

Aboriginal and Non-Aboriginal Mothers' Views on Language Acquisition

by

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A Thesis submitted to the Faculty of Graduate Studies of
The University of Manitoba
in partial fulfilment of the requirements of the degree of

DOCTOR OF PHILOSOPHY

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Aboriginal and Non-Aboriginal Mothers' Views on Language Acquisition

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Luella Bernacki Jonk

A Thesis/Practicum submitted to the Faculty of Graduate Studies of The University of
Manitoba in partial fulfillment of the requirement of the degree

Of

Doctor of Philosophy

Luella Bernacki Jonk©2009

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Abstract

Language development is central to how children learn and participate within their environment and specific cultural milieu. There is little information available on the process of language acquisition for Aboriginal children. The purpose of this study was to investigate caregiver-child interactions regarding language development from the perspectives of Aboriginal mothers. Thirty Aboriginal mothers from the remote northern community of Lac Brochet, Manitoba, and 30 non-Aboriginal mothers from an urban area of Winnipeg were administered a 36-item survey. Discriminant statistical analysis was carried out on the data. Results indicated there were few items within the survey that assisted in the identification of cultural groups. The differences in beliefs that were noted included Aboriginal mothers' placing a higher value on grandparents' roles in child rearing, the influence of spirituality, positive views on "baby talk", and the use of instructions when teaching their children. Differences were also noted in the frequency with which the two groups used language facilitation techniques, with the Aboriginal mothers reporting more frequent use overall.

. The results of the surveys suggested that one group of Aboriginal mothers in a northern Manitoba Dene community may have many of the same perspectives on language facilitation as urban non-Aboriginal mothers. Thus educators and speech-language pathologists may find they can recommend some of the same Western-based practices for language facilitation with some Aboriginal caregivers. However, each community and individual family is different, therefore and thus , it remains crucial for

practitioners to determine the appropriateness of the Western-based assumptions for each community and individual family.. The findings also indicated that Aboriginal mothers valued native language preservation. Clinicians providing services within Aboriginal communities must be aware of each family's use of native languages and the presence of dual language acquisition and exposure. Dual language acquisition began in the caregivers' homes and should be supported throughout the school years, so that a collaborative network of language facilitation can occur.

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Dedication

To the Aboriginal children of Lac Brochet; your smiles were as bright as the sunshine that falls on your beautiful community.

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CHAPTER ONE: INTRODUCTION

Language development in Aboriginal¹ children is an area of study that requires research on many levels. Linguistically, a greater understanding of the features of Aboriginal languages and dialects of English are needed to understand the variances that occur throughout the First Nation (FN) communities in Canada. Educationally, further knowledge of the verbal and non-verbal interactions that take place between mother and child is required to better understand early language development. On a social and cultural level, more information is needed about the varying discourse patterns that are inherent within FN communities. Although the topics that require further investigation are extensive, this study begins to provide an understanding of mothers' views of language acquisition within one FN community. In this chapter I provide the context of the current study by outlining my own personal experiences assessing the language skills of Aboriginal children, defining key concepts related to culture and language acquisition, and clarifying the purpose of the study.

My personal interest in this area stems from my work as a speech-language pathologist (SLP) in Manitoba's northern FN communities. In completing numerous assessments on Aboriginal children, it was quite clear to me that the results of these tests

¹ The Canadian Constitution Act of 1982 names three groups recognized as being Aboriginal. These are Indian, Metis, and Inuit (McCue et al., 2000). Dr. Fred Shore, professor of Native Studies at the University of Manitoba, explained that although there is no legal definition of "First Nation", the term should be used only to describe all or most Indians in Canada (personal communication, September 8, 2008), not inclusive of Metis and Inuit. There are six major cultural regions of First Nations in Canada. Aboriginal peoples are made up of diverse languages, cultures, and traditions throughout Canada.

were not reflective of the child's true ability. I frequently sensed that the assessment tools were indicating language delays or disorders that perhaps did not exist in children. This was especially true for young children, in kindergarten to grade three, who may have been speaking their native language and a dialect of English at home. These children were still in the "catching up" phase of learning English as an additional language (EAL) (Eriks-Brophy, 1998; Genesee, Paradis, & Crago, 2004). Assessing these children with standardized test protocols that draw norms from children of Euro-Western² cultural origins showed a lack of cultural sensitivity, while subjecting them to potential misdiagnoses. This cultural insensitivity or lack of awareness was also displayed in the type of referrals that were made by classroom teachers, who based their decisions on developmental or curricular standards again set by Western norms. Teacher referrals also reflected a lack of understanding between them and their students. The following vignette may help to explain my experiences within the schools.

I was trying to elicit a language sample from an Aboriginal kindergarten student. This student was referred to me early in the school year by his teacher, who stated, "He doesn't speak in the classroom." In trying to adhere to a Western-based kindergarten curriculum, a teacher would understandably refer a nonverbal five-year-old for further language assessment. While I was sitting with this child, who indeed was silent, a teenage Aboriginal girl walked into the room to get something. She recognized the small boy who I was trying to assess and quickly came up to him. His eyes lit up but he still did not

² Throughout this study I used the terms *Euro-Western*, *non-Aboriginal*, *Western*, *White people*, *Western-based*, *mainstream*, and *dominant* to refer to the culture that is North American but of European descent and speakers of Standard English Dialect.

speak. She encouraged him to label some of the pictures I had in front of him. She kissed him and was obviously fond of him. I asked her if she knew why he would not speak. She did not answer my question directly except to say that she was the same way when she was his age, and that "he will catch up".

I instantly felt humbled that she seemed to have a better sense of his communication competence than I, the communication specialist. Communication competence involves not only knowledge of vocabulary and grammar, but also the social aspects of language, or pragmatics (Foster-Cohen, 1999; James, 1990). Pragmatic skills include using language in conversation to appropriately stay on topic, change topics, take turns, interpret facial expressions and body language, and take into account the background and status of the listener. This component of language also reflects the knowledge of how to communicate appropriately in one's own cultural milieu (James, 1990). Perhaps the Aboriginal teenager's assessment was based on a deeper understanding of the culture and community. In reflecting on this interaction, I questioned whether the young boy's classroom environment was supportive of the language use in his community. Did this child feel comfortable speaking to his teacher and his peers? Are his interaction patterns considerably different at home compared with his-school? If this is the case, then communication competence within the classroom would be in contrast to what it is in his home; furthermore, time would be necessary for him to become accustomed to mainstream classroom language use. Ultimately, this child may not fit the label of "language delayed". His home native language use and discourse patterns may be considerably different from those in the classroom, and therefore he may

not be comfortable in participating in classroom dialogue at this time.

Ethnographic research conducted within Inuit, Spanish, African American, and Athabaskan (northern Alberta) communities has remarked on similar instances of native language discourse patterns being different from Standard English (Crago, 1990 a,b; Crago, Eriks-Brophy, Pesco, & McAlpine, 1997; Eriks-Brophy & Crago, 1994; Eriks-Brophy, Quittenbaum, Anderson, & Nelson, 2008; Gutierrez-Clellen & Kreiter, 2003; Heath, 1992; Philips, 1983; Scollon & Scollon, 1981). The specific discourse patterns discovered in these studies will be discussed further in the next chapter. What is central to all of this research is that children first learn patterns of discourse at home through interaction with their caregivers. Ethnographic studies of caregiver-child interactions are crucial in understanding the communicative patterns of a child.

Although my study was not ethnographic in nature, it gathered mothers' views and perspectives on language development to provide the necessary foundation for the future development of appropriate assessment materials. Similar studies using surveys to gather this information have been completed with varying cross-cultural groups in Canada. Two of the studies are Johnston and Wong (2002) and Simmons and Johnston (2007) who looked at Canadian Chinese mothers and Canadian Indian mothers, respectively, in comparison to Western mothers, in terms of mother-child interaction patterns. I based my own survey items on the survey used in these studies, altering the questions where necessary to reflect Aboriginal language and culture. I developed the survey based on the literature and what members of the community reported regarding communicative competence in Aboriginal children.

The term "communicative competence" was developed by Hymes (1972) who believed that the social rules of language, that is, social competence or pragmatics, were best achieved through social exchanges within a particular society. Turn taking, response times, topic maintenance, volume, eye contact, facial gestures, and body movements are best learned through interaction within one's own cultural milieu. Social competence is not easily taught, but rather learned through observation and through doing. Schieffelin (1983) noted the cultural influences in predicting communicative competence of children in stating "acquisition of language is embedded in culture, and as the children are learning one, they are also learning the other" (p. 184). These social rules of language, also called "language socialization" (Ochs & Schieffelin, 1984), predicted the social exchanges just as effectively as the grammatical rules underlying language structure. Discourse patterns, or how one proceeds in verbal and written dialogue or exchanges, are very much a part of a person's personality and culture (Scollon & Scollon, 1981). Discourse patterns of a cultural group or community are also part of the community's dialect.. The impact of various Aboriginal languages and dialects on cultural interaction and children's communicative competence has yet to be explored.

Just as the research completed on Aboriginal language acquisition is minimal, information on Aboriginal English dialects is also sparse. Dialectal differences are apparent not only between various cultural groups but also within one's own community. "Dialects are associated with speakers who share various combinations of geography, ethnicity, SES, education, or other social factors" (Ball, Bernhardt & Deby, 2006, p. 8). For example, the English language includes several dialects or varieties of the language,

which are defined by a region or by social use. Each dialect and discourse pattern is differentiated from other English dialectal variations by vocabulary, pronunciation, and sentence structures. A standard dialect is not superior over other varieties of the language, but because it is the dialect of the dominant culture or group, it may be viewed by some in this way.

Influence of mainstream culture over the last 20 years has impacted both native language use and how Aboriginal English dialects have evolved (Ball et al., 2006). As with any English dialect, such as American Black Vernacular (Heath, 1983) and Spanish English dialect (Garcia, 2005), there are language differences that need to be accounted for when assessing an Aboriginal community's dialect of English. Peltier (2008), an Aboriginal SLP in Ontario, refers to dialectal variation as an important link to a tribe's own community. Unfortunately, specialists often quickly identify these dialect differences as speech delays and intervene to eradicate the speech pattern rather than focusing on preservation and code-switching from home talk to school talk (Peltier, 2008). The FN dialect used in a community will have "a complete grammatical rule system governing pronunciation, word formation, and the combining of words into sentences" (Ball et al., 2006, p. 5). There have been recent initiatives on the part of Aboriginal SLPs and educators to begin gathering language samples of various Aboriginal English dialects to lay the groundwork for constructing nonbiased assessment tools (Ball et al., 2006; CASLPA Special Interest Group [SIG] on Services to First Nations Populations, 2008); however, each community is unique in terms of the English dialect used. Similarly, there have been some assessment tools translated into Native

American languages (Westby & Vining, 2002); however, much can be lost in translation, especially in the area of vocabulary. The lack of research completed in Aboriginal language use convinced me that further inquiry into specific communities was necessary to build a better understanding in this area.

Purpose of Study

The current study was motivated by my frustration in accurately assessing the language skills of school-aged Aboriginal children while working in FN communities. To develop culturally appropriate language assessment tools, more information regarding Aboriginal language acquisition and interaction patterns was required. Cultural influences and dialect differences were noted in previous cross-cultural studies as being influential in language acquisition (Garcia, 2005; Heath, 1983; Johnston & Wong, 2002; Peltier, 2008; Simmons & Johnston, 2007). I needed to begin by developing an awareness of language acquisition and interaction patterns occurring in the homes of FN children. Therefore, I gathered Aboriginal mothers' perspectives on language development in one FN community: Lac Brochet, Manitoba. By documenting Aboriginal mothers' beliefs and practices in rearing their children, I hoped to understand more about Aboriginal language acquisition. I also compared these perspectives with those of non-Aboriginal urban mothers to see how they were different or similar to the accepted Western-based "standard".

Research Questions

Three research questions were developed to guide my inquiry into Aboriginal language development, specifically within the Dene families of the northern community

of Lac Brochet, Manitoba:

- 1) Are there any demographic attributes of caregivers that influence their attitudes and beliefs regarding how language is learned in pre-school years?
- 2) What do caregivers perceive or believe to be child-rearing practices that are influential in promoting language development in their children?
- 3) What do caregivers report regarding how frequently they use discourse practices believed to be influential in terms of language development?

The significance of gathering these perspectives was to educate language specialists and educators on the extent that culture and community dialect affect how language is learned by children of this community. This information may be further extended by specialists to develop and provide proper assessment protocols and treatment measures when working with Aboriginal children. In order to further understand the connections between family interactions, culture, language acquisition, and communicative competence, the next chapter provides a review of literature in these areas.

CHAPTER TWO: LITERATURE REVIEW

The relationship between language acquisition, dialects, and culture is intricate. This study examined this relationship from the perspectives of mothers in a FN community, specifically regarding interactions with children, language use, and language preservation. Language acquisition patterns of Aboriginal children and other minority groups are reviewed along with the language acquisition patterns of Western-based cultures. Canadian Aboriginal demographic information is presented, highlighting the need to acknowledge the unique educational requirements of these communities. Aboriginal communication competence in the home is discussed touching on topics such as frequency and quantity of talk, verbal versus non-verbal communication patterns, as well as the connections with my own experiences working in northern communities as an SLP. Cross-cultural studies of caregiver-child interactions using similar methods as the current study are presented, along with theoretical considerations required when completing cross-cultural language research involving surveys. The review of the literature in the broad areas of language acquisition, Aboriginal communication, and caregiver-child interaction establish the rationale for the current study regarding Dene mothers' perspectives of language interaction with children.

Language Acquisition

Language is a shared system of verbal symbols and rules that allow us to represent concepts and experiences and to communicate effectively with others. Language is arbitrary, creative and learned (James, 1990). Language can be described as consisting of four major components. These are: *phonology*, the sound system;

semantics, the units relating to the meaning of language; *syntax*, the grammatical rules concerning language; and *pragmatics*, the social aspect of language use (Foster-Cohen, 1999; James, 1990). Culture can be reflected in all four components of language. This is noted in the different pronunciation of words at the phonological level in Aboriginal English dialects (Ball, et al., 2006). At the semantic level, the meaning units of language are influenced by each culture's different view of reality and the thought processes or cognition associated with these views (Ball et al., 2006). Perhaps the component of language most significantly influenced by culture is pragmatics and how language is used in social situations (Crago, 1990a; Heath, 1983; Philips, 1983; Scollon & Scollon, 1984). Studies regarding language acquisition must take into account not only a child's linguistic competence, which primarily concerns the knowledge of structures and rules in the areas of phonology, semantics and syntax, but must also consider the child's communicative competence or ability to effectively use language socially (James, 1990; Lahey, 1988; Tokuhama-Espinosa, 2001).

There are various Western-based theories to describe the process of language acquisition. These theories reflect broader theories of learning and development that fall along the nature-nurture continuum. In the Behaviourist theory, for example, B.F. Skinner (Cole & Cole, 1991) and his colleagues believed that verbal behaviours are acquired by operant conditioning. That is, the act of reinforcements from the caregiver shapes verbal behaviour from the child. The Nativist theory, developed by Noam Chomsky (Foster-Cohen, 1999; James, 1990), suggests that language ability is innate to the child, although the culture or learning environment will ultimately shape which

language or dialect the child develops. The Cognitive theory combines elements of both behaviourism and nativism, but its main tenet is that language and cognition develop separately, and language learning is dependent on, and follows cognitive development (James, 1990).

Despite the differences in theoretical understandings of language acquisition, some research has been conducted to identify similarities in language development across cultures. The groundbreaking studies in universal developmental patterns of language learning were conducted by linguist, Dan Slobin (Foster & Slobin, 1973). His work revealed that in all cultures he studied, children were not explicitly taught language but were naturally exposed to it by their caregivers. The second principle he revealed was that children could learn language simply through exposure because all languages are rule-governed, thus making language acquisition a process of learning the rules rather than learning all possible combinations of the symbols. His third universal principle was that child language is a generative system. In other words, children can produce unique sentences that they have never heard anyone say. This is again based on acquiring the rules or systems of language. Meaning drives language acquisition, in that children's language becomes more sophisticated as the ideas they need to express become more refined. Although the rate of language acquisition may vary among individuals, the progression follows a similar sequence. Common patterns, such as over- or under-generalization of rules are noted in all children and in various languages. Slobin's universal principles of language acquisition continue to be supported in more recent studies of cross-linguistic language development (Guo, Lieven, Budwig, Ervin-Tripp,

Nakamura, & Ozcaliskan, 2008).

Although the above theories and principles regarding language acquisition attribute varying degrees of influence to the role of environmental or cultural factors on a child's development of language, there is a consensus that environment is important. Although there may be differing opinions regarding whether language is predisposed or whether language develops separately from cognition, environmental factors such as caregiver-child interaction patterns are universally reported as influential (Guo et al., 2008).

Dell Hymes, an anthropologist and early researcher of language acquisition in children, stressed that in order for children to learn language, they need to learn how to use it (1972). In other words, it is important to not only learn the structure of a language but also to learn how to apply the structure to interact with others appropriately. Language acquisition is a social phenomenon where social interaction is necessary (Blount, 1977). Children therefore need an opportunity to practise and use language in order to learn it. Ochs (1988) discussed how children in any given society learn language and stated:

In making sense out of what people are saying and speaking in a sensible fashion themselves, children relate linguistic forms to social situations. Part of their acquired knowledge of a linguistic form is the set of relations they obtain between that form and social situations, just as part of their acquired knowledge of a social situation includes the linguistic forms that define or characterize it (p. 334).

Mother and child interactions in the early years of a child's life play a significant role in

language acquisition. Western-based language studies (Fewell & Deutscher, 2004; Hart & Risley, 1995; Rush, 1999; Schacter, 1979; Snow, Dubber, & De Blauw, 1982; Tough, 1977; Vernon-Feagans, Hurley, Yont, Wamboldt, & Kolak; 2007) revealed how participation in dialogue is crucial to attainment of sophisticated language forms or higher functions of language. Tough (1977) distinguished between different speaking patterns in the homes of children in terms of talking *with* the child versus talking *to* the child. These are very distinct: talking with the child engages the child to comprehend forms of language discourse and to give responses, while talking *to* the child requires only passive communication on the child's part.

Tough (1977) felt that the dialogue that takes place between an adult and child where the act of turn-taking occurs, is crucial in the development of cognitive-linguistic abilities. In Tough's study, results indicated that mothers' responses to their children's communication attempts are highly related to social class and that lack of responsiveness of maternal speech negatively affects the child's language skills. More recent research by Fewell and Deutscher (2004) and Rush (1999) documented the same findings. Rush (1999) and Vernon-Feagans et al., (2007) studied children in childcare to see whether the amount of caregiver-child interactions influenced language skills. Both studies reported a strong correlation between the rate of interactions between caregiver and child and measures of language competence of the young children.

The frequency of exposure to caregiver interactions would likely be strongest during the first three years of life, before children begin attending pre-school or daycare centres. Hart and Risley (1995) felt that the first three years of life were the most

important in terms of establishing vocabulary, style of interaction, and discourse patterns. These authors proposed that listening to a three-year-old child's speech should remind you of your own speech in terms of patterns of discourse, prosody, and certain components of structure. At this early age these key features were already acquired by most children. Repetition and imitation are two social interactions that are strongly related to language acquisition (Whitehurst, 1978). Fewell and Deutscher's study (2004) explored the contributions of four variables: child's expressive language scores at 30 months, mother's language facilitation techniques, mother's education, and group assignment, to the predicted IQ at the age of 3. These authors reported that maternal facilitation of children's language and maternal education added statistical significance to the four variables measured.

Besides mother-child interaction patterns, there are other environmental factors that are known to affect language learning. Schacter (1979) completed a comprehensive study that looked at socioeconomic status (SES) and race, and how these two elements might affect a child's language acquisition skills. In this study, Schacter found differences in how language was learned by the children of the mothers in the two groups when the mother's SES differed, but not between mothers who differed only by race. The study showed that SES was correlated with language development in that there were differences between advantaged and disadvantaged groups. The authors attributed this difference in SES to the mothers not having the time, education, or commitment to know and understand the importance of engaging their children in discourse at a young age.

The professions of speech-language pathology and audiology have based their

coursework and training programs for clinicians on the evidence from studies such as those listed above regarding language acquisition, caregiver-child interaction, and SES of the home environment. These findings, although valid for Western cultures, may not pertain to all cultures. Increasing numbers of cross-cultural studies on language acquisition reveal differences not only in pragmatics, but in other components of language, including phonology, morphosyntax, and vocabulary.

Culture and Language Acquisition

Heath (1989) noted that the word *culture* has been defined and redefined repeatedly by anthropologists in an attempt to document groups to which they are not a member, yet wish to label and observe. Traditionally, *culture* is described as a system of standards for perceiving, believing, evaluating, and acting (Goodenough, 1971). "Culture, like language, is dynamic, changing to meet the needs of the people it serves" (Lessow-Hurley, 2000, p. 100). There are numerous studies that note the importance of culture as a type of learned behaviour and how language patterns, both verbal and non-verbal, are highly influenced by this behaviour within a culture. Snow (1994) noted that "the basic descriptive work on the nature of linguistic input to language-learning children has still not been finished, primarily because of the neglect of most of the world's cultures and languages" (p. 8). Research by Crago (1990a; 1990b) with Inuit children, Scollon & Scollon (1981; 1984) with Athabaskan natives in Alberta, Philips (1983) with Native Americans in the state of Oregon, Schieffelin (1983) with Kaluli people of Papua New Guinea, Heath (1983) with Black and Anglo mothers in the upper Eastern United States, John-Steiner and Panofsky (1992) with Black, Hispanic, and Native American cultural

groups, Johnston and Wong (2002) with Canadian Chinese and Anglo mothers, and Simmons and Johnston (2007) with Indian and Euro-Canadian mothers, all noted the differing values and beliefs when caring for young children and how social occurrences reflect on language development.

Schieffelin (1983) documented the interactions between siblings of New Guinea natives and the older child's influence on the language development of the younger child. Philips (1983) showed evidence of Native American children learning differently in the classroom compared with White children, and how these differences were traced to cultural influences of the home. Similarly, Heath (1983) reported on the parenting roles and expectations of language learning of Black Americans, and how they differ remarkably from mainstream expectations. Crago's 1990 ethnographic study looked at how Inuit mother-child interactions in the homes are very different from Western mother-child interactions, both with respect to non-verbal and verbal interactions, while Crago and Eriks-Brophy (1993) commented on how Inuit mothers may not feel comfortable practicing Western-based language facilitation techniques such as turn-taking conversational practices.

Scollon and Scollon (1981) remarked on how the discourse system used by Athabaskans, a FN Dene speaking group in northern Alberta, was learned from their caregivers very early in life, even before the child uttered their first words. Scollon and Scollon (1981) provided in-depth descriptions of preschool caregiver-child interactions of the Athabaskans. Children usually begin to speak (English or Dene) within a year or two of birth. However, because silence is valued and viewed as a sign of showing respect, a

child who does not "begin to speak until 5 years is interpreted as growing up respectfully, not as being 'language-delayed'." (p. 134).

The studies conducted with Chinese (Cantonese) Canadian mothers (Johnston & Wong, 2002) and Indian Canadian mothers (who spoke Hindi or Punjabi) from the greater Vancouver area (Simmons & Johnston, 2007) are examples of some of the more recent studies on mother-child linguistic interaction patterns from different cultures. The Johnston and Wong study revealed differences in the type and extent of responses between the Western and Chinese cultural groups. In this study, items that identified group membership are described in the following quote:

Mothers classified as Chinese were those who agreed more strongly that children learn best with instruction, that children should be encouraged to use words rather than gestures, and that older family members give good advice about child development. They did not agree that parental use of baby talk impedes language development, that young children learn important things while playing, and that young children should be allowed to join in adult conversations with family members. Mothers classified as Western showed the opposite pattern, (p. 6).

Further analysis was completed on the survey items that asked about specific behaviours and practices that the mothers used with their children, and revealed the following:

Mothers classified as Western were those who reported that they frequently read to their preschooler, talked with their child about non-shared events, expanded their child's utterances, and prompted personal-event narratives. Mothers classified as

Chinese tended not to use these practices, (p. 6)

Simmons and Johnston's (2007) survey targeted similar areas of language development and used similar type of analysis, containing questions that focused on:

The importance of children's talk, the independence of children's learning, the ways in which children learn to talk, and the position and value of children in the family.

The practice items focused on speech and discourse patterns that have been extensively described in the Western literature on child-directed talk, (p.449).

Studies on language acquisition in different cultures suggest that language is learned from both concrete, physical interactions and experiences of talk (Tokuhama-Espinosa, 2003; Tough, 1977). Each experience is associated with meaning to determine the development of symbols or language. The results of the studies described above show that cultural differences influence patterns of language development in children and are also evident in the beliefs and practices of mothers from different cultural backgrounds.

Bilingual Language Acquisition

Homes where two languages are used provide insight regarding cross-cultural language acquisition patterns. Because of the interaction between language and culture, in becoming bilingual, one is also becoming bicultural (Paneque, 2006). The topic of bilingualism is an important topic to address because many FN communities still use their native language in the home, and more schools are offering native language classes to the students. Dual language exposure often begins in the homes of students. No two bilingual children will acquire language the same way. Questions such as, *who* are the people providing language models and *when* should the second language be introduced

are important (Paneque, 2006). There are a few misconceptions around the process of acquiring a second language. One such misconception is that, because all languages are processed within one area of the brain, as the second language is being acquired the first language will subsequently be affected in some capacity. Genesee et al., (2004) contradicts the 'limited capacity hypothesis' (Macnamara, 1966), and instead believes that a bilingual child's ability to be proficient in both languages is not dependent on the child's cognitive threshold to take in two languages; however, this does not necessarily imply a limited or diminished capacity. There are numerous studies that report on the lack of evidence to support the limited capacity hypothesis (Cummins, 2000; Garcia, 2005; Paneque, 2006; Oiler & Eilers, 2002; Tokuhama-Espinosa, 2003).

Oiler and Eilers' (2002) view on bilingualism is different in that they believed the main predictor for language proficiency was the amount of exposure to the language in question. Thus, Oiler and Eilers believed there was little support for the notion of a child having an innate capability (limited capacity) of acquiring dual languages, and instead bilingualism was better predicted via context and environmental factors (nature versus nurture).

Oiler and Eilers compared monolingual and bilingual children in their proficiency in English, and found that monolingual English children, learning only English at home and studying only English in school, displayed stronger oral language skills. It appeared from this study that factors such as time on task and frequency of input made large contributions in terms of language proficiency, regardless of SES. Accordingly, high exposure to the language showed large advantages in acquiring the language. This

advantage seemed especially important in younger children ages five to seven years. It was also shown that "critical mass" of input was usually reached between the ages of seven and ten years. After this age, increased exposure did not have as much of an impact on acquisition. The notion of the higher exposure the better seemed especially important in features of language that are to be learned item by item, like vocabulary and language-specific morphosyntax. This implication is important for Aboriginal children in FN communities who are immersed almost exclusively in their native language throughout their preschool years. These children would likely need some time to catch up to the level of standard Canadian English proficiency expected in a Kindergarten and Grade One curriculum (Eriks-Brophy, 1998; Genesee et al. 2004; Oiler & Eilers, 2002; Peltier, 2008).

Cummins (2000) and Battle (2002) are strong supporters of the belief that for a child to become a fluent speaker of two languages, mastery of the first language is imperative. Whether monolingual or bilingual, a child uses specific strategies to learn language (Ervin-Tripp, 1974; Krashen, 1983; McLaughlin, 1985; Whitehurst, 1978). Initially the child might use imitation and repetition. Within these initial stages, Krashen describes these errors occurring in a "natural order" and being more creative and independent of the child's first language. A conscious learning of the second language appears later on, when the speaker has learned the structural rules and has opportunities to apply those rules in certain social contexts.

Oilers and Eilers' argument for monolingual children having the advantage (in terms increased rate and quantity of certain aspects of language acquisition) over that of

bilingual learners is one that should be interpreted carefully. One cannot minimize the advantages of learning two languages. In its very basic form, simultaneous exposure to two languages has shown to have a high correlation to brain development (Bhatia, 2004; Wasserman, 2007). Both Siegers (1997) and Wasserman note the opportune time for language learning is from birth to age ten. "This learning window before the age often could be an excellent opportunity to teach the child a second language since the brain is already wired for language acquisition" (Wasserman, p. 416). Bilingualism and its influence on language acquisition is a topic that continues to be important to Canadian educators, who are faced with multiple challenges related to students whose first language is not English.

Aboriginal Culture and Language Development

There are over 605 registered FN communities in Canada and 60 different cultural linguistic groups. Five linguistic groups make up the FN communities in Manitoba. These linguistic groups include Cree, Oji-Cree, Dakota, Ojibway, and the Dene Suline (Indian and Northern Affairs, 2006), and seven Aboriginal linguistic groups if including Inuktitut language spoken along Hudson Bay, and Michif language of the Metis in Manitoba. According to Statistics Canada, of the people in Manitoba that know an Aboriginal language (Cree, Ojibway, Dene, Oji-Cree, Dakota, and Inuit), on average, 78% use it regularly at home and with their children, with Inuit reporting the highest percentage (92%) and Ojibway the least percentage of use (61%) (Statistics Canada, 2001). Sixty percent of FN members are under 30 years of age in Canada, and forty percent are under 20 years of age. Half of the members live in poverty and in single parent homes

(Statistics Canada, 2001). Over half of the FN reserves in Manitoba are not accessible by all-weather roads (Indian and Northern Affairs, 2006). This becomes an important consideration in establishing early educational programs to support such an environment, where access to literacy enhancement programs and specialists may be compromised.

