specifically be closer to some children than others in the classroom. Given that six teachers work with the children at the school, the data may have been more extensive with multiple teacher informants. In most preschool settings, at least two adults work with the children.

Another limitation in this study related to the fact that the researcher was a teacher in the preschool. This could result in bias in the research and data collection. For example, the parents and children may have been less likely to report negatively about an individual in the classroom to the teacher researcher. Also, due to the teacher's high level of involvement with the children the teacher's experience with the children may have influenced the interpretation of the data. However, this limitation also contributed to the study and allowed the children to feel more comfortable in their discussions than they might have been with a stranger as the researcher.

A third limitation in the study related to the attrition rate relating to having the cameras returned from the children. Families that are very busy may find it hard to make time to help the child take pictures or they just may not feel comfortable with allowing pictures from home into the school setting. In this case the researcher used an alternate protocol with the family to include them in the process as much as possible although the data on that family and child was incomplete at the time of analysis and therefore not included in the results.

Another limitation in the study was in the eco-mapping protocol itself. The child protocol is a new measure for children's social support networks and reliability and validity for the measure has not been established. Another limitation in the eco-mapping protocols was the positive wording of the questions and the way in which it affected the informants' responses by limiting the identification of weak and negative responses. In the future to address this issue, the researcher could specifically ask adult informants who are the negative influences in the child's life. Due to the negativity associated with the wording of "weak relationships" the informants may be reminded in the protocol that weak relationships are not always negative and strong relationships are not always positive. In the child protocol, children could be asked if there is anyone that they makes them sad or mad a lot, which can replace the identifying question of positive, negative, and mixed relationships instead of by how much children argue with the sources of their social supports. Further research and development of the instrument could eliminate these limitations and establish a more efficient and effective way to measure children's social support networks.

## **Implications**

### **Research.**

There are numerous questions and implications for research based on this exploratory project for further investigation in the use of the eco-mapping protocol for measuring social support networks. Future research should further develop the adapted child protocol for involving young children as informants about their social support networks using larger samples and possibly more parent and teacher informants. Both protocols could be altered and further developed for classroom use as a teaching and family involvement tool with parents and



children. The parent eco-mapping protocol could be used as a beginning of the year conference and the teacher could construct the eco-map as a reference tool throughout the year. The protocol would allow the parent to be open with the teacher and share information about their child and sources of social support that they feel is important. The child eco-map protocol could also be used as a teaching tool in the classroom and could be worked into an all about me unit for young children, allowing them to share information about themselves and important people in their lives. To address the issue of attrition rate in the classroom, an adapted protocol may be used where children may take pictures of their sources of support in the classroom and draw pictures of their individuals outside of school if cameras from home are not returned.

Research could also be extended to look at children's inclusion of pets and inanimate objects in their social support networks and why this might be identified by child informants and not by adult informants. Further discussions with the children about the animals and inanimate objects they chose as or to represent sources of support may reveal the reasons children included them in their important social support network. It may be found that children are more comfortable discussing providers of supports and types of supports through the use of inanimate objects.

An extension of this project may also be done to analyze the effectiveness of the use of the eco-mapping protocol as a teaching tool. Analysis may be done in relation to the use of the eco-mapping protocol and its impact on teaching on items such as academic achievement, academic growth, and family involvement. The academic achievement, academic growth, and family involvement could be measured and compared in classrooms using and not using eco-mapping protocols as teaching tools (Baumgartner & Buchanan, 2010). Using the eco-map protocols to understand social support networks may help researchers to see greater connections

between sources of social support and children's development. Research could also be extended to determine the consistency of multiple reports from the various informants about the child's social support network. For example, across a school year children, parents, and teachers could be asked to report on children's social support networks to find if reported relationships are consistent. Possible research on this topic is endless, but the main goal is to find an efficient and effective way to measure children's social support networks.

### **Teaching.**

Overall implications for teaching that originate from the eco-mapping protocols conducted would be to include the use of a similar interview process when originally meeting with the parents in place of or in connection with a survey questionnaire. The eco-map interviews are much more personal and provide much more in depth information about the child as well as opening up a relationship one on one with the families. In starting a parent-teacher relationship by allowing parents to share information of their choosing, may help the teacher start a positive partnership with families and the graphical representation of the eco-map can provide teachers with a quick reference to children's social support networks. Getting to know the family and sources of support in the child's life may also help the teacher to provide the best support for families as well as their child. For example, Dylan's mom acts as a single mother. Knowing this, the teacher can be sure and provide activities often and at varied times of day to allow her time to participate if and when she is able. Parents and teachers should be partners in teaching and by knowing the families the teacher can better support everyone (Casey & McWilliam, 2008).

