

An Exploration of Teacher Talk in Early Childhood Settings: Implications for
Educational Curriculum and Practice

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ABSTRACT

An Exploration of Teacher Talk in Early Childhood Settings: Implications For Educational Curriculum and Practice

Olga Bakai

This research study explores the types of teacher talk that occur in early childhood classroom environments. A total of 2 teachers and 30 children participated in the study consisting of both videotaping as well as recorded observations of teacher talk. Both videotapes and observations were coded according to predetermined categories such as behavioral control, language modeling, and conversational control. In addition semi-structured interviews were conducted with participating teachers to assess their responses to questions regarding their education, training, and opinions on developmental milestones. Results revealed that the most frequent type of utterances occurred in language modeling (labeling) however, extensions and expansions (which are deemed important for building vocabulary and new word acquisition) were the lowest types of utterances produced by teachers. Other frequently noted types of utterances produced by participating teachers were directive in nature as exemplified by the types of utterances that control behaviour and responses to adult utterances both of which have been shown to impact child language production. The implications for educational training for early childhood educators are discussed in light of the fact that both participating teachers deemed social skills to be the most important developmental area in the preschool years without recognizing the importance that language play in the development of such skills. The importance of language development and the understanding of how communicative competence plays a part in the ways in which children learn to negotiate their way in the world are discussed.

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An Exploration of Teacher Talk in Early Childhood Settings: Implications for Educational Curriculum and Practice

Introduction

The ability to communicate is perhaps one of the most fundamental mechanisms through which human beings relate to, learn from, and interact with the world. Yet early research, (as well as a number of current investigations) in language development typically focused on discovering the underlying biological mechanisms by which language comes to be acquired (e.g., the works of Chomsky, Pinker, etc.). Although this generated important discoveries of brain processes relating to language learning and production, the role of the social context received only cursory mention within the research literature. (For a more thorough review of the early literature in this area see Harris, 1992). Beginning in the mid-1970s researchers such as Bruner (1975, 1983), and Halliday (as referred to by Harris, 1992) began to examine the ways in which social interaction and social processes precipitated the acquisition of language in infants and toddlers. Specifically, these researchers attempted to understand how language acquisition comes to be affected by, and facilitated through the social processes within which young children participate in their everyday lives. Bruner's seminal work in this area was conducted in the 1970s when he, along with his colleagues, examined parent-infant interactions as precursors to language acquisition. Specifically, they examined the ways in which infants and their mothers participated in "conversational exchanges" through the use of simple games such as peek-a-boo and during everyday routines such as diapering, feeding, etc. Through their research, these authors concluded that many of the social (non-linguistic) precursors to later language learning (e.g., turn-taking, joint action

and referencing, and the development of shared understanding) are present in the child's social environment from very early on in development, and more importantly, appear to facilitate the subsequent development of language (Bruner, 1975). In other words, although the mechanisms for language learning may be biologically constrained to occur during a specific developmental period (e.g., between 1-3 years of age), the social environment and social processes that facilitate this process are in place from the moment the infant turns his/her head to look at an adult (Bruner, 1975, Snow, 1999). As Snow (1999, p. 265) summarizes, "it is these intensely social communicative behaviours that children have control over at the time they start to learn about the language system proper, and it is sensible to think that these social, communicative achievements (as flimsy as their linguistic substance is) constitute the bootstraps with which children levitate themselves into language proper."

With the re-discovery of Vygotsky's sociocultural psychology in the 1980s and 90s, a number of research studies began to emerge examining specific developmental processes such as language development within this theoretical orientation. As a result of this "new" focus, our subsequent understanding of how language comes to be acquired is becoming a much richer picture. Despite the amount of research in this area however, there continues to be substantial gaps in knowledge regarding the specific elements of the social world that impact on the development of language. Furthermore, the nature of the influence (of social processes) or the direction of the impact on child language development is often complex and requires a multi-dimensional framework in which to interpret. As mentioned previously, sociocultural theory provides the basic theoretical framework for the focus of the present research. The main justification for adopting such

a framework is tied to the notion articulated by French and Woll (1981, p. 161) who state that, “an adequate theory of language development *must* take account of the social functions that language serves as well as of the formal and cognitive complexity of the semantic and syntactic systems that are being learned.” The basic tenets of this theoretical orientation are as follows: 1) that learning and development are mediated by (and motivated by) cultural and societal influences, 2) that language is the most fundamental mediation through which cultural ideas are both created and transformed, and 3) that the social environment can alter and/or shape the course of development. It becomes quite evident that sociocultural theory provides a fitting backdrop within which to conduct an investigation of language development (Kraker, 2000).