The 1993 Declaration of Aboriginal Languages by the Assembly of First Nations (1993) states "Language is the principle means by which culture is accumulated, shared and transmitted from generation to generation. The key to identity and retention of culture is one's ancestral language." (p. 2). Many Elders of Aboriginal communities feel language distinguishes one tribe from another and is the ultimate form of identity (Ball et al., 2006; Bunge, 1987). Blondin (1989) claims that language has a dual role of both strengthening individual identity and maintaining the collective culture.

Ball and Lewis (2005) studied Elders' beliefs on language development. The goal of the project was to expand the knowledge surrounding facilitation of Aboriginal children's language development. One-hour conversational interviews were conducted with FN Elders across four Canadian provinces. A common theme that emerged from these interviews was the amount of diversity between the 66 Nations interviewed. Some participants valued the development of the mother tongue before a second language, yet nearly all reported valuing a bilingual approach to language development. Regardless of the first language preference, dual language learning was seen as an important goal to incorporate in rearing their children. It should be noted that because of the history of segregation and oppression towards Aboriginal people, it is not surprising that language preservation remains an important way of retaining identity and culture. Elders have

communicated their concerns regarding native language loss and the eroding of cultural traditions and values that go along with the extinction of a language.

The Ball and Lewis study was also paramount in describing FN Elders and parents as having views and practices regarding language development that resemble those of non-Aboriginal parents, and further emphasized the need to facilitate their children's language development. Of special interest to SLPs were the ways in which the Elders described language learning techniques as being very similar to Western ways. As cited in Ball and Lewis' study, Elders and parents pointed out "the need for adults to actively engage children in dialogue, promote talkativeness, and provide specific language stimulation and feedback" and "Elders saw the value in early childhood programs and in speech-language services, while emphasizing the primary roles of parents and other primary caregivers in home and community settings in facilitating early language development" (p. 8). Examples of specific ways that children acquire language reported by the Elders were that children learn language through listening, observing, talking and imitating, playing games, and "hands-on" learning. Specific facilitation practices used by caregivers focused on "tone of voice and actions, being consistent, pausing and waiting for the child to speak, emphasizing certain sounds, using repetition to teach words and concepts, and building word groupings gradually." (p. 8).

Each Aboriginal linguistic group in North America brings with it its own cultural attributes. S. Peltier and C. Wawrykow, two SLPs from M'njikaning FN in Ontario and the Skumas-Carrier Tribe in British Columbia, respectively, made valuable contributions to this knowledge in the Ball et al., (2006) study. These SLPs noted how lifestyle

differences in terms of parenting, community demographics and context result in variances in children's language ability. These differences may be displayed through body language, eye-contact, whole-to-part learning style, visual-kinesthetic learning style, verbal response time lags, speaking volume, and frequency of talk. Children's interactions within their social milieu, the type of games and toys, books, play activities, and caregiver expectations for certain behaviour will all affect the type of language used (Peltier, 2008; Schieffelin, 1983).

Numerous studies that address the cultural influences regarding language acquisition have been noted in this review of the literature. This information has been documented for decades. However, specific literature on Aboriginal Englishes and Aboriginal language development are less current and tangible. Ball and Bernhardt (2008) revealed Aboriginal Englishes as having phonological components or dialects that are different from the Standard English dialect, which consequently suggests that careful consideration is required in terms of determining the need for, and type of, language intervention. Aboriginal children growing up in a FN community are faced with the challenging task of learning standard Canadian English dialect once they enter the school environment (Peltier, 2008). Not only do the children frequently feel uncomfortable using their language or household dialect (Kennedy, 2006), they are often perceived as having inadequate or delayed language abilities by both non-Aboriginal and Aboriginal educators. Familiarization with the dialect and culture of the community is critical for educators and clinicians in providing ethical and professional service to its members (Ball et al., 2006; Ball & Bernhardt, 2008; Garcia, 2005; Genesee et al., 2004; Parke et al.,

2002; Westby & Vining, 2002).

Aboriginal Discourse Patterns

Scollon and Scollon (1984) described a study that looked at differences in the act of story retelling of Athabaskan students compared with their non-Aboriginal peers and saw the obvious use of non-verbal markers such as rising intonation, pauses, and hesitations to mark out the four part structures. The Athabaskan students' abstracts were also highly concise. They were able to "boil it down" (Scollon & Scollon, 1984, p. 189) to a level that was well understood and contained all the important factual information. Little elaboration or additives were used. Paraphrasing to a point where very few words are needed to get one's point delivered is a skill that is not normally expected for a child until full maturation of the brain processes, around 18 years of age, according to Western-based research on normal brain function (Chapman, Gamino, Cook, Hanten, Li, & Levin, 2005). If educators judge Aboriginal students according to the Western-based theories of story retelling and Western story schematics, interpretations may become biased, skewed and unfairly judged. Kintsch and Greene (1978) described how certain types of text have a conventional structure that is familiar to the reader. It has been argued that knowledge of these conventions aide the reader in comprehending the story. This type of knowledge has been termed a "schema". Most story schemata are culture specific (Kintsch & Greene, 1978).

Similar results in story retelling were noted in a study of Aboriginal English discourse patterns in Australia (Sharifan et al. 2004). The spiritual and formal schema in the Sharifian et al study differed most significantly in regards to brevity and sequencing

of events. For example, story schema were not chronologically ordered (linear) and tended to be more concise than stories from non-Aboriginal children. The Ball et al. (2006) study also noted that an Aboriginal storyteller allows for more implicit connections between ideas, as well as adapting the story depending on the audience or context. Considering the "frequency that these schemas underlie Aboriginal narratives, an understanding and acceptance of them is mandatory for educationists" (Sharifian 2004, p. 221). Acknowledgement of differing story schemata is important when considering assessing an Aboriginal child via narrative measures. Educators must realize that this child may not have the ability to fully comprehend a non-traditional story schema and, consequently, would also be unable to retell that story in a fashion that educators from the dominant culture expect.

The work of Scollon and Scollon (1984), among other researchers on inter-ethnic communication patterns, has shown that northern Athabaskan children indeed lack the overt display of speech compared with their non-Aboriginal peers. As noted in the Ball and Lewis (2005) study, it appeared that a desired quality in young Aboriginal preschoolers was to be good listeners and observers, and not to talk outwardly to Elders and adults out of respect. Crago (1990a) also discovered this quality of children's discourse patterns in her work with the Inuit of northern Quebec. Inuit teachers showed no concern regarding a "quiet" child in a Kindergarten classroom. Their reaction was "as long as they listen well and watch a lot, we are not concerned" (p.80). In fact, within this particular study, Crago made reference to Inuit teachers actually being concerned if they noticed a child who talks a lot, even going as far as to infer that there may be a language

disorder for such a child. In Western cultures there is high value placed on having the child speak, especially when spoken to. This is incongruent with FN sharing circles and storytelling, where the skill of listening and observation is valued (Ball & Lewis, 2005; McCue, 2000).

Another notable difference found in the literature regarding Aboriginal discourse patterns compared with Western discourse patterns was verbal-response lag times (Scollon & Scollon, 1984). In Aboriginal cultures, verbal response time was found to be up to ten seconds longer than in mainstream culture (Ball et al., 2006). An example of response lag times was given by Wawrykow, who stated "I have seen verbal response time lags up to ten seconds between when one person [FN people] ends talking and the other starts. The general population expects an answer within two seconds" (Ball et al., 2006, p.61). Western mothers generally expect an immediate answer from a child to whom a question was directed, as well as placing high value on direct eye contact (Lessow-Hurley, 2000). Consequently, the young Aboriginal child entering Kindergarten, who may not be accustomed to this outward speaking behaviour and direct eye contact, may become introverted (Crago et al. 1997).

Classroom Discourse and Curriculum

The connection between language development and culture within the home environment of children from minority groups must be taken into consideration when the children reach school age. Since assessments of language competence and school readiness are based on Western cultural views, these children are at risk for being mislabelled with language delays or disorders. The differences noted in cultural and

linguistic patterns can impact children in the classroom and during testing procedures. Although addressing these concerns was not the focus of this study, these issues were what motivated my research on this topic, and therefore deserve mention.

Educators in the classroom need to be cognizant of the various distinctions between oracy and literacy-based curriculum, and appreciate Aboriginal oral literature for what it is. Speech is more common and is the preferred form of communication compared with writing for Aboriginal people (Frey, 1995). Aboriginal languages have only very recently been put into written form (Peltier, 2008). In oral-based cultures, there is a tremendous ability to remember a lengthy narrative, and therefore Aboriginal stories have been successfully passed from generation to generation without alteration (Frey, 1995). In a classroom situation, Elders would find it odd to see children's heads bent down over their textbooks and note-taking while the teacher is talking. This is regarded as disrespectful to the storyteller. The non-Aboriginal instructor would need to learn the art of storytelling (McCue, 2000) in order to appreciate the oracy of Aboriginal culture and incorporate as much of it as possible in their classroom practices. Such cultural practices may require some significant changes on the part of the non-Aboriginal teacher. The act of being silent, allowing lengthy response lag-times and observing may not be natural and take considerable effort.

It was noted earlier how Western-based values differ from those of Aboriginal cultures regarding the amount of talk a child should contribute within a specific context. It is common in many mainstream Nursery and Kindergarten classrooms to have a daily *Show and Tell* activity where a child brings in an item and speaks in front of the other

students about this item. This type of verbal display is incongruent with most Aboriginal language uses. Children are not expected to be so verbal within their homes and community, nor are they expected to speak in loud tones. In general, Aboriginal children speak less and are quieter than non-Aboriginal children (Crago, 1990a; Philips, 1983; Scollon & Scollon, 1984). Philips (1983) remarks on the Show and Tell activities of mainstream classrooms as reflecting interaction organization patterns of the whole classroom. The teacher chooses who will speak, when they will speak, and what they will speak about. What is even more out of context for the Aboriginal students is taking the role of the teacher and speaking to a group of students, which is considered a controlling position. Historically, the idea of having a group leader controlling the situation is out of context for Aboriginals, whereas the act of collaboration and sharing of ideas is more in accordance with their cultural practices (Ball & Pence, 2006; Philips, 1982).

Scollon and Scollon (1984) used the term *nonfocused situation* to describe the communication patterns of the Athabaskan community. The term describes how each participant in the interaction process has the right to interpret their own sense of meaning in the conversation. In other words, the situation will be negotiated or very much implicit in nature. Regarding mainstream classroom discourse patterns, this is not the norm. It is instead a focused-driven type of interaction, mostly due to the number and needs of the students and time constraints of the classroom.

Differences seen in the use of turn allocation formats between Inuit students and non-Inuit teachers (Crago et al., 1997) were found to be the most significant contributor to miscommunication in the classroom. Turn allocation formats refer to the teacher's

style in managing responses from students in the classroom. For example, Western-based turn allocation formats often call for single student responses elicited by the teacher.

Crago's et al. study discussed how Inuit students are more comfortable responding to the teacher when they are part of a group response, as compared with responding on their own when called upon by non-Inuit teachers. In Eriks-Brophy and Crago's (1994) study of classroom discourse of the Inuit in Nunavut, numerous examples were given of how Aboriginal instruction differs from mainstream classroom interaction patterns. An explicit example was in how Inuit teachers normally addressed the class as a group, and rarely singled out students to reply to teacher-initiated questions. Teacher evaluation of students' responses was done minimally, approximately only 25% of the total teacher initiation acts. In mainstream classrooms, the frequency of evaluated initiation acts was noted to be 53% percent. Therefore, as with the studies by Scollon and Scollon (1981) and Philips (1983), classroom discourse appears highly influenced by culture.

Subsequently, children entering classroom conversations for the first time need to have an established culturally congruent framework for such exchanges to occur.

Sharifian, Rochecouste, and Malcolm (2004) studied the practices of Australian Aboriginals, which provided some insight into language learning and development.

Spielman (1998) provided a vast amount of knowledge of Aboriginal culture and how cultural practices could potentially relate to one's learning styles and expression of ideas and thoughts. Knowledge of Aboriginal culture is necessary when working with students to recognize a cultural practice, language use, or tradition that may be considered quite normal by Aboriginal people compared with what is considered normal in terms of

Western-based discourse practices (Scollon & Scollon, 1981). Philips (1983) took an in-depth look at the differences in classroom behaviour between non-Aboriginal students and their Native American peers and found distinctive patterns of behaviour. The differences seen in communicative behaviours of the two cultures became less and less noticeable as the students moved from Grade 1 to Grade 6 (Philips, 1983).

According to the Royal Commission on Aboriginal Peoples (RCAP, 1996) neglecting the cultural needs of students within the classroom setting has led to issues of poor-self esteem, feelings of inadequacy, truancy, loss of identity, and ultimately academic failure. The report states "many Aboriginal parents are resistant to the idea of sending their children to school at progressively earlier ages, particularly when schools have so often proven to be a hostile environment for the development of Aboriginal identity " (Volume 3, Chap. 5. 3.1.).

In summary then, the ethnographic research has shown that students of minority groups have different discourse patterns based on their ethnic origins, traditions, values and beliefs within their home environment. Educators need to recognize these patterns and incorporate culture and language into the classroom to facilitate students with all kinds of backgrounds to become successful learners.

Using Surveys to Assess Language Interaction

The work completed on language development in various cultures has largely been ethnographic, where the researcher would spend an extensive amount of time observing caregiver-child interactions and gathering data within the homes and community. Such studies, such as Vernon-Feagans et al. (2007), note the importance of

caregiver-child interaction in developing language skills in the early pre-school years. However, there can often be restrictions that prevent research from being conducted in a qualitative manner. Typically these restrictions involve limited resources, such as time and funding, and result in developing more time- and cost-saving measures to collect data. This is particularly the case in studies involving remote northern communities that may require extensive and expensive travel by the researcher. Studies may require numerous visits to the community by the researchers, as it may not be feasible for them to live there for extended periods of time. The use of surveys or questionnaires is an alternative cross-cultural method for investigating the views and perspectives of others and has been applied to the field of language acquisition.

As Johnson (1992) explained, "The purpose of a survey is to learn about characteristics of an entire group of interest (a population) by examining a subset of that group (a sample)" (p. 104). Guitierrez-Clellen & Kreiter (2003) attempted to look at bilingual language acquisition by comparing the language development of monolingual and bilingual children. These authors made reference to questionnaires being successful in cross-cultural studies when obtaining specific language histories from families. Squires, Bricker, & Potter (1997) noted how questionnaires are valid tools for screening and identification of language impairment. Siren (1995) favourably discussed the use of questionnaires for collecting information on language histories from culturally diverse families.

The method of administering the questionnaire is important and worth noting. Hines (1993) acknowledged that certain qualitative aspects of inquiry would assist and

ideally be incorporated into the survey tool if used in a cross-cultural study. Using a survey in this manner would help to ensure that the questions are culturally relevant and accurate. Another method for increasing the effectiveness of surveys is to use previously validated questionnaires or survey instruments. Examples of two such studies in the area of caregiver-child interaction are the cross-cultural studies by Johnston and Wong (2002) with Chinese Canadian mothers, and Simmons and Johnston (2007) with Indo-Canadian mothers. Both studies used a similar survey format to investigate caregiver views of language acquisition and noted how social interactions and culture influence language development. Adaptation of the survey design was necessary primarily to accommodate for the differing cultural groups. It is also important to note that the items included in the surveys were based on previously conducted ethnographic research identifying cultural values, beliefs, and interaction patterns. The results of these studies suggest surveys are an appropriate method of gathering information on language skills, beliefs about caregiver-child interaction, and perceptions of language development.

Most of the literature on the differing types of survey administration has occurred in the field of health care and pertained mainly to response rate, and not the validity of the response. Studies such as Amodei, Katerndahl Larme, and Palmer's (2003) study on different methods of gathering data, showed that self-report or paper format, and interview formats (used with primary care patients), delivered minimal differences. Siemiatycki (1979) completed a comparison study of data collection measures for three different survey formats: mail, telephone, and home interview strategies for household health surveys. The telephone format showed the greatest response rate. Validity of

responses were also checked through individual responses and compared with the national data base, noting mail-in surveys to be most valid. Depending on the level of sensitivity of the survey questions, mailed surveys may produce the most valid responses, as the respondent would not be overtly disclosing sensitive information.

The development of effective questionnaires or surveys to gather responses in the context of a cross-cultural study is an area of research that is actively growing due to concerns of *response bias* (Cronbach, 1950; Hui & Triandis, 1989; Marin, Gamba, & Marin, 1992; Paulhus, 1991). Response bias is "a systematic tendency to respond to a range of questionnaire items on some basis other than the specific item content (i.e., what the items were designed to measure)" (Paulhus, 1991, p. 17). Cross-cultural studies are susceptible to providing conclusions drawn from empirical data that are not sensitive to different response patterns seen in various cultural groups studied. Paulhus (1991) further explains "To the extent that an individual displays the bias consistently across time and situations, the bias is said to be a *response style*" (p. 17).

Dolnicar and Grun (2007) list six different response styles within their study, with *Extreme Response Style* (ERS) being the one that has been the focus of most related studies. ERS is a style that is best described as tending to pick the extreme ends of the scale; the extreme negative or extreme positive response. Hui and Triandis (1989) and Marin et al. (1992) are two studies that looked at ERS as a response style in studying Hispanic and Western groups. Both studies concluded there was no difference between the Hispanic and non-Hispanic response styles, as both were classified as ERS. Adding further to the complexity of using surveys to study cultural groups, these studies

employed different multi-category scales, ranging from a 4-point scale used in Marin's study to a 10-point scale used in Hui and Triandis's study. Dolnicar and Grun (2007) remarked on the lack of consensus in regards to the most appropriate range of scale for use in a cross-cultural study and that further investigation is necessary.

Thus, different response styles will lead to different probabilities for the categories to be chosen (e.g. the choice of Never versus Always on a 5-point Likert scale). A participant classified as having an extreme response style is more likely to pick end points of the scale, while respondents with a mild response style have a lower probability of doing so. Response style bias is a concern for cross-cultural studies, as participants' responses may not reflect the content of the survey, but instead, the cultural values of those which are surveyed (Dolnicar & Grun, 2007). Of the studies reviewed, there were none completed that looked at Aboriginal response styles.

In developing the survey instrument for the current study, the various survey construction and administration factors were taken into consideration, as well as determining the content for each question based on the research regarding Aboriginal language interactions patterns. The specific questions and how each one connects with the relevant literature will be further described in chapter three.

In conclusion, the literature revealed many factors that play a role in a child's language acquisition. The variation seen in discourse practices between Aboriginal people and other minority groups was also evident. The bulk of the research on Aboriginal discourse patterns was conducted in the 1980s and focused primarily on the interaction patterns of the Athabaskans and Inuit of Canada, as well as some Aboriginal

groups in the United States. These studies remarked on incongruent communication patterns and ways of learning that often exist when Aboriginal children enter a mainstream classroom environment. More recent work completed by Ball and colleagues re-emphasized the need for sensitivity to the use of English dialects in FN communities, as these dialects are often misdiagnosed as disorders by interventionists. Ball's work also revealed that Aboriginal parents and Elders in Canada promote language learning in similar ways as Western mothers.

The literature strongly supports the relationship between culture and language development. Language is learned through interaction with others, and the nature of these early interactions can establish lifelong patterns. For this reason, FN communities are working to preserve their native languages and values despite the influence of mainstream culture. There is a movement towards fostering a solid understanding of a community's dialects and cultural practices prior to engaging in assessment-based scholastic activities with the children. It is within this context that the current study was conducted to establish a better understanding of Dene and Western mothers' views of language acquisition. The following chapter will outline the methodology used to complete the study.

CHAPTER THREE: RESEARCH METHODOLOGY AND PROCEDURES

In conducting research within a community representing a minority cultural group, many factors must be taken into consideration to ensure appropriate methodology and procedures are followed. Within this chapter, these factors, including location, language uses, and background of the researcher, are discussed in terms of how they influenced the decision-making process. The major topics of study design, indigenous methodology, and ethical considerations are explored, as well as specific details of the research setting and participants. The key source for data collection was the survey instrument itself. Therefore information regarding the development of this questionnaire, including pilot testing and translation procedures, is provided. The chapter concludes with a discussion of the statistical methods used to analyze the data collected.

Study Design

Qualitative research methods, such as ethnographies, observations, and interviews, are effective ways of collecting data regarding caregiver-child language interaction patterns. However, the implementation of such strategies posed some challenges in this particular situation, primarily due to the remote location of the community, my lack of cultural and language fluency, my limited research background as a graduate student, and constraints of both time and money. Given the successful results of previous cross-cultural studies involving a survey design (Johnston & Wong, 2002; Simmons & Johnston, 2007), use of a similar, quantitative approach was selected for this study. My goal was to design a survey that would capture Aboriginal mothers' perspectives of interaction with their children in order to contribute to the current limited

knowledge of Aboriginal ways of teaching language to children.

Another aspect of the design of this study was to include Western urban mothers as a comparison group. The choice of Western urban mothers as a comparison group for this study was precipitated by my decision to replicate previous cross-cultural studies where a similar comparison group was used. This choice was also related to the fact that many standard speech and language assessment protocols draw their norms from Western urban children's language profiles. In retrospect there may have been some value in comparing urban and rural Aboriginal populations, and this consideration will be discussed further in the "Limitations" section.

The attitudes of Aboriginal and non-Aboriginal mothers were evaluated using culturally sensitive methodology. In order to ensure that the study design was culturally appropriate for both groups of participants, an asymmetrical research design with different interview techniques for the two groups was used. This required adopting the attitude that "different from" is not the same as "worse than" or "better than", and that the same measure will not necessarily assess all mothers fairly. Specifically, the survey was administered to the Aboriginal mothers in a face-to-face interview conducted by the research assistant, who was also a member of the community. This supported elements of oral culture, translation into first language, and clarification of items as needed. The surveys were administered to the non-Aboriginal mothers in written format only. This allowed them to complete the surveys on their own schedule and respond without feeling the judgement of the researcher regarding their interactions with their children. Allowing for these cultural adjustments were considered benefits to the asymmetrical survey

administration; however, this approach did cause some complications with data analysis and these will be discussed further under "Limitations".

Indigenous knowledge, confidentiality, sharing, respect, and reciprocity towards members of the community were issues considered throughout the project, but especially during times of participant and research assistant recruitment, survey administration, and finally in the dissemination of results to the community. Having a group of cultural informants assisted me greatly in the interpretation of the surveyed responses. In addition to input from the cultural informants, a small comment section inserted at the end of the survey provided some insight at the time of analysis. A survey form of data collection is limited in that it may only indicate whether differences exist between the two groups, but will not provide an in-depth description of the meaning behind these differences. Thus, this survey is the first step toward understanding a small component of a complex paradigm of practices and beliefs within one FN community.

Indigenous Methodology Principles

Wilson (2001) provides detailed information of indigenous knowledge in her description of indigenous methodology. According to this information, indigenous knowledge brings with it a type of sharing of information, collaboration, and mutual respect among its members. Indigenous ways of knowing is a term that describes how indigenous communities acquire knowledge (Cochran et al., 2008). This knowledge is vast and inherent to the community. It is not only the knowledge of the community itself, but how one learns of this knowledge that makes it distinct from Western scientific knowledge. An example, cited by Cochran et al., is how Inuit whalers detect the presence

of whales by listening for breathing sounds, whereas a scientific method of detecting presence would be through scientific count; a visual, physical identification of the whales. With respect to the field of research, Western researchers may need to be less scientific in conducting their academic ways, and become more flexible in ways of data collection. This does not necessarily pertain to adhering to either qualitative versus quantitative methods, but instead relates to working in partnership with community members who have indigenous knowledge, abilities and skills. Health research is an excellent example of how this knowledge is not only beneficial, but has been groundbreaking through developing herbal remedies for illness (Cochran et al., 2008). Western academic researchers need to take an open-minded perspective on how to best conduct research when entering a FN community, not only in terms of respect and reciprocity of its members, but in the context of completing research that is valid, grounded, and reliable.

Gilchrist (1997) summarized a list of factors that can make using one specific methodology or protocol impossible when entering a community. These factors include degree of isolation, size of community, complexity of economic activity, quality of leadership, vitality of culture, cohesiveness of the community, existence of resources, nature of social problems, and intensity of divisions within the community.

The geographical isolation of my research community from mainstream culture, as well as its continued strong use of the Dene language, influenced the need to take an individualized approach to the study's design. Specifically, this resulted in the use of a local research assistant. The research assistant shared the same culture and language, and

was invited to administer the survey within the participants' own homes (similar to a social visit) which helped to adhere to the principles of indigenous research methodology. This connection between the research assistant and participants was necessary in the data collection process in terms of strengthening the rapport, increasing the comfort level, diminishing misinterpretation of the questions, and lessening the chance of bias occurring in surveyed responses. These practices followed Grbich's (1999) recommendations regarding conducting community-based research in FN communities. The views of Aboriginal scholars such as Swisher (1998) and Smith (1999) are similar to those of Grbich, who stated that, "the best data, which includes an accurate interpretation of the cultural clues embedded in both verbal and non-verbal interaction, are gathered by researchers of the same culture" (p. 85). This belief follows the view that people of the same language, class, status, education, and culture would have a better understanding of each other, and the interaction process would be reflective of this. The quality of rapport between the participants and the interviewer is believed to have an influence on the type and depth of information shared.

Although not unique to indigenous methodology, my presence in the community was also important in allowing for the research to occur. As a practising SLP in this community over the last five years, I was known mainly to school personnel. Scheduling an information meeting allowed other members of the community to meet and recognize me in my subsequent visits, whether it was in the school, store, or band office. The physical layout of the community is not expansive; therefore, most members are aware of when an outsider such as myself visits the community. On walks around the community,

I often had young children join me. Adding a personal component to the research process is important in terms of reflexivity, collaboration, and respect towards the individual participants. It was important for these women to hear the purpose of the study from my viewpoint, in order to better understand why I wanted them to share personal information with me as well as the research assistant.

Ethical Considerations

The US National Institutes of Health (NIH) recognizes that there are three basic ethical principles to follow when practicing behavioural research (1979). These are: justice, respect for persons, and beneficence. I will discuss these three principles, as well as the principle of confidentiality, as they relate to a cross-cultural framework. That is, the ethical principles require indigenous research to be collaborative, flexible, reciprocal, and respectful.

Justice: Although the concept of "justice" refers to broader issues of fairness and equal treatment, this principle can be further examined in regard to subject selection. Mothers should not be included or excluded on the basis of class, ease of recruitment, or manipulability (NIH, 1979), but instead should be included on the basis of suitability for the study question. The research assistant was able to guide the selection process, having knowledge of mothers who fulfilled the inclusion criteria for the study.

Respect for persons: Respect for persons includes two ethical convictions: respect for autonomy, which refers to how individuals should be treated as autonomous agents; and second, that persons with diminished autonomy are entitled to protection (NIH, 1979). This principle is the basis for the practice of informed consent, which for

this study, involved obtaining overall permission from community leadership in addition to individual consent from research subjects. The participants were literate in English; however, all participants had Dene as their first language. In the Statistics Canada (2001) community profile of Lac Brochet, 465 of the 605 residents spoke the language in their home (77%), with 90% of the members having knowledge of the language. I tried to learn the local culture and its processes from my research assistant, and through observation, so as to respect the autonomous rights of each participant. Having a research assistant fluent in the Dene language was an important consideration regarding participant autonomy.

Potential risks to involvement in the study were reviewed with each participant in the form of a verbal dialogue prior to gaining their written consent (Appendix E). Although the risks were considered minimal, there was always the possibility of causing stress or anxiety when revealing personal information. Participants were ensured that unless they disclosed information regarding child abuse (which would then need to be reported to authorities), all information shared would be kept confidential. The researcher and research assistant were also familiar with community resources so that participants could be referred to appropriate sources of support if necessary.

Confidentiality was adhered to by not having the participants' identifying information included in any written documentation. Copies of signed consent forms and completed interview guides were kept in a locked room in the school until they were transferred to me. This process ensured that the names of the individuals interviewed would not leave the school.

Beneficence: As a researcher of a project involving human subjects, there is an obligation to design the study in a way that will maximize the benefits and reduce the risk of the participants involved in the project. In reference to the community of Lac Brochet, a meeting was organized to inform the community of the study's beneficence.. When a participant gives consent to expose their personal and social behaviours, it is important to take a sensitive approach, especially when marginalized groups such as Aboriginal women are involved (Malcolm et al., 1999).

The results of this study were forwarded to Northlands Dene Director of Education in Lac Brochet to provide a better understanding of the communicative competence in the young children entering the school, and perhaps assisting educators in transitioning children from home to school language use. Following completion of the study, results were also shared with community members via a community gathering. In the relaying of this information back to community members, I followed what Cochran et al., (2008) considered essential in participatory research: community members work with researchers to produce and disseminate research data. Adhering to this ethical principle of conducting participatory research in FN communities is just one of many other principles which will be discussed in the following section.

Additional Considerations Involving Aboriginal Communities in the North

Because the community of Lac Brochet lies above the permafrost line, I needed to acknowledge the Association of Canadian Universities for Northern Studies (ACUNS, 1997) *Ethical Principles for the Conduct of Research in the North*. These 20 principles were developed mainly to foster a mutual respect between the researcher and the people

in the North. With the help of Aboriginal and non-Aboriginal researchers, the Royal Commission on Aboriginal Peoples created a set of ethical guidelines (RCAP, 1996). Gaining access into the community was sought according to the recommendations in Ball (2005). A summary of my research proposal (Appendix A), as well as a description of the ethical considerations needed for the study (Appendix B), was sent to the Northlands Dene Education Authority in Lac Brochet for approval to conduct the study. Written approval from the Education Authority was granted. In accordance with the RCAP guidelines, participants in my study were provided with information about the project (through a planned "information meeting night" and individually prior to each interview), so that caregivers were able to provide me with *informed* consent at the time of the interview.

