OPPORTUNITIES FOR PLAY IN SIX NEIGHBOURHOODS: ASSOCIATIONS WITH KINDERGARTEN CHILDREN'S SOCIAL COMPETENCE

by

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ABSTRACT

This study qualitatively explored (1) whether general opportunities for play at the neighbourhood level were related to children's social competence development, and (2) whether children's experience in peer-led play, rather than adult-led play (again at the neighbourhood level) could further explain children's social competence development. For the first part of this study, descriptive information was gathered on the following seven indicators of play in six British Columbian neighbourhoods: community recreational resources, children's recreational programs, access to sports, community programs funded by the government, private recreation and sports, childcare providers, and Family Places. For the second part of this study, 24 community informants were interviewed using a semi-structured interview which covered the following seven play themes: structured, unstructured, adult-led, peer-led, access, general philosophy, and opportunities for general social interaction. Results from this study do not suggest that opportunities for play, peer- or adult-led, help explain neighbourhood levels of children's social competence.

Keywords: Child Development, Social Competence, Neighbourhood Level Research, Play, Peers, Adult-led Play.

Subject Terms: Early Childhood Development, Social Skills, Competence, Childhood Play Behaviours, Peers, Communities.

To my husband, Marius Purcel, who would never let me fall

To the rest of my family, Florin and Letitia Ionita, Mike Ionita, and Raluca

Paraschiv,

To Charlene Popovici and the rest of my friends who have moved me through

depths and shallows and try every day to make me believe in

something bigger than I can see.

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TABLE OF CONTENTS

LIST OF TABLES

INTRODUCTION

Over the first six years of life, many changes occur in children's social competence. For example, children move from egocentric thought to considering others' perspectives. But, what accounts for this development? Theorists and researchers have long believed that play may be a vehicle to support such developmental changes. In particular, two types of play have been argued to be important to ontogenetic development: child-child or peer-led play and child-adult play. Some of the literature suggests that adult scaffolding during play is crucial to children's social competence development, whereas other theoretical and empirical work highlights the unique benefits of peer play in supporting social development. The role of play in children's development has most often been studied at the level of individuals. That is, researchers have examined the play of children in relation to individual developmental outcomes. Consistent with current foci on universal programming for young children and the well-being of communities, there is a need to consider opportunities for play at the level of the community and to link them to development at the community level. The purpose of the present study is to examine the role of adult-led play and peer-led play in the development of children's social competence. This examination will be conducted at the community level.

The current chapter examines empirical and theoretical work on the relation between play and children's social competence. To delve into the

debate on which form of play is most conducive to children's development,

Vygotsky's theory of development will be discussed, along with research

highlighting the impact on children's development of adult scaffolding during play.

Alternative research, which suggests that adult play does not necessarily lead to

long lasting effects on development, will be discussed, followed by a presentation

of Piaget's theory of cognitive development, which proposes that peer rather than

adult play better facilitates children's social competence development. This is

followed by a review of research investigating the connection between peer play

and children's social competence development.

Theories Regarding Play and Social Competence

Although it is clear that children around the world engage in play in one

form or another, it is not certain what function this activity serves. Researchers

and theorists have examined this aspect of children's lives in depth and, yet, no

consensus has been reached as to the definition or function of play.

Piaget

Piaget (1951) argued that play was an adaptive behaviour necessary to

the development of children's thinking. He believed that play was "essentially

assimilation" (p.87) or the imposition of the child's existing way of thinking upon

the world. Piaget described assimilation and accommodation (the imposition and

alteration of one's current thought framework in one's interactions with the world)

as complementary processes that only occur in tandem. Play, he argued, was

"the primacy of assimilation over accommodation", whereby a child uses his/her

schemes and operations simply for the sheer pleasure of using them. Further, Piaget believed that play developed through different stages that correspond to the stages of children's cognitive development. During the sensorimotor stage, Piaget's first stage of cognitive development, children become involved in practice play. This play involves exercising sensorimotor schemas for the sheer pleasure of doing so. For example, the child first discovers that when he/she shakes a rattle, it makes a noise. In the future, the child will continue to shake the rattle for the simple pleasure that it brings, rather than for learning anything new. During Piaget's next stage of cognitive development, the preoperational stage, symbolic play emerges. This play involves using one object to represent another (Siaw, Clark, & Fine, 1996). Piaget characterized this play as the application of familiar schemas to new objects that are "unrelated to them from the point of view of effective adaptation" (p. 97). Again, this behaviour occurs solely for the purpose of exercising the aforementioned schemas. For example, at this stage, a child may pretend that a banana is a telephone or a broom may become a horse, during play. Cooperative symbolic play emerges during the later preschool years and, in turn, eventually evolves into competitive game playing during the concrete operational stage of cognitive development. During this stage of play, children come into contact with external rules. Through these experiences children begin to recognize that rules are changeable and they begin negotiating the rules of their play. This negotiation helps children understand that people can hold different perspectives from themselves and leads children to work together to create mutual understanding.

Vygotsky

Vygotsky (1933/1967) applied a much narrower definition to play than Piaget. He described play as "the imaginary, illusory realization of unrealizable desires" (p.3). Thus, play was wish fulfilment and required the inclusion of an imaginary situation. From this perspective, the practice play described by Piaget would not be categorized as play since practice play does not include an imaginary situation. In addition to involving pretense, for Vygotsky, play had another critical feature: play, he believed, was bound by rules. This differs from Piaget's view that the inclusion of rules in play only occurs at the later stages of play development. The reason Vygotsky believed that all play included rules was that he thought that all imaginary situations required implicit rules regarding the roles within them. For example, if a child pretended to be a fire fighter, that child would be required to obey the rules of proper behaviour for a fire fighter. Vygotsky also believed that all games with explicit rules contained an imaginary situation and were thus included in his definition of play. Vygotsky pointed to rules as the key aspect of play that helped children to learn the conventions of social interaction and to develop self-regulation, both of which are important aspects of social competence. Further, he believed that the imaginary component of play assisted children in beginning to separate meaning from situations and objects. Through imaginary situations, children were believed to discover that what they saw was not always the whole story. As a result of this, children learned to consider the meaning of the situation rather than relying solely on their immediate perception of the situation. Eventually, play was believed to help children "sever thought (the meaning of a word) from the object,"

(p. 10) an advancement in cognitive development. For the purposes of this thesis, play refers to children's behaviour during pretense, games, and sports. Thus, play is considered according to Vygotsky's definition, referring to children's behaviours which involve rules and imaginary situations.

Research on Play and Social Competence

Research on the relationship between play and social competence has supported both Piaget's and Vygotsky's theories inasmuch as results from multiple studies suggest that play facilitates the development of young children's social competence (e.g. Connolly & Doyle, 1984; Marshall, 1961, Rubin & Maioni, 1975). Research on specific aspects of social competence has also supported this relationship. For example, a number of researchers have found an association between play and children's perspective-taking abilities (Damon, 1978; Smilansky, 1968), while other researchers have found correlations between play and social attribution skills, conceptions of friends, and moral judgments (Shantz, 1975 as cited in Barnett, 1991).

Another line of research, which lends support to the relation between play and children's social competence, examines the effects of play training on children's social competence. These studies have found that children trained in certain forms of play showed improvements in social problem solving, perspective taking, and group cooperation (Rosen, 1972, Saltz & Johnson, 1974; Smith & Syddall, 1978), and increased their sociodramatic play with their peers (Smilansky, 1968)

While the previously reviewed studies focused on the effects of young children's play on their social competence, other researchers have considered the role of sports participation in adolescents' social development. For example, Hart, Atkins, and Ford (1998) examined various factors that affected adolescents' involvement in community services and found that adolescents who participated in sport teams or other clubs engaged in more volunteer community services, two years later. Arguably, performing these services requires an advanced level of social competence so as to be able to understand the benefits that these actions could have on others and to apply the social skills necessary to these activities. Thus, this study suggests that engagement in sports teams (which are included in Vygotsky's definition of play), may enhance the development of social competence.

Further support for the relation between social competence and children's play comes from Fisher's (1992) meta-analysis. This analysis examined 46 studies involving play and the following aspects of childhood development: (1) cognitive development, (2) language mastery or reading readiness, and (3) awareness of social roles or empathic interpersonal skills. These aspects were condensed into three dependent variables: cognitive, linguistic, and affective/social. Results suggested that all three aspects of development - cognitive, linguistic and affective/social - were related to play. The large effect sizes found for these variables suggest strong relationships between these variables and play. Further subdivisions of the three aspects of development

suggested that perspective taking, an aspect of affective/social development, had a particularly strong correlation with play.

Specific Aspects of Play

The empirical work supports theories regarding the social cognitive benefits of play, such as those proposed by Vygotsky and Piaget. Piaget and Vygotsky both believed that play provided children with social experiences that facilitated the development of their understanding of others. However, they differed as to which social experiences they believed were most important in this process. Vygotsky emphasized the role of child-adult play whereas Piaget focused on peer play.

Adult-led Play

Vygotsky (1978) described two levels of children's development. The first was the level of children's actual development or the level that they could display when working independently. This level included functions that were already mature. The second was the level of children's potential development, a higher level than their actual development. Vygotsky termed the distance between these two levels the zone of proximal development. Moreover, he believed that when children received scaffolding, a form of support or guidance from parents, children could operate at their higher potential level of development. Vygotsky saw play as a social context in which parents could facilitate children's social competence development by helping children function at their level of potential development through scaffolding (i.e., the support, assistance, and

7

encouragement of more capable others) (Nicolopoulou, 1999; Vandermaas-Peeler, King, Clayton, Holt, Kurtz, Maestri, Morris, & Woody, 2002). In addition, Vygotsky (1933/1962) also maintained that play scenarios on their own were able to scaffold children's play. He stated that "in play a child is always above his average age, above his daily behaviour; in play it is as though he were a head taller than himself" (p. 15).