The adapted child eco-map protocol is another instrument that can be a positive teaching tool and may provide further more individualized implications for each child. The child protocol allows children to share a part of their life with the teacher and to even teach the teacher about themselves. Eco-maps can inform instruction and help the teacher identify children's interests. It is important for teachers to identify children's interest because they learn best through connecting to their experiences and interests. For example, Jason showed a strong interest in animals, therefore studying animals in different ways may be incorporated into the classroom to best support Jason's development. Zoe demonstrated strong interest in the arts especially relating to music, dancing, and singing. These are interests easily worked into the classroom to teach a variety of information and skills and will help to best support her development. The eco-map can also provide the teacher with information about the ways which children learn. For example, all five children identified enjoying pretend play and therefore likely learn best through kinesthetic learning. Also by knowing this the teacher can provide reading and literacy activities that are supplemented by the acting out of stories. Children's participation in pretend play demonstrates a key shift in children's representational abilities (Berk, 2003). Connolly and Doyle (1984) found that children who more often participated in pretend play were rated by teachers as more socially competent. The eco-map also provides information about what may be lacking in a child's development and may need more attention in the classroom. Nadia's eco-maps revealed that she has a large family and is a socially driven child, but appeared to be lacking in physical sources of support in her eco-maps. Given that Nadia is a social child, group gross motor activities and games may be planned in the classroom to help her build her physical development. Overall, the eco-map can be used as an instrument in the classroom that can better inform practice and help the teacher individualize instruction.

Another overall implication in the data, relates to the importance of literacy in the classroom. Language developmental sources of support were reported least often overall by the three informants. Young children's participation in conversations and reading activities with adults or peers are important activities for helping children develop their language and literacy skills. Teachers should be aware of this and share this information with parents (Deason, 2009).

## **Conclusion**

The present study on measuring children's social support networks and the eco-mapping protocol made several major contributions. The eco-map is a possible method for researchers and teachers to better understand children, families, and children's social support networks. Collecting information from three informants presents the researcher with a clear and comprehensive picture of the whole child and their support network. Information from the eco-maps not only is helpful in studying children's social support systems, it also informs instruction in the classroom. While eco-maps have been used with adults in areas such as intervention and counseling (McCormick et al, 2005) the development of a child eco-mapping protocol, from the child's perspective represents a novel approach to studying children's social support networks. The child eco-map protocol illuminates the differences of children's representation of sources of support as they vary from the perceptions of the adults in their lives. Future research should continue to develop the child eco-mapping protocol and other protocols for measuring children's social support networks and for use in the classroom.

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## Appendix A

### Eco-mapping Protocol Legend

(Buchanan & Baumgartner, 2008)

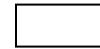
Type of Support (Primary—center and Secondary—outer)

Instrumental: (eg., provides dinner)



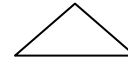
Oval

Informational (eg., helps find information)



Rectangle

Emotional (eg. Listens when child needs someone to talk to)



Triangle

Aspect of Development being influenced (primary—center and secondary—outline)

Red: Cognitive



Yellow: Social



Green: Emotional



Purple: Language/Communication



Blue: Physical (gross/fine motor)



Orange: Creativity



Line width and type indicate direction and strength of relationship:

Dotted - - - - -

negative

Plain \_\_\_\_\_

positive

Curved 

mixed

Weak relationship (1/2 pt.)



Moderate relationship (1 1/2 pt.)



Strong relationship (3 pt.)



Very Strong relationship (6 pt.)





## Appendix B

### Family Consent Form

Dear Families,

I am a graduate student studying early childhood education. My thesis specifically relates to children's supports and will entail testing an instrument for measuring and understanding a child's social support network. I would like to include you and your family in my study with your permission. The procedure would require you to participate in an interview process in which you discuss your child, those that help support your child, and the ways each person helps support the child. From this information, I will construct a visual representation of your child's support network called an eco-map. At this time we will meet again and discuss whether it is an accurate depiction and if anything needs to be added or taken away. You will also be asked to complete some short questionnaire forms giving basic demographic data and about your child's home and school experiences. Your child will also be asked to participate in this process toward the end of the fall semester. At this time, your child would bring home a disposable camera and will use it to take pictures of different people that are a part of their life (eg., family, friends, etc). After returning the camera, the film will be developed and I will let the child tell me about each person in the pictures and how they are a part of his/her life. This will probably take place over the course of several conversations. If permission is received from you, children will also be asked for consent before participating. It is important for me to note that as an educator; I am a mandatory reporter of child abuse. While no questions in this interview process relate directly to this topic; if they were to come up I am required by law to report it. Thank you for your time. Please contact me if you have any questions.

I have read the above letter and give my consent to participate in the interview and research process relating to my child's social support network. I understand that I can stop participation in the research at any time with no questions asked.

X\_\_\_\_\_

I have read the above letter and give consent for my child

\_\_\_\_\_ to be allowed to participate in this research relating to his/his social network through short discussions about their family and friends. I understand that my child or I may end their participation in the study at any time with no questions asked.