Following the release of the RCAP guidelines, the National Aboriginal Health Organization (2000) established a separate set of ethical principles referred to as OCAP (Ownership, Control, Access, and Possession) (Schnarch, 2004). In developing this study, I incorporated the principles set forth by OCAP by recruiting Aboriginal community members to assist me in administration and interpretation of the survey, so as to be respectful of the discourse styles and responses of the participants. Through the use of an interview guide as opposed to a self-administered survey, by inserting a comment section at the end of the survey, and including a panel of cultural informants, I adhered to the ethical considerations of relational accountability and reciprocity.

Following the OCAP's move towards implementation of ethical considerations, the Tri-Councils (Canadian Institutes of Health Research, 2007) also provided a set of

recently revised guidelines that included 15 Articles for consideration. In terms of my study, the guidelines I needed to adhere to related to inclusion of the community's perspectives when analyzing the data, ensuring confidentiality be kept throughout the study, as well as providing the community with a preliminary five-page summary report for comment. Although I was no longer present to answer questions once the initial stages of the study were completed, the research assistant remained in the community to address any questions and concerns that arose from participants

Method

Setting and Community

The primary language in Lac Brochet is Dene, which is understood by 90% of the population and spoken by 77% (Statistics Canada, 2006). K. Antsanen, the school's principal, noted that compared with 20 years ago, use of Dene by young children has decreased in the past 20 years (personal communication, June 15, 2007). According to the 2006 census information this appears to be an accurate reflection, as a smaller percentage of the population has knowledge of and/or spoke the language than in the 2001 census information. However, according to Statistics Canada (2001) the number of people who could carry a conversation in Dene increased from the previous census by approximately 10%. Dene was one of two native languages listed in the 2001 census where this increase occurred. The remaining languages surveyed declined in their use. Elders make up a small percentage of people in Lac Brochet that would be able to write or read the language in syllabic script. A limited number of members would be literate in Roman orthography. The mothers who participated in the survey were limited in their ability to

read Dene. Spoken language, as with most native languages, was the most prevalent use of the Dene language in Lac Brochet.

Lac Brochet was not chosen to represent all Aboriginal cultures, but in accordance with key criteria, the project needed to address the research question (Lonner & Berry, 1986). Key criteria included factors such as the community's (a) acceptance and willingness to have an outsider complete research, (b) degree of Western-based cultural influences, (c) distance from Winnipeg (minimizing travel to a large urban center), (d) availability of a research assistant to administer the survey in the Dene language, (e) availability of participants, and (f) community members' interest, investment, and willingness for on-going collaboration throughout the research process. The community had been involved in past research projects and looked favourably on research completed in their community, providing that it allowed for some benefit to its members (K. Antsanen, personal communication, June 12, 2007).

Historically, the Dene people of northern Manitoba were nomadic; they followed the herds of caribou in the spring and fall months. Hunting, trapping, and fishing were a strong part of their existence. Currently, the Dene people still foster a strong relationship with nature and remain avid hunters. But as one teacher, who has resided in the community most of her life, stated, the people do not rely on it as their sole food source (B. Denechezhe, personal communication, May 23, 2007). There is still considerable amount of camping during which fishing, berry picking, and hunting occur. Traditionally, Dene people are quite mobile in the sense that they do not stay fixed in the community. It is quite common for families to visit another tribe or community for a month at a time.

This is especially true during the late winter months in which "carnival" occurs and neighbouring communities take part in the cultural carnival events.

Participants

Participant inclusion criteria for the Aboriginal group were (a) female, (b) agreement to participate in the study, (c) self-report of Aboriginal descent, and (d) currently caring for children in the age range of 2 to 6 years, or having cared for children in this range within the last two years. Lac Brochet is populated by over 600 people (Statistics Canada, 2006 census). There are 305 females reported in the 2006 census, with just over 100 women being in the child rearing ages of 20 to 50 years. There were 30 caregivers approached for completion of the interview guide. A small percent of the total sample of participants needed to be fluent in English, as there was a subset of participants that were surveyed by both the research assistant and myself. This overlap in surveyed participant responses was a necessary step in assuring reliability and accuracy of the responses. Participant inclusion criteria for the non-Aboriginal mothers were (a) female, (b) agreement to participate, (c) self-report of non-Aboriginal and of Western descent, and (d) currently caring for children in the age range of 2 to 6 years, or having cared for children in this range within the last two years.

The demographic information about the participants was collected by the interviewer and documented on a Basic Data Sheet (Appendix D). This information was collected to assist in the interpretation of the results, to confirm group membership, as well as to measure the comparability of each groups' respondents. The goal was to have the two groups as balanced as possible with regard to caregiver characteristics that have

previously been determined to have an influence on language acquisition in minority groups (Connor & Craig, 2006; Curenton & Justice, 2004; Dart, 1992; Diehl et al., 2006; Fazio et al., 1996; Gutierrez-Clennen et al., 1995; Feagans & Farran, 1982; Liles et al., 1995; Paul & Smith, 1993; Shiro, 2003). Specifically, attempts were made to match the non-Aboriginal mothers to the Dene mothers in the areas of income and level of education. The non-Aboriginal mothers recruited were low-income earners, Caucasian speakers of standard Canadian English, with various levels of secondary education, and who lived in the same area of Winnipeg (see Table 2 for additional demographic information).

Research Assistant

The research assistant was a young Dene woman, literate, bilingual in Dene and English, responsible, and respected within the community. She was recommended to me by the school principal and was compensated with an hourly wage for her time spent completing project tasks. I provided training for the research assistant to ensure that she had a level of comfort and confidence to proceed with the interview guide independently. This assurance came from numerous discussions on the recruitment of participants, as well as ethics and data management issues (e.g. confidentiality when handling consent forms, surveys, etc.).

In addition, the research assistant completed a pilot videotaped interview guide with an Aboriginal volunteer before beginning the data collection. The purpose of this step was to reassure me, and the research assistant herself, that she was confident and independently capable of conducting face-to-face interviews. This tape was reviewed

with the research assistant to establish if (a) the interview guide was of appropriate length, and (b) the process of collecting the data was appropriate (e.g. the research assistant was comfortable in administering the survey questions and the participant was at ease in answering the survey items). For example, at times when the interviewee needed more clarification or appeared hesitant to answer the question, the research assistant sensed this uneasiness and responded appropriately. This response could have been in the form of question clarification, in which Dene translation was necessary. Other times it may have been more related to question content. For example, one survey item states *It is Ok for my child to not respond to me right after I ask a question*. In this case I needed to clarify that the caregiver and child are in the same room, and it is not a question of the child not hearing the mother's request. Only when the research assistant felt comfortable and confident in administering the survey did data collection begin.

I was available to the research assistant through telephone or internet contact as needed throughout the data collection process. The 30 completed surveys were passed on to me when the research assistant arrived in Winnipeg in late October 2007, for a youth retreat. Along with the completed surveys were the signed consent forms and the demographic data sheets. We were able to discuss and debrief on the survey responses. There were no occurrences throughout the survey administration where the research assistant reported that the caregivers seemed to be confused or were offended.

Survey Instrument

The Survey (Appendix F) used in this study was adapted, with permission, from a survey (Appendix G) used in Johnston and Wong's (2002) study of Western Canadian

and Chinese Canadian mothers and their beliefs and practices regarding children's language interactions. Because the literature specifically related to the Dene culture and mother-child interaction patterns was limited, I needed to rely on the literature describing discourse patterns of other Aboriginal groups in the development of the survey. In order to include Aboriginal perspectives, questions (items) from the original survey were removed and replaced with items that related more to Aboriginal practices and beliefs. Following the *beliefs* section of the survey, there was a section focused *on frequency* of specific Western-based practices in language acquisition. These items were not altered as they were relevant to the type of information I intended to gather.

The format used in Johnston and Wong's (2002) study remained unchanged in my study. This included a set of questions pertaining to cultural beliefs and having a 5-point Likert scale for responses, while the remaining questions related to the frequency in which the practices (survey items) were used. As with the Johnston and Wong study, the frequency items used a 4-point Likert scale. Ten of the 20 belief questions were removed from the original survey and 14 new questions were added, making a total of 24 belief questions. These new questions are listed 1-14 in the adapted version (Appendix F).

I prepared the 14 survey questions having (a) completed an extensive literature review on cross-cultural language acquisition (as outlined in the previous chapter), (b) an educational background in language acquisition, (c) close consultation with a bilingual research assistant, and (d) personal clinical experience as an SLP working with young Aboriginal children. Along with replicating specific questions from the Simmons and Johnston (2007) survey (questions concerning Western-based language acquisition

issues), I also added and adapted several questions to address Aboriginal culture. In order to do this, I relied heavily on the literature focusing on Aboriginal language acquisition discussed in depth in chapter two.

In formulating questions 4, 8, 13 of the survey, I looked at the research by Crago (1990a) and Scollon and Scollon (1981; 1984) concerning their observations of Aboriginal classrooms, in the hope of drawing out similar cultural views from caregivers. For example, Crago's (1990a) study showed how classroom teachers are sometimes more concerned if an Inuit child is overly talkative, rather than quiet. Scollon and Scollon (1984) mentioned how an Athabaskan grandparent felt that it is not desirable to have young children talk a lot. Crago and Eriks-Brophy (1993) noted how Aboriginal mothers may not feel comfortable stimulating expressive language the same way that Western mothers are taught to do (questions 6, 9, 13). Young children most often learn language as a product of sibling interactions in play, not from direct elicitation methods or one-on-one play with the caregiver. The use of narratives is a more preferred and natural method of teaching (Scollon & Scollon, 1984; John-Steiner & Panofsky, 1992). The two Aboriginal SLPs from Ontario make reference to response lag times, eye contact, and the strong connection these tribes have to nature and oral traditions (Ball et al., 2006) (questions 1, 2, 7, 8, 10, 14, 21). Response lag-time differences were also noted in Philips' (1983) work with Native Americans and Crago's studies with the Inuit of Quebec (1990a). Philips showed how young children tend to be more physical and learn best through visual and tactile modes. Ball and Lewis' (2005) project indicated that Aboriginal children tended to be silent in the presence of Elders (question 11). Other

questions were derived from personal experience working with Aboriginal parents and their knowledge of language acquisition (3, 5). The remaining 10 questions (15 to 24) from the original survey were maintained, as they were considered strong predictors of cultural variance among the Western and Aboriginal groups. Table 1 displays how the variables in the study (beliefs, practices) relate to the research questions and items in the survey.

To ensure the appropriateness of the survey in its current form, it was self-administered by two teachers (Resource and Nursery) from Lac Brochet, to comment on relevancy, ease of comprehension, sensitivity, and length, with the option of making suggestions for change. English was the first language for both teachers. Their responses resulted in making some minor changes to the survey. Once the final version of the survey was completed in both languages (oral Dene version, written English version), a pilot study was conducted. Johnson (1992) noted the importance of pilot testing in the development of a survey, regarding it as "the most crucial step" (p. 114). The pilot study consisted of administering four surveys, two with Aboriginal mothers and two with non-Aboriginal mothers. I completed one of the pilot trials for the Aboriginal group and the research assistant completed the other. The survey trials for the non-Aboriginal mothers were mailed out to willing participants. The completed surveys from both groups did not suggest any misinterpretations or confusion. All respondents fit the inclusion criteria. No comments were made at the end of the four trialed surveys. The data from the pilot surveys were destroyed and not included as part of this study.

Table 1: Relationships between the survey items, research questions, and variables.

Study Variables: child rearing, beliefs, discourse practices, demographic information	Research Question	Survey Item
<p>Responsiveness of maternal speech (Tough, 1977); Value of pre-school (Feagans & Farran, 1982); Reported differences seen in body language, eye-contact, whole-to-part learning style, visual-kinesthetic learning style, verbal response lags, speaking volume & frequency, and spirituality (Ball et al., 2005); Aboriginal children talk is often reserved for important social interactions, not typically oral around Elders (Ball & Lewis, 2005); Aboriginal children generally speak less than Western children (Crago, 1990a; Philips, 1983)</p>	<p>What do caregivers perceive or believe to be child-rearing practices that are influential in promoting language development in their children?</p>	<p>4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24</p>
<p>Race, culture, bilingualism, socioeconomic status, socio-educational status, caregiver-child interactive occurrences (Connor & Craig, 2006; Curenton & Justice, 2004; Dart, 1992; Diehl, Bennetto & Young, 2006; Fazio, Naremore & Connell, 1996; Gutierrez-Clennen, Pena & Quinn, 1995; Feagans & Farran, 1982; Liles, Duffy, Merritt & Purcell, 1995; Paul & Smith, 1993; Shiro, 2003); Example: a single mother in poverty, caring for small children may not have the time to read stories to their children or have direct one-on-one play together (Snow et al., 1982)</p>	<p>Are there any demographic attributes of caregivers that influence their attitudes and beliefs regarding how language is learned in pre-school years?</p>	<p>Basic Data Sheet 1, 2, 3, 5, 9, 12, 19, 21, 22, 23, 24, 29, 34</p>
<p>Responsiveness of maternal speech (Tough, 1977); Inuit mothers not practicing Western-based language facilitation techniques (turn-taking, expansion, correcting their child's speech, parallel talk, following their child's lead) Crago and Eriks-Brophy (1998).</p>	<p>What do caregivers report regarding how frequently they use discourse practices believed to be influential in terms of language development?</p>	<p>25-36</p>

Reliability and validity of the survey tool

Altering the survey used in the Johnston and Wong (2005) study to reflect the population being tested was a procedure taken in the Simmons and Johnston (2007) study with Canadian Indian and Western mothers. There was no mention of survey validity or reliability in either of the Johnston studies. The replication of their study with two

different cultural groups adds to the reliability of the measure, particularly since the findings distinguished significant differences between the target and Western mothers. The survey items were also based on well-established literature related to language acquisition and caregiver-child interaction patterns which further supports the validity of the survey contents. Likewise in the present study, changing the survey questions to adapt to Aboriginal culture may have weakened the test reliability across studies; however, these adaptations allowed for a more valid assessment of the beliefs and values of the varying cultural groups. Clearly, further replication and administration of this survey with larger sample groups is needed to fully confirm that it is a reliable and valid measure of mother's beliefs and practices regarding language interaction patterns with children.

Re-administration of survey

To further ensure the internal validity of the survey tool, and as part of the initial survey data collection, five participants of the original Aboriginal sample were surveyed twice in English (with participants self-identified as being fluent in English) once by me, and once by the research assistant. Responses to these surveys were incorporated into the final data analysis as they were consistent with the research assistant's recorded surveys. I initially administered the survey to the five Aboriginal women in English, with the research assistant repeating the process approximately one month later.

Differences appeared in the comparison of five survey responses. For example, Q 8. *My child can easily sit and listen to a story without picture books.* All five respondents answered differently from one administration to the next. When I administered the survey, they answered with (1) or (3), indicating disagreement, and with the research

assistant, they all answered with (5) or *Strongly Agree*.

Most of the differences in Aboriginal group responses occurred in the frequency questions (25 to 36). This may have been due to the narrowing range of choice on the Likert scale (the belief questions ranged from 1 to 5, but only from 1 to 4 for the frequency questions). The following items had the largest range of difference in responses, where the research assistant respondents chose (4) *Almost Always*, but with me they chose (2) *Sometimes*:

Q. 30. Talk about what is going on when my child and I are playing or doing things together. Example: When playing tea party, "Now, I'm pouring my tea. You're eating a tea cake. Is it good? "

Q.32. Change my words or sentence when my child does not understand me.

Q.33 Use picture books or flash cards to teach my child new words.

(Here the research assistant explained this as when English work is sent home from school).

Q.35 Ask my child to repeat a sentence after me.

In general, all five participants were equally variable in the way they answered the survey questions, and on average answered 41% of the questions with a noticeable degree of difference (by rating (4) versus (2) on the 4-point Likert scale) between the two survey administration times. The cultural informants suggested that interpreting the questions based on different languages was likely the main reason why differences in responses occurred. When I administered the survey, the respondents were likely thinking about English language acquisition and use, and when the research assistant administered the

survey, they were thinking about interacting with their child in the Dene language. Other influences may have been the participants' comfort level, the lack of rapport, misinterpretation of the question, and/or differences in response style. If the respondents required any further explanation of the question, the research assistant responded in Dene, whereas I could not. Although the differences in the responses between the two survey administrations raises concerns regarding the validity and reliability of the survey tool, these differences also re-emphasized the importance of having the research assistant involved in the study.

Survey translation

The survey was created first in English and then translated to Dene by an Aboriginal woman who is a well-known translator in the community. The Dene version was then back-translated, that is, a second Dene speaker listened to the taped Dene version and translated it back into English. Comparisons were made of the two English versions (original English and English rendition of the Dene translation) to see where discrepancies occurred.

Three questions no longer conveyed the original message. For Q.10 *My child's connection to spirituality is important to me* was represented in the back translation as "*don't mind my child learning through other spirituality what is right or wrong and I strongly agree and I encourage my child to learn the belief between right and wrong.* "

The question now became one regarding teaching the child the difference between right and wrong rather than a more general perspective of the role of spirituality. This was not the meaning I wanted to convey to the caregivers, so the translated version was redone in

a way that captured the intended meaning more clearly. The final oral Dene version (in translation) became *"How my child understands his knowledge and belief and faith. I really want this for my child."* The next question requiring some attention was Q. 16 *Children understand some words even before they can speak.* This question was translated into Dene as *"Some kids or most of them learn new words by listening even before they speak"* The corrected English rendition of the Dene version was *"Before a child can even speak, they learn new words by listening to others."* The last question that needed correction was Q.18 *If parents use "baby talk" (like wawafor water, or jammies for pajamas) their child won't learn to speak well.* The first translation of this question became *"When a parent speaks to a child like a little baby, then it will be hard, difficult, for a child to learn how to speak properly or correctly."* The corrected oral Dene version when back-translated into the English version became *"When a child is small they speak in baby language and if parents speak to a child in the same way (baby language) it will be difficult for the child to learn or speak correctly."* These corrected versions were incorporated in the Dene audio-taped version of the survey. Review of the back-translated versions of the survey allowed me to witness the diversity between the two languages in terms of word meanings, grammar, and syntax.

The Dene version was not presented in script to the participants, as very few Lac Brochet community members can read Dene syllabic language forms. Therefore, the participants had three choices of survey administration: (a) listening to the translated version by the initial translator (audio-taped version played during the face-to-face interview), (b) listening to the research assistant read out the question in Dene, or (c)

reading the survey question in English as presented in the survey. Nearly all participants declined the use of the audio-taped translation. If needing translation, they would ask the research assistant to provide it. This may have been due to the translated version being less personal. The research assistant had familiarized herself with the taped recording during the training process to the extent of essentially memorizing the Dene version. The research assistant stated that the majority of the participants were read the question in English, but then needed some additional clarification that occurred in Dene. Strict guidelines were not provided to the research assistant in terms of the chosen language of survey administration. The free use of either English or Dene was permitted to incorporate aspects of indigenous methodology, such as reciprocal respect between participants and researcher, and facilitating comfortable and relaxed participation.

Recruitment

As part of the recruitment process for Aboriginal caregivers, an information meeting took place at the school to inform participants of the study. I chaired the meeting and the research assistant was present. To help advertise for this informational gathering, radio announcements were made in the community a few days before the date, and approximately 25 announcements (Appendix C) were sent home with elementary school children, including children in the Nursery Program. A brief statement of the purpose and provision of an honorarium was noted in the invitation. At this meeting, I introduced myself and discussed my past involvement in the community, my personal interest in conducting this study, the content of the survey, as well as the potential benefit of the study to the community. After this introduction, the meeting took the form of an open

forum so that questions could be addressed at any time. I tried to make the atmosphere as inviting and welcoming as possible, offering refreshments and food, to simulate a type of sharing circle.

Community members were able to converse with the research assistant and sign up for the survey at this time. Meadows, Lagendyk, Thurston, and Eisener (2003) noted that establishing meeting times in an Aboriginal community worked best on a personal basis rather than over the phone. The turnout was less than hoped, with only five members attending. I was later informed that there were some other community events happening that evening, which might have affected the attendance. Nonetheless, the atmosphere within the room was positive and all seemed interested in the outcome of the study. To compensate the Aboriginal participants, a monetary honorarium was given based on the Meadows et al., (2003) study, which reported a consensus regarding Aboriginal women choosing money over other items, largely based on need.

Because of the minimal number of community caregivers who signed up for the study at the information night, additional caregivers needed to be identified by the research assistant. The research assistant contacted 36 women by phone or in person to participate. Within a time span of two months, 30 mothers agreed to participate, with a response rate of 83%. The participants were informed about the study in the same manner as the attendees at the information meeting. A face-to-face interview was then scheduled. This type of purposeful sampling occurred for the majority of participants; however, some members of the community approached me, or the research assistant, to request to be included in the study after they had talked to other participants.

The main inclusion criterion used to identify the 30 Aboriginal women was that they had children between the ages of 2 to 6 years. The number of children that were born in the community between the years of 2001 and 2005 would indicate that I could draw from approximately 70 mothers in the community for my sample. This would suggest that almost half of the targeted population was sampled in this study; with the demographic variables within the sample group likely being small due to the community's remote location and size. These factors suggest that the responses from the Dene group can be interpreted as being well representative of the mothers in this community, whereas caution needs to be taken when making the same interpretations of the comparison group, or non-Aboriginal mothers in Winnipeg.

To recruit the Western mothers 100 survey packages were distributed. These packages included a stamped envelope, Survey (Appendix F), Consent Form (Appendix E), and a brief description of study. Five daycare facilities were contacted to request participation in the distribution of the surveys. Daycare personnel were asked to identify caregivers within their facility that fit the inclusion criteria and send survey packages home with them. A note was attached to the survey package that asked the caregiver to call me once they received the package and were willing to participate. When receiving their call, I verified their eligibility and recorded the demographic information before confirming they could fill out the survey. There were three occurrences in which a caregiver mailed back a survey without first contacting the researcher to determine her eligibility. In these cases, I contacted the program manager who then contacted the mothers, asking them to call me. One mother never contacted me and therefore her

survey response could not be used. A monetary honorarium was sent to the caregivers in a timely matter upon receipt of their survey. One hundred surveys were sent out over a one-month period. Within two months, 17 participants responded to me by phone and sent in the surveys, resulting in a response rate of 17%. This low response rate required me to hand deliver surveys to individuals who were identified by the daycare facilitator as meeting the criteria. Therefore, in order to reach the required number of participants, it was necessary to deliver and pick up surveys directly from the homes of 13 participants.

Gaining Informed Consent

Consent Forms (Appendix E) were signed immediately prior to the interview. Along with the preamble concerning issues of confidentiality, given as part of the administration of the interview guide, the consent form also contained a considerable amount of information on the purpose of the study as well as the potential benefit to the community. Copies of the signed form, along with my contact information and the research assistant's contact information, were given to the participant at the time of the survey. Participants were allowed to withdraw at any time.

Data Analysis

Statistical Analysis

Using discriminant analysis, a statistical formula was derived to help identify cultural groups. Univariate statistical analysis was first conducted for the 36 survey items. Following this procedure, multivariate analysis was then used to examine all independent variables (survey items) simultaneously. Looking at one variable at a time may determine that variables A and B both have a significant effect on the dependent variable

(group culture). A stepwise regression procedure was used in this analysis to determine which items in the survey (when considered together) played an important role in predicting group membership.

To analyze the data, I used the same statistical methods that were used in the Simmons and Johnston (2007) study. However, the survey data is ordinal in nature and does not follow a normal curve; therefore, using discriminant analysis as Simmons and Johnston used may not have been the most appropriate method. In addition to this, I also used logistic regression, which does not require the assumption of normality. This response function estimates the probability, given a mother's response, that she belongs to one of the groups.

Finally, using scientific measures of data analyses results in a numeric index of how the mothers answered the survey questions; however, it does not reveal how the answers varied between and within each cultural group. Therefore, these differences were described in more detail. A visual diagram for each of the 36 items is given in Appendix J. For the specific items of the survey where significant differences were seen *and* where back translations produced an English rendition that no longer contained the intended meaning, additional discussion was warranted and is referred to in the following chapter.

I questioned whether maternal age and responses were correlated in any way. The statistic used to examine this relationship was Spearman's rho, a nonparametric analogue to Pearson's product-moment correlation coefficient r . This test showed that out of the 30 mothers examined, age and response did not appear to be highly correlated, although for some of the questions there were some relationships noted.

A comment section inserted at the end of the survey allowed for an additional and alternative response method for the target groups. For the Aboriginal sample, the research assistant recorded their comments on paper, translating from Dene when necessary. The Western caregivers wrote out their own comments. The caregivers' responses were discussed for common views and differing opinions. This summary added to the descriptive analysis of the survey.

Cultural Informants

After data were collected and analyzed, I began making some preliminary interpretations as to why survey items were answered the way they were. Being non-Aboriginal and in the community for several, but short periods of time, it was difficult to interpret the responses without cultural bias seeping in. I adopted a method included in the Simmons and Johnston (2007) cross-cultural survey study, which used a group of cultural informants to aid in the interpretation of results.

I recruited a group of four individuals from the community of Lac Brochet for this purpose. The principal of the school, who was also a member of the Education Authority and resident of the community for over 25 years, was able to assist me in identification of members for this task. The four individuals identified were all older than 35 years, permanent residents of Lac Brochet, and in professional positions. They included the principal who was female, a male Grade 7 teacher, a female paraprofessional with over 20 years of experience, and a female nutritional worker with the Band Office.

Information regarding the survey findings was faxed directly to the principal's office and did not include the names of any participants in order to adhere to the principle

of confidentiality. This information contained preliminary results and was distributed to the cultural informants for review before they were contacted by phone to discuss their interpretations. At this time, a Consent Form (Appendix I) was also faxed, including the same preamble used in the Consent Form signed by the participants, with additional information regarding their role as an informant. Other information, such as the survey itself, was included. The informants were later called to set up a convenient time where we could discuss the survey. At this time, they were also informed that their conversation with me would be strictly confidential and that no names would be used. Initially, a conference call was planned with the cultural informants; however, finding a day and time convenient for everyone was cumbersome, and therefore individual phone calls were made. Most of the phone discussions ranged in length from 45 minutes to one hour, with only one call being 20 minutes. In retrospect, calling the informants individually proved to be an enriching experience of collecting interpretations, as there were few reservations in terms of expressing themselves and there was no "competition" to lead the discussion.

In reviewing the survey responses for the Aboriginal group, I questioned whether there may be a correlation between parenting styles and mother's age. For that reason, I recruited two additional young mothers as cultural informants; both were under 30 years of age and had not yet participated in this project. Hearing the interpretation of the survey data from the younger generation broadened the discussion in terms of possible independent variables (bilingualism, maternal age, childcare settings, parental involvement) shown to have a role in language development (Hoff, 2006). Personally interviewing these young mothers via phone calls had allowed them to be more

expressive than if a conference call had taken place, since they possibly may be less expressive in the presence of older adults (personal communication, K. Antsanen, November 19, 2007).

Special ethical consideration beyond what would normally occur in non-Aboriginal studies was given in developing the methodology portion of this study. This section outlined the administration, recruitment, data collection and analyses procedures taken to ensure both indigenous ways of knowing and indigenous methodology were incorporated into this exploratory study. Using a survey to gather responses from the cultural groups requires Western scientific means of analyzing the data; however, a discussion of the similarities and differences found in the responses of the groups provides a rich description of the mothers' responses for one Aboriginal community.

CHAPTER FOUR: RESULTS

The results are presented in three main sections. The first section relates to the demographic data collected on the two sample groups. General demographic attributes such as maternal age and its influence on responses are addressed. The next section outlines the similarities and differences, both statistically and descriptively, between the responses received from the Dene and Western mothers. Finally, the comments made by the participants as part of the open-ended section of the survey are examined, albeit at surface level, as only a limited number of such comments were made by both groups.

Demographic Information

A detailed look at the demographic information is given in Table 2. The mean age of the mothers was 36 years in the Aboriginal group and 30 years in the non-Aboriginal group. The older age in the Aboriginal group can be attributed to the fact that there were three grandmothers (ages 65, 52, 47) sampled who were caring for young children. Of the 30 mothers interviewed, the mean age of the mothers at time of birth in the Aboriginal group was 18, while the non-Aboriginal mothers' mean age was 20. Maternal age often shows a strong correlation to level of education (Feagans & Farran, 1982), as some women may need to postpone their studies to care for the children.

Of the non-Aboriginal mothers, nine reported having post-secondary education, 15 received Grade 12 education, and the remaining six had less than Grade 12 education. In the Aboriginal group, three had post-secondary training, two had Grade 12 diplomas, and the remaining 25 did not graduate from high school.

Non-Aboriginal mothers had reportedly lower incomes, with just over 50% of the mothers stating an income less than \$20,000 annually and 90% less than \$30,000 annually. In the Aboriginal group, 66% of the mothers fell below \$30,000 per annum, while 23% stated having incomes of \$50,000 or more. This was attributed to spouses or partners who were construction labourers, earning large monthly salaries (few opportunities within the community to do this), or the mothers were over 65 years of age and eligible for pension benefits. For some mothers, there were four or more sources of income, with the categories ranging from salaried positions, to welfare, social assistance, family allowance, and child tax benefit income. Table 3 shows how annual income was reported by each group. Although the amounts reported varied between the two groups, the actual disposable income may be less discriminant. For example, higher salaries reported from the Aboriginal caregivers' families may appear adequate. When one considers the high cost of living in the north (for example, \$12.00 for a 4 L container of milk in 2008), and how monies are distributed to extended family members in many of the homes, the disposable income may be similar to the non-Aboriginal group.