For these reasons, it was deemed prudent to adopt this particular framework within which to examine the impact of the specific social processes on children’s language development. As other researchers concur, “language is the means for interpreting and regulating culture” (Bruner, 1983, p. 24), and as a consequence, its development cannot be understood without taking into consideration the cultural setting in which it occurs. Similarly, Rice (1996) states: “from the onset, language emerges as a social tool” (p. 7), and according to Panel (1996) since “children live in a rich social world of language as they interact with others, they gradually learn how to share their meanings and as they do so, construct a set of beliefs/expectations about language” (p. 147). In order to gain further insights into the process of language acquisition in early childhood, it becomes crucial that the theoretical background serves as basis for an investigation into how specific social processes (e.g., caregiver-child interactions in child care) impact on language acquisition. In other words, “the work of Bruner and Halliday

[as well as a number of other researchers], strongly suggests that the wider social context of children's linguistic experiences is a more appropriate domain for study, and that before one can conclude that language development is not related to language experience, it is first necessary to examine both the language addressed to young children and the social context in which children encountered that language" (Harris, 1992, p. 39).

Literature Review

An examination of the literature in the area of social processes has led to the discovery that the majority of both the earlier as well as more recent investigations focus on examining how parents (usually mothers) come to impact on their children's language development (Yont, Snow & Vernon-Feagens, 2003; Murray & Hornbaker, 1997; Naude, Pretorius & Viljoen 2003). More specifically, the majority of the research has focused on the ways in which mother-child interactions impact the rate of language acquisition. Results revealed specific interactional tools used by mothers that appeared to increase both the rate and richness of children's emerging language. For example, Harris (1992) summarizes the results of a large longitudinal investigation called the Bristol Study which examined this very factor and found that children who showed the earliest and most rapid language development received significantly more acknowledgements, corrections, prohibitions, and instructions from their parents, as well, parents exhibited more imitations, repetitions, directives and asked significantly more questions from their children. In other words children who exhibited advanced language abilities (measured by size of vocabulary and mean length of utterance) were found to have received significantly more linguistic input than children developing language at a slower and/or normal rate.

Several other similar research investigations further support the findings of the Bristol study. For example, Hoff-Ginsberg (1991) found that mothers' speech that was more contingent on their children's speech and used less behavioural directives was correlated with earlier language acquisition (defined by vocabulary size and mean length of utterance). More specifically, although both groups of children were characterized as "normal" in terms of their rate of language acquisition, the levels at which their vocabulary and new word acquisition appeared to be developing were significantly affected by the specific interactional patterns their mothers utilized in their day-to-day interactions. Similarly, research conducted by Hart & Risley (1995 – as referred to by Snow, 1999) adds further support to the importance of maternal factors in language development. These researchers found density of maternal speech to be the single best predictor of a young child's vocabulary. In other words, the amount of talk that children heard during their day-to-day interactions predicted their vocabulary scores on standardized assessment instruments. In a related vein, researchers Murray & Hornbaker (1997) examined the specific aspects of mother-child interactions that were facilitative of language learning in toddlers. Their analysis revealed a significant negative correlation (-0.22 $p < .05$) between maternal directiveness (defined as language that is not responsive to a child's initiations and did not elicit conversational interactions between mother and child) and children's receptive language scores at 24 months (even after adjusting for the child's earlier development characteristics). Conversely, they found maternal elaborativeness (talk characterized by contingent responses that elicited mother-child conversational exchanges) to be positively correlated with higher cognitive skills at 24 months.

Cross-cultural studies provide additional evidence for the importance of parental variables on children's language acquisition. For example, research conducted by Naude, Pretorius and Viljoen (2003) in South Africa examined a number of parental variables (e.g., parent's level of language proficiency, attitudes towards language learning, provision of language/literacy learning opportunities, etc.) as they impacted on children's language and cognitive skills at three different ages (5, 6, and 7). Their findings revealed that, due to the severely impoverished language environments that the children in the study were experiencing, all three age groups were functioning at a low-average level verbal proficiency, revealed restricted vocabulary, impaired comprehension and impaired abstract reasoning abilities. Consequently, the majority of the children in their sample required special education intervention and were at high risk for school failure. Although this particular study was conducted in another country and culture, the implications for child language learning in general cannot be ignored. In summarizing the research in this area it appears that, although children with less access to adult talk may not necessarily exhibit language deficits, the impact of maternal interactions has a significant effect on both the acquisition of vocabulary as well as grammar. The implications of this conclusion in terms of school readiness are apparent. As these authors conclude, "their restricted range of vocabulary also adversely affects verbal retention, and their ability to store and reproduce meaningfully ordered verbal information is therefore impaired. They therefore reveal impaired knowledge-acquisition processes. These results point towards delayed development of readiness-to-learn skills." (Naude, Pretorius & Viljoen, 2003, p.287). In a similar vein, research conducted by Snow (1999) examining whether language input affects rate of language acquisition has found that children provided with