X\_\_\_\_\_

## Appendix C

### Teacher Consent Form

Dear Teacher,

I am a graduate student studying early childhood education. My thesis specifically relates to children's supports and will entail testing an instrument for measuring and understanding a child's social support network. I would like to include you and other teachers in your school in my study with your permission. The procedure would require you to participate in various interviews in which you discuss your students, those that support them individually, and the ways each person helps support the child. From this information, I will construct a visual representation of each student's support network called an eco-map. At this time we will meet again and discuss whether it is an accurate depiction and if anything needs to be added or taken away. You will also be asked to complete some short questionnaire forms giving basic demographic data and about each student's home and school experiences. The student and student's family will also be asked to participate in this process throughout the year. It is important for me to note that as an educator; I am a mandatory reporter of child abuse. While no questions in this interview process relate directly to this topic; if they were to come up I am required by law to report it. Thank you for your time. If you have any questions please feel free to contact me.

I, \_\_\_\_\_ have read the above information and consent to participate and allow use of my classroom in the interview and research process of this study. I understand that I may choose to end my participation at any time during the study; no questions asked.

X \_\_\_\_\_

## **Appendix D**

### **Child Consent Form**

I \_\_\_\_\_ choose to take pictures and talk to Miss L  
about my friends and family.

X \_\_\_\_\_

## Appendix E

### Name Generating Questions

Below is a list of the “name-generating” questions used in the eco-map protocol to delineate the sources of support in the home and school networks of the children. “I’m going to ask you some questions to help you remember people who you might want to put on this child’s eco-map. Some of the questions might sound repetitive.”

1. Who helps this child?
2. If this child has a problem with school or at home, who usually helps him or her?
3. Are there people who come to this child for advice or help?
4. Who are the people this child does things with most frequently?
5. Who does this child like to work or play with?
6. Who is really close to this child?
7. Who are the people in this child’s family?
8. Who are the people in this child’s school?
9. Who does this child live with?
10. Who does this child see frequently?
11. Sometimes people have good relationships and sometimes people bother one another.  
Who does this child sometimes fight or quarrel with?

*For each person (or source of support) named above, the following questions are asked:*

- A. What type of support does this person provide? [Instrumental (for example, provide food, clothing, shelter, toys, books); Informational (for example, can help find out interesting things); Emotional (for example, listens when the child needs someone to talk to)] You can give 2 different types
- B. What part of your child’s development is most supported by this person [Cognitive (child learns things from them); Social (child goes places and does things with them); Emotional (child is comforted by them); Language/Communication (child learns new words from them, talks a lot with them); Physical (takes child to the doctor or baseball practice, feeds child); Creativity (child takes music or art lessons from them)] You can give 2 different areas
- C. How strong would you say that this relationship is? (weak, moderate, strong, very strong)
- D. How would you describe this relationship? [Positive (primarily affectionate and supportive, marked with camaraderie; Negative (primarily marked by conflict, fights; Mixed or Ambiguous (equally marked by conflict and affection, fights and caring)]

(Modified from Mollenhorst, 2008)

## Appendix F

### Definition Reference Sheet

**Instrumental:** ex. provides food, clothing, shelter, toys, books  
**Informational:** ex. Can help find out interesting things  
**Emotional:** ex. Listens when child needs someone to talk to

---

**Cognitive:** Child learns thing from them  
**Social:** Child goes places and does things with them  
**Emotional:** Child is comforted by them  
**Language:** Child learns new words from them/ talks a lot with  
**Physical:** Takes child to doctor; plays sports; feed them  
**Creativity:** Child learns about music/art from them

---

How strong is the relationship?

**Very Strong—Strong—Moderate—Weak**

---

Is the individual's influence...

**Positive:** primarily affectionate and supportive; marked with camaraderie

**Negative:** primarily marked by conflict and fights

**Mixed:** equally marked by conflict and affection, fights and caring

## Appendix G

### Child Support Scoring Sheet

Name of Support	First Type of Support	Second Type of Support	First Developmental Area of Support	Second Developmental Area of Support

## Appendix H

### Initial Preschool Application

#### Child Development Laboratory Application for Admission to Preschool Laboratory

I hereby make application for the admission of my child to the Louisiana State University Preschool and submit the following data:

Name of Child \_\_\_\_\_ Present Date \_\_\_\_\_

Present Age: Years \_\_\_\_\_ Months \_\_\_\_\_ Sex \_\_\_\_\_

Date of Birth \_\_\_\_\_ Ethnicity \_\_\_\_\_

Citizenship \_\_\_\_\_

Home Address \_\_\_\_\_ Telephone \_\_\_\_\_  
(Street)

Parent Name \_\_\_\_\_ Relationship to Child \_\_\_\_\_

Date of Birth \_\_\_\_\_ Occupation \_\_\_\_\_

Education \_\_\_\_\_

Business Address \_\_\_\_\_ Business Telephone \_\_\_\_\_  
(Street)

Parent Name \_\_\_\_\_ Relationship to Child \_\_\_\_\_

Date of Birth \_\_\_\_\_ Occupation \_\_\_\_\_

Education \_\_\_\_\_

Business Address \_\_\_\_\_ Business Telephone \_\_\_\_\_  
(Street)

Marital Status \_\_\_\_\_

Other Children in the Family:

Name \_\_\_\_\_ Age \_\_\_\_\_

Name \_\_\_\_\_ Age \_\_\_\_\_

Name \_\_\_\_\_ Age \_\_\_\_\_

Other Members Living with the Family \_\_\_\_\_

Church Affiliation \_\_\_\_\_

Recent Health \_\_\_\_\_

Special Needs, Disabilities, Medical Conditions \_\_\_\_\_

Reasons for wanting to enroll the child in the Preschool Laboratory \_\_\_\_\_

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Will you as parents consider it your responsibility to:

1. Attend parents= meetings? \_\_\_\_\_yes \_\_\_\_\_no

2. Assist in the preschool? \_\_\_\_\_yes \_\_\_\_\_no

Please give helpful information about your child with the assurance that the information will be kept confidential.

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The enrollment fee is \$500.00 per semester, payable to the Treasurer=s Office at the time of enrollment.

**The Preschool Laboratory is a unique environment for the benefit of students, student teachers, and educational research as well as for the optimal development and education of the children.**

Parent Signature

Parent Signature

Because each group in the Preschool is limited in its enrollment, it is advisable that applications be filed as soon as possible. In making application, please keep in mind that the ideals underlying the Preschool involve a close coherence between home and school to help the child develop to his/her fullest potential. **Application does not ensure admission.** Decisions regarding admission will be made no later than April for the following school year.

Each applicant will receive a letter regarding his/her admission to the program.



## Appendix I

### Qualitative Theme Analysis

#### Theme 1: The Inner Circle

D	Mom
J	Mom, Dad, sibling, 2 main teachers at school, and 1 school friend
N	Mom, Dad, siblings, 2 main teachers at school, and 1 school friend
S	Guardian (grandmother), and birth mother
Z	Mom, Dad, grandmother, aunt, cousin, and 1 school friend

Children's mothers were mentioned by all 3 informants for all 5 children.

Children's fathers were mentioned by all 3 informants for 3 of 5 children.

Children's siblings were mentioned by all 3 informants in both children who have siblings.

One of children's school friends was mentioned by all 3 informants in 3 of 5 children.

Children's 2 main teachers were mentioned by all 3 informants for 2 of 5 children.

#### Theme 2: Only strong links

The only negative relationship was identified by a child.

Parents informed me that the reason they did not identify negative relationships was because they tried to "keep their children away from negative relationships."

The teacher did not identify negative or weak relationships.

Only one parent identified a weak relationship. The weak relationship that the parent identified was between her 4 year old and an 18 month old.

Only one child identified weak relationships. That particular child identified 3 weak relationships and was the same child that identified the negative relationship.

### Theme 3: Lots of Shapes and Colors—Colors

Child	Physical	Language	Creativity	Emotional	Cognitive
D	<p>P-map: 2 of mom's friends and mom's parents;</p> <p>T-map: no physical</p> <p>C-map: 4 school friends</p> <p>N: "We play on the bikes outside together."</p> <p>L: "I saw her on the parade grounds riding my scooter. We like to slide down the giant slide together."</p> <p>W: "We like to play games like Tiger. In the game we fight and I punch him like that."</p> <p>J: "We play fun games together like swords."</p> <p>Riding bikes/scooter; sliding; games, pretending</p>	<p>P map: 2 of mom's friends and great grandmother</p> <p>T-map: no language dev</p> <p>C-map: no lang.</p>	<p>P map: mom</p> <p>T-map: no creative dev</p> <p>C-map: 4 school friends</p> <p>J: "We play with toys and make music together."</p> <p>S: "We do choreography together dancing to music."</p> <p>J: "We like to play monsters and sharks together."</p> <p>K: "We like to play pirates together."</p> <p>Pretend play, music, dancing</p>	<p>P-map: mom, dad, great grandma, and mom's cousin</p> <p>T-map: mom, 2 teachers</p> <p>C-map: mother's friend, Dad, and Jesus</p> <p>K: "She makes silly smiley faces. She covered her face so she would not see the scary creature movie."</p> <p>"That is my mommy and daddy when they were getting married. That is while I was still with Jesus."</p>	<p>P-map: 5 mom's friends, and Dad's parents</p> <p>T-map: 2 teachers</p> <p>C-map: no cognitive</p>