Table 3: Reported income for non-Aboriginal and Aboriginal mothers.

Annual Income	Non-Aboriginal Families	Aboriginal Families
<\$20,000	17	7
<\$25,000	8	4
<\$30,000	3	8
<\$35,000	1	1
<\$40,000	1	3
<\$45,000	0	0
<\$50,000	0	0
>\$50,000	0	7

Caregiver-child ratio is believed to impact the quality of care and language development milestones for children (Vernon-Feagans et al., 2007). Non-Aboriginal mothers had a greater percentage of traditional nuclear families, while the Aboriginal group had more extended family members living in their home. Only two non-Aboriginal mothers reported extended family members living in their home, which ranged from one to two people. Seventy-three percent of the Aboriginal group had extended family members in their homes, ranging from one to five additional members. Furthermore, the number of maternal children reported per caregiver averaged to be 2.2 for the non-Aboriginal and 2.8 for the Aboriginal mothers.

All Aboriginal mothers reported Dene as their first language and English as a second language, with Dene being the primary language of the home. All but nine non-Aboriginal mothers enrolled their children in daycare or nursery school, with most of these children in childcare for the entire day. All Aboriginal caregivers reported having their children in Head Start or Nursery, for half days only.

A summary of the demographic information indicates that the two groups were matched in regards to income (majority of mothers in both groups were low income earners), and education (majority having Grade 12 or less); however, as seen in Table 2, my goal of identifying culture differences by matching the two target groups on other demographic attributes was less than successful. The difficulties I encountered by matching cross-cultural comparison groups will be discussed in the 'Limitations' section.

Survey Data Analysis

In addition to considering the demographic attributes of caregivers, the purpose of

this study was to address the following questions: (a) What do caregivers perceive or believe to be child-rearing practices that are influential in promoting language development in their children?, and (b) What do caregivers report regarding how frequently they use discourse practices believed to be influential in terms of language development?

I analyzed the data in a way that was analogous to the method used in the Simmons and Johnston (2007) study. Because some of the statistical methods used by these researchers were not best suited to the type of data produced, I included alternate methods of statistical analyses that were more fitting for analyzing surveys of this type. Through the use of discriminant analysis, a statistical formula was derived to help identify cultural groups. This statistical formula allowed me to test the independent variables (survey responses) and assist in verifying the participants' cultural background within a certain degree of scientific accuracy.

Univariate Analysis

Initially, univariate analysis was completed on the 36 survey items, looking at levels of agreement and frequencies of practice for the survey questions individually. I first examined the 24 belief statements to determine whether any significant differences existed in attitudes between the two groups of caregivers. Table 4 displays the percentage of Aboriginal and non-Aboriginal mothers who chose *Agree* (4) or *Strongly Agree* (5) on the Likert Scale for each of the 24 belief statements, as well as the test statistic, the P-value for the conservative two-sample *t*-test, the upper and lower confidence intervals, and the power for each test

Table 4: Percentage of Aboriginal and non-Aboriginal mothers agreeing (4) or strongly agreeing (5) with 24 belief statements.

Question (Belief)	City	Dene	Test Statistic	P-value	Confidence Interval (95%) (lower, upper)	Power
1	30.00	30.00	-0.120	0.904	(-.60, .52)	.7177
2	63.33	43.33	1.870	0.072	(-.04, .96)	.8297
3	66.67	76.67	-0.941	0.354	(-1.06, .38)	.4155
4	93.33	93.33	-0.390	0.700	(-.42, .28)	.9956
5	53.33	43.33	1.084	0.290	(-.30, .95)	.5840
6	100.00	80.00	2.487	0.019	(.09, .90)	.9687
7	13.33	33.33	-0.854	0.400	(-.91, -.36)	.5651
8	36.67	70.00	-2.728	0.010	(-1.52, -.23)	.5434
9	56.67	76.67	-1.810	0.081	(-1.06, .05)	.7175
10	53.33	96.67	-4.896	0.000*	(-1.89, -.79)	.7344
11	90.00	93.33	-1.939	0.062	(-0.55, .01)	.9999
12	86.67	93.33	-1.206	0.238	(-.72, .18)	.9257
13	73.33	76.67	-0.614	0.543	(-.72, .18)	.7389
14	76.67	66.67	1.112	0.275	(-.22, .75)	.8664
15	83.33	93.33	-1.346	0.189	(-.59, .n)	.9947
16	96.67	90.00	0.000	1.000	(-.29, .29)	.9997
17	80.00	90.00	-2.456	0.020	(-.85, -.09)	.9831
18	66.67	26.67	3.791	0.000*	(.57, 1.88)	.5144
19	26.67	50.00	-2.682	0.011	(-1.53, -.22)	.5248
20	90.00	93.33	-3.394	0.002*	(-.75, -.19)	.9999
21	86.67	80.00	-0.185	0.855	(-.40, .33)	.9910
22	96.67	90.00	-0.455	0.652	(-.37, .23)	.9996
23	70.00	56.67	1.409	0.169	(-.17, .89)	.7863
24	43.33	96.67	-7.296	0.000*	(-1.88, -1.06)	.9687

*p<0.005

See Appendix F for full survey item.

Each test uses a 0.005 level of significance, resulting in an experiment-wise level of significance of 0.12. This experiment-wise level of significance was chosen in order to keep a low alpha level for each of the 24 tests performed. The experimental-wise error

rate is the probability of making one or more Type-I errors (Pagano, 1986) (probability of failing to reject when the null hypothesis is true) for the full set of possible comparisons. A t-test adds to our confidence that an observed difference is real rather than a random error in data collection or calculation. A power analysis of the data was completed to add confidence that a lack of observed difference in the population means is real, or that the two target groups are similar within a predetermined range. In other words, it is the probability of correctly rejecting the null hypothesis where there is a one-unit difference in means. Choosing a low alpha contributed to the result of having six of the 24 tests having low power values (or <0.600).

In Table 4, the P-value is the probability, assuming the true means are equal, of observing a difference in sample means at least as large as the one observed. Therefore, the smaller the P-value, the more evidence we have in favor of the alternative (i.e., that the true means are in fact different). It should be noted that the P-values above the level of significance are not indicative of the null hypothesis being true. They simply indicate that we do not have sufficient evidence (at the chosen level of significance) that the means are in fact different.

Four questions were found to show significance:

Q. 10 *My child's connection to spirituality is important to me.* (Aboriginal mothers rated this higher)

Q. 18. *If parents use 'baby talk' (like wawafor water, or 'jammies' for pajamas) their child won't learn to speak well.* (Aboriginal mothers rated this lower)

Q.20. *Young children learn best when they are given instructions.* (Aboriginal

mothers rated this higher)

Q. 24 Grandparents or older family members give good advice about the way that young children grow up. (Aboriginal mothers rated this higher)

There are several other tests with low P-values (e.g. Questions 8, 11, 17 and 19, all of which Aboriginal mothers rated higher, indicating they agreed with the statements more strongly than the non-Aboriginal group):

Q. 8 My child can easily sit and listen to a story without picture books

Q. 11 My child will easily talk to an older person (who they know) if given a chance.

Q. 17 Speech is especially important because it helps young children to make friends.

Q. 19. Three year olds are too young to help with household chores.

The null hypothesis in each of these four tests would have been rejected using a 5% level of significance. Such small P-values suggest that there likely *is* a difference in mean response values for those questions; however, they are not small enough using our arbitrarily chosen level of significance to be deemed statistically significant.

Although statistical analysis provides a measure of how responses differed significantly, this information does not reveal the variety of responses within the Dene group. In order to more accurately reflect the Dene mother's opinions about language acquisition, the responses to each of the 24 belief statements will be described in more detail. In some cases, the back translations of items have been included to show how clarification from the research assistant in Dene may have influenced the responses of the Dene mothers.

For the Aboriginal group, the responses will be presented in terms of overall

agreement within the group, and then how their responses to an item compared with the non-Aboriginal group. The P-value will also be restated here, only as a reminder of the numerical value produced for each item of the survey. Appendix J presents this information in a bar graph for each item.

Item#	1 = Strongly Disagree	2 = Disagree	3 = Neutral	4 = Agree	5 = Strongly Agree
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1. *My child spends much of the day playing outside.* P-value: .904.

There was little agreement among the Aboriginal group, as answers were distributed across the 5-point scale. The non-Aboriginal group's answers were similarly distributed, with most responses falling at (2).

2. *My child spends much of the day inside with books and toys (blocks, trucks, play-dough, coloring books, etc.).* P-value: .072.

Again, answers were fairly balanced across the scale for the Dene mothers, but for the non-Aboriginal group were weighted slightly heavier on the agreement side of the scale.

3. *I would like to be taught how to help my child to understand and say more words* P-value: .354.

Answers fell in only two categories of the scale; 7 Dene mothers answered with (5) *Strongly Disagree*, while the remaining 23 mothers answered with (4) *Agree*. Fifty percent of the comparison non-Aboriginal group answered with (5) *Strongly Agree* and the rest were distributed across the scale.

4. *I would be concerned if my 4-year old child was not speaking in Nursery/Headstart.* P-value: .700.

Twenty-seven Dene mothers chose (5) *Strongly Agree*, while the remaining three were distributed across the scale, and no mothers answered (1) *Strongly Disagree*. Similarly, 26 non-Aboriginal mothers chose (5) *Strongly Agree*.

5. *A lot of ear infections may change how a child speaks.* P-value: .290.

Numbers were evenly distributed for the Dene mothers for this question, with a slightly higher number in the (5) *Strongly Agree* category. For the non-Aboriginals, this was also true. Both groups had 12 respondents who chose (5) *Strongly Agree* and eight respondents who chose (3) or *Neutral* response.

6. *I feel comfortable copying my child's play on the floor (E.g. They are playing with blocks and you go down and play with the blocks too).* P-value: .019.

Twenty-four Dene mothers chose (5) *Strongly Agree*, with nearly all remaining answering with (1) *Strongly Disagree*. Twenty-two of the non-Aboriginal respondents chose (5) *Strongly Agree* and the remaining with (4) *Agree*.

7. *// is OK for my child to not respond to me right after I ask a question.* P-value: .400.

Nearly 50 % of the Dene mothers chose (1) *Strongly Disagree* and the remaining were distributed between (3) *Neutral* or (5) *Strongly Agree*. Thirty-three percent of non-Aboriginal mothers answered with (1) *Strongly Disagree* and another 33% answered with (3) *Neutral*.

8. *My child can easily sit and listen to a story without picture books.* P-value: .010.

Sixty-six percent of the Dene mothers answered with (5) *Strongly Agree*, and the remaining fell mainly in the (1) *Strongly Disagree*, showing a real dichotomy within the group. For the non-Aboriginal group, the responses were much more evenly distributed.

9. *My child's brothers and sisters teach him/her new language as much as I do.*

P-value: .081.

Sixty-six percent of the Dene mothers answered with (5) *Strongly Agree* and the remaining evenly distributed throughout the rest of the scale. The non-Aboriginal participants' answers were weighted evenly between *Neutral* (3) and the two agreement rankings - (4) *Agree* and (5) *Strongly Agree*.

10. *My child's connection to spirituality is important to me.* P-value: .000.

This belief question showed statistically significant differences. The English rendition of the Dene version for this question became the following: *How my child understands his knowledge and belief and faith. I really want this for my child.* Ninety three percent of the Dene group chose (5) *Strongly Agree*. The answers were evenly distributed for the non-Aboriginal group with slightly more respondents answering with (5) *Strongly Agree* than any other point on the scale.

11. *My child will easily talk to an older person (who they know) if given a chance.* P-value: .062.

The Dene group answered with 93% in *Strong Agreement*. The non-Aboriginal group followed with 90% in agreement, but distributed more over the (3) *Neutral*, (4) *Agree* and (5) *Strongly Agree* ratings of the scale.

12. *My 4-5 year old should attend Nursery/Kindergarten 3-5 days a week.* P-value: .238.

Ninety percent of the Dene mothers strongly agreed with this statement, with only two mothers choosing (1) *Strongly Disagree*. Considerably less non-Aboriginal mothers (66%) strongly agreed, but most of the remaining did *Agree* (4).

13. *When I tell my child a story, it is usually for a purpose (example: teaching).* P-value: .543.

Over two-thirds of the Dene group strongly agreed, with most of the remaining choosing (1) *Strongly Disagree*. The non-Aboriginal mothers' answers with 66% divided between (5), (4), and the remaining distributed at the other points of the scale.

14. *Children learn best by doing (provided they are out of danger), for example, how to make toast.* P-value: .275.

There was strong agreement in slightly over two-thirds of the Dene respondents, with the remaining respondents equally distributed between choosing (1) *Strongly Disagree* and (3) *Neutral*. Just over one-third of non-Aboriginals chose (5) *Strongly Agree* and the remaining answers were weighted on the agreement and neutral side, with none in disagreement.

15. *Parents should ask young children to repeat new words in order to help them learn to talk.* P-value: .189.

Eighty-seven percent of the Dene mothers were in *Strong Agreement*, and the remaining were evenly distributed across the scale. This pattern of responses differed only slightly from the non-Aboriginal group in that there were less in *Strong Agreement* (66%) but the remaining respondents did not report any disagreement.

16. *Children understand some words even before they can speak* P-value: 1.00.

Again 87% of the Dene mothers were in strong agreement, and the remaining responses were equally distributed along the scale. The non-Aboriginals responded in a similar pattern as to Q. 15 above.

17. *Speech is especially important because it helps young children to make friends.* P-value: .020.

All but three Dene respondents (who answered neutrally) strongly agreed to this statement, while slightly over half of the non-Aboriginal mothers Strongly Agreed, with the majority of the remaining respondents answering with (4) Agree.

18. *If parents use 'baby talk' (like wawafor water, or 'jammies' for pajamas) their child won't learn to speak well.* P-value: .000.

This question was back translated from Dene to English as "*When a child is small they speak in baby language and if parents speak to a child in the same way (baby language) it will be difficult for the child to learn or speak correctly.*" The responses to this question were successful in identifying the cultural groups based on the arbitrary chosen alpha level. Nearly 50% of the Aboriginal mothers strongly disagreed with this statement, while the non-Aboriginal groups' answers were equally distributed across the scale.

19. *Three year olds are too young to help with household chores.* P-value: .011.

Nearly 50% of all Aboriginal mothers Strongly Agreed with this statement; however most of the remaining mothers answered with strong disagreement, showing a dichotomy in beliefs within the group. A similar proportion of the non-Aboriginal mothers Strongly Disagreed, with only one mother strongly agreeing with this statement.

20. *Young children learn best when they are given instructions.* P-value: .002.

Nearly all Dene mothers Strongly Agreed with this statement, with the remaining two mothers choosing to be neutral (3). Nearly 50% of non-Aboriginal mothers also Strongly Agreed, with most of the remaining agreeing and a few being neutral.

21. *Young children should always be encouraged to communicate with words rather than gestures.* P-value: .855.

Twenty-three Dene mothers answered with *Strongly Agree*, and the remaining were neutral. This was fairly similar to the non-Aboriginal mothers except most were split between choosing (4) *Agree* and (5) *Strongly Agree*, with the remaining responses being *Neutral*. In both groups, seven mothers chose the neutral response.

22. *Young children learn important things while playing.* P-value: .652.

Nearly 90% of Dene mothers chose *Strongly Agree*, and the three remaining mothers were distributed along the scale. The non-Aboriginal mothers also showed agreement, but were more evenly distributed between choosing (4) *Agree* and (5) *Strongly Agree*.

23. *Young children should be allowed to take a turn in conversations that include adults who are not family members.* P-value: .169.

Over 50% of the Dene mothers chose (5) *Strongly Agree*, and the remaining were divided between (1) *Strongly Disagree* and (3) *Neutral*. For the non-Aboriginal group, the answers were divided in thirds throughout the *Neutral* to *Strongly Agree* categories.

There was no disagreement to this question.

24. *Grandparents or older family members give good advice about the way that young children grow up.* P-value: .000.

The low P-value supports the belief that the two groups differed in their perceptions of a grandparent's role in the family. The English rendition of the Dene translation was "*Grandparents like grandmothers and grandfathers and other members who are older should give advice to parents how to raise a child in the right direction.*" All Aboriginal

mothers, except one who chose to be *Neutral, Strongly Agreed* with this statement. The non-Aboriginal mothers were mostly *Neutral* in their responses (43%), while the remaining answers were distributed over the scale.

Within this small group of 30 Aboriginal, Dene speaking women, a high degree of variability on the 5-point Likert scale occurred for a small number of responses. For example, this variability occurred for items 1, 2, 5, and 23. Several items, including items 3, 8, and 19, showed a considerable split between agreement and disagreement sides of the scale. These responses indicated that Aboriginal mothers had differing opinions on the type of play setting (indoor vs. outdoor) their children typically engage in, how ear infections may affect the child's speech, and how young children should contribute to a conversation with two or more adults who are not family members. Their beliefs regarding wanting help in facilitating their child's language development, whether or not their child can sit and listen to a story without pictures, and whether three-year-olds are too young to help with household chores showed an obvious split between agreeing and disagreeing.

For the English speaking, Western, urban mothers, the pattern of response displayed a higher degree of variability in the sense that responses were frequently evenly distributed across the Likert scale, as seen with items 1, 2, 3, 5, 7, 8, 10, and 18. The Western mothers displayed differing opinions in their beliefs regarding the type of play setting their children engaged in, wanting help with facilitating their child's language development, how ear infections may affect the child's speech, not receiving a response from a child immediately after it was solicited, whether or not their child can

listen to a story without picture books, the importance of a child's connection to spirituality, and the use of baby talk with children in terms of vocabulary development. Unlike the Dene mothers, the Western mothers as a group did not have any items to which the responses were split at opposite ends of the Likert scale.

When comparing group perspectives surrounding belief items, three of the 24 belief questions were answered similarly in the sense of reflecting a high degree of variability (1, 2, 5). Therefore, the beliefs questions in which both groups showed differing opinions were ones surrounding type of play settings and ear infections. In contrast, responses from 12 other belief questions were similarly *agreed* upon (4, 9, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22). As a whole, both groups *disagreed* with item 7 "*It is OK for my child to not respond to me right after I ask a question.*" Statistical analysis of the remaining survey items relating to the frequency practice statements follows.

These 12 remaining statements focused on the frequency which the mothers practiced language facilitation techniques with their child (Example: How often would you read a bedtime story?). An analogous type of univariate statistical analysis was conducted for the remaining 12 statements of the survey. Table 5 indicates the percentage of mothers in each group who reported using each practice "*almost always*" (4). It also shows the test statistic, the P-value for the conservative two sample t-test, the upper and lower confidence intervals, and the power for each test. Each test uses a 0.01 level of significance, in order to achieve the same experiment-wise level of significance of 0.12 that was used for tests concerning the belief statements. In other words, because the number of tests was reduced from 24 individual tests to 12 tests, we needed to raise the

alpha level in order to achieve the same experiment-wise level of significance.

Table 5: Percentage of Aboriginal and non-Aboriginal mothers using a practice item

"almost always" (4).

Question (Frequency)	City	Dene	Test Statistic	P-value	99% Confidence (lower, upper)	Power
25	33.33	60.00	-1.782	0.085	(-.86, 0.05)	.9501
26	46.67	36.67	2.209	0.035	(.03, 0.89)	.9600
27	3.33	10.00	-0.753	0.463	(-.50, 0.23)	.9930
28	50.00	90.00	-3.752	0.000*	(-.88, -0.26)	.9997
29	30.00	70.00	-2.721	0.010	(-.99, -0.15)	.9967
30	33.33	70.00	-1.240	0.224	(-.71, 0.16)	.9526
31	26.67	63.33	-1.543	0.133	(-.85, 0.11)	.9007
32	40.00	90.00	-3.490	0.002*	(-.90, -0.24)	.9987
33	50.00	86.67	-2.144	0.040	(-.78, -0.03)	.9906
34	33.33	73.33	-1.960	0.060	(-.89, -0.01)	.9451
35	23.33	80.00	-3.352	0.001*	(-1.16, -.32)	.9677
36	43.33	73.33	-0.650	0.520	(-0.55, 0.28)	.9701

*p<0.01

See Appendix F for full survey item.

Three differences tests were found to be significant (Questions 28, 32 and 35); that is *Q. 28. Follow along with my child's topic of conversation, Q. 32. Change my words or sentence when my child does not understand me, and Q. 35. Ask my child to repeat a sentence after me.* For these questions, the Aboriginal mothers responded as practicing these interactions more often than Western mothers. Additionally, there were two other items with low P-values (i.e. Questions 29 and 33), but not low enough to show significant differences between groups.

The responses to each of the 12 frequency of use items are described in detail to reflect more clearly the practices reported by mothers in both groups. Each of these items required participants to rate how frequently they used these behaviours from a scale of 1

to 4 (1 = Hardly Ever; 2 = Sometimes; 3 = Very Often; 4 = Almost Always).

25. *Tell my child if/s/he uses the wrong word.* P-value: 0.085

Almost two-thirds of the Dene mothers chose (4) *Almost Always*, with the next highest grouping falling at the (2) *Sometimes* point of the scale. The non-Aboriginal mothers responded with one-third choosing (4) *Almost Always* and the rest were evenly distributed.

26. *Read a book to my child at bedtime or naptime.* P-value: 0.035.

There did not seem to be any real consensus to this item as the numbers were divided between *Sometimes* and *Almost Always*. This was also true for the non-Aboriginal mothers, except that no mother chose (1).

27. *Ignore the fact that I do not understand something my child says.* P-value: 0.0463.

The majority of Dene mothers chose (1) *Hardly Ever*, with the remaining eight mothers divided between (2) *Sometimes*, (3) *Very Often*, and (4) *Almost Always*. The majority of the non-Aboriginal mothers answered with the same pattern, choosing primarily (1) *Hardly Ever*, with the second highest response from the mothers at (2) *Sometimes*.

28. *Follow along with my child's topic of conversation.* P-value: 0.000

Ninety percent of the Dene mothers chose (4) *Almost Always*. The non-Aboriginal group's majority of responses fell between (3) *Very Often* and (4) *Almost Always*. This item was revealed as statistically significant in identifying group culture. The English rendition of the Dene translation became "*I listen to my child very carefully if he is trying to talk to me about any topic.*"

29. *Repeat what my child says, adding new words.* P-value: 0.010.

Two-thirds of the Dene mothers chose (4) *Almost Always*, and the remaining nine mothers were divided between the three remaining categories. Conversely, the non-Aboriginal mothers were concentrated around the (2) *Sometimes*, (3) *Very Often*, and (4) *Almost Always* choices.

For the remaining six items (Q. 30 to 36), the Aboriginal mothers answered quite similarly as with the previous question (answers skewed towards facilitating these behaviours *Almost Always*). The non-Aboriginal group response patterns varied and are therefore listed.

30. *Talk about what is going on when my child and I are playing or doing things together. Example: When playing tea party, "Now, I'm pouring my tea. You're eating a tea cake. Is it good?"* P-value: 0.224.

Non-Aboriginal mothers' choices were concentrated around the (2), (3), and (4) choices.

31. *Tell my child ifs/he leaves some words out of a sentence.* P-value: 0.133.

Slightly over one-third of the non-Aboriginal mothers chose (3) *Very Often*, and the rest were evenly distributed across the scale.

32. *Change my words or sentence when my child does not understand me.* P-value: .002.

Non-Aboriginal mothers' responses were mainly divided between (3) *Very Often* and (4) *Almost Always*, with only four mothers choosing either (1) *Hardly Ever* and (2)

Sometimes. This question was also found to be statistically significant, and the implications of this finding will be discussed later. The translated version of the question became 'When I tell my child something and she doesn't understand me, then I change it or make it simpler how to tell them what I am saying by explaining other examples for

them to understand."

33. *Talk with my child about what happened that day when I wasn 't there. Example: at preschool, or at home while I was at work.* P-value: 0.040.

Over 50% of the non-Aboriginal mothers chose (4) *Almost Always*, with the next highest response occurring at (3) *Very Often*, then (2) *Sometimes* and ending with one mother responding with (1) *Hardly Ever*.

34. *Use picture books or flash cards to teach my child new words.* P-value: 0.060.

Most of the non-Aboriginal mothers' responses were equally divided between (3) *Very Often* and (4) *Almost Always*, with the remaining ten mothers distributed evenly between (1) *Hardly Ever* and (2) *Sometimes*.

35. *Ask my child to repeat a sentence after me.* P-value: 0.001.

The responses between the Dene and non-Aboriginal mothers were considered to be statistically significant on this item. The translated version became "*When I teach my child a sentence I let them repeat after me this is how I teach my little child*". Non-Aboriginal mothers showed little agreement in how they responded to this item. Twelve mothers chose (3), while the next highest response, falling at (2) and the remaining mothers distributed between the (1) and (4) points of the scale.

36. *Ask my child to tell another family member about something that we did together.* P-value: 0.520.

The majority (83%) of the responses were divided between (3) *Very Often* and (4) *Almost Always* with only one non-Aboriginal mother choosing (1) *Hardly Ever*.

In summary, the Dene mothers as a group answered quite unanimously *{Almost*

Always) for all but one question, 26, regarding reading a book to your child at bedtime or naptime, which showed varying responses. The non-Aboriginal mothers also answered this question with variability, as well as Items 27, 29, 30, 31, 34, 35, and 36. The non-Aboriginal mothers only agreed on three language facilitation practices: following along with a child's topic of conversation, change my words or sentence when a child does not understand, and talk to a child about what happened that day with another family member.

The above descriptive analyses were additive and contributed to the statistical analysis presented in Tables 4 and 5. The data represented above is what the mothers as a group were communicating in terms of their beliefs and practices regarding language development. From review of the content of these survey items, we can infer that both groups shared some views and beliefs regarding language development. Mothers from both groups appear comfortable with parallel play and the importance of discourse and allowing their children to socialize for various reasons. As well, facilitation practices such as encouraging verbal communication about the present or past events between family members, following along with a child's topic of conversation, changing the words around to assist a child's understanding, as well as a learning-by-doing and through verbal instruction (or stories) are important language based practices used by both groups.

Multivariate analysis

If we were examining the data one variable at a time, we may not be able to determine whether or not culture plays a role in child-rearing practices concerning

language development. In other words, we may be ignoring any potential relationships that may exist between the independent variables. A multivariate analysis of the data was necessary to examine all independent variables simultaneously. Looking at one variable at a time, it may be determined that variables A and B both have a significant effect on the dependent variable. However, if A and B are strongly related, it may suffice to include only variable A in our analysis, as the effect of variable B on the dependent variable may become negligent once A is already taken into consideration.

Therefore, in order to identify the response pattern between the two cultural groups and identify the direction of the responses (agree or not agree - practised frequently or not), further analysis was necessary. Simmons and Johnston (2007) used discriminate analysis as a method of further examining the independent variables simultaneously. This method of analysis creates a discriminant rule, which is then used for classification to see how well the rule can be used to predict group membership based only on participants' responses on the independent variables. The discriminant analysis indicated that the belief items taken as a set could reliably differentiate members of the groups (Wilks' lambda = 0.221, P-value < 0.0001, multiple $R^2 = 0.773$).

The correlation R values between the most important independent variables and the discriminant function, are listed in the following, decreasing order: Q. 24, R= -0.505, Q.10, R= -0.327, Q. 18, R= 0.221, and Q. 20, R= - 0.216. These four items are those that produced significant differences between the two sample groups, as seen in Table 4.

Magnitudes of correlations for all other independent variables are less than 0.2. Using the "resubstitution" classification method, discriminant function D correctly

classifies 28 of the non-Aboriginal mothers and 28 of the Aboriginal mothers, for an accuracy rate of 93.33%. Thus, this method would appear to be quite accurate. The function simply plugs in the values for all independent variables for each mother into the function D and classifies her as a non-Aboriginal mother if $D > 0$ and an Aboriginal mother if $D < 0$. Since this classification method uses the same data to construct the discriminant rule and to classify observations, the accuracy rate of 93.33% overestimates the accuracy.

The "cross-validation" classification method attempts to address this problem. In this method, each individual is deleted from the data set; a discriminant rule is constructed, and is then used for that deleted observation to predict group membership. In other words, one is not using old data to make the rule, but instead new data. Using this method, 26 of the non-Aboriginal mothers and 21 of the Aboriginal mothers are correctly classified, for an accuracy rate of 78.33%. Thus the accuracy rate dropped almost 20%, but it is a more accurate estimate of how well belief items discriminated between groups.

A stepwise procedure was used to determine the important variables in the discriminant function. This procedure recommends using only the four independent variables in the table above in our discriminant analysis. It is according to these discriminant rules, a woman is classified as a non-Aboriginal mother if $D < 0$ and an Aboriginal mother otherwise. The discriminant analysis indicated that the belief items taken as a set could reliably differentiate members of the groups (Wilks' lambda = 0.311, P -value < 0.0001, multiple $R^2 = 0.689$).

The correlation R values between each *included* independent variable (belief item) and the discriminant function, are listed in the following, decreasing order: Q. 24, R= 0.625, Q.10, R= 0.404, Q. 18, R= -.273, and Q. 20, R= 0.267.