Several investigators have found support for Vygotsky's theory of the benefits of adult scaffolding during play. For example, Tamis-LeMonda and Bornstein (1994) examined the impact of mother-child play at 13 months on children's subsequent play at 20 months and found that mothers who were more responsive to their children at the first assessment had children who were more advanced in pretend play at the second assessment. Later, Damast, Tamis-LeMonda, and Bornstein (1996) investigated mothers' sensitivity to their 21-month-old children's level of play. They found that mothers tended to be sensitive to their children's level of play and that mothers attuned their level of play to either match or advance their children's level of play.

Another example of research supporting Vygotsky's theory is Bondioli's (2001) study that assessed the impact of adult's participation in children's play on the social competence of five children. The adults in this study first "tuned in" to each child's zone of proximal development and then made an attempt to scaffold the child's behaviour during play. Results indicated that after three consecutive days of adult participation, four of the five children showed improvements in social competence. Further, in this article, Bondioli discussed another study she

8

performed with Savio in 1994, in which the impact of adult participation on children's play was also examined. Fifteen children were assigned to three groups: a peer play group in which children played with each other, while an adult observed; an adult participation group, in which an adult interacted with children using scaffolding play; and a control group, in which children did not play. Results showed that children in the adult participation group had the most improved pretend play abilities of the three groups. The authors concluded that adult participation in play was important to children's development so long as the adult was able to consider the child's current skills and design their interactions with the child so as to scaffold the child's level of development.

Cook and Sinker (1993) reviewed the literature on adult involvement in children's play and children's development. Within this review, they pointed to studies by Brunder (1980) and Dunn and Wooding (1977), which found that adult mediated play led children to have the most complex levels of play and the longest periods of play, as support for the position that adult-child play leads to favourable social competence development outcomes for children. In this review, the authors concluded that play mediated by adults was beneficial to children because it facilitated cognitive and language growth, social skill development, and increased self-esteem.

While these studies provide support for the benefits of play involving adults, Borenstein, Haynes, O'Reilly, and Painter (1996) found that the effects of adults' involvement in children's play did not lead to long-term advancement in children's development. Their study examined whether mothers' participation in

children's play led children to perform at higher levels of play, such as symbolic play, which was believed to facilitate children's understanding of others by expanding children's understanding of symbols and varying perspectives. The researchers found that maternal play led children to play at higher levels while they played with their mothers, but it did not lead to lasting effects. When children returned to playing on their own, they reverted to lower levels of play. These findings are similar to Tingley's (1994) who also found that maternal complex play did not lead to long term advances in children's levels of play. These studies suggest that although adult-child play may lead children to behave at their level of potential development during their play with adults, this advancement does not lead to long-term effects on children's development.

Another issue regarding the impact of adult play on children's development is the nature of the adult-child relationship. A number of theorists have argued that the unequal nature of this relationship makes it unlikely that adult-child play fosters children's development (e.g. Hartup, 1998; Piaget, 1951). Piaget believed that when children played with adults, they were less likely to lead or to negotiate rules. Rather, as a result of the unilateral relationship between children and parents, children were more likely to simply follow the direction of the adult, which Piaget and others (e.g. Hartup, 1998) did not believe was conducive to children's development. It has also been suggested that children are less likely to negotiate rules when playing with adults because of the difficulty they have in taking the perspective of an adult. An adult's perspective

often involves abstract thought about the future, which some believe children are not capable of conceiving (Youniss, 1980).

Peer play, on the other hand, allows children to experience a cooperative relationship, which involves negotiating the meanings of symbols and rules. When children play with each other, they often come into conflict with one another due to discrepant viewpoints. Yet, children are motivated to maintain these relationships, so they need to learn rapidly to present their perspectives and listen to the perspectives of others. Since children are more capable of understanding the perspectives presented to them by their peers as they are closer to their own level of development, they are able to reach common understanding, even if it is reached during disagreements. Through this common understanding, children come to recognize the reality of the other person. This recognition is believed to be a major development in social competence since it allows children to understand the personality of the other person and of themselves in terms of what they have in common and how they differ (Youniss, 1980).

Peer Play

Multiple studies have found support for the differing types of relationships between children and adults, and children and their peers that were proposed by Piaget (1951). For example, Youniss (1980) conducted seven studies examining children's, adolescents', and adults' understanding of the relationships between peers, as well as between children and adults. All seven studies found that children described peer relationships as equal and adult relationships as

11

unilateral. Further, responses from adolescents and adults showed a developmental progression in which views of child-adult relations moved towards more equality once children began to approach adolescence. This was expected since these relationships gradually become more like peer relationships.

Vandermaas-Peeler et al. (2002) examined the types of behaviours that parents displayed when they played with their three to five year old children. They found that the most frequent form of behaviour that parents displayed was teaching, which involved commenting on, suggesting, and directing their children's play behaviour. Since teaching involved directing children's behaviour, the results of this study support the notion of a unilateral relationship between parents and their children.

Kontos, Burchinal, Howes, Wisseh, and Galinsky (2002) examined six-year-old children's interactions with their peers and surrounding objects in 61 classrooms. They found that when adults were present and involved in children's play, children had less complex interactions with their peers than when adults were not present or involved in their play.

This work indicates that, as proposed by Piaget (1951), peer relationships differ from the relationships that children have with adults. Piaget went on to argue that the particular form of peer interaction that was most influential on young children's development was play involving games-with-rules because they required children to negotiate rules with their peers. Piaget believed that children began engaging in games with rules at approximately 7 to 8 years of age. However, a number of researchers have found that children may engage in this

form of play at an earlier age. For example, Pellegrini (1995) examined the relationship between various play behaviours that occurred during recess and did not find an age difference between Kindergarten, Grade Two, and Grade Four children's degree of engagement in games. Yet, he did find support for the benefit of game playing for young children since game playing was negatively related to the number of "liked least nominations" that boys received and predicted the number of "liked most" nominations that girls received one year later.

Yet, even if children under the age of six do not enter into games with explicit rules as proposed by Piaget they do engage in play that involves implicit rules. Vygotsky (1933/1962) argued that all play required children to follow rules. Each role that a child takes on requires the child to enact a certain set of behaviours associated with that role. Therefore, engaging in play with peers at any age involves some rules and negotiation, which according to Piaget should enhance children's social competence development.

Research shows that children as young as two years of age are able to engage in make-believe play and that children between four to six years of age engage in play in which meaning is negotiated (de Oliveira, 1997). Pellegrini and Galda (2000) also presented research by Garvey (1990a, 1990b) and Goldman and Chaille (1984) that found that even preschool-aged children used most of their utterances during play to negotiate meaning. Moreover, Killen (1989) discussed research that found that children as young as two-years-and-a-half were able to differentiate between different types of rules.

Vygotsky also discussed the benefits of peer play on young children's social competence development. Play with peers was believed to provide children with the opportunity to engage in tasks within their zone of proximal development as play offers children the motivation and context to behave at levels above their independent development. For example, a child that is not able to stand in line still and quietly with the rest of his/her classmates, is likely able to sit still and quietly when he/she is pretending to be sleeping in play with friends because he/she is motivated to maintain the play (Bodrova & Leong, 1996). This form of play was believed to facilitate children's self-regulation. Vygotsky also believed that play with older, more competent peers could act as a scaffold for children's development in the same way as play with adults.

Empirical work has repeatedly found evidence suggesting that peer play facilitates social competence more than adult play. For example, Pellegrini conducted two studies that showed that adult involvement in children's play led to restricted interactions with peers and lower scores on achievement measures. In 1984, Pellegrini observed the free play of three-to-four-year-old children in their preschool classrooms. He examined the way contextual variables influenced the social cognitive play of these children. He found that the presence of peers was related to higher order types of play whereas the presence of adults led to lower levels of social interaction with other children. Later, Pellegrini (1995) examined whether children's behaviour on the playground during kindergarten predicted their achievement in grade one. He found that peer interaction on the playground was positively related to children's achievement, whereas interaction

that involved direction from an adult was negatively related to children's achievement. Pellegrini argued that one possible interpretation of these results was that when children interact with adults, they rely on adults to maintain the interactions, whereas when children interact with peers, they must use their own social competence to maintain these interactions.

Both Winegar (1986 as cited in Killen,1989) and Killen (1989) found that children engaged in more negotiation when adults were not present in their play. Winegar found that in the absence of adults children worked out and negotiated social problems with their peers. Killen observed the manner in which three-to-five-year-old children resolved conflict during their play. She found that when children played with no adults present, children generated more resolutions to conflicts with their peers than when adults were present. However, there were also more conflicts left unresolved when no adults were present. She argued that these results were likely due to the high number of conflicts that were solved by adults.

Fisher's (1992) meta-analysis also showed that peer play rather than adult play facilitated children's development. He found a strong relationship between sociodramatic play, a special form of child-oriented play, and children's overall development, as evidenced by the striking effect size found, whereas no relationship was found between adult-directed play and any aspect of children's development.