Child	Physical	Language	Creativity	Emotional	Cognitive
J	<p>P-map: no physical dev.</p> <p>T-map: Dad</p> <p>C-map: dog, parents, sister, friends, teacher, snack teacher</p> <p>“I like to play basketball. That’s all I like to do is basketball.” -Jack</p> <p>“This is my dog Molly! I like to play fetch with her.”</p> <p>“This is my mom. I like to play with her. We play ball together and I put the garbage out with her.”</p> <p>“This is my dad. I play football and watch football with him. I write with him too.”</p> <p>“I like to kick the ball when my sister throws it.”</p> <p>A: “We go to gymnastics together. We do bars, jump, swing on the bars, and walk on the beam.”</p> <p>D: “He is my</p>	<p>P-map: sister, school friend, Sunday school teacher, 1 set of grandparents, neighborhood friend</p> <p>T-map: no lang</p> <p>C-map: 2 teachers, 2 friends</p> <p>L: “The teacher and I like to read books together.”</p> <p>K: “The teacher and I walk and talk together.”</p> <p>M: “We also play blocks and talk.”</p> <p>L: “We play and write together.”</p>	<p>P-map: sister, teachers at school, family friend,</p> <p>T-map: no creative</p> <p>C-map: 5 school friends, 1 teacher, 2 neighborhood friends</p> <p>L &amp; A “Sometimes we play spy and secret agent together.”</p> <p>L “We do art together”</p> <p>J: “We play divers together.”</p> <p>W: “We play deer together.”</p> <p>N/S: “We pretend to work in the ice cream parlor too.”</p>	<p>P-map: mom, 1 set grandparents</p> <p>T-map: sister</p> <p>C-map: no emotional</p>	<p>P-map: dad, 1 set of gparents, babysitter, teachers @ school, Sunday school teacher, family friend</p> <p>T-map: parents, teachers, 1 friend from school</p> <p>C-map: Dad</p> <p>“That is my dad. I write with him too.”</p>

	<p>favorite best friend. We walk and play together.”</p> <p>J: “We played t-ball together. I call it baseball.”</p> <p>J: “I like when Ms. J scoots me up in the chair at snack. She feeds me snack too.”</p>				
Child	Physical	Language	Creativity	Emotional	Cognitive
N	<p>P-map: no physical dev</p> <p>T-map: no physical dev.</p> <p>C-map:</p> <p>“This is my auntie. She lives in Texas. I have been to her house 3 times and spent the night. I like to play ball with her.”</p> <p>“That is my dog Luke. I like to play with him. Sometimes I like to run around with him in the garden.”</p> <p>“Grandfather is cooking dinner.”</p> <p>“I like to help with the snack. Her snack is really yummy.”</p>	<p>P-map: brothers, aunt, cousin, uncle, master, 2 adult cousins</p> <p>T-map: no lang. dev.</p> <p>C-map: mom, 4 teachers, and older brother</p> <p>“Mom and I like to play together and read together.”</p> <p>“My brother is silly. We all like to read together.”</p> <p>All teachers= read books /stories together</p>	<p>P-map: 1 school teacher, Korean teacher, Dance teacher</p> <p>T-map: no creative dev.</p> <p>C-map: cousin, 2 teachers, friend, grandmother</p> <p>M: “We like to play babies, butterflies, fairies, and stuff.”</p> <p>“My cousin and brother are playing the piano.”</p> <p>“My grandmother teaches me songs. She taught me Annie Mae and the alligator song.”</p> <p>Teacher and friend “do art together”</p> <p>The teacher and I “like to sing together.”</p>	<p>P-map: parents, grandmothers, aunt, teachers, school teachers</p> <p>T-map: parents</p> <p>C-map: boy cousin</p> <p>That is my cousin. My brothers play with him and I play with my other cousin because I don’t like boys coming in my room.</p>	<p>P-map: Dad, Teachers (1 school, dance, and Korean), older brother, grandparents, cousin, uncle</p> <p>T-map: Dad and teachers</p> <p>C-map: 3 teachers and 2 pets</p> <p>Pet responsibilities</p> <p>With teachers: reading and puzzles</p>

Child	Physical	Language	Creativity	Emotional	Cognitive
S	<p>P-map: step uncles (3-like brothers)</p> <p>T-map: no physical</p> <p>C-map: 5 friends, step-uncle (like brother)</p> <p>We “like to play outside together.”</p> <p>“That is my little brother. He is five. We like to climb trees together.”</p> <p>“We like to jump and spin together.”</p> <p>“We do hopscotch together. We also like to do the creature crouch together.” (Listen and move by Greg and Steve)</p> <p>“We like to dance together and jump like a frog.”</p> <p>Hopscotch</p>	<p>P-map: step uncles (3-like brothers)</p> <p>T-map: no lang.</p> <p>C-map: teacher</p> <p>Reading books with teachers</p>	<p>P-map: grandmother (paternal) and birth mom</p> <p>T-map: no creative</p> <p>C-map: 5 school friends, and 1 teacher</p> <p>“...like to pretend in the kitchen together.”</p> <p>Painting together</p> <p>Dancing together</p>	<p>P-map: Grandmother (maternal and legal guardian); step grandfather (and legal guardian), uncle; paternal grandparents,</p> <p>T-map: grandmother (guardian), 1 teacher</p> <p>C-map:</p> <p>“I love her. I love babies.”</p> <p>“I love to hug mommy. She plays with me.”</p> <p>“I love to play and hug and play and hug and play and hug her.”</p> <p>“She is really pretty here.”</p> <p>“MawMaw always gets in a hospital bed because she is sick.”</p> <p>“That is my daddy. He always takes care of me.”</p> <p>“I like to laugh and play with them”</p> <p>“That’s mom and dad again. They were kissing because they love each other.”</p> <p>“That is my good lambie. I like to</p>	<p>P-map: step grandfather (and legal guardian)</p> <p>T-map: 2 teachers</p> <p>C-map: friend and grandmother</p> <p>Do puzzles together</p> <p>“MawMaw always gets in a hospital bed because she is sick.”</p>