Using this discriminant function, the re-substitution method correctly classifies 26 of the non-Aboriginal mothers and 28 of the Aboriginal mothers, for an accuracy rate of 90%. The cross-validation method correctly classified 26 of the non-Aboriginal mothers and 27 of the Aboriginal mothers, for an accuracy rate of 88.33%. These statistical functions or rules have been derived by taking the survey items and putting them into a formula to help us to classify the two groups. Therefore, based on how the participants answered the 24 belief items, we can correctly identify cultural groups with 88% accuracy.

The analysis of the questions related to frequency of practice will now be examined. The discriminant analysis indicated that the practice items (Q. 25 to 26) taken as a set could reliably differentiate members of the groups (Wilks' lambda = 0.645, P-value 0.029, multiple $R^2 = 0.355$).

Using the same multivariate test procedures as with the belief items, a discriminant function was derived for the practice items. Thus, a positive result meant the participant is Aboriginal, and a negative result would suggest the opposite.

Table 6 shows the correlation R between the most important independent variables and the discriminant function, in decreasing order.

Magnitudes of correlations for all other independent variables are less than 0.2. Using the re-substitution classification method, discriminant function D correctly

classifies 21 of the non-Aboriginal mothers and 24 of the Aboriginal mothers, for an accuracy rate of 75%.

Table 6: Correlation R for the survey practice items

Question	R
28	0.640
32	0.539
35	0.520
29	0.398
33	0.328
26	0.313
34	0.292
25	0.266
31	0.221

The cross-validation classification method correctly classifies 18 of the non-Aboriginal mothers and 22 of the Aboriginal mothers, for an accuracy rate of 66.67%. This tells us that, according to how the respondents answered the practice items, we may be able to accurately identify about two-thirds of the individuals correctly. Therefore, at this point of the analysis the belief items in general seem to be a more validated means of relating culture to attitudes around language development. To truly document this case the number of belief items and the number of frequency items would need to be the same, which is not the case here.

Just as with the belief items, of the nine items listed in the above table, some of these variables were derived at as having similar qualities. A step-wise procedure recommended using only two of the variables (Questions 28 and 35) for our discriminant analysis. Again, in accordance with the discriminant rules, a caregiver is classified as a

Westerner if the result is positive and an Aboriginal mother otherwise.

The discriminant analysis indicated that the practice items taken as a set could reliably differentiate members of the groups (Wilks' lambda = 0.742, P-value < 0.0001, multiple $R^2 = 0.258$).

The correlation R values between each *included* independent variables and the discriminant function, are listed in the following, decreasing order: Q. 28, R= 0.815, and Q.35,R= 0.653.

The high correlation of 0.815 between Question 28 and the discriminant function gives an indication of why only two variables are taken into consideration. Question 28 alone discriminates between the two groups as adequately as do all twelve variables together.

Using this discriminant function, the re-substitution method correctly classifies 19 of the non-Aboriginal mothers and 22 of the Aboriginal mothers, for an accuracy rate of 68.33%. The cross-validation method correctly classifies 19 of the non-Aboriginal mothers and 22 of the Aboriginal mothers, for an accuracy rate of 68.33%. Therefore, after completing the step-wise regression procedure for the practice items, our accuracy rate increased only slightly using the discriminant function rule. We will now explore the use of perhaps a more appropriate method of an analysis.

Alternative analyses

Simmons and Johnston (2007) used tests of discriminant analysis to interpret their survey items. Discriminant analysis should only be used when the independent variables (survey items) being examined follow a multivariate normal distribution (which implies

that each variable on its own follows a normal distribution) (Pagano, 1986). This is not the case with ordinal data from which the survey produced. Even if discriminant analysis is used, this paper assumes that the covariance matrices for the non-Aboriginal and Aboriginal groups are equal. Box's test for the equality of covariance matrices shows this not to be the case. When co-variances differ, a quadratic discriminant function should be established. A more appropriate analysis for predicting group membership would be logistic regression, which does not require the assumption of normality.

A step-wise regression procedure is used in this analysis to determine which items in the survey (when considered together) play an important role in predicting group membership. For the belief items, the variables selected (in order) were X_{24} , X_{18} , X_{20} and X_{10} .

The fitted logistic response function was then calculated. This response function estimates the probability, given a mother's response, that she belongs to one of the groups. For example, if we would select the response values for a mother (not knowing which group the mother comes from) to be

$$X_{10} = 5, X_{18} = 4, X_{20} = 4, X_{24} = 5$$

and inserting these numbers into the function, we could then estimate the probability that a mother belongs to the either Western or Aboriginal group depending on whether the value is greater than 0.5, we would classify this mother as belonging to the non-Aboriginal group. Any participant with a numeric value of less than 0.5 would be classified as belonging to the Aboriginal group. Because we are now using a function that estimates the probability, we no longer use 0 as the value but instead .5 (since probability

estimates range from 0-1). The discriminant rule, which was the method of classification used in the Simmons and Johnston study (2007), was used to predict group membership.

The fitted logistic response function correctly classifies 27 of the Western mothers and 28 of the Aboriginal mothers, for an accuracy rate of 91.67%. Thus, logistic regression fares better in accurately identifying the cultural groups than the method of discriminant analysis (88% accuracy) for the 24 belief items.

For the practice items, the variables selected by the stepwise logistic regression procedure (in order) were X28 and X35.

The fitted logistic response function is calculated to be

$$P_i = \frac{\exp(9.1360 - 1.8624X_{28} - 0.7050X_{35})}{1 + \exp(9.1360 - 1.8624X_{28} - 0.7050X_{35})}$$

The response function estimates the probability, given a mother's response, that she belongs to the City group. For example, the response values for the 17th Dene mother were X28 = 1, X35 = 4. Using the above function, this mother's response function would be calculated to be .674. Because this estimated probability is greater than .5, we would (incorrectly, in this case) classify this mother as belonging to the Western group. Any participant with a numeric value of less than 0.5 would be classified as belonging to the Aboriginal group. The fitted logistic response function correctly classified 19 of the Western mothers and 22 of the Aboriginal mothers, for an accuracy rate of 68.33%. This is exactly the same accuracy value found with the previous method of discriminant analysis.

Although it was not necessary to include a comparison of the two types of multivariate analysis for this study, I felt that it was important to analyze my data in a

way that best suited the data collected. For this reason, I decided to include logistic regression as part of my own analysis. The accuracy level for classification of the two groups increased only for the belief items (increased slightly from 88% to almost 92%) and did not change for the practice items. This reflection may assist future researchers in choosing a method of data analysis that best suits the data in question.

Maternal Age

A conservative two-sample *Mest* was conducted to compare the mean ages of non-Aboriginal and Aboriginal mothers (since Levine's test rejected the hypothesis of equality of variance). The sample mean age of non-Aboriginal mothers was 30.63 years and the sample mean age of Aboriginal mothers was 35.97 years. The test statistic for testing the hypothesis $H_0: \mu_c = \mu_D$ vs. $H_a: \mu_c \neq \mu_D$ was $t = -2.375$ and the P-value was 0.022, indicating a significant difference in mean age between the groups. (Note that if I was interested in whether Aboriginal mothers were older on average, I would need to conduct a test of $H_0: \mu_c = \mu_D$ vs. $H_a: \mu_c < \mu_D$, which would result in a P-value of 0.011).

I wanted to determine whether the responses of Dene mothers are related to their age. To do this, a hypothesis test of H_0 : Age and response are independent vs. H_a : Age and response are dependent was conducted for each of the 36 questions for the Dene mothers. The statistic examined was Spearman's rho, a nonparametric analogue to Pearson's product-moment correlation coefficient r , which requires the assumption of bivariate normality when using inferential methods. This is clearly not the case here, as one of the variables is an ordinal Likert variable. A value of Spearman's rho close to zero indicates a weak relationship between maternal age and response, while values close to 1

or - 1 indicate a strong positive or negative relationship, respectively. There were only two items for which a low P-value was shown (or rho values close to 1 or -1). Q. 5. *A lot of ear infections may change how a child speaks*, and Q. 30. *Talk about what is going on when my child and I are playing or doing things together. Example: When playing tea party, "Now, I'm pouring my tea. You 're eating a tea cake. Is it good?"*. Younger mothers agreed more with the fact that repeated ear infections may affect a child's speech, Q. 5, and more mothers practised the act of talking outloud while playing with their children, Q. 30.

In conclusion then, the relationship between the Aboriginal caregivers' age and type of response did not appear to be highly correlated. Two of the 36 Items resulted in a Spearman's Rho value of 0.4 and .5, respectively, indicating a strong positive relationship for these items, while the remaining 34 items showed a weak relationship between age and response for the Dene mothers.. Because of the influence of mainstream culture and changing of ways over generations, the younger mothers likely do not depend on the Elders for recommendations on child rearing as perhaps the older generation of mothers once did.

Comment Section

The final section of the survey was set aside for comments, so that participants could add information or give further explanations regarding their responses. For the Aboriginal group, the topic of Dene language and cultural survival was strongly emphasized, whereas the non-Aboriginal mothers felt the need to be more explicit in their views of certain language acquisition patterns, and why they interact the way they do with their

children. Ninety-seven percent of non-Aboriginal mothers contributed to the comment section of the survey. Their individual comments contained, on average, four to five lines of text. The entire non-Aboriginal comment section was transcribed verbatim into 2.5 pages of text. Although 90% of Dene mothers provided comments, these comments were general and short and tended to emphasize their interests in preserving culture and language rather than elaborate on the survey responses. On average, their individual comments were one to two lines in length and totalled 1.5 pages of text. Given the limited amount of information obtained through open-ended comments, the data briefly reported here are simply to provide additional context for the survey findings.

A common message that seemed to emanate from the Dene caregivers was one of struggle to keep their native tongue and culture vibrant at home, school, and within the community. Twenty-five out of 27 Aboriginal respondents made comments related to language preservation. Within these comments, the Aboriginal mothers did not indicate any specific language facilitation practice they used in order to assist their children learn language in a dual language home.

As one caregiver mentioned:

"It is important for children to learn the English language but even more important that they keep their Dene language (to understand and speak the language). It is getting more difficult though 'cause of technology (influences) etc" (Respondent 17)

Other comments (18/27) from mothers related to concerns surrounding how the school incorporates the Dene culture and language in the school:

"There should be more Dene language and culture in the school because little

children have a hard time speaking both." (Respondent 27)

"They should have Dene teachers and teacher assistants speaking and teaching in Dene in preschool. Because that is when parents notice that they hardly speak Dene anymore." (Respondent 18)

Comments from the non-Aboriginal mothers revealed explanations about specific items in the survey, and why they answered the way they did. The discourse characteristic of Westerners being more verbal (Scollon & Scollon, 1981) and individualistic in nature (Cleary & Peacock, 1998), may be potential reasons for the nature of their comments in comparison to the more general comments stated by the Aboriginal group. Twenty comments from the Westerners referred to specific practices, with some examples as follows:

"Q.13 Not always. Sometimes you do it just for fun. Q.18 Depends on age of the child, level that the child is at. Q.20. This would depend on the child, some need a visual. Q.24. Things change over the years, not always the case." (Respondent 21)

" Q.25 We never tell her 'it's wrong', instead we gently say the correct sentence back to her. Q.31 as Q.25, We don't want to make her feel bad or embarrassed so we just lead by example." (Respondent 30)

"I was lucky my children learned to speak and communicate at very early ages. I always talked to them as they were another person, I never baby talked to my kids." (Respondent 28)

Allowing participants an additional response method to present their perspectives provided some context for what the mothers wanted to emphasize or explain about issues

included in the survey. The Aboriginal mothers made comments that were directly related to preservation of language and culture, while the non-Aboriginal mothers chose to provide further explanations to justify their beliefs or clarify their language interaction practices. Thus, the Dene mothers showed little variation in their views of language learning and their overall thoughts on the survey, while the Western mothers tended to provide more personal opinions and therefore provided varied responses and input in the comment section.

In summary, the results of data analyses did not reveal extensive differences between the survey responses of the Aboriginal and non-Aboriginal mothers. The demographic attributes helped to frame the caregivers' responses in terms of how external variables may affect language acquisition of children from the two cultural groups studied. The findings from the statistical analyses indicated Aboriginal mothers showed some differences in cultural practices and beliefs regarding the language development of their children, compared with the Western mothers' responses. These differences were revealed in their positive regard for Elder and grandparental involvement in raising children, the importance of instilling spiritual values, their perception of the use of baby talk, and their preference for teaching through instruction. The type of language facilitation techniques that Aboriginal mothers reportedly used significantly more frequently (compared with Western mothers) reflected dual-language learning strategies, such as changing words to clarify meaning, and asking the child to repeat a sentence to ensure proper understanding and pronunciation. The Dene mothers also reported using the language facilitation strategy of expansion by following along

with their child's topic of conversation. These findings did not reveal differences between comparison groups to the same extent as previous cross-cultural studies and the reasons for this must be investigated. The clinical implications of the differences and similarities between Dene and Western mothers also require further discussion. The following chapter will explore the findings and response patterns revealed in the results from the surveys.

CHAPTER FIVE: DISCUSSION

There were three research questions that guided the completion of this project. These questions were: 1) Are there any demographic attributes of caregivers that influence their attitudes and beliefs regarding how language is learned in pre-school years? 2) What do caregivers perceive or believe to be child-rearing practices that are influential in promoting language development in their children? 3) What do caregivers report regarding how frequently they use discourse practices believed to be influential in terms of language development? In order to address these questions, the connection between survey items and Aboriginal cultural beliefs required further evaluation, as well as a discussion of the findings gathered from the demographic information and statistical analyses. A thorough investigation of the research questions included topics of possible erosion of cultural traditions and native language preservation, as well as the importance of bilingualism and how dual-language learning may have affected the outcome of this study. Findings from the study were also framed by input from the cultural informants, as well as interpretations based on my experiences in the community.

Research Question 1: Are there any demographic attributes of caregivers that influence their attitudes and beliefs regarding how language is learned in pre-school years?

With the survey having minimal impact on revealing the cultural influences on language development, it was worthwhile to explore what impact, if any, the demographic attributes may have made in how participants answered this survey. Although the intention in choosing the Western urban low-income mothers was to match the two cultural groups as best as possible, the success in doing so may be argued. Other

factors including number of children and extended family members in the home, both of which are known to contribute to language acquisition, may have impacted mothers' responses as well. I can only speak of these attributes in a very general sense, as no language testing was done on the children. I do not have evidence that these women's children exhibit language delays. However, since demographic data was recorded on the mothers, I do feel it is important to discuss how these factors may have influenced caregivers' responses, regardless of their cultural background.

Level of education

A caregiver who is young often will not have completed high school; therefore maternal age and level of education frequently go hand in hand. Education proves to be a strong predictor of mothers' influence on various areas of language acquisition, including vocabulary growth (Hart & Risley, 1995). As mentioned in an earlier section, Fewell and Deutscher (2004) completed a longitudinal study on four variables (children's expressive language at 30 months, mother's facilitation of child language, mother's education, and group assignment) in order to predict IQ at age 3, verbal IQ at ages five and eight, and reading at age eight for 571 children of low birth weight. These authors concluded that mothers with higher education seemed more likely to use language facilitation techniques that advanced their child's expressive language. In the current study, the Aboriginal mothers were shown to be less educated as a group, even though some mothers interviewed in Lac Brochet had returned to school to complete Grade 12. Thus, the fact that the Aboriginal group, who were reportedly less formally educated, but frequently practiced language facilitation techniques, suggests that either: a) formal education did

not influence the caregivers' beliefs or practices, or b) socio-educational status does play a role in caregivers' interactions and beliefs, but flaws in the present study may have prevented this outcome from surfacing. Such flaws could include an invalid survey and small sample size. Formal education of Aboriginal mothers was reportedly less than the non-Aboriginal mothers; however, other forms of child rearing education may have been learned through traditional teachings. As explained by the research assistant, more and more young mothers are being educated in "parenting skills" through youth retreats and information available through the nursing office.

Range of income

Low income was an inclusion criteria requirement, and all mothers participating fit this requirement. Hart and Risley (1995), Oiler and Eilers (2002), and Hoff (2006) cited many other sources that support the notion of low income having a negative impact on speech and language outcomes of children. I did not measure language development of the children, and therefore I cannot make comments on SES that are substantial in terms of contributing to my findings. Within the survey, there were only two items (26, 34) which related to SES in terms of using books and flashcards with their children. Responses to these two questions did not result in identifying group differences, indicating both groups had access to these items, which if used, would likely assist in language facilitation.

Quality of childcare

Vernon-Feagans et al. (2007) in their study of children in childcare facilities, noted three indicators of childcare quality: a) the number of children per classroom, b)

the number of caregivers per classroom, and c) the child/caregiver ratio. This was a longitudinal study of children in a daycare setting at 18, 24 and 36 months of age. The authors noted that the ratio of children to caregiver was a strong predictor of language development in children three years and younger. All Aboriginal caregivers reported having their children in Head Start or Nursery, while some Westerners did not have their child in a daycare facility. Lack of space in daycare facilities is quite common in urban centres. In Lac Brochet, lack of space is not a concern. Children older than three years would likely attend Head Start, then Nursery, then Kindergarten, and the availability of these programs provides higher caregiver/child ratios for the Dene children.

Western mothers had a greater percentage of traditional nuclear families. Twenty-two of the 30 Aboriginal caregivers surveyed had extended family members in their households. Because of the higher number of residents found in the homes of Dene caregivers, the caregiver/child ratio may be lower than in Western homes, possibly having some effect on language development (Fewell & Deutscher, 2004; Rush, 1999; Vernon-Feagans, 2007).

The fact that Dene is the first language for the Aboriginal caregivers and their children is an important one to consider. If we choose to adopt the view presented by Oiler and Eilers (2002) that monolingual speakers may have an advantage over bilinguals in terms of exposure of the target language, then the exposure of the languages needs to be fairly balanced. In Lac Brochet, besides minimal exposure to English from other siblings and TV, Dene children's first formal exposure to English begins when they attend Head Start or Nursery programs. Therefore, dual-language exposure is not

balanced in the early years in Lac Brochet. According to the comments made by the participants, most mothers feel that their time with the children in the home is designated for Dene language, and when they enter school English will follow. Because English is the second language for the mothers, the English used in the home is the community's dialect, and the quantity, frequency, and exposure to English dialect will vary for each child, and becoming especially influential in the early years (0 to 6 years). The current survey did not address the use of two languages within the questions, and therefore I can only speculate that caregivers' value of talk and styles of linguistic interaction are likely different from the Western cohort.

The demographic information presented in this study focusing on level of education, income, maternal age, caregiver/child ratios, and extended family members residing in the home of the survey participants, was helpful in providing a broader perspective of the home environment and cultural surroundings. These caregiver profiles assisted in the interpretation of the statistical findings presented for the following two research questions. Incorporating literature on the topic of external factors affecting language development also resulted in a clearer understanding of how specific cultural practices may reflect on the language development of children.

Research Question 2: What do caregivers perceive or believe to be child-rearing practices that are influential in promoting language development in their children?

When interpreting the response to this question, it is helpful to re-examine the process of acculturation. In its simplest form, acculturation is mutual, in which elements of two cultures mingle and merge and where there is a blending of values. However,

Berry (1999, p.4) noted that blending of values is not always present, and defined acculturation as "individuals adapting or reacting to a foreign culture and usually this entails the adoption of new cultural practices, but it can also refer to the blending of cultures." Acculturation is also identified as being potentially quite variable, depending on family structure and roles, parental goals in development, adaptations to extra familial stresses and demands, childrearing practices, and intergenerational conflict (Garcia Coll & Pachter, 2002). In reference to this study, acculturation for Aboriginal groups refers to the process whereby the attitudes and behaviours of the White people, be it through direct contact or through the media, have influenced their own culture. Aboriginal groups are culturally diverse across North America. As a result, the various FN communities will each possess a different degree of acculturation. Acculturation is different from assimilation, which is a subtractive process that yields possible negative ramifications (Westby & Vining, 2002). In relation to Research Questions 1 and 2, the degree of acculturation seen in Lac Brochet will have an effect on what caregivers perceive or believe to be practices that I viewed as being influential in promoting language in their children.

There were four belief questions for which significant differences between groups were documented. In reference to acculturation, the sample of Aboriginal mothers in my study may be viewed as bicultural (Westby & Vining, 2002), in the sense that Western-based family practices were noted within the surveyed responses. A closer examination of these differences and similarities is necessary in order to gain a better understanding of the responses between groups. The four belief questions will be reviewed in the following

paragraphs, both for their statistical significance and later as part of a more descriptive analysis. The topic of EAL will be discussed, as this is an important consideration in how the items were interpreted by the Dene mothers. Most of these mothers requested to have the survey read to them using the English version of the survey. If clarification was needed, the research assistant did this either in Dene or in English, depending on their preference and comfort level. Thus, it is difficult to comment on the Dene (or Western mothers) interpretation of the question. Having the survey back translated and reviewing the English rendition of the questions, allowed me to make note of how the meaning may change for a bilingual person or someone learning EAL. The translated versions of the questions are included for the purposes of this discussion; however, these may not reflect exactly what was presented to the mothers, as the research assistant clarified and explained to them as needed in Dene. The point is that words in different languages can represent different meanings, and it is important to be aware of the fact that the Dene mothers were influenced by the perspectives of two languages. This may have resulted in different interpretations of the questions than those of the Western mothers. The following paragraphs will describe the belief questions that aided in the identification of cultural groups and discuss some reasons for these differences.

Spirituality was valued by the Aboriginal mothers. The responses from Q 10. *My child's connection to spirituality is important to me* indicated strong differences between the two groups' views regarding the importance of spirituality. Most of the non-Aboriginal mothers' responses were spread across the scale and did not indicate a strong connection to this belief. However, the chosen English term "spirituality" posed some

difficulty for the Dene translator, S. Samuel. It was therefore referred to as faith, Christianity, or establishing a sense of harmony with the world around them (S. Samuel, personal communication, September, 2007). The English rendition was: *How my child understands his knowledge and belief and faith. I really want this for my child.* This statement parallels the English survey item, and it seems less likely that the group differences were due to meaning lost in translation, but instead differing cultural beliefs as it relates to raising their children with some degree of faith or religious influence.

Spirituality, harmony with nature, and religious practices were clearly shown to be important to the people in Lac Brochet. Over the years, members of this community have managed to merge their connection to nature with Christian values. As reported by the school's resource teacher, the number of church attendees each Sunday, most of whom are Elders, is evidence of the dedication to Christianity and acceptance of Western religion. Lac Brochet is a strong Catholic community and has been since the Jesuit priests first entered the community in the 1930s and 1940s. Catholic education occurs at home, school, and by attending weekly masses. Young informants spoke of the importance of saying bedtime prayers with their children. Yet, members of the community continue to attend cultural and spiritual practices as well, such as sweat lodges and certain rituals.

Another difference noted between the groups and a possible cultural influence, was the practice of using "baby talk" Q. 18. *If parents use 'baby talk' (like wawafor water, or 'jammies' for pajamas) their child won't learn to speak well.* Aboriginal caregivers in Lac Brochet generally believed using baby talk with their children would not affect how children would learn to speak. S. Peltier, a practicing Aboriginal SLP,

noted that of the Aboriginal families she consulted with regarding speech and language issues, it is quite common for the mothers to integrate native "nicknames" or culturally playful names when speaking to young children (personal communication, January 17, 2008). In this regard *motherese*, rather than *baby talk*, may be a more appropriate term to use because it includes the prosodic variations in speech. The Dene language teacher in Lac Brochet confirmed the use of diminutive language terms when speaking with small children in the home. The non-Aboriginal mothers answered this question with variability (Appendix J). In Western literature on language development, there is mention of minimizing the use of baby talk to a child. In short, Wasserman (2005) felt that the mother is presenting a language model to the child that the child will then practise and eventually repeat verbatim. Giving the child an incorrect model may delay the normal course of language development (Wasserman, 2005). Knowing that a young child naturally tunes into a mother's speech, one would conclude that the child will eventually model the caregivers' speech pattern (Hart & Risley, 1995). In conclusion, although some non-Aboriginal mothers' comments in the survey indicated "we are not opposed to the odd, playful use of a 'baby word' (i.e. jammies)", overall, it appeared that the non-Aboriginal mothers were more aware of the precautions associated in using baby talk with their children than was evident with the Aboriginal caregivers.

The English rendition of this sentence was: *When a child is small they speak in baby language and if parents speak to a child in the same way (baby language), it will be difficult for the child to learn or speak correctly.* This version could convey that using baby talk has strong implications for learning correct vocabulary items and use of

diminutive terms.. The Dene mothers may have interpreted this as causing a learning or speech problem, which was not the intention of the question, and this perspective may have caused them to disagree or disagree more strongly with the statement.

It appears that in most cultures, if not all, the speech style adults use with children is different than when one adult speaks with another (James, 1990). Ferguson (1977) stated "In all speech communities there are probably special ways of talking to young children which differ more or less systematically from the more 'normal' form of the language used in ordinary conversation among adults" (p. 149). Ferguson referred to numerous studies that included an array of languages referencing special ways of talking to their children. Comanche was the only Aboriginal language mentioned in these studies, and remarked on the putative use of "baby talk" by caregivers. Knowing that baby talk is considered a fairly universal form of child-directed speech, we can speculate that if one Aboriginal linguistic group used baby talk with their children, that there are likely more FN communities in North America that would use it as well.

In reference to the literature, there appears to be some cultural factors that suggest word play or diminutive terms have a greater role in Dene-speaking mothers' interactions with their children. Since this specific item was not addressed in the comment section of the Aboriginal mothers, these findings suggest further investigation is necessary regarding this topic of diminutive word use in Aboriginal cultures.

Another item of the survey that helped to classify the two groups culturally was *Q. 20. Young children learn best when they are given instructions*, which identified Aboriginal mothers being in very strong agreement compared with non-Aboriginal

mothers. At closer inspection, the non-Aboriginal mothers were also in agreement, but only 50% of their responses were in the *Strongly Agree (5)* category, with most of the remaining being in *Agree (4)* and a few remaining giving a *Neutral (3)* response. There were no disagreements. Ball and Lewis' (2005) study contained comments from Canadian Aboriginal SLPs who refer to "visual-kinesthetic learning style" when discussing how Aboriginal children learn best. Westby and Vining (2002) also noted Native American groups favoring "holistic visual learning" (p. 160). These references contradict the way the Dene mothers answered this question. In discussion with the cultural informants, most felt that the strong support for this question was due to their belief that children are taught through explanations, oral teachings, and stories, but also, or in combination with showing them how to do something. The informants felt that they would have agreed equally if the question would have read, "young children learn best when they are shown how to do things."

To further investigate, I referred to the English rendition of the translated Dene version: *'7/ is easy for you to teach children through instruction and show them how to do things and first a person has to show them and give them instructions through verbal or showing them how it is suppose to be done. "* This question required a much more detailed description of the meaning than what the survey had listed. The translated version also mentions a more holistic type of learning, which is supportive of the literature. Non-Aboriginal mothers' comments on the survey also reflected notions of children doing best when verbal instruction is paired with kinesthetic-style-based learning. As one non-Aboriginal mother stated, "this would depend on the child, some

need a visual," and "we believe learning should take a combination of forms, hearing stories, instruction verbally and encouraging the child to try new things" (Respondent 30). In summary, Q. 20 itself was difficult for both groups to answer decisively; suggesting that the vagueness of a term like "instructions" could have been interpreted differently by respondents.

The last of the four belief items noted for identifying cultural differences was Q. 24. *Grandparents or older family members give good advice about the way that young children grow up.* For the Aboriginal cohort, 29 of the 30 mothers strongly agreed that grandparents' advice on child rearing is useful and helpful information, while non-Aboriginal mothers responded for the most part neutrally, and the remaining being distributed across the five-point scale. The English rendition was: *Grandparents like grandmothers and grandfathers and other members who are older should give advice to parents how to raise a child in the right direction.* Therefore, the overall meaning was congruent with the English version of the survey.

There is reference in the literature to the importance of having Elders present in the community to continue the traditions and the teachings so that the culture can survive and flourish (Westby & Vining, 2002). Whereas Westerners tend to have a history of receiving cultural knowledge from a variety of different sources, Aboriginal children have typically learned their language, culture, and traditional ways from stories and hands-on lessons from Elders and parents. At present, there is a lack of scheduled Native language classes in the FN school curricula (M. Scott, personal communication, February, 2009); therefore, most children learn their native tongue from their parents and

Elders. As mentioned previously, oral story-telling and teachings by the Elders are encouraged and welcomed in the communities. Elders communicated the importance of bilingual language learning in the younger years, as they believed language is an integral part of cultural development and understanding of traditions and cultural meanings (Ball & Lewis, 2005). The cultural informants in Lac Brochet agreed that Elders' input and the knowledge they bring to the community is valued. An older informant mentioned how the young children are still very much students of the Elders, and refer to the Elders as storytellers. They are the source of cultural vitality in the community.

Western mothers had a different view of grandparents and their role in their child's well-being. Comments within the surveys regarding this issue stated "they [grandparents] have experiences to share - may or may not have appropriate or healthy advice depending on their opinions or approach" (Respondent 30) and "things change over the years, not always the case" (Respondent 21). Clearly, the value of grandparents' advice was not viewed as unconditionally by the non-Aboriginal mothers.