Vandell and Mueller (1980) also argued that interactions with peers provided children with unique developmental effects that adult interactions could

not duplicate. They cited the work of Bronson (1974) and Eckerman, Whatley, &

Kutz (1975) who argued that infants needed to work much harder when they

interact with their peers, so as to elicit a response from them, whereas interacting

with an adult was not believed to require such effort since parents generally react

to their infants. They argue that peers require direct and clear social signals,

whereas parents likely respond to messages that were unclear. During peer

interactions, infants are also working harder to maintain and initiate interactions

since it is up to them to maintain these interactions, whereas when infants are

interacting with their parents, the parent is likely to take over the responsibility of

directing and maintaining the interaction. All of this research suggests that play

interactions with peers facilitate children's social competence and skill

development more than play interactions with adults.

Play and Neighbourhood Level Research

The great majority of researchers who have examined play, general or

specific forms, have done so at the level of individual children. Another approach

is to examine play and play opportunities at the level of neighbourhoods.

Bronfenbrenner (1917-) described the world of the child as consisting of five

systems of interaction: the Microsystem, Mesosytem, Exosystem, Macrosystem

and Chronosystem. All of these systems are believed to influence the child and

his/her development. The Microsystem consists of such things as the child's

parents or the child's teacher - overall, all of the things in the child's direct

environment. Bonfenbrenner believed that this system provided the child with a

reference point from which to understand the world. The Mesosystem involves

16

relations between two or more Microsystems - for example the connection between the family system and the church system. The Exosystem consists of the contexts in which the child lives but in which the child does not have an active role. These contexts influence the child's experiences. The neighbourhood is an example of such a context since it offers children various opportunities for such things as education, play, or recreation. The next system, the Macrosystem contains the culture in which the child lives, including the beliefs, values, and behavioural patterns of the group to which the child belongs. The last system, the Chronosystem, includes transitions over the life course, environmental events, and sociohistorical circumstances, (e.g. Swick & Williams, 2006; Tissington, 2008; de Oliveira, Barros, da Silva Anselmi, 2006). It is important to consider how all these different systems influence the development of the child.

A number of studies have undertaken macro-level investigations. For example, Hart, Atkins, Markey, and Youniss (2004) examined whether neighbourhood variables affected children's community service involvement. They found that in neighbourhoods that were more saturated with youth (youth bulges), youth tended to engage in more community services than in neighbourhoods that had fewer youth and more adults. Thus, in neighbourhoods in which they could have more interactions with their peers, youth were more likely to participate in volunteer activities than in neighbourhoods in which youth were more likely to have interactions with adults. Since engagement in community services may be viewed as an indicator of social competence (i.e. it requires advanced social skills and an understanding of others), this study sheds

some light on the unique benefits of peer interactions at the neighbourhood level on social competence development.

In another example of macro-level research, the Human Early Learning Partnership, an interdisciplinary collaborative research network located at the University of British Columbia, investigated the impact of neighbourhood factors on children's development. This research, directed by Clyde Hertzman, helps clarify the influence of factors within the Exosystem on children's development. More specifically, researchers at HELP investigated the relation between the socio-economic status (SES) of neighbourhoods and those neighbourhoods' average level of children's early school readiness (which included social competence). Data on the school readiness of 44,000 kindergarten children from neighbourhoods across British Columbia (for a list of neighbourhoods refer to Human Early Learning Partnership, 2008) were collected using the Early Development Instrument (EDI). The EDI is a teacher-rated checklist designed to assess children's school readiness at the population level using five indicators: physical health and well-being, social competence, emotional maturity, language and cognitive development and communication skills, and general knowledge. The other factor, SES, was measured using the 2001 Census data for British Columbia. Researchers found that, in general, neighbourhoods with higher SES also had higher levels of social competence development, as measured by the EDI, whereas neighbourhoods with lower SES tended to have lower average EDI scores. Yet, this relationship did not hold for all neighbourhoods. In some neighbourhoods, the overall level of social competence was either higher or

18

lower than what was expected based on the SES of the neighbourhoods. These "off-diagonal" results were found for overall ratings of school readiness, as well as for specific developmental domains as measured by the five scales of the EDI (Kershaw, Irwin, Trafford, & Hertzman, 2005). The Human Early Learning Partnership re-administered the EDI in numerous neighbourhoods in British Columbia and compared these data with the 2001 Census data (for the list of neighbourhoods refer to Human Early Learning Partnership, 2008). They found that a number of the "off-diagonal" relationships were stable across time (Forer, 2007). Worse than expected communities continued to show worse than expected results, whereas better than expected communities continued to show better than expected results, suggesting that factors other than SES were influencing the levels of social competence in these neighbourhoods.

Since theory and research suggest that play facilitates children's social competence, it is possible that one factor within the Exosystem that is affecting the levels of children's social competence in these stable "off diagonal" neighbourhoods is the level of play opportunities within them. Furthermore, in these neighbourhoods, opportunities for play with peers may be even more influential on children's social competence development than opportunities for play involving adults, as the latter has been shown to have only short-term effects on children's social competence.

Study Hypotheses

The first part of this study sets out to examine whether opportunities for play in neighbourhoods can explain the social competence development at the

neighbourhood level. Based on previous research that suggests that play predicts children's social competence, it is expected that neighbourhoods with higher than expected levels of child social competence will offer children more opportunities for play than neighbourhoods with lower than expected levels of social competence. The second part of this study will investigate whether peer play opportunities in each neighbourhood affects that neighbourhood's level of children's social competence development more favourably than play involving adults. Since previous research suggests that peer play provides a unique context for social competence development, it is expected that neighbourhoods with higher than expected levels of social competence will offer children more opportunities for peer play than neighbourhoods with lower than expected levels of child social competence, while neighbourhoods with lower than expected levels of social competence are expected to offer children more opportunities for adult led play, or fewer opportunities for peer play than the neighbourhoods with higher than expected levels.

METHOD

Neighbourhoods

Results from the Human Early Learning Partnership's studies (e.g., Forer, 2007) were examined to identify neighbourhoods for this study. Since the focus of this study was on social competence development, the social competence scale of the EDI was used to identify the neighbourhoods. Neighbourhoods that were consistently "off-diagonal" (performing either better or worse than expected based on SES) on the social competence scale, across the two times of assessment, were chosen for further examination.

In total, six neighbourhoods were selected for this study. Two of these neighbourhoods had higher levels of social competence than expected based on the SES of the neighbourhood (BEN); two were neighbourhoods that had lower levels of social competence than expected (WEN); the remaining two were neighbourhoods that had expected levels of social competence scale (AEN). The purpose of the AEN was to provide a comparison for the BEN and the WEN when exploring possible factors for the "off-diagonal" relationship observed in these neighbourhoods.

The two BEN were Whalley East (Surrey) and Grand Boulevard (North Vancouver), the two WEN were Burnaby Mountain (Burnaby) and Pitt Meadows (Maple Ridge), and the two AEN were Aldergrove (Langley) and Hamilton (Richmond). These neighbourhoods were located in six different cities and were

21

chosen based on ease of access. The principal investigator in this study was blind to the categorization of the neighbourhoods until after all of the data were collected and coded.

A list of the postal codes in each neighbourhood (PC List) and a map of the physical boundaries of each neighbourhood were provided by the Human Early Learning Partnership.

Demographic Information

Descriptive data on four factors were gathered from the long-form questionnaires of the 2001 Census, which sampled 20% of the population. These data were provided to the researcher by HELP. The first descriptive factor was the total population in each neighbourhood. This factor provided data on the number of people in each neighbourhood who fit into 15 different age groups. Of particular interest was the number of children under the age of six in each neighbourhood as the focus of this study was on children in this age group. The second descriptive factor concerned the number of people within each neighbourhood who did not speak either of the official languages. The third factor was the ethnic breakdown of each neighbourhood, including aboriginal status and visible minority groups. The last factor was the percentage of immigrants by period of immigration. This factor provided information on the percentage of the population in each neighbourhood that recently immigrated.

Overall Opportunities for Play

Overall opportunities for play were assessed by gathering data on seven indicators of recreation and leisure, facilities and participation in the six neighbourhoods under investigation. The seven indicators were community recreational resources, children's community recreational programs, access to sports, community programs funded by the government, private recreation and sports, childcare providers, and Family Places.

Community Recreational Resources

The community recreational resources indicator was composed of information on the number of community recreational resources available for children's play in each neighbourhood. This included schools, parks and recreation facilities, such as gyms, playgrounds, baseball diamonds and playing fields. Data for this indicator were gathered from multiple sources.

To find the number of school facilities in each neighbourhood, schools were first identified by using the Internet to access the website for each city's school district. Since the six neighbourhoods of interest were located in six different cities (Langley, Surrey, Burnaby, Maple Ridge, North Vancouver, and Richmond), six different school district's websites were used (refer to Appendix A for a list of these websites). On each of these websites was a list of schools in the district and their addresses. The postal code for each school was compared to the list containing all six neighbourhood's postal codes (PC List). When an elementary school was recognized as being within one of the six neighbourhoods, the school was contacted by telephone and staff members were

asked to identify the kinds of recreational facilities the school had, including the number of fields, gyms, baseball diamonds, and playgrounds. When a high school was identified as being within one of the neighbourhoods, the school was contacted by telephone and staff members were asked to identify only the outdoor recreational facilities the school had, since young children are not likely to have access to facilities inside high schools.

Assessment of the number of community parks and recreation facilities in each neighbourhood was completed by first locating each city's official website (refer to Appendix A for a list of these websites) and then by finding a list of parks and recreational facilities on these websites. Once these facilities were identified their addresses were entered into Google Earth (Google, 2008) to determine whether each location was within any of the six neighbourhood's physical boundaries. To supplement this information, an inventory of BC Parks and Recreation facilities was attained from the British Columbia Recreation and Parks Association. This list included the name, postal code, and facility type of each BC Parks and Recreation facility. Each postal code was compared to the PC List to establish which facilities were within the neighbourhoods of interest.