S				<p>smell her.”</p> <p>“She smiles at me a lot.”</p> <p>“She makes me laugh a lot and makes silly faces.”</p> <p>“We don’t play together anymore because he is always bad to me.”</p>	
Child	Physical	Language	Creativity	Emotional	Cognitive
Z	<p>P-map: cousins</p> <p>T-map: no phys. dev.</p> <p>C-map: cousins, 2 teachers, friend from school, and church friends.</p> <p>“I like to play tag when I see them.”</p> <p>Play outside</p> <p>“We love to play digging outside. We buried the horse and now we cannot find it.”</p> <p>“We go to Chick-Fil-A to eat lunch together sometimes.”</p> <p>“We like to play sliding games together.”</p> <p>Play hide and seek together</p>	<p>P-map: mom</p> <p>T-map: school friend</p> <p>C-map: no language development</p>	<p>P-map: Dad and aunt</p> <p>T-map: no creative</p> <p>C-map: 2 teachers, church friend, 5 friends from school</p> <p>“I like to watch her sing. She sings in the choir. I like to jump to the music. That is what I always do with her.”</p> <p>“I watch her dance and do ballet.”</p> <p>“We play in the play house together.”</p> <p>Play together in Dramatic Play</p> <p>“We pretend to work in the ice cream shop together.”</p> <p>“We like to play baby together.”</p> <p>Do art projects and artwork together.</p>	<p>P-map: cousins and church friends (4)</p> <p>T-map: mom and teachers</p> <p>C-map: dad, aunt, uncle, stuffed animal</p> <p>Tickling</p> <p>“I love to play with her. She acts silly with me and I love that. I love to help her cook sometimes and make Kool-aid.”</p> <p>“We like to be a family together.”</p> <p>“I have a lot of fun with my dad. He smiles with me when we take a picture. I love him.”</p> <p>“This is me and Neena (stuffed animal). I sleep with her. She has pajamas on.”</p> <p>Used love 8 times overall in her descriptions of her</p>	<p>P-map: mom, grandmothers, aunts, cousins, church friend (3 C 1 A), school friend, uncle</p> <p>T-map: Dad, teachers, and grandmother</p> <p>C-map:</p> <p>“I like to go to her house and watch her cook.”</p> <p>“...help her cook sometimes and make koolaid.”</p>

				family and friends.	
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### Lots of Shapes and Colors—Shapes

Child	Emotional	Informational	Instrumental
D	<p>Child Map: Parents, school friends, teachers, mom's cousin, cousin</p> <p>"That is my mommy and daddy when they were getting married. That is while I was still with Jesus."</p> <p>"Yesterday, I was a baby in my mom's tummy and I was kicking and came out and threw up."</p> <p>"&lt;Baby cousin&gt; got my cords. I let her play with it."</p> <p>Parent eco-map: Mom, Mom's friends, grandparents, great grandma</p> <p>Teacher eco-map: Mom, teachers, and friends (everyone identified by teacher)</p>	<p>Child map: none</p> <p>No informational supports identified</p> <p>Parent map: mom, great grandma, mom's friends (7), dad</p> <p>Teacher map: teachers</p>	<p>Child map: mom, snack server, friends</p> <p>"I help my mom clean the house a lot."</p> <p>"That is while I was still with Jesus."</p> <p>"Yesterday, I was a baby in my mom's tummy and I was kicking and came out and threw up."</p> <p>Friends are instrumental to his play especially pretend play.</p> <p>Parent map: grandparents, dad, mom's friends (2)</p> <p>Teacher map: mom only</p>
Child	Emotional	Informational	Instrumental
J	<p>Child map: dog, parents, sister, neighborhood friends, teachers, school friends (everyone identified)</p> <p>"&lt; is my favorite best friend. We walk and play together."</p> <p>"I get bored sometimes."</p> <p>"&lt; &gt; and I play hide and seek together. She gets scared sometimes. We also play</p>	<p>Child map: Dad and 2 teachers</p> <p>"This is my dad. I play football and watch football with him. I write with him too."</p> <p>"Ms. &lt; &gt; and I like to read books and do art together."</p> <p>"I like to walk on field trips and play blocks with Ms. &lt; &gt;."</p>	<p>Child map: mom and snack server</p> <p>"This is my mom. I like to play with her. We play ball together and I put the garbage out with her."</p> <p>"I like when Ms. &lt; &gt; scoots me up in the chair at snack. She feeds me snack too."</p>