There were five other cultural belief item differences that deserve mention. The first of these differences was Q. 8 *My child can easily sit and listen to a story without picture books*. Most (66%) of the Aboriginal mothers agreed that their child can listen to a story without picture books. Yet approximately one-third of the Aboriginal caregivers disagreed that their young child can sit and listen to a story without pictures. They felt that pictures and drawings were often necessary to have a child engage in a story. This finding is somewhat inconsistent with the literature indicating that Aboriginal languages are largely oral in nature and how children are trained to be good listeners (Crago, 1990a;

Scollon & Scollon, 1984). In further analysis of the literature on Aboriginal story-telling, children were often described as being good listeners, but within the context of listening to Elders' teachings or story-telling. Because Q. 8 mentions "picture books", it is possible that the Aboriginal mothers, perhaps the younger proportion of the cohort, answered this question in reference to English books and English stories. The English rendition of the Dene version became *"My child can listen to me easily when I tell them a story even without a book or any pictures."* If the research assistant actually presented the question as 'me' or in the first person pronoun, then perhaps the mothers did not feel they have the story-telling abilities that the Elders do to hold a child's attention. Narratives that are told by an Elder take on many forms, including strengthening of relationships, transmitting beliefs, teachings, and for entertainment (John-Steiner & Panofsky, 1992; Crago et al., 1997; Eriks-Brophy et al., 1997; Ball & Pence, 2001). The method in which these stories are told is different from the Western-based linear format of storytelling. Differences cited in schematic organization of the story would also have an impact in how Aboriginal narratives may be processed by children (Lewis, 1992). In reflecting back on these differences, perhaps it is not surprising that Aboriginal mothers would feel that their child cannot listen to a Western story without having some structure (pictures) to help the children process and understand the information. The non-Aboriginal group, on the other hand, felt that their young children in general could listen attentively to a story without pictures.

Another difference seen in the belief item responses between the two groups was that Aboriginal children reportedly had few reservations in approaching an older adult

who they knew *Q.11. My child will easily talk to an older person (who they know) if given a chance*. Ninety percent of the Aboriginal mothers responded with strong agreement. The English rendition of the Dene version became *"My child is OK to talk to somebody older if given a chance "*. Thus, the translation did not seem to suggest a different meaning. Previous research suggested that young Aboriginal children were reserved around the older generation. For example, in Ball and Lewis' (2005) study, Elders felt that children's talk should be reserved for only special social interactions. To help explain the inconsistency between how mothers responded and what is stated in the literature, an older cultural informant, who has lived in Lac Brochet all his life, indicated that he observed children become less reserved towards adults in the community. There could be numerous factors contributing to this shift in how children approach the older generation; however, erosion of traditional practices may have influenced this change in attitude. For example, Aboriginal children in Lac Brochet receive most of their instruction by formal means in school, with only a small percent occurring by traditional means (e.g. sweat lodge, sharing circles, and traditional dances, hunts, and prayer, where Elders would be the facilitators of this instruction).

Another belief item that approached statistical significance was Q. 17. *Speech is especially important because it helps young children to make friends*. Aboriginal caregivers believed this act of speaking for the purpose of socialization to be very important. Western child development specialists (Blount, 1977; Harkness, 1990; Hymes, 1972; Hoff, 2005; Ochs, 1988; Ochs & Schieffelin, 1984; Rush, 1999) found that in order for children to learn language, they needed to learn through social interactions. Much of a

child's interaction happens with siblings at home and with peers in the classroom and school grounds. Again, both groups showed agreement to this question, but the caregivers of Lac Brochet were in stronger agreement, possibly due to Lac Brochet being a smaller and close-knit community rather than a large urban centre. It is geographically remote from other communities, accessed only by plane when winter roads are not in use, and the people know each other well. The English rendition was: *To learn to speak is very important, so children can make friends easily through speaking, so speaking to learn how to speak is very important.* The intended meaning of the importance of socialization and expression is contained in the translated form as well.

In Lac Brochet almost everyone knows each other, and if they do not, they know a relative. Social interaction is important and encouraged in this community. There is a lot of visiting that takes place between the houses. As in every community, there is some segregation of families; but, for the most part, visitors are welcomed and unplanned. Because of the oral traditions within the Dene culture, speech is a necessary component of interaction and connection to one another and the world. Aboriginal cultures are described as collectivism valuing the social norms of the group rather than individual pleasures or beliefs (Cleary & Peacock, 1998). The value of talk may have been ranked more highly by the Aboriginal mothers than those in the non-Aboriginal group due to the shared beliefs regarding socialization and collaboration.

Q. 19 *Three-year-olds are too young to help with household chores* deserves mention, since by closer inspection, the Aboriginal mothers were split in their responses to this item, with half in strong agreement and the other half in strong disagreement. The

non-Aboriginal group mainly disagreed with the statement. Although the literature refers to the younger generation often helping with the family responsibilities in Aboriginal households (Crago, 1990a), the younger cultural informants both felt that this should not be the case. Familial changes occurring over the generations may have contributed to these findings, which were not reported in the 20- year-old literature that took place in the 1980s.

Finally, it is important to discuss Q. 12. *My 4-5 year old should attend Nursery/Kindergarten 3-5 days a week*, as the Aboriginal mothers responded with 90% in strong agreement, while considerably less, only 66%, of non-Aboriginal mothers strongly agreed. I chose to include this question as many Kindergarten teachers, including the Kindergarten teacher in Lac Brochet, commented on the students' lack of attendance. These teachers have brought this to my attention when referring children to me for language delays. Lack of attendance was often felt to be a contributing factor towards their apparent language delays. The English rendition of the Dene version for Q. 12 was *My child should attend school as 4-5 year old, 3-5 days, instead of only half days off for the whole week which is 2 and a half days only*. I was not comfortable with the word 'instead' being used in this translation, but the translator assured me that the intended meaning of the sentence (the value of young children attending school regularly) still comes through in this translated form. In discussion with the cultural informants, they all felt that it was important that the young children attend school, just as the mothers reported. An important area for further exploration would be to consider why the high levels of absenteeism occur when mothers value school attendance so highly.

In summary, although cultural differences in relation to caregivers' beliefs on how children acquire language were not revealed to a large extent by this survey (responses to only four items differed significantly), a closer examination of the findings was necessary to explore the mothers' views on the various beliefs related to Western ways of developing language. Through connections to past and current literature (Table 1), examination of the variations in Dene translations, as well as consideration of the cultural informants' interpretations of the responses and indigenous ways of knowing for this community, greater insight was gained into the beliefs of Dene mothers, as well as their beliefs as a group. The mothers of Lac Brochet valued spirituality and their child's connection to culture, traditional faith and beliefs. These mothers also supported the use of diminutive language terms in facilitating children's language development. They felt strongly about the role that Elders and grandparents play in their children's lives. Finally, they favoured learning by giving "instructions", but appeared to interpret this as not only verbal instructions (as the question intended), but including visuals and demonstrations to value a more holistic type of learning for their children.

Research Question 3: What do caregivers report regarding how frequently they use discourse practices believed to be influential in terms of language development?

This research question was addressed through the last 12 questions of the survey, which focused on frequency of practice issues. The 12 practice items were replicated from the Simmons' and Johnston (2007) and Johnston and Wong (2002) cross-cultural studies, and were reflective of Western values in relation to language acquisition. SLPs are trained to teach mothers to use these discourse practices and techniques to enhance

speech and language production for their children (Muir, Gerylo, Gompf, Burke, Lumsden, & McCaig, 2000). According to the statistical analysis, Aboriginal mothers used these language practices more frequently than Western mothers. Aboriginal mothers chose more *Almost Always* rankings and *Very Often* rankings compared with the non-Aboriginal mothers. To assist in understanding why a higher frequency of practice items was seen in the overall responses of Aboriginal caregivers, I first consulted my research assistant. She explained that language facilitation occurrences were often based on learning both Dene and English simultaneously, in other words, dual-language learning. Specific directions on how to interpret these questions at the time of survey administration (in terms of facilitating one or both languages) was not given to the participants, therefore, they responded with an emphasis on teaching their children both languages.

Specifically related to the statistical findings of this study reported in chapter four, the data collected from three survey items regarding how frequently caregivers practised language facilitation strategies, resulted in tests that were statistically different for the Dene and non-Aboriginal groups. The first of the three to be discussed is Q. 28, *Follow along with my child's topic of conversation*. SLPs encourage this practice as it is seen as a means of expanding the child's lexicon and verbal repertoire. It is a good method by which to encourage expression and build on language structures and vocabulary that are already present. Ninety-percent of Aboriginal mothers responded by stating that they practised this *Almost Always*, while 50% of non-Aboriginal mothers responded with *Very Often*, and the remaining did not feel it was important. Literature on Aboriginal culture

that refers to the importance of listening and observing is reflective of this practice. We do know that sharing experiences and feelings are seen as important virtues in the Aboriginal culture (Cleary & Peacock, 1998). An example of this would be the traditional sharing circles that are used both in the younger classrooms and in adult gatherings. The English rendition was: */ listen to my child very carefully if he is trying to talk to me about any topic*. Translated this way, the meaning does change from the original item on the survey. It is not a statement about listening as much as it is on following the topic, although these acts go hand in hand. Depending on whether clarification was requested or not, Aboriginal mothers may have understood this as an act of listening. As one cultural informant mentioned, it is important to listen to kids and give them time to talk. Giving children the chance to express themselves adheres to the non-interference approach to parenting that was mentioned earlier (Cleary & Peacock, 1998). Scollon and Scollon (1981) made a clear reference to the cross-cultural perspectives of Aboriginal speakers and Western speakers, with Aboriginal speakers perceiving Westerners' speech acts as talking only about their interests and always interrupting. These discourse practices may play a role in the Dene mother's willingness to follow the child's topic of conversation.

Q. 32 *Change my words or sentence when my child does not understand me*. A high percentage of Aboriginal mothers reported to do this *Almost Always*, while the non-Aboriginal mothers also responded positively, but chose between (3) *Very Often* and (4) *Almost Always* on the 4-point scale. The English rendition was: *When I tell my child something and if she doesn't understand me then I change it or make it simpler how to tell them what I am saying by explaining other an other examples for them to understand*

what I am saying. In the context of dual-language learning, the cultural informants agreed that the caregivers would likely do this often. As one informant explained, most mothers may have interpreted this question in terms of often needing to correct one language or the other. They would do whatever it takes to make sure their child understands and not ignore the child's confusion.

Q. 35 *Ask my child to repeat a sentence after me* was quite similar to Q. 32 in terms repetition of words when the child does not understand. The English rendition was: *When I teach my child a sentence I let them repeat after me this is how I teach my little child*. The non-Aboriginal mothers responded variably, while the Dene mothers reportedly practised *ihh Almost Always (4)* (Appendix J). Perhaps the non-Aboriginal mothers did not feel that this "formal method" of learning to speak or use English is important, and that speech will be learned in a natural and gradual manner. One Western mother remarked "it is a less formal exchange of conversation, but we do encourage her to fill in the words of books that she is familiar with or count for practice" (Respondent 29). By asking a child to repeat a sentence, you are encouraging language development. The more a word is heard, spoken and practiced, the easier it will be for that child to add that word to its verbal repertoire. The Aboriginal mothers likely interpreted this question in reference to bilingualism in the community. One cultural informant, who is also a mother, mentioned that she practices Dene language use until about the age of five, and then she brings in more English, so as not to confuse children when they are young.

The above description of the survey's frequency of practice items helped to address the research question of what caregivers report regarding how frequently they use

discourse practices with their children. Overall, the Aboriginal mothers reported using the recorded practices more often than non-Aboriginal mothers. The current survey findings were not able to identify cultural groups to the extent that the Johnston and Wong (2002) study showed. However, the Johnston and Wong study did not comment on the degree to which the mothers used two languages at home, which may have eroded some of the cultural influences that would otherwise have been reported. Dual language learning requires a more frequent, structured approach to language facilitation (Hammersmith, Tavares, Mercredi, & Settee, 2007). For instance, since the administration of the survey, I have noted specific language facilitation techniques posted in the classroom of the Dene language classroom. The Northwest Literacy Council (2007) encourages use of native languages with slogans such as "Share your language, Share your culture." Some of the many language-based activities that are promoted in the Aboriginal Literacy Cards (Northwest Literacy Council, 2007) include: Speak, Read, Play, Sing, Repeat, and Model, which are very similar to Western practices of language facilitation. In fact, this resource makes reference to adapting their materials from Western sources. To further demonstrate the similarities in language facilitation practices, under the heading of "Teach" the literacy cards show "Teach your children one new word every day in your language. This helps them expand their vocabulary."

As a group, the Aboriginal mothers may have responded in a manner that is somewhat in accordance with their collectivist culture, and agreed that these practices are important for language development, in both languages. This notion also comes out with closer inspection of the responses of non-Aboriginals, who displayed many differing

opinions within the group. For Aboriginals, there was only one item, 26, regarding reading a book to their children that showed variability; otherwise language facilitation was practiced similarly by Dene mothers. Although these 12 items were derived from a Western perspective of language facilitation, the high frequency of practice response does not necessarily suggest a lack of cultural ways of promoting their own language, as there were no specific questions in this section which related to Dene language facilitation practices. This is an area that suggests further inquiry.

The frequency of practice items did not identify a large number of differences between the cultural groups, but did provide some insight into the influence of dual-language learning on mother-child interaction practices. The Aboriginal mothers reported high frequency use of language facilitation techniques, such as following their child's topic of conversation, asking them to repeat sentences, and clarifying when they were not understood. For the non-Aboriginal group, English was the main home and school language for all the mothers except one Francophone mother. As a group, less emphasis tended to be put on expanding vocabularies and learning new words.

In an effort to answer the three research questions presented in this study, I reviewed the participants' responses regarding their beliefs and views of language development, as well as the frequency in which they felt they practiced language facilitation techniques. In making sense of their responses, I tried to incorporate their demographic information gathered from the surveys, including such topics as bilingualism and language preservation. A closer examination of the influence of translated survey items was an additional and important step to include in regards to the

Aboriginal mothers having Dene as their first language.

The belief items, as a set, did a better job of revealing group differences than the practice items, not solely due to the number of survey items showing statistical differences, but by the nature or type of questions asked. For example, a question pertaining to religious beliefs carries a stronger cultural component than a question concerning how often a child's speech is corrected. However, the fact that there were 24 belief questions compared with the 12 frequency of practice questions also allowed for more significant differences in responses to occur. Likewise, it is also important to note that the responses from the belief items in the survey may have been more reflective of EAL issues, compared with the remaining 12 items of the survey, as these 12 items were replicated from published cross-cultural studies of Western language facilitation practices. The three items in which I needed to request explicit revision on (from the back translation renditions) were Items 10, 16, and 18, being all belief items. In this small group of Aboriginal women, insight was provided in terms of how these women's perspectives differed from Western mothers and what had been previously documented in the literature.

Limitations of the Study

The primary limitations of this study include construction and validity of survey items, reliability of the survey, and sample factors, such as size and comparability. It is possible, due to the cross-cultural nature of this study, that the design of certain survey items did not elicit the kind of information that was anticipated. As stated in the literature review, Hines (1993) noted that a culturally sound survey tool should include questions

that are based on some form of qualitative inquiry with the particular cultural group.

More open-ended questions or other means of gathering qualitative information may have been helpful.

In the initial preparation of the survey, I consulted with the research assistant regarding each survey item to ensure they were culturally appropriate. In doing so, some questions were deleted, while others were changed slightly to provide clarity and ensure appropriateness. However, the research assistant was not a mother, and perhaps did not detect the nuances that a mother in the community might have. In addition, the very nature of Aboriginal discourse, where speakers are less overt and opinionated compared with Westerners (Scollon & Scollon, 1984), may have influenced how the Dene mothers responded. Also, it is not known whether Dene culture is associated with a certain response style (Dolnicar & Grun, 2007) and if so, this could bias the way participants responded to the survey items. I also relied on studies completed in FN communities almost twenty years ago in the development of some of the survey items, and this information may no longer be relevant. There were also questions that included vague vocabulary, such as "play" or "instructions", and these terms were open to a broad range of interpretations. For example, the first two questions asked about children's preferences for indoor and outdoor play activities. Judging by the amount of variability within both groups of mothers, factors other than culture, such as the age of the child or the time of year, may have influenced the mothers' responses. In terms of the internal validity of the survey, using survey items that were replicated from previous (non-Aboriginal) studies may not have been appropriate. Given the range of variability within FN communities

and the current findings, these items were not as effective as expected in identifying differences between the Dene and non-Aboriginal mothers.

The reliability of the survey was weakened by using two different forms of survey administration - interviews with the Dene mothers, and mailed, self-administration with the non-Aboriginal mothers. The decision to have the research assistant interview the Dene mothers was based on following a more culturally appropriate protocol, where a trusted member of the community would facilitate open and forthright responses. If I had interviewed the non-Aboriginal mothers, perhaps they would have responded with more bias or apprehension when answering to a professional. However, I could have avoided this presumed bias had I recruited a research assistant who was part of this small, urban, low socioeconomic group of mothers to conduct the interviews face-to-face.

The small sample size is also a potential flaw in this study. Although the number of suitable mothers from my study was limited in terms of the population of Lac Brochet, I could have attempted to draw in a larger sample from both groups. An observed difference between groups is more likely to occur in a larger sample size. Further, in reference to the two sample groups, although my aim was to have these groups compared for cultural influences on language acquisition, the makeup of the groups was not as equally matched as initially intended. For instance, the fact that grandmothers were part of the Dene sample group made it difficult to match the groups in terms of mean age of the mothers. Many FN communities, because of lack of self-sustainable income and dependence on government support, have a high incidence of poverty. With this in mind, I sought a group of low-income non-Aboriginal mothers for the comparison group.

However, in collecting the demographic information, it appeared that the Aboriginal mothers, because of the government support and supplemental income, had higher SES levels than the urban mothers.

The demographic information was gathered similarly to what was done in the Johnston studies; however the *extent* to which the caregivers used two languages was not recorded with as much detail as it was in the Johnston studies. Instead I relied on anecdotal information from the research assistant and the cultural informants. All Dene caregivers listed Dene as their first language and English as a second language. All Western mothers listed English only as their first language. It may have been worthwhile to gather more specific data on language use for the Aboriginal mothers to aid in the interpretations of the results, such as: the language used most often with children, language used with other adults in the home, and views regarding transitioning of the language from home to school. Some of this information was relayed through the comment section; however, not all Dene mothers chose to present their views in such detail.

All of the above factors resulted in differences between the two groups that may have influenced the differences or similarities found in the survey results. In order to truly understand the cultural differences regarding future comparison studies of Aboriginal language acquisition, it would be necessary to match participant groups on age, gender, economic, education, urban/rural, bilingual/ monolingual (with a need to maintain a heritage language) and possibly religious orientation.

Finally, my absence from the community throughout the majority of the

interviews in Lac Brochet may have made a difference in terms of ensuring that the interviews were being conducted in a manner that was consistent throughout data collection. I had no way of recording how much clarification was necessary during the administration process. This information would have allowed me to have a better sense of whether or not there may have been issues of EAL. Since the interviews were typically occurring in an informal setting (mother's homes), the research assistant may have unknowingly elicited a specific pattern of responses, which I was unable to monitor.

Strengths of the Study

Methodologically, the study recognized the ethical principles set out by the ACUNS, CIHR, NIHR, and RCAP when completing research with Aboriginal people in terms of cultural sensitivity, recruitment, reciprocity, participatory research, respect for indigenous ways of knowing, and dissemination of the findings. Examples of adhering to issues of cultural sensitivity were in hiring a research assistant, as well as cultural informants, to assist in the interpretation of the results. These individuals were key to the success of the study. Accommodating indigenous ways of knowing, such as allowing a face-to-face interview guide to be administered by a known community member, strengthened the validity of the findings. Having worked in this community for several years leading up to this study, I was able to establish a sense of trust with key stakeholders in the community.

Using a survey tool that was replicated from published surveys strengthened the validity of the findings, and added to the reported differences and similarities in language perspectives across varying cultural groups in Canada. The method of analysis chosen

was thorough and allowed me to compare both individual participant responses as well as the groups' responses as a whole. Additional analyses, beyond what was completed in the replicated studies, were carried out to further substantiate the results. Furthermore, the survey allowed for qualitative comments to be added by the caregivers, where expansion was necessary to justify their survey responses.

I was always welcomed in Lac Brochet as a clinician, and subsequently felt privileged to enter this community as a researcher. The knowledge I gathered from this study adds to the current research on language development pertaining to 1) Aboriginal communities in rural Manitoba, 2) special educators and clinicians, 3) other cultures in Canada.

In preparation for this study, I expected the survey to reveal cultural differences in the beliefs and reported practices of language interaction patterns between Aboriginal and non-Aboriginal mothers to a greater extent than what the survey responses revealed. This expectation was based on previous ethnographic studies researching Aboriginal cultural traditions, the strong connection between culture and language, along with the results of similar surveys used with other minority groups in Canada.

The survey items related to caregivers' beliefs as whole, revealed cultural influences to a greater extent than did the survey items related to caregivers' frequency of practice (final 12 questions). Aboriginal caregiver belief statements referencing the topics of spirituality, grandparent influences, instructional methods and use of diminutive terms with their children, were all important items in identification of target groups. The frequency to which Aboriginal caregivers promoted language use within their homes and

community was also insightful, especially in acknowledging the presence of dual language learning. The statements contained in the comment section re-emphasized the Dene mothers' passion to keep their heritage language alive in the community and school. These findings, along with the methodological and theoretical aspects of the study, will be considered further in the following and final chapter.

CHAPTER SIX: SUMMARY AND CONCLUSIONS

I begin this chapter by comparing the findings of other cross-cultural caregiver survey studies to my own findings on Aboriginal cultural differences in Lac Brochet. I further discuss how bilingualism was an important consideration regarding the extent to which the survey revealed cultural differences. A review of the areas where differences were seen and the clinical implications of these differences conclude this study.

The current study revealed that Dene mothers value grandparent involvement in raising their children, instilling faith and traditional beliefs of spirituality in their children, teaching their children through a combination of verbal and hands-on instruction, and that they do not believe use of baby-talk is harmful in helping their children acquire language. The non-Aboriginal mothers' responses for these items were less notable..

The current study also showed that the Dene mothers frequently followed along with their child's topic of conversation, felt the need to change their words or sentences to clarify their messages, and frequently engaged their children in conversations about the day's events. The non-Aboriginal mothers did not report that they practised these techniques to the same extent, indicating a significant difference.

The fact that my study revealed minimal cultural differences compared with the cross-cultural studies of Simmons and Johnston (2007) and Johnston and Wong (2002) deserves some discussion. Neither of these studies looked at Aboriginal culture, so perhaps the cultural group differences noted in these studies were specific and more substantive than my own. In preparation of the original survey items for the Johnston studies, literature pertaining to cultural practices and beliefs was scant, as it was for my

study. However, it appeared to be more relevant in my study in terms of how mainstream culture impacted the findings. A larger sample, as used in previous studies, may have contributed to the identification of linguistic acquisition differences between cultural groups.

The Dene mothers were bilingual, while the urban mothers were not. Although both of Johnston's studies revealed that the main language at home for the non-Western comparison groups was their native language (Cantonese, Hindi, or Punjabi), these non-Western samples were both situated in a large urban centres of Canada. It would be of interest to complete a study comparing urban Aboriginal mothers with urban Western mothers, or alternatively rural Aboriginal mothers with rural Western mothers, so that the demographic attributes of the samples could be more comparable than what occurred with this study.

Finally, survey administration methodology that was similar for all targeted groups may have proven more helpful than asymmetrical survey methods in distinguishing groups.

In the identification of culturally relevant differences between the two groups of mothers, it would be worthwhile to explore these differences further. Thus, additional research is necessary to understand the meaning behind identified behaviours in this study. Such qualitative-based studies could be in the form of language sampling, both in the home and in the school, which would again add to the emerging database of cultural practices believed to be related to language emergence.

Recommendations for educators

The cultural differences highlighted in the current study are important for educators and clinicians entering the community. The inherent value that the Aboriginal group of mothers had for spirituality and connections to the land and nature, support the need for change in the way that clinicians conduct their practice. It would appear logical for educators to incorporate traditional knowledge of spiritual teachings and love for nature into the school's curriculum and teaching methods. SLPs should also be aware that discouraging the use of baby talk with mothers of small children may not be culturally appropriate. More research needs to be done in terms of observing and understanding the type of diminutive terms used with young children. The same is true for the use of child-directed speech and the frequency of use within FN homes.

Knowing these mothers value direct instruction for their children allows for educators to take advantage of this type of teaching in the classrooms. As many of the Aboriginal children are taught to be good listeners by the Elders, possibly the same type of respect can be established in the classroom if Aboriginal values and learning styles are taken into consideration. Simulating sharing circles, such as "circle time" in the younger grades is an example of this type of planning. Finally, because the voice of Elders and older members of the community are highly valued, it would be of great meaning to bring Elders into the classroom to show the teachers how Aboriginal ways of instruction can be incorporated into the Western ways of teaching. Or, alternatively, children go out into the community to visit Elders. This practice of Elder involvement has been successful for some schools in British Columbia (Ball & Pence, 2006).

SLPs have responded by acknowledging the need for minority-based education in their professions (Ball, 2002; Ball et al., 2006; Ball & Bernhardt, 2008; Ball & Lewis, 2005; Crago, 1990b), as well as a need for culturally based pedagogy as a overall response to the miscommunications fuelled by the ignorance of cultural variances seen in language use. Ball and Lewis (2005), from the University of Victoria, conducted valuable research on the enhancement of culturally appropriate practices within the classroom. In attempting to bridge the gap between the educational needs of Aboriginal communities and Western-based curricula, Ball and Pence (2006) with the assistance of FN community members, created the Generative Curriculum Model (GCM). Instructors in the First Nations Partnerships Program (FNPP, Ball, 2004) co-instruct with Elders and other well-respected community members (Ball & Pence, 2006). In this model, there is a connection that takes place between the emergent Aboriginal curriculum and the university-based curriculum. Therefore, some of the cultural differences seen in this survey have already been put into practical use. This fact is encouraging and supports the continuation of these practices.

Bilingualism audits impact on the practice of speech-language pathology

Most of the young children of Lac Brochet embark on their journey towards bilingualism after beginning in the Head Start program. Before this time, exposure to English dialect is minimal. Depending on the child, achieving the goal of balanced bilingualism may not occur. In this instance, where development in both languages may be weak, EAL programs are necessary to support these children, so that they continue to develop their skills in both languages (Daigneault-Hammersmith, et al. 2007).

Throughout my study, I became more educated in regard to the extent the Dene language is thriving in the homes of these mothers and within the community. The extent of Dene language use was revealed mainly through the survey data as well as in consultation with the cultural informants and the research assistant. These discussions highlighted the importance of bilingualism, the use of community dialect, and the caregivers' practice of teaching two languages. These community characteristics have an impact on how the children in Lac Brochet learn language. The extent to which the mothers focused on dual-language learning was an important finding of this study. It showed that although mainstream culture has impacted the community in regards to English language (present in church services, homes and school), and the erosion of traditional values through the diminished use of traditional hunting and cooking practices, the Dene mothers continue to value the use of two languages and want to maintain their culture.

As Paneque (2006) pointed out, misconceptions regarding bilingualism are likely products of both ignorance (on the part of the professional) and the scarcity of bilingual therapists to serve this bilingual populace. In Manitoba, we have three bilingual SLPs serving the FN communities; however, Dene is not one of the Aboriginal languages spoken by any of the SLPs, highlighting the linguistic diversity among the Aboriginal groups. Regardless of this diversity, as noted earlier, there are similar discourse patterns and linguistic units that are common among Aboriginal languages (Ball et al., 2006; Scollon & Scollon, 1984). Familiarization of the dialect and culture of the community is critical to providing ethical and professional service to its members (Ball et al., 2006;

Garcia, 2005; Genesee et al., 2004; Parke et al., 2002; Westby & Vining, 2002). SLPs that are Aboriginal language speakers would have a heightened awareness of the dialectal differences and subsequently treat them accordingly, that is, as differences and not delays.

The fact that Aboriginal mothers in Lac Brochet reported frequent use of language facilitation techniques is of particular interest for clinicians. This is true for two reasons: 1) the 12 practice items were used on two previous cross-cultural studies, adding more reliability to the measurement of these behaviours, and 2) the positive implications for language development that are associated with language facilitation techniques and their frequency of use. SLPs and childhood educators can feel comfortable providing mothers with programming which incorporates these practices in their everyday linguistic interactions with their children.

Perhaps the biggest challenge for SLPs is acknowledging misconceptions of Aboriginal English dialects when entering a community such as Lac Brochet. Standard English dialect is not necessarily the best and only form of English dialect use for Aboriginal peoples. The importance of language preservation in FN communities was clearly voiced throughout the comment section of the Aboriginal mothers' survey responses. SLPs need to investigate and acknowledge the value that Aboriginal mothers place on language preservation when working with their children, to respect this preference, and help to promote bilingualism in the homes and community. As shown by the Aboriginal participants' survey responses of the 12 practice items, raising pre-schoolers to be bilingual may require a different language facilitation approach and

dialectal differences may be evident. For this reason, SLPs need to self-reflect on their own personal biases towards Aboriginal children's communication competence, so as to provide culturally sensitive and fair assessments.

Education of caregivers

Equally important to the education of bilingual therapists, educators, and specialists serving FN communities is parental education. Years of oppression, along with the efforts to eradicate native languages with the insurgence of residential schools, have taken their toll on Aboriginal languages. There is a strong need to reverse these actions by promoting bilingualism, both in the schools and the homes of FN children. In completing this research and studying current topics of bilingualism, I chose a French Immersion school for my children. The literature I referred to earlier, such as the study by Macumara (1966), suggested that children learning a second language perform poorly in intelligence testing. Fortunately, subsequent studies completed by Kessler and Quinn (1987), Cummins (2000), and Oiler and Eilers (2002) helped to dispel the myth of how learning an additional language negatively impacts the first language. This literature also referred to the cognitive-linguistic advantages of inheriting two languages, and the importance of the first ten years of a child's life in acquiring an additional language.