Children's Community Recreational Programs

The children's community recreational programs indicator was composed of the number of community recreational programs offered to children under the age of six in each neighbourhood. Recreational centres were initially located by using the British Columbia Recreation and Parks Association (2004) Facilities Assessment Report. This report included a list of recreational centres in British

Columbia and their postal codes. Each postal code was compared to the PC List to identify which centres were located within the six neighbourhoods of interest. Two recreational centres were identified using this method. Subsequently, during interviews with key community informants, which are discussed in detail in a subsequent section, two more recreational centres were identified. The four recreational centres that were examined were Hamilton Community Centre in Richmond, Aldergrove Kinsmen Recreational Centre in Langley, Forest Grove in Burnaby and Pitt Meadows Family Recreation Centre in Maple Ridge.

Once all four recreational centres were discovered, a search for the programs offered at each centre was commenced. The websites of the cities in which these centres were located were searched for a listing of these programs. Such a list was found attached to three websites and was used to identify programs involving play offered for children under the age of six years at each of the centres. Each hour of such programming was considered to equal one unit. However, no list of programs was found for Forest Grove online and this centre was closed during the period that data were collected for this study.

Access to Sports

The access to sports indicator included the number of sport clubs, organizations and leagues for children under the age of six years. Data for this indicator were gathered from Selectory, a licensed database of businesses. This database was accessed through the Public Access Terminals at the Small Business Library of British Columbia. Searches in this database were completed using standard industry codes and the names of the cities in which the six

neighbourhoods of interest were located. For this particular indicator, the following standard industry codes were used: Amusement and Recreation, Boy Scouts, Girl Scouts, and Recreational Associations (including civic, social, and fraternal associations). Postal codes of the businesses identified through these searches were then compared to the PC List to establish which businesses were within the neighbourhoods of interest. However, since an organization that was not located within a neighbourhood could be accessible to children in that neighbourhood if it held games and practices at the fields and other facilities in that neighbourhood, more data were collected to make this indicator a more comprehensive one. The number of fields and rinks at which children under the age of six could engage in hockey, baseball, and soccer were summed. These data were a subset of the data gathered for the community recreational resources indicator.

Community Programs Funded by the Government

The indicator of community programs funded by the government was comprised of the total number of programs for families with children under the age of six, funded by the government. To gather data for this indicator, two databases were used: Selectory and the Red Book Online. Initially, Selectory was used because it contained businesses providing government-funded social assistance programs for families with young children. However, since the Red Book Online is generally the most commonly used database of services in the Lower Mainland (Information Services Vancouver, 2008), data from this source were included to create a more inclusive indicator.

In the Selectory database, the following standard industry codes were used to identify business for this indicator in each city: Individual and Family Social Services and Social Services NEC (not elsewhere classified). The postal code of each business in the search results was compared with the PC List to verify which businesses were within the six neighbourhoods of interest.

Searches using the Red Book Online involved the word children and the first three figures of postal codes from the PC List. This produced a list of businesses, their addresses and whom they served. The entire postal codes of businesses serving children less than six years of age and their families were then compared to the PC List, to examine whether the remaining three figures of the postal codes matched the PC List. This procedure made it possible to identify government-funded programs for young children in the six neighbourhoods of interest.

The number of businesses, from the two databases, was summed to create the community programs funded by the government indicator.

Private Recreation and Sports

The private recreation and sports indicator represented the number of private sports and recreational businesses for children under the age of six years in each neighbourhood. These included businesses providing martial arts, dance, ballet or horseback riding. Data for this indicator were collected from Selectory. To search this database, the following industry codes were used for each city in which the neighbourhoods of interest were located: Amusement and Recreation Services and Museums, Botanical and Zoological Gardens. The

27

postal codes of businesses identified through this search were compared to the PC List. New lists of businesses that appeared in the search results and the PC List were created for each neighbourhood. The businesses on the new list were then telephoned and staff members were asked whether they provided programs to children under the age of six years. The number of businesses that offered services to children under the age of six, in each neighbourhood, formed the private recreation and sports indicator.

Childcare Providers

An indicator expressing the number of licensed childcare providers was created since childcare centres offer children opportunities for play individually, with other children, or with adults. Childcare providers were identified through multiple means for this study. The first means was a list provided by the Human Early Learning Partnership which included the names of childcare providers, in each neighbourhood in 2006, and the total number of spaces that each of these providers was able to offer based on their licensing. This list was supplemented with up-to-date information from Selectory and the British Columbia's Ministry of Children and Family Development's (Province of British Columbia, 2007) online search engine of childcare providers. In Selectory, the Child Day Care Services standard industry code was used to search for childcare providers in each city in which the neighbourhoods of interest were located. The postal codes of childcare providers identified through this search were compared to the PC List to locate childcare providers within the neighbourhoods of interest. These childcare providers were then added to the list of childcare providers attained

from the Human Early Learning Partnership, creating the Main List. Next, a search using British Columbia's Ministry of Children and Family Development's online childcare search engine was undertaken. The names of the cities that contained the neighbourhoods of interest were entered into this search. The postal codes of the childcare providers that appeared in the search results were compared to the PC List. The childcare providers that were found to be in the neighbourhoods of interest were added to Main List. Summing the number of childcare providers in each neighbourhood created the childcare provider indicator.

The childcare providers indicator was broken down into four subsections to examine the availability of childcare in each neighbourhood more extensively. Childcare providers in each of the six neighbourhoods were telephoned and asked to provide the number of total spaces, available spaces, and waitlist spaces that they had. Data from providers within each neighbourhood were summed to create three categories: total spaces, spaces available, and spaces waitlisted, for each neighbourhood. These telephone calls revealed that a number of childcare centres had stopped keeping waitlists because the waitlists had become too long. The numbers of childcare providers that had stopped keeping waitlists within each neighbourhood were summed to produce the last subsection of this indicator. This subsection was labelled waitlist exhaustion. This process uncovered a number of childcare centres that had recently closed down, so these providers were removed from the Main list and subtracted from the childcare provider indicator score.

Family Place

Family Places offer various programs for families with children under the age of six, including drop-in programs. During drop-in programs, parents bring their children to play in a safe and stimulating environment, thereby providing children opportunities for various forms of play. To examine whether Family Places were located in the neighbourhoods of interest, searches with Google Canada were undertaken. The purpose of these searches was to locate the Family Places in each city. Search words included: family place, Langley, Pitt Meadows, Burnaby, Surrey, Richmond, and North Vancouver. The postal code of each Family Place found in these searches was compared to the PC List to identify any Family Place within the neighbourhoods of interest. The number of Family Places in each neighbourhood made up the family place indicator.

Opportunities for Specific Forms of Play

To examine specific opportunities for adult-led and peer-led play for young children in these neighbourhoods, community informants were interviewed using a semi-structured interview. Community informants included people who worked directly in programs for young children. They included seven kindergarten teachers, seven staff members of the Child Care Resource and Referral Program or Child Care Society, seven staff members of Family Places and three coordinators of programs for young children in recreation centres. All participants were females who had worked in their current positions for between seven months to nineteen years, prior to completing the semi-structured interview. Of these informants, seven had bachelor degrees and completed

30

Professional Development Programs, thirteen held Early Childhood Education Certificates, four had bachelor degrees in various fields (e.g. psychology, child and youth) and one had a Recreational Leader Diploma.

Participants

Kindergarten teachers were chosen due to their direct involvement in young children's opportunities for play in the classroom. In total, eleven schools in the six neighbourhoods were identified by following the procedures described under the Community Recreational Resources indicator. Teachers, from seven of the eleven schools who were invited to participate, volunteered for this study. There was at least one teacher in each neighbourhood of interests who completed the semi-structured interview.

The second group of community informants was staff of the Child Care Resource and Referral (CCRR) programs. Ideally, all childcare providers in the six neighbourhoods would have been interviewed since these centres can afford children with opportunities for games, sports, and play involving peers and adults. However, due to limited resources, this was not possible so the staff of the CCRR programs who provide direct training, support and outreach to childcare providers were interviewed instead. It was assumed that the philosophies of the CCRR staff affected childcare in each city since they teach childcare providers.

By completing an online search, a CCRR program was identified in each city that contained a neighbourhood of interest. However, since most of the childcare available in Burnaby Mountain was offered by Simon Fraser University

(SFU) Child Care Society, staff members of this program were invited to participate in this study rather than the staff of the Burnaby CCRR. In total, staff members from five CCRR programs (in Langley, North Vancouver, Pitt Meadows, Surrey and Richmond) and the SFU Child Care Society were invited to participate in this study. At least one staff member from each program accepted this invitation and completed the semi-structured interview.

Staff members of Family Places were another group of community informants who were invited to participate in this study. Since Family Places offer young children various opportunities for play and help parents with their parenting skills, it was believed that interviewing this staff would provide information on the specific types of play opportunities promoted to parents and available to young children. In total, three Family Places were identified in three different neighbourhoods, as described under the Family Place indicator section, and at least one staff member from each of the three Family Places participated in the semi-structured interview.

The last group of community informants was made up of coordinators of the recreation centres. In total, four recreational centres were identified as described in the community recreational resources indicator section. Staff members from all four recreational centres were invited to participate in this study. Three recreational centres accepted this invitation and at least one staff member involved in the coordination of programs for young children at these centres engaged in the semi-structured interview.