	<p>blocks and talk.”</p> <p>Parent map: mom, 1 set grandparents, sister, babysitter</p> <p>Teacher map: parents, teachers, sister, school friends (everyone identified)</p>	<p>Parent map: Dad, sister, 1 set of grandparents, neighborhood friend, Sunday school teacher, teachers at school, babysitter, school friend, and family friend (adult)</p> <p>Teacher map: Dad and teachers</p>	<p>Parent map: parents, both sets of grandparents, teachers at school, family friend (adult),</p> <p>Teacher map: mom</p>
Child	Emotional	Informational	Instrumental
N	<p>Child map: parents, friends, grandparents, cousins, brothers, dogs, aunt,</p> <p>“That is &lt;&gt; my cousin. &lt;My brothers&gt; play with him and I play with &lt;my girl cousin&gt; because I don’t like boys coming in my room.</p> <p>“Daddy takes me places when I am sick.”</p> <p>Parent map: Mom, Grandmothers, girl cousins, aunts, school teachers</p> <p>Teacher map: parents, brothers, teachers, school friends (everyone identified)</p>	<p>Child map: teachers, frogs, grandmother, older brother</p> <p>“That is my Nana and my Papa. I like to play games with them like Candyland and the teapot game. If you get on a bee you lose some pieces.”</p> <p>“There is Mama and &lt;my dog&gt;. We like to play together and read together.”</p> <p>&lt;My cousin and brother&gt; are playing the piano.</p> <p>“Nana teaches me songs. She taught me Annie Mae and the alligator song.”</p> <p>Teachers read and do puzzles together.</p> <p>Parent map: Dad, brothers, grandfather, cousins, aunts, uncles, school teachers, dance teacher, Korean teacher, friends, master</p> <p>Teacher map: Dad and teachers</p>	<p>Child map: dad, grandfather, aunt, and snack server</p> <p>“This is my Auntie. She lives in Texas. I have been to her house 3 times and spent the night. I like to play ball with her.”</p> <p>“&lt;Papa&gt; is cooking dinner.”</p> <p>“Daddy takes us to Chick-Fil-A to eat sometimes.”</p> <p>“Daddy takes me places when I am sick.”</p> <p>“I like to help the snack teacher with the snack. Her snack is really yummy.”</p> <p>Parent map: parents and grandparents</p> <p>Teacher map: mom</p>



Child	Emotional	Informational	Instrumental
S	<p>Child map: family, teachers, friends (everyone reported had emotional type)</p> <p>Used love 8 times overall in her descriptions of her family and friends</p> <p>Used cares once</p> <p>Used hug 4 times</p> <p>“I love her. I love babies.”</p> <p>“I love to hug mommy. She plays with me.”</p> <p>“I love to play and hug and play and hug and play and hug her.”</p> <p>“She is really pretty here.”</p> <p>“MawMaw always gets in a hospital bed because she is sick.”</p> <p>“That is my daddy. He always takes care of me.”</p> <p>“I like to laugh and play with them”</p> <p>“That’s mom and dad again. They were kissing because they love each other.”</p> <p>“That is my good lambie. I like to smell her.”</p> <p>“She smiles at me a lot.”</p> <p>“She makes me laugh a lot and makes silly faces.”</p> <p>“We don’t play together anymore because he is always bad to me.”</p> <p>Parent Map: grandmother (guardian), birth mom, step uncles (brothers), uncle, and other</p>	<p>Child map: Teachers, grandmother</p> <p>“This is jewelry at MawMaw’s. MawMaw always gets in a hospital bed because she is sick.”</p> <p>“Dr. &lt;Teacher&gt; and I like to laugh and play together. She is a real doctor.”</p> <p>“&lt;The teacher&gt; and I like to read books and build together.”</p> <p>Parent map: step grandfather (like dad/guardian), uncle, birth mom, other grandmother, step uncles (like brothers)</p> <p>Teacher: teachers</p>	<p>Child map: step-grandfather (“Daddy” legal guardian)</p> <p>“That is my Daddy. He always takes care of me.”</p> <p>Parent map: legal guardians (grandmother and step grandfather)</p> <p>Teacher map: mom</p>

	<p>grandparents</p> <p>Teacher map: grandmother (legal guardian), birth mom, teachers, school friend</p>		
Child	Emotional	Informational	Instrumental
Z	<p>Child map: parents, friends, teachers, church friends, extended family (everyone identified)</p> <p>“I love to play with her. She acts silly with me and I love that. I love to help her cook sometimes and make Kool-aid.”</p> <p>“We like to be a family together.”</p> <p>“I have a lot of fun with my dad. He smiles with me when we take a picture. I love him.”</p> <p>“This is me and Neena (stuffed animal). I sleep with her. She has pajamas on.”</p> <p>Used love 8 times overall in her descriptions of her family and friends.</p> <p>Parent Map: Dad, cousins, church friends, grandmothers, and school friends</p> <p>Teacher map: parents, teachers, aunt, cousin, grandmother, school friend (everyone identified)</p>	<p>Child map: aunt and grandmother</p> <p>“She always comes to my house and watches cooking shows. I go to her house when I go to church sometimes.”</p> <p>“I like to go to her house and watch her cook.”</p> <p>Parent map: parents, aunts, cousins, church friend, school friend, uncle</p> <p>Teacher map: teachers and grandmother</p>	<p>Child map: Mom, Dad, aunt, uncle, and Grammy</p> <p>“This is my mom. I love to play with her. She acts silly with me and I love that. I love to help her cook sometimes and make Kool-aid.”</p> <p>“This is my daddy. I like to play with him. Sometimes I get to go to work with him.”</p> <p>“This is my daddy and my mommy. We like to be a family together. I like to go to the store altogether sometimes.”</p> <p>“This is Grammy. We take naps on her red couch. I like to visit her. One night, I went there for my uncle’s birthday and I got to skate there.”</p> <p>“We go to Chick-Fil-A to eat lunch together sometimes.”</p> <p>Parent map: mom, grandmothers, aunts, uncle, church friends</p> <p>Teacher map: mom and dad</p>