Bilingualism does not cause language delays. It is important to ensure that all Aboriginal mothers gain this understanding. Education that is directed to parents is one way to advocate for native language use and bilingualism. Although there is evidence of education programs relating to parenting skills and language development in Lac Brochet, I have not witnessed any pro-active talk, documentation, or mention of the

importance of dual-language learning. Lac Brochet is fortunate to have a Dene language teacher, but these classes are brief, 20-minute classes, that occur only every second day.

However, as Krashen (1983) notes, negative implications of learning a second language do exist, especially in the earlier years. As for any child learning an additional language, errors will likely occur which will be more creative and independent of the native language. Therefore, an Aboriginal child learning English will only acquire a conscious understanding of the structural rules in the later grades, when opportunities to apply these rules occur in social contexts where English is spoken.

The point here is that young Aboriginal children who are learning English will produce errors. Although the literature on Aboriginal language acquisition is limited, we know young monolinguals need to experiment with the language somewhat before speaking it fluently, and therefore bilingual Aboriginal children are likely to do the same. Common linguistic errors include overgeneralization, production simplification, and loss of sentence medial items (Ball et al., 2007).

Efforts to extend and adapt education regarding second-language learning for young Aboriginal children need to be taken at many levels. It starts with dual-language exposure in the home, together with an awareness of culture and traditions; that expands into early years education in the classroom; and, subsequently native language/cultural classes in the upper grades. Specialists and educators need to partner with the caregivers in the community, to seek out information regarding discourse patterns, cultural traditions, heritage and English dialectal language structural components. The simple act of displaying interest towards the communities' language and culture is a gesture that

would likely be well accepted and appreciated by community members, but professionals must consider extending this genuine linguistic knowledge and cultural awareness.

Conclusions

In conclusion, this study was successful in revealing similarities and differences between Aboriginal and non-Aboriginal mothers regarding the beliefs and views of language acquisition patterns for their children. In terms of the similarities, all mothers in the study agreed that they would be concerned if their four-year-old was not speaking in Nursery/Head Start and on the importance of attending Nursery/Head Start. In terms of learning, all mothers also believed older siblings contribute to language learning, that story-telling is often used to teach children, and that children learn through instruction and through task completion. All mothers also encouraged verbalization over gestures, valued the importance of play, and of asking children to repeat words to assist in language learning. Socially, mothers also believed that children understand words before they can speak, that speech is important to facilitate establishing friendships, and felt their child would easily talk to an adult who they know. Additionally, they all felt that a child not responding immediately to a question is not acceptable.

The differences seen in the belief items were related to the Aboriginal mothers' perspectives on promoting spirituality, verbal instructional methods of teaching, grandparents' roles as language facilitators, and using baby talk when speaking to small children. As a group, the Dene mothers responded more positively towards these issues compared with the Western mothers.

The findings which refer to Aboriginal mothers' frequent use of Western-based

language facilitation techniques are also of particular interest. There was a positive response towards using all recommended Western-based techniques, except for the practice of reading their children books at bedtime or naptime, in which a variable response was given by the Dene mothers. The non-Aboriginal mothers as a group did not report using the language facilitation techniques to the same extent. Responses to these last 12 items of the survey were much more variable.

This study was successful in identifying behaviours relating to linguistic interactions of Aboriginal and non-Aboriginal mothers; however, the context and meanings behind these behaviours is still unknown. Bilingual Aboriginal language specialists and educators are essential in terms of their contributions to future research in the area of Aboriginal language development, including both English dialects and Aboriginal languages. A better understanding of language use through the analysis of Aboriginal English language samples is needed to make the distinction between language differences and language delays more apparent. As shown in this study, more research is necessary to uncover the specific language discourse practices, beliefs and talk that occur in a dual-language home, such as the homes of Aboriginal caregivers in Lac Brochet. Such findings will assist in identifying the contributing factors related to attaining proficiency in both languages.

From this exploratory study of Aboriginal mothers living in a small, remote FN community, we can conclude that (a) native language preservation is valued; (b) mothers are aware of strategies for facilitating dual language development; (c) dual language learning begins early in the homes of these children; (d) Elders in the community are

important mentors for transmitting language and cultural traditions; and (e) although cultural differences do exist in regards to language learning, more research, possibly in other FN communities and urban centres, is necessary to define the extent of these differences and how they are revealed.

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APPENDIX A

Research Proposal sent to Lac Brochet Educational Authority

ABORIGINAL AND NON-ABORIGINAL MOTHERS' VIEWS ON LANGUAGE ACQUISITION

Purpose

Language nourishes one's sense of identity. Language is deeply intertwined with culture. In Aboriginal communities across North America, there is a growing concern over language loss. Knowing that language is the heart of what distinguishes one culture from another, it is not surprising that First Nation (FN) communities are desperately trying to adhere to their native tongue, in the hope of gaining back their identity. Many Elders of Aboriginal communities feel that language distinguishes one tribe from another and is the ultimate form of identity (Bunge, 1987). Elders have communicated their concerns regarding native language loss and the eroding of cultural traditions and values that go along with the extinction of a language. They are especially concerned that the Aboriginal youth are no longer using the language (Ball & Lewis, 2005).

Ethnographic studies of caregiver-child interactions are crucial in understanding the communicative competence instilled within a child. The term "communicative competence" was developed by Hymes (1972) who believed that the social rules of language, that is, social competence or pragmatics, is best achieved through social exchanges within a particular society. Discourse patterns or how one proceeds in verbal and written dialogue or exchanges, are very much a part of a person's personality and culture (Scollon & Scollon, 1981). Schieffelin (1983) noted the cultural influences in predicting communicative competence of children in stating "acquisition of language is embedded in culture, and as the children are learning one, they are also learning the other." (p. 184). This becomes important for children of minority groups once they reach school age, where judgments of language competence are based on Western cultural views.

In this proposed study, my primary research question focuses on gathering caregivers' beliefs and frequency of discourse practices, concerning the way language is acquired and the value of talk within the northern FN community of Lac Brochet, MB. The following questions will further ground the study: 1) What do caregivers perceive or believe to be child-rearing practices that are influential in promoting language development in their children? 2) Are there any demographic attributes of caregivers that influence their attitudes and beliefs regarding how language is learned in pre-school years? 3) What is the reported frequency of discourse practices believed to be influential in terms of language development?

Methods and Procedures

A survey in the form of an interview guide will be administered to Aboriginal group by an Aboriginal community member (research assistant), recruited and trained by me. This person will be a woman, fluent in both English and Dene with an educational background. The training will include recruitment of participants, ethics, and data management issues (e.g. confidentiality when handling project data). The survey was adapted in part from a study done by Johnston and Wong (2002) which compared Chinese and Western mothers' cultural practices and frequency of discourse practices. Approximately one third of the original questions will be removed and replaced with questions that are more reflective of Aboriginal linguistic patterns. The survey instrument will be piloted so that changes can be made if necessary before data collection procedures begin. Both a Dene and English version of the survey will be available. There will be a comment section at the end of each survey in which participants can expand on any of the survey items. A group of cultural informants will also be recruited to assist in the interpretation of belief statements. This group will be made up of 4-6 contributing members of the community. This qualitative aspect of the study seemed necessary to assist in the interpretation of the quantitative data, as well as adhering to the ethical guidelines of conducting research in a FN community. A self-administered survey will be mailed out to the non-Aboriginal group.

Participants. The sample size will be no less than 30 participants. Interviewees will be recruited for the study using purposeful sampling, followed by snowball sampling method. A monetary honorarium of \$20.00 will be given to each participant for completing the survey. The survey will take less than one hour to complete and will take place in the caregiver's home so that some observation of the discourse practices can be done. If the caregiver requests that the survey take place outside the home, a room in the school will be available.

Survey. The researcher will develop a survey in part from an existing survey (Johnston & Wong, 2002) in order to seek information pertaining to the potential cultural differences in child rearing practices, and how these practices may influence a child's talk and subsequent school readiness (Ball, Bernhardt, & Deby, 2006; Ball and Lewis, 2004; Crago, 1990; Heath, 1983; John-Steiner & Panofsky, 1992; Johnston & Wong, 2002; Scollon & Scollon, 1981; Sharifan, Rochecouste, & Malcolm, 2004; van Kleek, 1994). My portion of the survey questions will be prepared collaboratively with community members and SLPs of Aboriginal descent. This will be done in an attempt to gather as much Aboriginal perspective as possible. It is also important to limit any connotations or opinions towards childcare practices that would indicate 'preferred practices' or 'normal practices' based upon dominant cultural beliefs. An example of the kinds of questions included in the interview would be as follows: Question: "Parents should ask young children to repeat new words in order to help them learn to talk. The caregiver would be asked to choose a number according to their level of agreement.

Analyses. The interviews will be descriptively analyzed using statistical measures of central tendency. If any uncertainty in the transcription process occurs, the tape will be

listened and cross-checked with Aboriginal SLPs assisting in the study. These transcriptions of the interviews will then be studied and analyzed for content in relation to cultural practices, discourse interactions, and value of the pre-schooler's talk.

Results

It is reasoned that Aboriginal caregivers' interactive patterns, beliefs, and views of children's talk will present differently than that of Euro-western caregivers', and that these differences will be reflected in the child's language and communication patterns. This finding is paramount in terms of how specialists need to approach early language learning and literacy programs, as well as diagnostic procedures and intervention for this population. Similarly, Crago (1990) with Inuit children, Scollon & Scollon (1981) with Athabaskan natives, Heath (1983) with Black and Caucasian mothers, Philips (1983) with American Indians, and John-Steiner & Panofsky (1992) with Black, Hispanic, and Native American cultures, revealed different caregiver-child interaction patterns, as with Johnston & Wong (2002), who noted the different values and beliefs shown in the comparison of Chinese and Caucasian caregivers and Simmons & Johnston (2007) with Euro-Canadian and Indian mothers. Therefore, the results of the current study may not be surprising in its unveiling. However the cultural differences relating to language acquisition in this community can now serve as a template on which to establish normed language samples. The findings of this study may assist interventionists in blending Euro-western culture with that of the community's culture to provide appropriate curriculum and methods of instruction. The author hopes that these advances will assist in the improvement of health, welfare, and education for Aboriginal children.

APPENDIX B

Letter to Educational Authority stating Ethical Considerations

OUTLINE OF RESEARCH PROPOSAL PRACTICES ETHICAL CONSIDERATIONS

My background:

A course in cross-cultural education and extensive review of literature on ethical research has provided me with a solid foundation to begin my journey of conducting research in Aboriginal communities. I am familiar with the social-political history of Indigenous and non-Indigenous people in Canada. I have also been visiting First Nation Communities (Dene, Cree, Oji-Cree, and Ojibwee) as a Speech-Language Pathologist over the last 5 years.

My intentions throughout the study will be to inform the community on such issues as:

Protecting the rights of caregivers by ensuring they are fully informed of the type of interview questions that will be asked of them and that consent to proceed with the interview is necessary to participate in the study. This will be facilitated by hosting a parent information meeting in the evening at the school.

Self-disclosure would be a part of this meeting (who I am, my knowledge of the area, methodology, investigative team, research purpose, plans and expectations).

Nature and source of data collection, data ownership, possession, storage and access, and primary decision making over research outputs.

Benefit to the research community. Discussion of how the benefit will be made known (presentation to community once the study is completed), allowing for the community to provide feedback, and request changes to the output before dissemination of the results.

Results in draft form will be presented to the community for editing before any form of distribution.

Community will be named and credited for the results, including school personnel and my research assistant, who I will employ for work completed in conducting interviews with caregivers from the community.

Data retention will be both the property of the University (transcripts of the interviews) as well as the community.

APPENDIX C

Announcement of Information Meeting

Calling all caregivers!!

Are you a mother/grandmother of a preschool child? Would you like to participate in a study? If you would have the time to complete a survey with a member of your community, you could be a part of this study. You will be paid for your time.

The questions would relate to how children learn language. An example of a question would be:

I would be concerned if my 4-year old child was not speaking a lot in pre-school

Disagree 1 2 3 4 5 Agree

You are invited to attend an information meeting about this interview on July 25¹ at 7 pm at the school. Radio announcements will be made to remind you of the meeting, as well as posters. Coffee and cookies will be available.

Interview times can be set up at this meeting.

All mothers who have raised young children are welcome!!

The researcher conducting this study is Luella Bernacki Jonk. She is a Speech-Language Pathologist from Winnipeg who has visited the school for a number of years. She is interested in how children learn language and wants to know how Aboriginal children learn language. She hopes that her work will benefit the community by providing the specialists with information that relates to the cultural needs of the children.

APPENDIX D
Basic Data Sheet

Caregiver Initials_

Age

Relation to Child

{please circle one}

Mother
Aunt
Grandmother

Age at time when first child was born:

Tribe/Community:

Number of years living in community:

Number of times moved out of community:

First and second language:

1st.

»nd

Yearly Income :

(approximate)

Level of education:

(choose one)

**Not graduated from high school
Grade 12
Post-secondary**

Number of children in the home and ages

,nd.

Children's first and second language:

Number of hours your child attends

Nursery/Headstart/Pre-school

Language spoken to children in the home

Number of family members other than yourself,
your husband, or your children living in the
home

APPENDIX E

CONSENT FORM

Research Project Title: Cross-cultural influences regarding language acquisition and the value of talk: Perspectives of Aboriginal and Western caregivers.

Researcher: Luella Bernacki Jonk

After you sign this consent form, you can take a copy with you when you leave. This form should tell you a little bit about what this survey is all about, but you are encouraged to ask more questions if anything is unclear to you. Please take the time to read this form carefully and make sure you understand everything before starting the survey.

This study will help educators (teachers, specialists, doctors) have a better understanding of how Aboriginal children should speak English by the time they enter kindergarten. Sometimes it is difficult for these young children to adjust to the classroom and their teacher.

By interviewing you, I hope to gather information on how young children are raised, especially when it relates to how they learn language. This information may help non-Aboriginal people to understand how culture may change how children learn and speak English.

These questions will take less than one hour to complete. After responding to the questions by giving me a number as your answer, you will have the opportunity to give additional information regarding this topic that you were not able to express through the list of questions. Try to give as much information as you can. I will look at your answers after all the surveys are done so that I can gather some common cultural practices that may make a difference in terms of how children learn to speak and use English in this community. None of your names will be recorded on the sheet, only your initials.

The community will be able to view the final draft of the study before it is written formally for the University. The University will make it available to anyone interested (hard copies or online) when it is approved and completed. The name of your community will also have mention in the study. I will also return to the community within approximately one year time to hold an information meeting and tell you more about the results.

Finally, in appreciation of your time, you will be given an honorarium of \$20.00 for this survey.

Having your signature on this form shows that you have read this and understand the information, and agree to participate in the survey. However, you can stop answering

questions at any time; it is still your choice. You are also allowed to ask as many questions as you would like throughout the study.

Thank you.

If you need to contact me or my research assistant, our names and contact information is below:

Luella Bernacki Jonk, Speech-Language Pathologist/ Researcher
Telephone: 1-204-771-7650

Or

Kerri Samuel, Research Assistant
Telephone: 1-204-337-2344

This research has been approved by the Psychology/Sociology REB. If you have any concerns or complaints about this project you may contact any of the above-named persons or the Human Ethics Secretariat at 474-7122, or e-mail Margaret_bowman@umanitoba.ca. A copy of this consent form has been given to you to keep for your records and reference.

Participant's Signature

Date

APPENDIX F
Survey

Thank you for your consent to complete this survey with you. You have the option for this survey to be read to you in English or Dene. We are doing this survey to educate ourselves on how your children learn language. There are many different ways that adults and children talk and play together. We want to find out about how the caregivers in your community talk and play with their children It is important for us to understand this so that we can assess your children's language in a fair way, and offer appropriate suggestions to you if your child is having trouble learning language or how to speak.

There are no right or wrong answers. The format of the survey is such that you will be asked to choose a number from 1-5 that shows how much you agree with the statement.

For example:

It is important that your child eats breakfast every day

Disagree 1 2 3 4 5 Agree

If you strongly disagree with this statement you would answer 1

If you agree with this statement, but not overly agree, you would tell me 4.

If you really have no preference one way or the other, you would answer with 3

When answering these questions, try to think about your children who are in the range of 3-5 years of age or in preschool.

1. My child spends much of the day playing outside.

Disagree 1 2 3 4 5 Agree

2. My child spends much of the day inside with books and toys (blocks, trucks, play-dough, coloring books, etc.).

Disagree 1 2 3 4 5 Agree

3. I would like to be taught how to help my child to understand and say more words.

Disagree 1 2 3 4 5 Agree

4.1 would be concerned if my 4-year old child was not speaking in Nursery/Headstart.

Disagree 1 2 3 4 5 Agree

5. A lot of ear infections may change how a child speaks.

Disagree 1 2 3 4 5 Agree

6.1 feel comfortable copying my child's play on the floor (E.g. They are playing with blocks and you go down and play with the blocks too).

Disagree 1 2 3 4 5 Agree

7. It is Ok for my child to not respond to me right after I ask a question.

Disagree 1 2 3 4 5 Agree

8. My child can easily sit and listen to a story without picture books.

Disagree 1 2 3 4 5 Agree

9. My child's brothers and sisters teach him/her new language as much as I do.

Disagree 1 2 3 4 5 Agree

10. My child's connection to spirituality is important to me.

Disagree 1 2 3 4 5 Agree

11. My child will easily talk to an older person (who they know) if given a chance.

Disagree 1 2 3 4 5 Agree

12. My 4-5 year old should attend Nursery/Kindergarten 3-5 days a week.

Disagree 1 2 3 4 5 Agree

13. When I tell my child a story, it is usually for a purpose (example: teaching).

Disagree 1 2 3 4 5 Agree

14. Children learn best by doing (provided they are out of danger), for example, how to make toast.

Disagree 1 2 3 4 5 Agree

15. Parents should ask young children to repeat new words in order to help them learn to talk.

Disagree 1 2 3 4 5 Agree

16. Children understand some words even before they can speak.

Disagree 1 2 3 4 5 Agree

17. Speech is especially important because it helps young children to make friends.

Disagree 1 2 3 4 5 Agree

18. If parents use 'baby talk' (like wawa for water, or 'jamies' for pajamas) their child won't learn to speak well.

Disagree 1 2 3 4 5 Agree

19. Three year olds are too young to help with household chores.

Disagree 1 2 3 4 5 Agree

20. Young children learn best when they are given instructions.

Disagree 1 2 3 4 5 Agree

21. Young children should always be encouraged to communicate with words rather than gestures.

Disagree 1 2 3 4 5 Agree

22. Young children learn important things while playing.

Disagree 1 2 3 4 5 Agree

23. Young children should be allowed to take a turn in conversations that include adults who are not family members.

Disagree 1 2 3 4 5 Agree

24. Grandparents or older family members give good advice about the way that young children grow up.

Disagree 1 2 3 4 5 Agree

The following 12 questions will be answered in terms of how often these practices occur. For example, whether or not it always happens or never happens. You will choose the number according to how often it occurs:

<i>Hardly ever</i>		<i>Sometimes</i>		<i>Very often</i>		<i>Almost always</i>
1	2			3		4

25. Tell my child if s/he uses the wrong word.

<i>Hardly ever</i>		<i>Sometimes</i>		<i>Very often</i>		<i>Almost always</i>
1		2		3		4

26. Read a book to my child at bedtime or naptime.

<i>Hardly ever</i>		<i>Sometimes</i>		<i>Very often</i>		<i>Almost always</i>
1		2		5		4

27. Ignore the fact that I do not understand something my child says.

<i>Hardly ever</i>		<i>Sometimes</i>		<i>Very often</i>		<i>Almost always</i>
1	2			3		4

28. Follow along with my child's topic of conversation.

<i>Hardly ever</i>		<i>Sometimes</i>		<i>Very often</i>		<i>Almost always</i>
1	2			3		4

29. Repeat what my child says, adding new words.

<i>Hardly ever</i>		<i>Sometimes</i>		<i>Very often</i>		<i>Almost always</i>
1		2		3		4

30. Talk about what is going on when my child and I are playing or doing things together. Example: When playing tea party, "Now, I'm pouring my tea. You're eating a tea cake. Is it good?"

<i>Hardly ever</i>		<i>Sometimes</i>		<i>Very often</i>		<i>Almost always</i>
1	2			3		4

31. Tell my child if s/he leaves some words out of a sentence.

<i>Hardly ever</i>		<i>Sometimes</i>		<i>Very often</i>		<i>Almost always</i>
1	2			3		4

32. Change my words or sentence when my child does not understand me.

<i>Hardly ever</i>		<i>Sometimes</i>		<i>Very often</i>		<i>Almost always</i>
1	2			3		4

Aboriginal mothers' views

APPENDIX G

Original Survey

Appendix. Survey Items and Instructions.

We would like to know your ideas about young children. Circle a number to indicate how much you agree with each of the statements below. Here is what the numbers mean;

- 1 = *strongly disagree* with the statement.
- 2 = somewhat *disagree* with the statement.
- 3 = unsure about the statement
- 4 = somewhat *agree* with the statement
- 5 = *strongly agree* with the statement.

"Think especially about your 2-4 year old children when you answer."

Here's an example:

Strongly Disagree	Strongly Agree
----------------------	-------------------

A. Young children should have a rest period every day.

If you strongly agree with this statement you would circle the number 5. If you disagree with the statement, but not very strongly, you would circle number 2.

Please give us your opinion about the following statements;

	Strongly Disagree	Strongly Agree
1. Children who spend time quietly observing tend to be smart.		5
2. It is important to find out what young children are thinking.		5
3. Parents should ask young children to repeat new words in order to help them learn to talk.		5
4. Speech is especially important because it helps young children to make friends.		5
5. Children understand some words even before they can speak.		5
6. Parents should let children experiment, even if they might make mistakes.		5
7. The proper titles for people ("Aunt" Sally) are more important to learn than the names of objects.		5
8. Parents should wait until young children ask before giving help.		5
9. It is more important for young children to speak clearly than to speak politely.		5
10. If parents use "baby talk" (like "wawa" for water, or "jamies" for pajamas) their child won't learn to speak well.		5
11. Three-year-olds are too young to help with household chores.		5
12. Young children learn best when they are given instructions.		5
13. Young children should always be encouraged to communicate with words rather than gestures.		5

Appendix H

Page 1 of 1

Luella Bemacki Jonk

From: "Judith Johnston" <jri@audtospeech.ubc.ca>
To: "Luella Bernacki Jonk" <umjonkl@cc.umanitoba.ca>
Sent: Saturday, June 23, 2007 9:53 PM
Subject: authorization

June 23, 2007

Dear Ms. Jonk,

Thank you for your interest in our two survey studies regarding beliefs and practices about talk to children.. It is fine with us (i.e. co-authors N. Simmons and A. Wong) for you to use some or all of the items on these questionnaires for your own research purposes. We would of course appreciate the usual acknowledgement. I will additionally note that our pool of questions was, in both studies, prepared with foreknowledge of the culture and in collaboration with members of the culture.

Judith R. Johnston
Professor, UBC
School of Audiology and Speech Sciences

6/24/2007

APPENDIX I

CONSENT FORM

Cultural Informants

Research Project Title: Cross-cultural influences regarding language acquisition and the value of talk: Perspectives of Aboriginal and Western caregivers.

Researcher: Luella Bernacki Jonk

After you sign this consent form, you can take a copy with you when you leave. This form should tell you a little bit about the study and why I asked you to be interviewed. Please take the time to read this form carefully and make sure you understand everything before starting agreeing to be an informant.

This purpose of this study was to help educators (teachers, specialists, doctors) have a better understanding of how Aboriginal children speak English by the time they enter kindergarten. In order to do this, my research assistant interviewed thirty mothers who have young children, (completed a survey) in your community. When I interpret their answers, I will have some idea as to why survey items were answered in a certain way. However, being non-Aboriginal and in the community for several, but short periods of time, it is difficult to interpret the responses with accuracy. This is why I need your help. I would like you to help me understand why they answered the questions the way they did.

Your interview will take less than one hour to complete. In addition to this phone interview, I may call you from time to time to ask one or more specific questions regarding how Aboriginal mothers responded to the survey.

You, as well as the community will be able to view the final draft of the study before it is written formally for the University. The University will make it available to anyone interested (hard copies or online) when it is approved and completed. The name of your community will also have mention in the study. I will also return to the community within approximately one year time to hold an information meeting and tell you more about the results.

Having your signature on this form shows that you have read this and understand the information, and agree to participate as a cultural informant. However, you can stop answering questions at any time; it is still your choice. You are also allowed to ask as many questions as you would like when we speak.

Thank you.

If you need to contact me my name and contact information is below:

Luella Bernacki Jonk, Speech-Language Pathologist/ Researcher
Telephone: 1-204-771-7650

This research has been approved by the Psychology/Sociology REB. If you have any concerns or complaints about this project you may contact any of the above-named persons or the Human Ethics Secretariat at 474-7122, or e-mail Margaret_bowman@umanitoba.ca. A copy of this consent form has been given to you to keep for your records and reference.

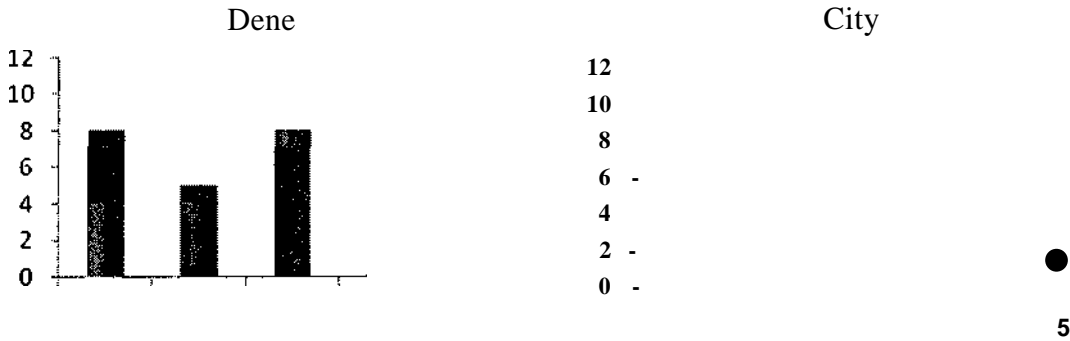
Participant's Signature

Date

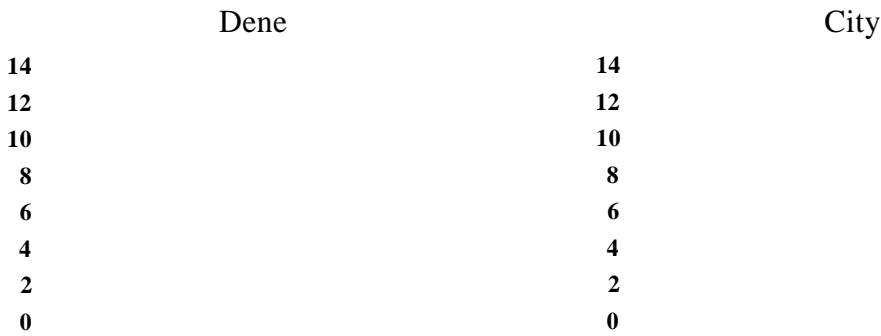
APPENDIX J

(All charts report number of participants (Y-axis) to response scaled score (X-axis))

Question 1: My child spends much of the day playing outside.



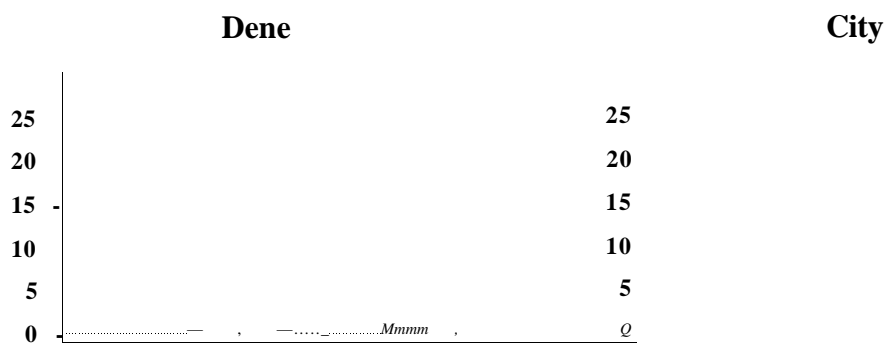
Question 2: My child spends much of the day inside with books and toys.



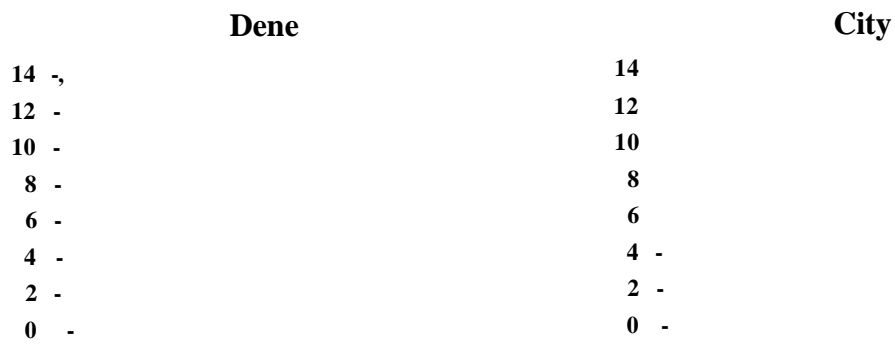
Question 3: I would like to be taught how to help my child to understand and say more words.