Interview

The semi-structured interview covered fourteen themes related to children's sports, games and play. However, only the following seven themes were examined for the purposes of this study: structured, unstructured, adult led, peer led, access, general philosophy on play, and opportunities for general social interaction. Please refer to Appendix B for the list of questions used to gather information on each of the seven themes.

Interviews with community informants were completed over a one-month period around the community informants' schedules. Interviews lasted approximately one hour and all but one (located in a coffee shop) were located in the community informant's place of employment. The principal investigator conducted all interviews.

Time Frame

Data for this study were gathered over a three-month period in 2008, while data on SES and EDI were gathered from 2001 to 2007. This time gap was not believed to be an issue since the off-diagonal relationships for the neighbourhoods of interest had been found to be stable over time (Forer, 2007) and it was assumed that these relationships maintained their stability into 2008.

RESULTS

The results are presented in three separate sections. First, demographic information is presented for each neighbourhood, along with comparisons between neighbourhoods. Second, data from the seven indicators of opportunities for play is examined. Lastly, qualitative data on peer- and adult-led play are analyzed.

Demographics

In terms of the total population indicator, data from the 2001 Census sample suggest that there was a large range in the six neighbourhoods of interest with Hamilton showing the smallest population (4,145 people – 20% Sample) and Pitt Meadows showing the largest population (15,460 people – 20% sample). However, the percentage of children, youth, adults, and seniors appeared fairly similar across these neighbourhoods. This percentage was computed by dividing the number of children (six years of age and under), adults (nineteen years to sixty five years) and seniors (sixty five years of age and older) by the total population for each neighbourhood. These percentages were compared across the three categories of neighbourhoods (BEN, WEN and AEN) and no large differences in terms of population size or age distribution were indicated. The population and the percentage of the population by age group are presented in Table 1.

Table 1: Population (20% Sample)

Neighbourhood	Population	Children	Youth	Adults	Seniors
BEN					
Whalley East	7,730	8%	16%	63%	13%
Grand Boulevard	6,205	6%	18%	64%	12%
WEN					
Burnaby Mountain	6,150	7%	23%	66%	4%
Pitt Meadows	15,460	8%	22%	60%	10%
AEN					
Hamilton	4,145	10%	19%	64%	7%
Aldergrove	10, 615	9%	25%	58%	8%

The next descriptive factor that was examined was the population's knowledge of the official languages. Based on data from the 2001 Census sample, there was only a small percentage of people who did not speak either of the official languages in each neighbourhood (Whalley East, BEN: 4%, Grand Boulevard, BEN: 1%, Burnaby Mountain, WEN: 2%, Pitt Meadows, WEN: 1%, Hamilton, AEN: 5%, and Aldergrove, AEN: 2%). These percentages were compared across the three groupings of neighbourhoods and no noteworthy differences were found between the BEN, WEN and AEN groupings.

Data from the third factor, population by ethnic breakdown, showed that the percentage of visible minorities within the neighbourhoods of interest ranged from a low of 8% in Aldergrove to a high of 70% in Hamilton (20% sample). Within this range, there were three neighbourhoods in which less than 20% of the respondents identified themselves as visible minorities (Grand Boulevard, Aldergrove, and Pitt Meadows). In these neighbourhoods, there seemed to be a wide range of visible minority groups, but these groups appeared to be fairly small with each making up less than 10% of the respondents. In the other three

neighbourhoods - Whalley East, Burnaby Mountain and Hamilton - more than 20% of the respondents identified themselves as visible minorities. In these neighbourhoods, a large proportion of people identified themselves as either Chinese, South Asian, or both. In Whalley East, 10% of the respondents identified themselves as South Asian. In Burnaby Mountain, 20% percentage identified themselves as Chinese. In Hamilton, as many as 40% of the respondents identified themselves as Chinese and 18% identified themselves as South Asian.

Further comparisons between the three groups of neighbourhoods (BEN, WEN, and AEN) showed no noteworthy differences. Table 3 presents the percentage of total respondents who identified themselves as visible minorities and the percentage within each visible minority group.

Table 2: Visible Minority Groups (20% Sample)

Neighbourhoods	Total Visible Minorities	Visible Minority Group
BEN		
Whalley East	32%	South Asian (10%) Chinese (5%) Filipino (4%) Black (2%) South East Asian (3%) Latin American (2%) West Asian (2%) Japanese (1%)
Grand Boulevard	18%	Chinese (2%) South Asian (2%) Filipino (2%) Latin American (1%) West Asian (7%) Korean (1%) Japanese (2%)
WEN		
Burnaby Mountain	39%	Chinese (20%) South Asian (6%) Black (2%) Arab (1%) West Asian (2%) Korean (4%) Japanese (2%) Other (1%)
Pitt Meadows	11%	South Asian (5%) Chinese (2%) Black (1%) Filipino (1%)
AEN		
Hamilton	70%	Chinese (40%) South Asian (18%) Black (1%) Filipino (4%) Japanese (3%) Other (3%)
Aldergrove	8%	South Asian (3%) South East Asian (2%) Chinese (1%) Korean (1%) Japanese (1%)

The last demographic factor that was examined was immigration. The focus of this factor was on people who recently immigrated so it represented the respondents who immigrated between 1996 and 2001. This percentage ranged from three in Aldergrove and Pitt Meadows to thirteen in Burnaby Mountain. When examining these percentages by categories of neighbourhoods (BEN, WEN, and AEN), no pattern was found. For example, the WEN category consisted of the highest percentage of immigrants in one neighbourhood (Burnaby Mountain) and the lowest percentage of immigrants in the other (Pitt Meadows). Similarly the WEN category consisted of a fairly high percentage (11) of immigrants in Hamilton and one of the lowest percentages of immigrants in Aldergrove (3%). The BEN neighbourhoods were somewhat more consistent with Whalley East (9%) and Grand Boulevard (7%) having similar percentages to one another.

Overall Opportunities for Play

Data were gathered on seven indicators of opportunities for play in each of the six neighbourhoods. The first of these indicators was community recreational resources. This indicator consisted of the schools' and parks and recreation resources. The total numbers of community recreational resources in each neighbourhood ranged from 13 (Whalley East) to 88 (Pitt Meadows) facilities. Yet, no pattern appeared in the number of facilities between the different types of neighbourhoods (BEN, WEN, and WEN). Rather, there was a neighbourhood with a small number of facilities in both the BEN (13 facilities) and the WEN (17

facilities) and a neighbourhood with a very large number of facilities in both the WEN (88 facilities) and the AEN (51 facilities).

To examine this indicator further, the number of facilities in each neighbourhood was compared with the number of children under the age of six reported in the 20% sample of the 2001 census. There were anywhere from 57 children per facility (Hamilton) to 168 children per facility (Whalley East) in the neighbourhoods of interest. When examining these numbers across the three different types of neighbourhoods (BEN, WEN, and AEN), no pattern emerged among these groups. These data are presented in Table 4, along with the number of school, recreation and parks facilities in each neighbourhood.

Table 3: Community Recreational Facilities

Neighbourhood	Facilities		20% Sample		Park	Nature Area
	School	Rec. & Parks	Children	Children/ Facility		
BEN						
Whalley East	13	0	2,180	168	2	2
Grand Boulevard	13	15	1,890	67.5	4	3
WEN						
Burnaby Mountain	3	13	2,260	141	5	2
Pitt Meadows	22	66	5,525	63	14	4
AEN						
Hamilton	7	20	1,530	57	5	3
Aldergrove	24	27	4,090	80	3	0

The second indicator examined was the children's community recreational programs indicator. This indicator was composed of the number of units (hours) of children's programming offered at the recreational centres in each

neighbourhood. Within the time frame under investigation, only three neighbourhoods had active recreational centres. These neighbourhoods were Pitt Meadows, Hamilton and Aldergrove. There was also a small recreational centre within Burnaby Mountain, but this centre was closed for the summer during the time frame under investigation.

Surprisingly, there were no units in the BENs (Whalley East and Grand Boulevard), but there were 10 units in one the WENs (all of these were within Pitt Meadows) and during other seasons, there are likely a number of units in the other WEN (Burnaby Mountain), as well. Further, both of the AENs offered children a number of units - Hamilton offered 10 units and Aldergrove offered 43.5 units.

The third indicator of overall opportunities for play was the access to sports indicator. This indicator was composed of the number of sport clubs, organizations and leagues for children under the age of six years of age and the number of fields and rinks available in each neighbourhood for soccer, hockey, or baseball. In terms of clubs, organizations, and leagues, there were very few of these groups within the neighbourhoods of interest. Only three neighbourhoods, Burnaby Mountain (WEN), Pitt Meadows (WEN) and Hamilton (AEN), had an actual group located within their boundaries. Surprisingly, the two WENs both contained these groups and the BENs contained none. Table 5 illustrates the number of groups within each neighbourhood.

Analysis of the number of fields and rinks in each neighbourhood revealed that Pitt Meadows and Aldergrove, the neighbourhoods with the most

respondents in the 20% sample, had the largest number of fields and rinks for sports, whereas, Burnaby Mountain and Whalley East, with the fewest respondents, had the smallest number of fields and rinks. Unexpectedly, the BENs, both had less than 10 fields and rinks. The AENs, both, had more than 10 fields and rinks, while one of the WENs had less than 10 facilities for sports (Burnaby Mountain) and one had more than 10 facilities (Pitt Meadows). When examining the number of children per sports facility, no pattern became apparent between the BEN, WEN and AEN. Table 5 shows the number of clubs, organizations, leagues, fields and rinks found within each neighbourhood.