#### Theme 4: Symbols of support

Child	Pets	Inanimate Objects
D	<p>Parent map: no pets identified</p> <p>Teacher map: no pets identified</p> <p>Child map: no pets identified</p> <p>Child does not own pet</p>	<p>Parent and Teacher map: none identified</p> <p>Child map: radio, CDs (Michael Jackson CD), mom's exercise things, TV, present, vacuum cleaner</p> <p>"That is the radio. We put some CDs in it."</p> <p>"I have my Michael Jackson CD in the radio. Sometimes we turn it on louder."</p> <p>"That is my mommy's things. Those are exercise things. My mommy does lots of exercise."</p> <p>"This is the TV. We watch movies in there. My favorite movie is Madagascar."</p> <p>"Mama gave me that present."</p> <p>"That is my mommy and the vacuum cleaner. I help my mom clean the house a lot."</p>
J	<p>Parent map: no pets identified</p> <p>Teacher map: no pets identified</p> <p>Child map: Dog</p> <p>"This is my dog Molly! I like to play fetch with her. She is really fun to play with."</p>	<p>Parent and Teacher map: none identified</p> <p>Child map: cars, van, shoes</p> <p>"This is a car when we were about to get a new car for my dad. We got a shiny gray car. I liked going to see the cars."</p> <p>"This is my van. I go to preschool in the van. We also go to the beach, sea world, and Lilly's house in the van. I get bored sometimes."</p> <p>"This is my dad's new car. It kind of drives medium-fast."</p> <p>"These are Lilly's shoes. Shoes do nothing."</p>
N	<p>Parent map: no pets identified</p> <p>Teacher map: no pets identified</p> <p>Child map: 2 dogs and 2</p>	<p>Parent map: none identified</p> <p>Teacher map: none identified</p> <p>Child map: lamp, kitchen</p> <p>"That is my lamp in the living room."</p>

	<p>frogs</p> <p>“That is my dog. He is a boy. I like to play with him. Sometimes I like to run around with him in the garden.”</p> <p>“This is both of my dogs. I like to play with them.”</p> <p>“This is Happy and Love’s cage. They are frogs.”</p>	<p>“This is the kitchen at my house.”</p>
Child	Pets	Inanimate Objects
S	<p>Parent map: no pets identified</p> <p>Teacher map: no pets identified</p> <p>Child map: no pets identified</p>	<p>Parent map: none identified</p> <p>Teacher map: none identified</p> <p>Child map: daddy’s bedroom, picture and items on dresser, jewelry, bed and cousin’s crib, stuffed animal Lambie, fan, living room, Halloween decorations, floor</p> <p>“This is my daddy’s bedroom.”</p> <p>“That is Blake in the picture. I just wanted to take a picture of these things.”—items on dresser including a picture in frame</p> <p>“This is jewelry at MawMaw Kathy’s. MawMaw Kathy always gets in a hospital bed because she is sick.”</p> <p>“That is my bed and Mia sleeps in the crib next to me.”</p> <p>“That is my good lambie. I like to smell her.”</p> <p>“That is the fan in the living room.”</p> <p>“That is my living room. I like to do good stuff in the living room.”</p> <p>“That is from Halloween. I had to say trick or treat and I ate too much candy.”</p> <p>“That is the floor.”</p>

Child	Pets	Inanimate Objects
Z	<p>Parent map: no pets identified</p> <p>Teacher map: no pets identified</p> <p>Child map: no pets identified</p> <p>Child does not have pets</p>	<p>Parent map: none identified</p> <p>Teacher map: none identified</p> <p>Child map: stuffed animal cat</p> <p>“This is me and Neena. I sleep with her. She has her pajamas on.”</p>

## **Vita**

Lauren Burnett was born on August 22 in Baton Rouge, Louisiana. She graduated from Baton Rouge Magnet High School in and received a bachelor of science in early childhood education at Louisiana State University and was certified to teach preschool to third grade children. She worked as a graduate assistant at the Louisiana State University Child Development Laboratory Preschool during graduate school. She worked in the preschool mostly with four-year-old children and looks forward to finding a job teaching preschool.