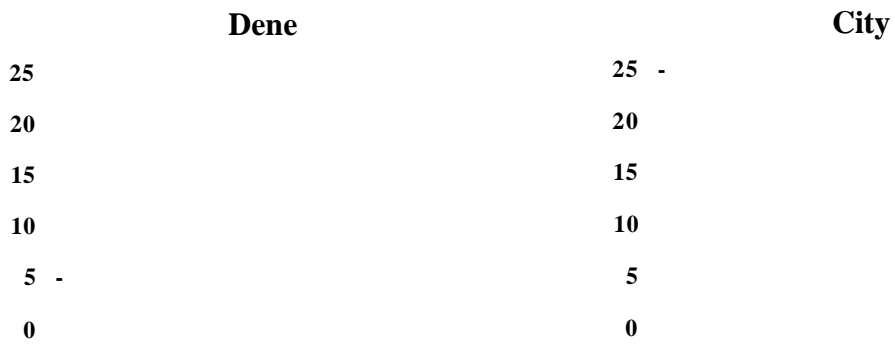
Question 4: I would be concerned if my four year old child was not speaking in Nursery.



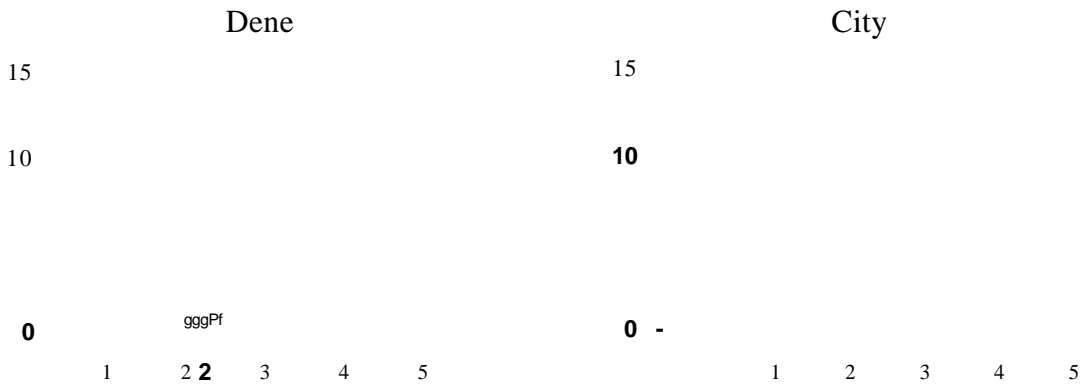
Question 5: A lot of ear infections may change how a child speaks.



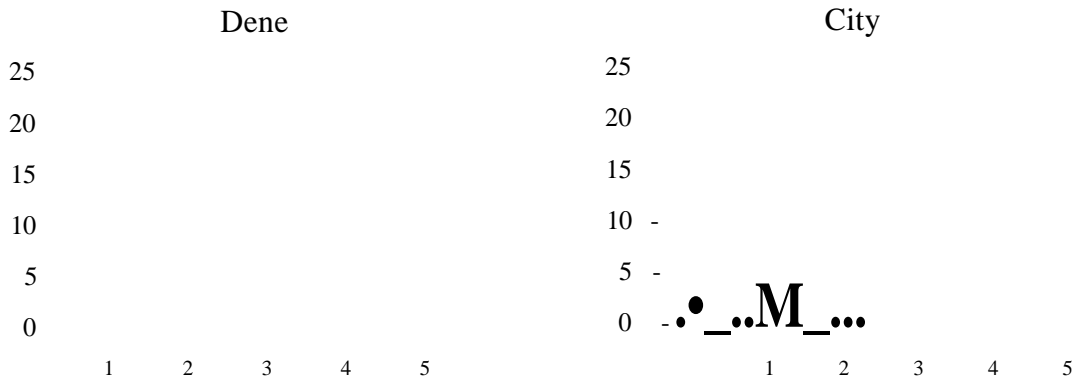
Question 6: I feel comfortable copying my child's play on the floor.



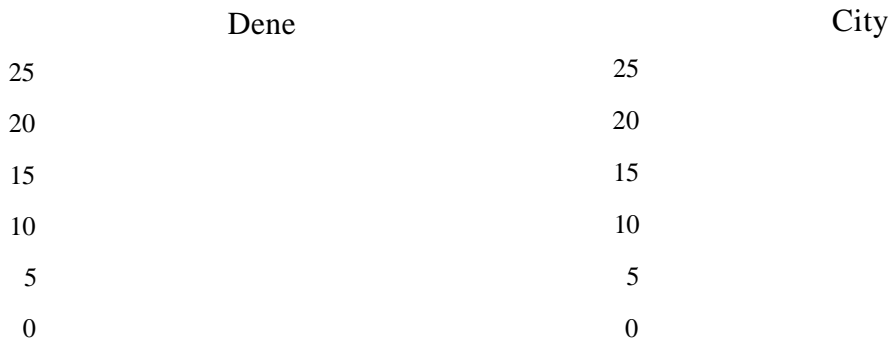
Question 7: It is Ok for my child to not respond to me right after I ask a question.



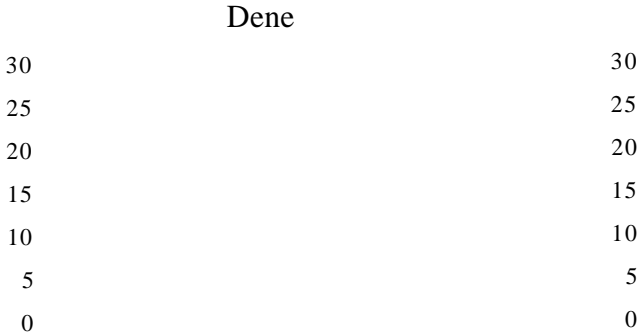
Question 8: My child can easily sit and listen to a story without picture books.



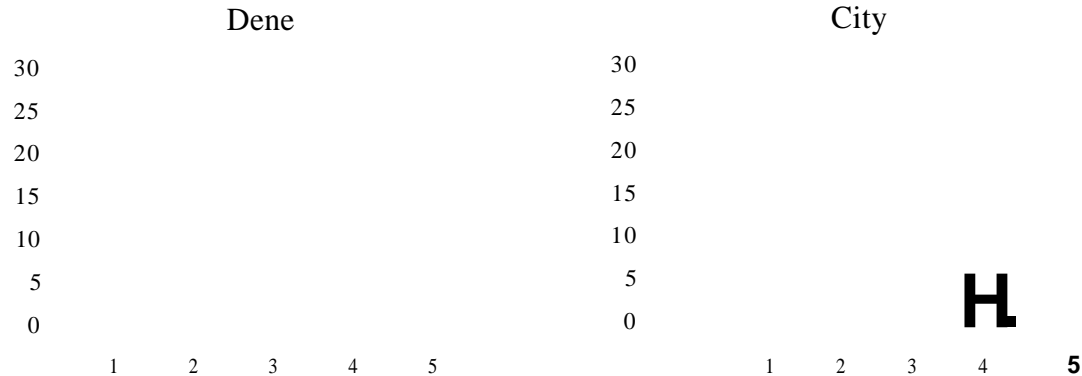
Question 9: My child's brothers and sisters teach him/her new language as much as I do.



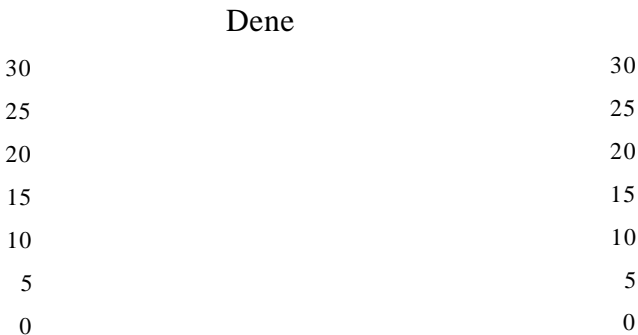
Question 10: My child's connection to spirituality is important to me.



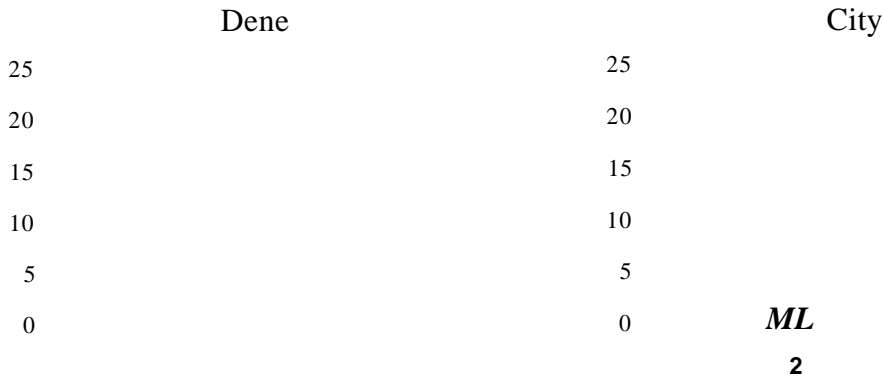
Question 11: My child will easily talk to an older person (who they know) if given a chance.



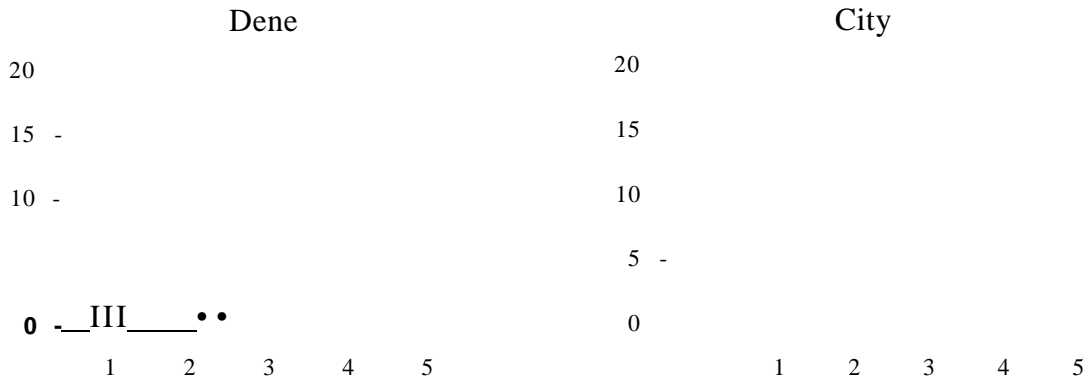
Question 12: My 4-5 year old should attend Nursery/Kindergarten 3-5 days a week.



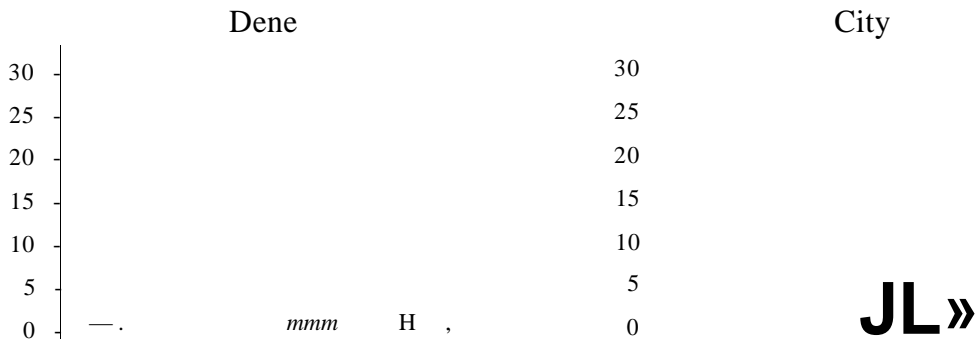
Question 13: When I tell my child a story., it is usually for a purpose (example: teaching).



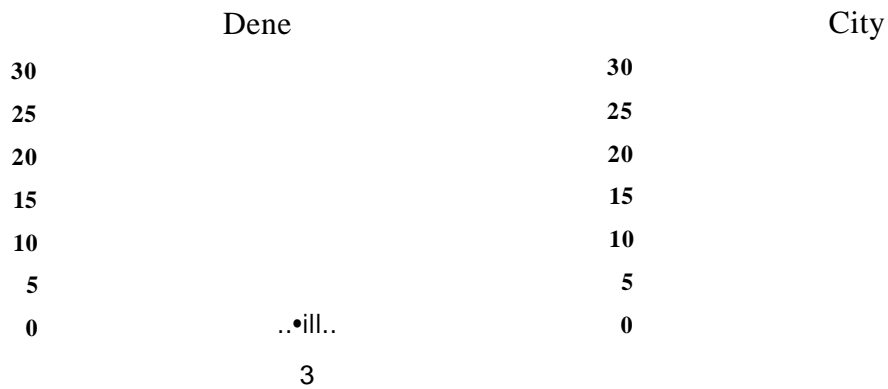
Question 14: Children learn the best by doing (provided they are out of danger), for example, how to make toast.



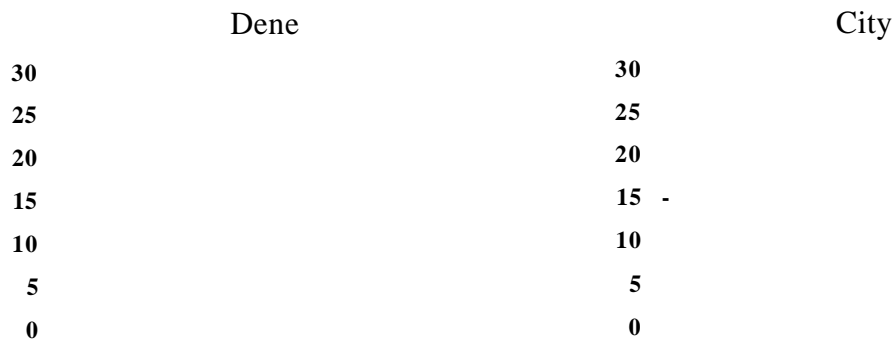
Question 15: Parents should ask young children to repeat new words in order to help them learn to talk.



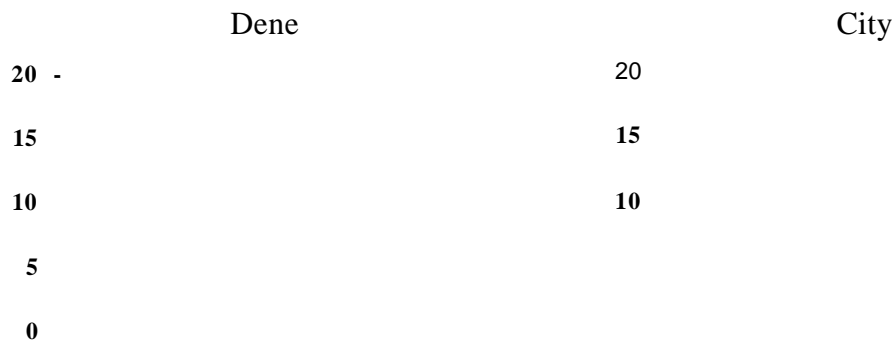
Question 16: Children understand some words even before they can speak.



Question 17: Speech is especially important because it helps young children make friends.



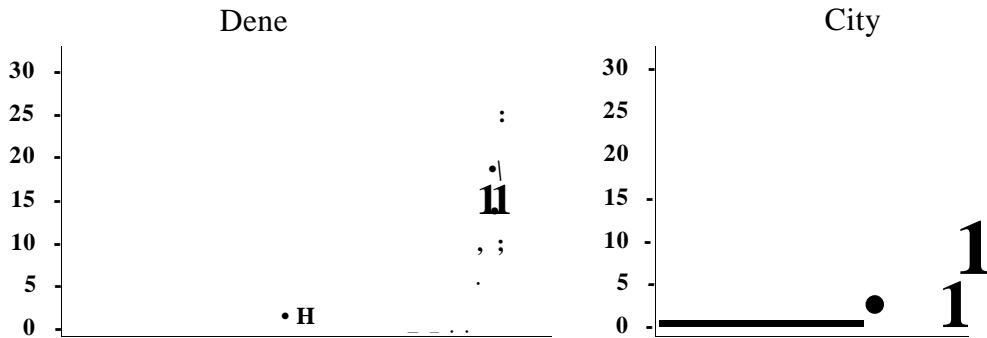
Question 18: If parents use 'baby talk' (like wa wa for water, or 'iammies' for pajamas) their child won't learn to speak well.



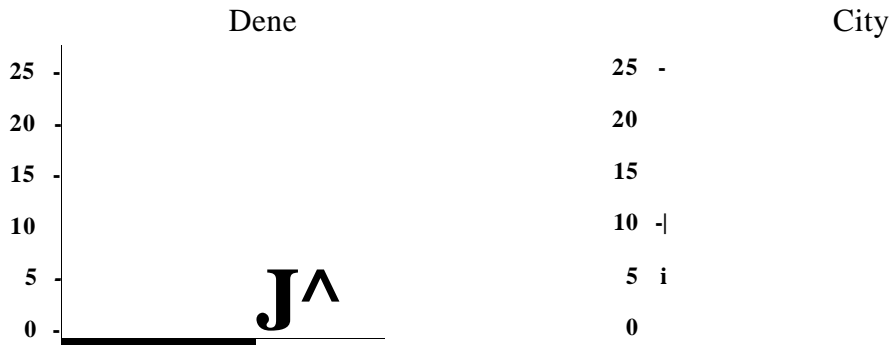
Question 19: Three year olds are too young to help with household chores.



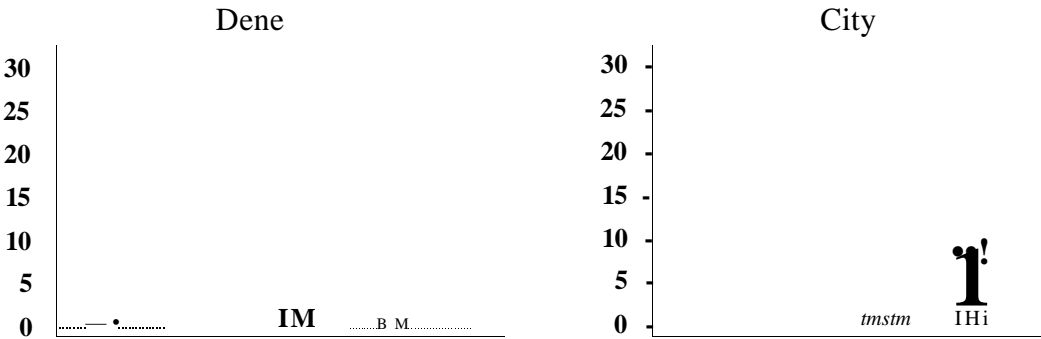
Question 20: Young children learn best when they are given instructions



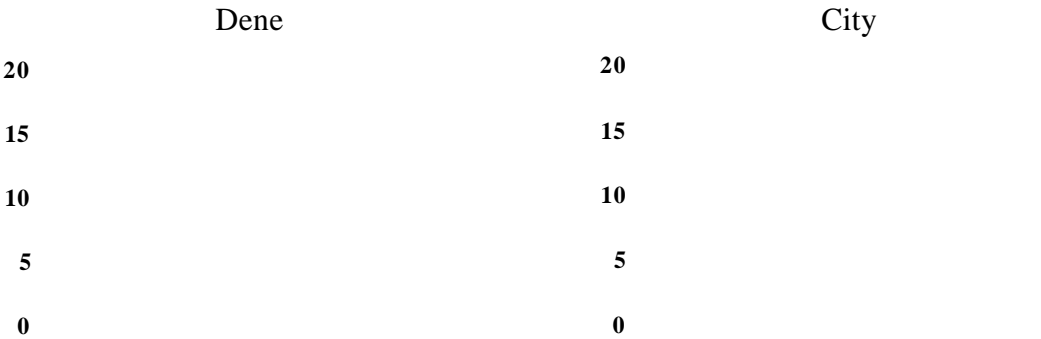
Question 21: Young children should be encouraged to communicate with words rather than gestures.



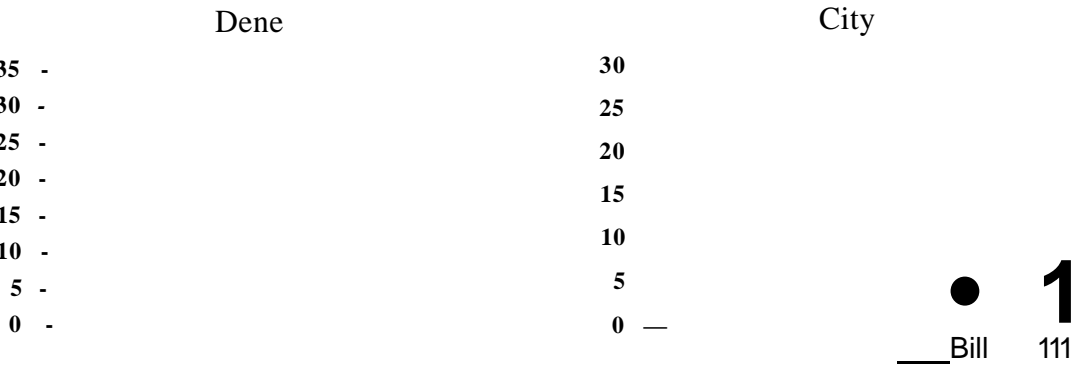
Question 22: Young children learn important things while playing.



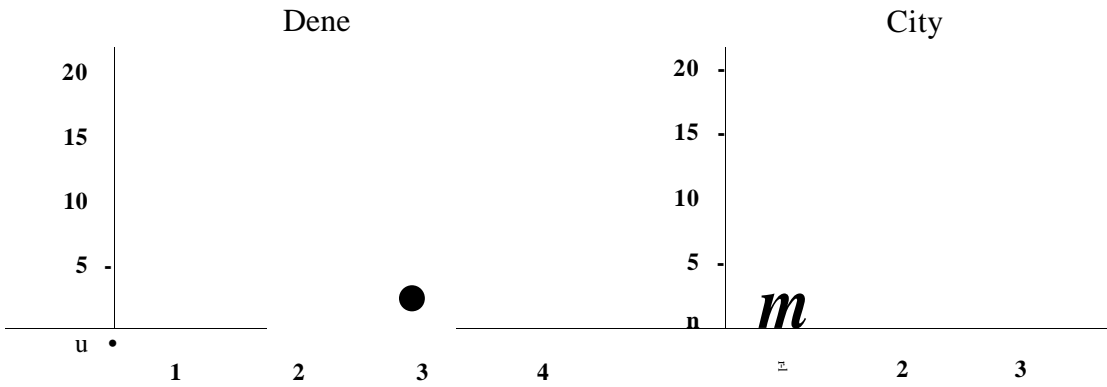
Question 23: Young children should be allowed to take a turn in conversation that includes adults who are not family members.



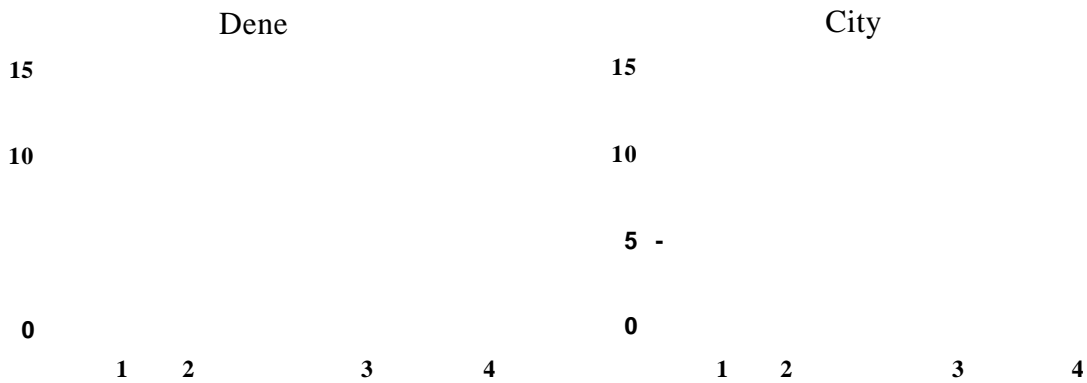
Question 24: Grandparents or older family members give good advice about the way that young children grow up.



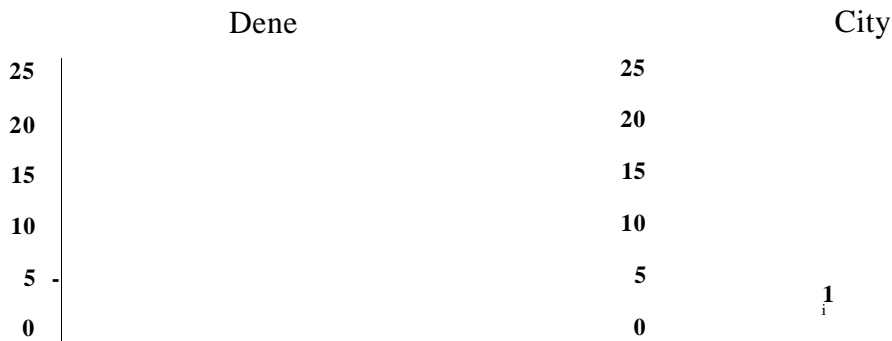
Question 25: Tell my child if s/he uses the wrong word.



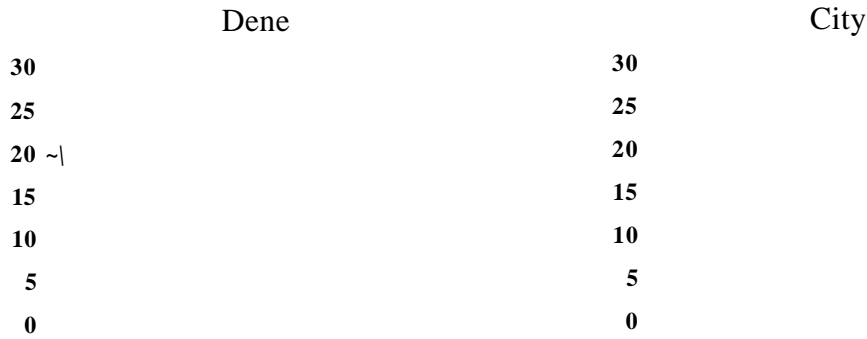
Question 26: Read a book to my child at bedtime or naptime.



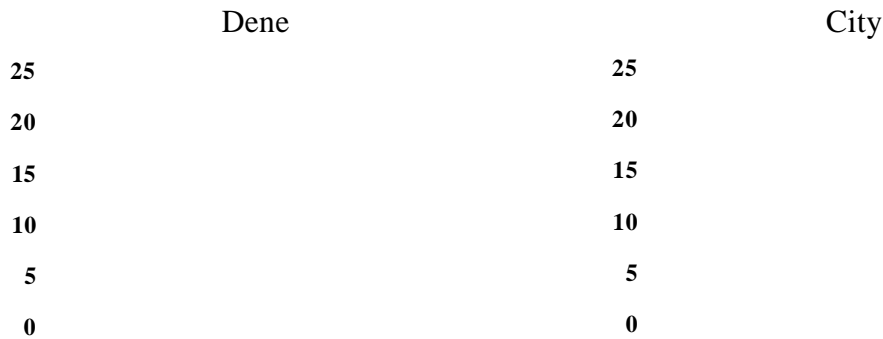
Question 27: Ignore the fact that I do not understand something my child says.



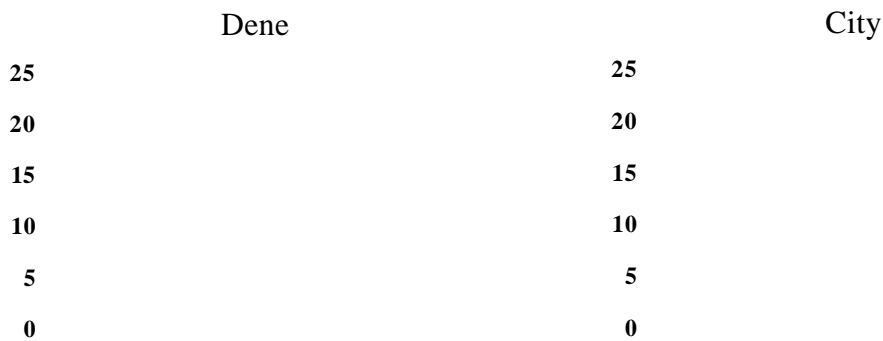
Question 28: Follow along with my child's topic of conversation.



Question 29: Repeat what my child says, adding new words.



Question 30: Talk about what is going on when my child and I are playing or doing things together.



Question 31: Tell my child if s/he leaves some words out of a sentence.

	Dene		City
	20		20
	15		15
	10		10
	5		5
	0		0

Question 32: Change my words or sentence when my child does not understand me.

	Dene		City
	30		30
	25		25
	20 ↵		20
	15		15
	10		10
	5		5
	0		0

Question 33: Talk with my child about what happened that say when I wasn't there.

	Dene		City
	30		30
	25		25
	20		20
	15		15
	10		10
	5		5
	0		0

Question 34: Use picture books or flash cards to teach my child new words.

Dene	City
25 -	25 -
20	20
15	15
10	10
5	5 -
0	0

Question 35: Ask my child to repeat a sentence after me.

Dene	City
30	30
25	25 -
20	20
15	15
10 -i	10
5	5
0	0

Question 36: Ask my child to tell another family member about something we did together.

Dene	City
25 n	25
20	20 -
15	15 -
10	10
5	5
0	0