Table 4: Access to Sports

Neighbourhoods	Sport Groups	Fields & Rinks	Children/Facility
BEN			
Whalley East	0	6	363
Grand Boulevard	0	9	210
WEN			
Burnaby Mountain	1 – lacrosse	2	1130
Pitt Meadows	2 – Figure skating, soccer	28	197
AEN			
Hamilton	1 – Golf	10	153
Aldergrove	0	24	170

The fourth indicator represented the total number of community programs funded by the government for families with children under the age of six years. Whalley East, one of the BEN neighbourhoods, had considerably more community programs funded by the government (12 programs) than the other five neighbourhoods which had three programs or less each. The three groups

of neighbourhoods (BEN, WEN, and AEN) were examined next, but no consistent pattern was apparent in terms of number of community programs. However, when considering the number of children in each neighbourhood a pattern did become evident. The number of children, identified by the 20% of the 2001 Census in each neighbourhood, was divided by the number of community programs to examine the number of children programs needed to serve. This showed that besides Hamilton, which had no programs, the WEN category had the lowest number of programs in terms of the number of children, whereas the BEN category had the highest number of programs relative to the number of children. Aldergrove, the other AEN, had a moderate number of programs. Table 6 presents the six neighbourhoods of interest, the number of programs each encompasses, and the number of children per program (20% sample).

Table 5: Community Programs Funded by the Government

Neighbourhoods	Programs	Children /Program
BEN		
Whalley East	12	187
Grand Boulevard	2	945
WEN		
Burnaby Mountain	1	2260
Pitt Meadows	2	2663
AEN		
Hamilton	0	0
Aldergrove	3	1363

The fifth indicator included all of the private recreation and sports businesses within each neighbourhood. Unexpectedly, this indicator showed that Pitt Meadows, a WEN, had a very large number of private sports and recreation

businesses (nine businesses) in comparison to the five neighbourhoods of interest. The other five neighbourhoods had less than three businesses east (Whalley East had two, Hamilton had one, and Grand Boulevard and Burnaby Mountain both had zero).

The sixth indicator was composed of the number of childcare centres in each neighbourhood, including the total number of spaces, spaces available, children waitlisted for spaces and number of centres that had stopped keeping waitlists. This indicator did not show a consistent pattern in terms of the three groupings of neighbourhoods (BEN, WEN, and AEN). However, it did elucidate the large number of childcare spaces needed in five of the neighbourhoods of interest (Grand Boulevard, Burnaby Mountain, Pitt Meadows, Hamilton, and Aldergrove). Data on child care is presented in Table 7.

Table 6: Childcare

Neighbourhoods	Total childcare	Total spaces	Spaces Available	Spaces Waitlisted	Waitlist Exhaustion
BEN					
Whalley East	10	167	3	12	6
Grand Boulevard	17	337	22	452	3
WEN					
Burnaby Mountain	14*	332	0	557	0
Pitt Meadows	26	411	29	238	3
AEN					
Hamilton	10	122	7	164	0
Aldergrove	19	262	17	101	4

* Only 3 Non-University

43

The last indicator was the family place indicator. Data showed that only three of the neighbourhoods of interest had a Family Place located within their boundaries. Unexpectedly, none of the BEN neighbourhoods had a Family Place. Rather, one of the WEN neighbourhoods had a Family Place (Pitt Meadows) and both of the AEN (Hamilton and Aldergrove) contained a Family Place.

Opportunities for Specific Forms of Play

Data on specific forms of play were gathered by interviewing 24 informants on the peer- and adult-led opportunities that they offered to children in their programs. Informants included kindergarten teachers, staff of the Child Care Resource and Referral program and Child Care Society, staff of Family Place programs and coordinators of recreational programs. Responses from these interviews suggest that, contrary to the hypothesis of this paper, there were no more child- or peer-led play opportunities in the BENs than in the other neighbourhoods. In fact, informants in Grand Boulevard (BEN) tended to provide more opportunities for adult-led play in their programs. One informant stated that 90% of play in her program was adult-directed, while another informant stated that, "In my opinion I am 100% in the lead because I know exactly what they are doing, what I allow them and what not...because ultimately, I make the choice; ultimately I separate people; ultimately I am in charge". Informants from this neighbourhood believed that it was important for children to interact with each other, but with the guidance of adults. Further, when conflicts arose between children, informants in this neighbourhood stated that they usually intervened by

providing children with suggestions for solving problems and teaching them social skills. For example, when asked about conflict, one informant stated: "Because I would hear it (conflict), I would notice it, and I would have a suggestion and then just observe them (children) and then have a suggestion again, still in a way that they can hopefully solve it themselves, but if not they'll both have to do something different". Yet, informants differed considerably in terms of the structure enforced within programs. Some stated that unstructured play was more important for children than structured play and that 70% of the play offered was unstructured. Others believed that play opportunities that were structured were more beneficial to young children and informed me that 90% of the play offered was structured.

Informants from Whalley East, the other BEN, were also fairly consistent on the peers vs. adult play debate. Some informants discussed the benefits of allowing children and adults to lead and promoted a 50/50 approach, where children could lead their peer interactions 50 percent of the time and adults could lead play the rest of the time. In terms of conflict, informants stated that they generally intervened in children's conflict, but they also believed that children should have the opportunity to solve their own problems. For example, one informant stated that "in a quality day-care setting, that's (social interaction) what I would say is one of the goals, to provide social interaction, let the children interact with each other, I guess, and try to see if they can do the problem solving themselves". She later stated that, "the fact is that they (children) are developing and the first five years are so important. There is a certain guidance, so if I let

them run wild it would be a mad house, I would say it's 50/50 (for adult- and peer-led play), because of that age, it is so important to guide them in every way". Another informant in Whalley East took a fairly directive role in children's play and used a great deal of structure, at times, since she believed that program provider's role to teach children how to interact with each other and scaffold children's play. However, she also stated that she gave children a lot of opportunities for peer play. For example, she stated "they're (children) working in a group and they're all supposed to cooperate together and doing what they're told. And I will be asking them what, what roles they're going to be taking in the play. But, initially, when we first started this was a more structured thing. I try to remind them about what they were going to do and I would, maybe, jump in if they had forgotten where they were going. I would say, 'Oh I thought the baby was going to bed now' and try to direct them back to where they were going. But, generally I try and back off and let them interact in imaginative play, you know, as, as it flows from them" and "there is a lot of the day that is structured, so free play is when they get to express themselves…to not have somebody tell them (children) - you have to do it this way".

Although the two BENs differed somewhat as to the specific play opportunities they offered children, they were similar in regards to people's views of beneficial toys. Informants from both neighbourhoods discussed the benefits of open-ended toys (toys that did not have a pre-set meaning) and stated that they placed a great deal of emphasis on these forms of toys in their programs. For example, one informant said, "their amazing open-ended…offer them

(children) a container full of different instruments, let's say not even instruments - they can be recycling material, you can offer them empty boxes, spaghetti boxes, things like that and then just leave it there and maybe bring a couple of blankets; you will be amazed at what they will do". However, not all informants in these two neighbourhoods discussed these types of toys.

The next category that will be discussed is the WEN. The two neighbourhoods in this category were Burnaby Mountain and Pitt Meadows. Within each of these neighbourhoods, informants were fairly consistent in the opportunities for specific forms of play that they offered children. In Burnaby Mountain, informants concurred that they provided more opportunities for child- or peer-led play, while in Pitt Meadows, informants tended to provide a 50/50 split in terms of adult- and peer-led play.

All informants from Burnaby Mountain believed that it was their role to set boundaries and create opportunities in children's play, but they emphasized the benefit of child-led play. When asked about the most important aspect of play for children's development, one informant stated, "I think their free time, their play time in this room. I take that right from them if it doesn't happen...it's a big deal. That is what they most look forward to, that time with their friends that they can do whatever activity it is that they chose to do together...it gives them the opportunity to hang out with their friends and explore with their friends and learn with somebody else. I think it builds their confidence in big ways, really see kids coming out of their shells, especially the shy, quiet ones and you start seeing people playing together and talking; it's very, very exciting to see that growth and

development". Another informant stated, "we (program providers) are trying to get away from the directed activities too many by adults, because if they (children) have their own choices, it will take creativity, what they can do without the adults supervision. So let's say, as I said at the beginning, the activities (play areas) are set up, but we don't tell them do it this way or you do this because then they're looking at you like, 'I want to do it my own way' and that's how they are learning, being initiated, being created from their own….It's important to support and supervise them but not to give them directions". However, informants in this neighbourhood differed in the methods they used to deal with children's conflict. For example, one informant stated that children in her program were too young to solve conflict on their own and believed that adults needed to provide children with choices, whereas another informant stated that she believed it was the children's job to work out their interpersonal problems during play. Informants also differed on the amount of structure that they provided in their programs. Some informants claimed to provide children with unstructured opportunities for play 80 percent of the time, while others claimed that the majority of the play time was spent in structured activities.

Play opportunities in the other WEN, Pitt Meadows, tended to involve a 50/50 split in terms of child-led and adult-led play. Informants in this neighbourhood stated that it was important for children to have opportunities to lead play. For example, one informant stated that children will do things with peers that they would not do with adults. This informant and one other also stated that permitting children to guide their own play allowed children to learn or

work at their own pace or level, while yet another informant described her program as providing children with opportunities "to do their own thing". However, these informants also discussed the importance of adult-led play. They all agreed that it was important for adults to become involved in children's play. One informant argued that children needed direction from adults to have successful interactions and to develop skills. Another informant stated that adult involvement in play allowed adults to scaffold children's play. Yet others argued that adult involvement was important to the flow of the program and to teach children to listen. Overall, these informants were fairly consistent in their belief that a balance of peer- and adult-led play was ideal, but they ranged greatly in the degree of structure they provided children during play and the approach they used when dealing with conflict between children. Some informants declared that their program was mostly structured and that approximately 80% of the time was spent in structured play, while other informants described their programs as "mostly unstructured". In terms of conflict between children, a number of informants pointed to the importance of allowing children to resolve their own problems. However, other informants believed it was important to intervene during conflict to help children build conflict resolution skills and to provide them with suggestions on resolutions.

The last group of neighbourhoods was the AEN. This group comprised Aldergrove and Hamilton. Informants within each neighbourhood were fairly consistent in terms of opportunities for specific forms of play. Yet, their responses differed greatly between the two neighbourhoods.

In Aldergrove, all but one informant believed that peer-led play was more important than adult-led play and informants stated that 60 percent or more of the play in their programs was peer led. For example, one informant discussed the benefit of child-led play by examining the changes in her own approach. She stated that in the past, her entire program had been adult-directed, but that now she found children directing their learning more. She believed that this change allowed her to witness the benefits of children-led play since children were achieving "success" through this play. She stated that peer play was essential: "I see them (children) going to each other, see them working together, I see them helping one another, I see them teaching each other, and I see the learning just absolutely snowballing". Another informant in Aldergrove discussed the benefits of peer-led play by highlighting the reasons she viewed this play to be more important. She said "more (important) because of the creative, teaching them (children) how to be creative and not trying to stifle their (children) growth, I find that if adults take over too much, then they're (children) just doing what they are told, rather than trying to be more creative on their own and using their thinking skills". Another informant saw things similarly, in that she believed peer-led play was more important because "they (children) are sharing ideas or they are creating the situation, all I've done is provided the equipment or the toys or whatever, and whatever comes out of it is what they have done as a group. Those are amazing to see... I don't like to tell children what to do, when it comes to play, I think it stifles their creativity". All these statements indicate that the majority of programs provided children with peer-led opportunities. However,

there was one informant in this neighbourhood who provided children with a 50/50 balance in terms of adult and child-led play. Her program consisted of activities that were very structured and adult directed, as well as activities that were completely open and child-led. In examining structure further, it was found that programs in this neighbourhood provided children either with unstructured opportunities for play or with a 50/50 split between structured and unstructured play opportunities. One last thing to note about this neighbourhood is the commonality in informant's approaches to children's conflict. Most informants in this neighbourhood said that they usually allowed children to attempt to solve their own interpersonal conflicts, but that adults did intervene if they saw that the children's conflict was escalating.

The other AEN neighbourhood – Hamilton - tended to offer a 50/50 split in adult- and peer-led play, but informants were divided on whether they believed that this balance was the best option for young children or whether adult-led play was the most beneficial. Those who promoted a balance argued that peer-play was important because it helped children learn how to deal with other people and to become independent, but that it was important for adults to be involved in play when issues arose. For example, when asked about the benefits of peer play one informant stated "….to be independent, to feel secure in their (children's) environment that they (children) have choice, that they have the capacity to kind of direct activities in their own lives, that an adult isn't always telling them what to or how to do it. How to do it instead of what to do…I think it is just really encouraging independence, encouraging creativity, imagination….it helps them

build leadership skills that are going to take them through, but you need to be really observant that they don't become bullying in their leadership, so again teacher on the periphery, constantly providing kids with the tools, the words to say, telling them different ways they could say that, so they (adults) are not directing the play but they (adults) are directing the interaction". She also stated that "(the adult) can give them (children) other ideas under the radar, you know, making suggestions, but not really involving, we often try to, and parents do the same thing; we try to involve ourselves in the play too much so that we are taking the play over and it needs to come from them, needs to be child-directed rather than adult-directed". Another informant stated that it was important for children to be involved in peer play but that children did not have the language capacity to deal with issues that arose during play, on their own. The remainder of informants believed that adult-led play was the most beneficial form of play for young children. For example, one informant stated that "it depends on what you want to get out of the play (which is more important: adult-led or peer-led). If you want to see where their (children's) interests lie or if you're doing some observations, things like that, then it would be really important to let them (children) lead, if you want to see where they are. I think it's when you want to push their play a little bit, extend their play, that it's important for an adult to come in and intervene in some way to just expand their play". This informant believed that adult-led play was the form of play that would move children forward and advance their development, whereas the only function of peer play was to provide assessments of children.

In terms of structure, there was no congruence in Hamilton on the extent that informants structured children's play. Some informants stated that their program was mostly comprised of unstructured play, others described their program as highly structured, and still others viewed their program as providing a balance between structured and unstructured play. There were also major differences in this neighbourhood concerning the means used to address children's conflict. Half of the informants believed that it was best to allow children to try to work out their interpersonal issues on their own, while remaining nearby, in case children required adult assistance. The other half of informants stated that they would intervene when recognizing that children were having conflict and would support children in solving the problem on their own. For example, they might ask the children involved in the conflict to generate ideas on how to solve their problem.

Access

The interviews with informants also shed light on the neighbourhood's access to programs. In Whalley East and North Vancouver, the two BEN, informants stated that their programs were fairly accessible. However, in North Vancouver informants explained that a number of children did not access programs in the community because their families used nannies to care for the children, thereby providing the children with one-to-one support most of the day.

In the WENs, informants described their programs as more difficult to access. For example, almost all of the childcare in Burnaby Mountain gives priority to the students and faculty of the nearby university, rather than to the

children in the neighbourhood. Further, in Pitt Meadows, a number of informants described their programs as difficult to access due to the transportation system within the neighbourhood. One informant described programs in Pitt Meadows as being located in close proximity to each other, where people living within walking distance are able to access them easily. However, the Pitt Meadows neighbourhood is very large, making it difficult for people who do not live within walking distance to access these programs, especially for those who need to use the public transportation system.

Within the last group of neighbourhoods, the AEN, informants also had something noteworthy to say in terms of access. In Aldergrove, children had access to all-day-funded kindergarten, while in Hamilton, programs were described as being in high demand and being used regularly. However, informants also stated that one major issue in terms of accessing programs was that there were very few programs in the neighbourhood due to limited space and that if people wanted to access programs in nearby neighbourhoods, they had to drive at least 10 - 20 km. Another issue with the access in Hamilton was that low income families and immigrants or visible minorities were believed by informants not to use the programs as often.

DISCUSSION

The purpose of this study was to investigate the opportunities for public play within six neighbourhoods and to examine whether these related to neighbourhood levels of social competence among children under the age of six years. Although numerous studies have found a relationship between children's play and children's social competence development and between children's peer play involvement and social competence development at the level of the individuals, the current study did not reveal such a relationship at the level of neighbourhoods. The findings of this study do not support the hypothesis that opportunities for play at the neighbourhood level can explain levels of social competence development found by the Human Early Learning Partnership. Nor do the results support the second hypothesis, that peer play opportunities in each neighbourhood influence the level of social competence of children in that neighbourhood more favourably than play involving adults.

Hypothesis 1

Although the results of this study do not support the first hypothesis, they do suggest that there may have been other factors, besides play, affecting children in off-diagonal neighbourhoods. In Whalley East, informants pointed to the large family networks that were used in place of formal childcare within this neighbourhood. It was believed that a large portion of children in this

neighbourhood were cared for by grandparents or aunts. This form of childcare likely affords children a great deal of direct one-to-one contact with an adult. Results also suggest that within this neighbourhood, there is an exceptionally large number of government-funded programs aimed at supporting families with children under the age of six. Thus, when extended family networks within this neighbourhood are not sufficient, these families are able to turn to programs that offer professional support and resources. In Grand Boulevard it was reported that a number of families employ nannies to care for their children, so many of these children receive direct one-to-one care from qualified adults each day. This neighbourhood also had a large number of programs, funded by the government for families with children under the age of six, relative to the number of children in this neighbourhood. Thus, in both of the BENs, children appear to be receiving a direct form of one-to-one involvement with an adult, either from extended family or from professional service providers. This factor may help explain the advanced levels of social competence (based on neighbourhood SES) found within these neighbourhoods.

Another factor that may be affecting the level of social competence within the BEN category is the toys that are available for children to play with. When informants were asked to describe their philosophy on what aspects of play were beneficial to children's development, an informant in each neighbourhood discussed the benefits of toys that did not have pre-set meanings (e.g., empty containers or pine cones). They also stated that they often offered children these toys in their programs. No informants from any other category of

neighbourhoods discussed these forms of toys when asked about their philosophies or at any other time during the interviews.

Results from the two WEN neighbourhoods differ from those just reported for the BEN neighbourhoods. Within Burnaby Mountain, it was found that there were very few opportunities for overall play offered to children under the age of six. This neighbourhood had the least number of school facilities, fields, and rinks for sports, family places, and private businesses. It also had the fewest parks and recreation facilities, and programs funded by the government. The only indicator in Burnaby Mountain that had notable opportunities for play was the childcare indicator. However, this indicator is deceiving since most of the childcare offered in this neighbourhood gives priority to the children of the faculty and staff of the nearby university (who may not live in the neighbourhood). Thus, the pattern seen within this particular neighbourhood fits with the first hypothesis of this thesis, in that the overall level of social competence in this neighbourhood is lower than expected, based on the neighbourhood's level of SES, and that there are very few opportunities for children to become involved in play in this neighbourhood.

Pitt Meadows, on the other hand, shows a pattern opposite to that expected based on the first hypothesis of this study. This neighbourhood was one of the WEN, but rather than having very few overall opportunities for play, results suggest that there are many overall opportunities for play. This neighbourhood had the largest number of parks and recreation facilities, fields, and rinks for sports, sport groups, family places, childcare spaces, available child

care spaces and private businesses. Pitt Meadows also had the second largest number of school facilities and community recreational units for children under the age of six. There are multiple possible explanations for these results. The first one is that children's social competence development does not relate to play opportunities at the neighbourhood level. However, since this pattern was not found in any other of the off-diagonal communities, it seems unlikely that this is the best explanation for this pattern. A more likely explanation involves the difficulty in accessing the programs and facilities within this neighbourhood. A number of informants discussed the poor transportation system within this neighbourhood that may make it difficult for families that do not live within walking distance of these programs and facilities to gain access to them, especially since play opportunities within this neighbourhood were all described as located within one area of Pitt Meadows.

Although an overall pattern supporting the first hypothesis was not found, the information from interviews with informants suggests that other factors, such as one-to-one contact with supportive adults or public transportation, are likely influencing the levels of social competence in these neighbourhoods.

Yet, another possibility is that too few neighbourhoods were examined for an effect to become evident. The findings from the Human Early Learning Partnership (2005, 2007) are based on hundreds of neighbourhoods, whereas the current study examined only six neighbourhoods. The purpose of examining only six neighbourhoods was to allow for an in-depth examination of play

opportunities in each neighbourhood, but it is probable that this number was too small for any general pattern to become apparent.

Another issue involves the indicators of overall opportunities for play. Initially, a number of other indicators had also been included in this study. However, since HELP has defined its own boundaries of neighbourhoods and most data on play are at the level of the city, rather than at the level of these neighbourhoods, it was very difficult and, at times, impossible to access data that would correspond to these neighbourhood boundaries. Thus, a number of indicators (e.g., funding of play and recreation) were dropped. It is possible that these indicators may have elucidated patterns not evident from the indicators examined.

Hypothesis 2

The results do not support the second hypothesis of this study either. It was expected that within the BEN category, informants would discuss peer-led play more than adult-led play and that within the WEN category, more adult-led play was expected than peer-led play. However, within the BEN category, informants in one neighbourhood promoted adult-led play and informants in the other were inconsistent in the play opportunities they reported to offer, whereas in the WEN, informants in one neighbourhood promoted peer-led play while informants in the other reported a 50/50 split between adult- and peer-led play. One possible explanation for these unexpected responses relates to the choice of informants. Informants in this study were kindergarten teachers, staff of the Childcare Resource and Referral program, community recreational centre staff,

and Family Place staff. All of these programs require staff members to be constantly present and observant to ensure children's safety. Thus, within these programs, children under the age of six years are rarely left unsupervised. Generally, they do not even take recess until almost the end of the school year. The presence of adults who provide constant supervision may have influenced the extent to which children in these programs engaged in the form of conflict-and-negotiation that Piaget (1951) believed would facilitate children's social competence development. Numerous researchers have found that the presence of an adult can change children's interactions with other children. For example, Pellegrini (1984) found that the presence of an adult during peer play resulted in children's having lower levels of social interaction with other children. Winegar (1986, as cited in Killen, 1989) found that when adults were not present, children worked out and negotiated social problems with their peers. Similarly, Killen (1989) found that children generated more resolutions to conflicts with their peers when adults were not present than when adults were present and observing. Therefore, interviewing staff who are required to constantly supervise and monitor young children may have influenced the results of this study and may not have captured the best account of independent peer play.

Other possible explanations for the findings related to the second hypothesis involve social desirability and the time frame of the study. A large proportion of respondents in this study stated that they provided children with a 50/50 split between child- and adult-led play or between structured and unstructured play opportunities. This response seems to have been the safest

and most socially acceptable response, as it did not require informants to choose and advocate any specific form of play. However, these responses have made it difficult to determine whether one specific form of play was occurred more than the other in a number of the neighbourhoods. Further, a number of respondents stated that the opportunities for various forms of play that they offer depended on the children they had in their programs. For example, some teachers stated that they changed the opportunities that they offered for specific play, based on the children in their class each year. This adjustment makes it difficult to interpret the results, given the time between the EDI assessments and the collection of data for this study (EDI data were collected before 2005 and then again between 2005 and 2007, while data for this study were collected in 2008). Thus, although the level of social competence within a neighbourhood may have been stable, it is possible that data collected within the time frame of this study were not representative of the opportunities for various forms of play offered in other years.

Another related problem is that a number of participants who were invited to participate in this study declined this invitation. The participants who chose to be a part of this study may have been different in some way from the people who chose not to participate. Thus, participants who did take part in this study may not have been representative of all informants within the neighbourhoods of interest. If informants were not representative, then the neighbourhood descriptions may not be reflective of what is really happening within these neighbourhoods. Further, research by Hymel, LeMare, and McKee (2006) found

that teacher's ratings of children's school readiness varied considerably from classroom to classroom. They argued that making inferences, based on the EDI, at the classroom level was questionable. In this study, a number of neighbourhoods had only two informants: a kindergarten teacher and one other neighbourhood informant. Due to the low number of informants, it is possible that the variability of teachers' ratings of children on the EDI affected the results of this study. For example, it is possible that a teacher who was interviewed, had previously rated children higher or lower than the other teachers within that particular neighbourhood. The information that this teacher provided for this study may have been consistent with the ratings she initially gave on the EDI, but not with those of other teachers in the neighbourhoods. This may explain the inconsistency in neighbourhood categories and the lack of expected results. Moreover, in one of the neighbourhoods under investigation, there was only one school, with only one full time kindergarten teacher, located within the physical boundaries of the neighbourhood. For this neighbourhood, the majority of children ratings on the EDI were from this one teacher. Thus, in this neighbourhood, results may have been biased by the variability of teachers' ratings. This peculiarity may help explain the "off-diagonal" relationships and some of the results of this study.

Future Directions

The methodological problems that arose in this research and other issues discussed in this final section do not allow any definite conclusions to be drawn with respect to the two central hypotheses. Thus, future research should extend

this work with a larger sample of neighbourhoods. This form of investigation would allow these hypotheses to be examined further, and also allow researchers to explore one-to-one contacts between children and adults as a possible factor influencing the advanced levels of social competence (as related to neighbourhood SES), found in the BEN. Future research should also consider examining older children, since these children generally have more opportunities for unsupervised play than children under the age of six years (e.g., during lunch or recess). Such an investigation would allow for an examination of peer play without the influence of the presence of adults.

APPENDICES

Appendix A

School District Websites

Langley School District: http://portal.sd35.bc.ca/

Surrey School District: http://www.sd36.bc.ca/

Burnaby School District: http://www.sd41.bc.ca/

Maple Ridge School District: http://www.sd42.ca/

North Vancouver School District: http://www.nvsd44.bc.ca/

Richmond School District: http://www.sd38.bc.ca/

City Official Websites

Langley: http://www.city.langley.bc.ca/

Surrey: http://www.surrey.ca/default.htm

Burnaby: http://www.city.burnaby.bc.ca/Home.html

Maple Ridge: http://www.mapleridge.org/EN/index.html

North Vancouver: http://www.cnv.org/

Richmond: http://www.richmond.ca/home.htm

Appendix B

The following is the list of questions asked for each of the ten themes examined in this study.

Structured play questions

1. Could you walk me through a day in this program?

2. What is the philosophy of your program regarding sports, games and play that are most growth or developmentally beneficial for young children?

3. What kinds of opportunities do children in this program have for structured games, sports and play?

4. What would you say is the ratio between structured and unstructured activitites?

Unstructured play questions

1. Could you walk me through a day in this program?

2. What is the philosophy of your program regarding sports, games and play that are most growth or developmentally beneficial for young children?

3. What kinds of opportunities do children in this program have for unstructured games, sports and play?

4. What would you say is the ratio between structured and unstructured activitites?

Adult-led play questions

1. Tell me about your role in this program?

2. Could you walk me through a day in this program?

3. What is the philosophy of your program regarding sports, games and play that are most growth or developmentally beneficial for young children?

4. What do you think is more important – activities that are directed by adults or activities that are directed by children?

5. Describe activities that are directed by adults in this program?

6. Please provide a ratio of the time spent in children/peer directed activities to time spent in adult directed activities?

7. What do you think your role should be in children's play?

Peer-led play questions

1. Could you walk me through a day in this program?

2. What is the philosophy of your program regarding sports, games and play that are most growth or developmentally beneficial for young children?

4. What do you think is more important – activities that are directed by adults or activities that are directed by children or peers?

5. Describe any opportunities that children have to direct games, sports or play within this program?

6. Please provide a ratio of the time spent in children/peer directed activities to time spent in adult directed activities?

General philosophy on play questions

1. Could you briefly tell me about your educational background as it applies to this program?

2. What kind of training, if any, is required for employees who work in your program?

3. What is the philosophy of your program regarding sports, games and play that are most growth or developmentally beneficial for young children?

General Social Interaction Opportunities

1. Could you walk me through a day in this program?

2. What kinds of opportunities for social interaction do children have in this program?

Access to programs questions

1. Please describe a typical family that utilizes your program?

2. What families are not accessing or being reached by your programming for young children?

3. Do you know why these families do not access your programming?

4. Tell me about the children that access this program (including age range)?

5. On a scale of 1 (low) to 6 (high), how would you rate the community's awareness of this program?

6. On a scale of 1 (low) to 6 (high), how would you rate the accessibility of this program?

7. On a scale of 1 (low) to 6 (high), how would you rate people's use of this program?

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