less linguistic input appear to have slower rates of language acquisition with a specific conclusion that “ the children we studied were not deficient in language but were acquiring language more slowly” than the children who have been exposed to large amounts of language input (p.272).

Taken together, these research studies of parent-child interactions involved in facilitating language learning clearly demonstrate the importance of the social environment on language acquisition. More specifically, these investigations provide an important hint into the nature of social interactions (between parents and their children) and the ways in which these early interactions play a part in language learning. From the earliest stages of development infants are actively involved in a social world from which they learn to acquire rules and codes of conduct needed for successful entry into the society they are born into. Although the majority of the small day-to-day interactions that occur between children and their parents are often taken for granted, it is only when examined in situations where it does not occur with regularity that one can begin to understand the importance that it plays in the development of language. These early interactional experiences provide the “scaffold” by which children acquire communicative competence and as such, have important implications for those children whose lives do not allow for the provision of such a supportive learning environment.

According to the National Center for Educational Statistics (1996 – as reported by Burchinal, Roberts, Riggins, Zeisel, Neebe & Bryant, 2000), 40% of 3 year-olds receive childcare in center-based settings. In Canada, a little over 20% of children aged 5 and younger are cared for in day care centers (Polyzoi, 1997). In Quebec alone, 58.8% of children attending childcare centers are between the ages of 3-4, while 76.8% of families

who used childcare services did so on a full-time basis (5 days/week) (MESSF Statistics, 2002). Due to the increasing numbers of children receiving care outside of their homes, the focus on other caregivers (specifically early childhood educators) is beginning to be studied in the research literature (although the majority of the literature continues to be dominated by parent-child interaction studies). Specifically, this area of inquiry emerged out of the broader research examining the impact of child-care on children's overall development. Several recent large-scale investigations (a number of them longitudinal) have attempted to determine links between specific aspects of child-care environments and their corresponding impact on children's socialization, language and cognitive development (Burchinal, et. al, 2000; NICDH Early Child Care Research Network, 2004; Mehuish, Lloyd, Martin & Mooney, 1990; McCartney, 1984; Ackerman-Ross & Khanna, 1989). Although revealing important predictors within daycares (e.g., teacher-child ratio, classroom size, availability of materials, teachers' educational level, etc.) that have demonstrated links with children's development, the research in this area is also plagued by methodological concerns. Specifically, the definitions of what constitutes "quality" change from study to study, and measurements of child outcomes lack consistency and cohesiveness.

In other words, it becomes difficult to synthesize the research findings, given the wide degree of variability among researchers in their definitions of quality and child outcomes. Methodological issues aside, although the majority of the research in this area acknowledges the impact that caregivers have on language development, it does not systematically examine how and what specific qualities of the caregiver-child interaction are responsible for which aspects of language learning. Considering the fact that a large

number of preschool children spend significant portions of their day being cared for by people other than their parents, the role of early childhood educators in facilitating young children's language development warrants a more systematic inquiry.

Teacher-child Interactions and Language Development

As demonstrated repeatedly by the literature available on the importance of responsive maternal-child interactions on young children's language development, the nature of teacher-child interactions is also one that is theorized to play a crucial part in how children acquire and continue to progress in the development of language and communication. In conducting an examination of how teacher-child conversations relate to language development, adopting a social interactionist perspective helps to further pinpoint the basis for this investigation. The basic premise of this particular perspective, and one that is adopted for this particular research study is that children learn language in naturalistic conversational exchanges with adult partners (Girolametto & Weitzman, 2002). Keeping in mind the significant number of preschool children who attend child care centers for the majority of their day-to-day lives, understanding the types of interactions, that occur between children and teachers, as well as the quality of those interactions warrants careful study and analysis. It is important to note at this point that the quality of child-to-child verbal interaction may also play a significant part in language acquisition, however that is an entirely other area of inquiry that is not within the scope of the present study.

Similar to the research on quality of childcare, the research on the significance of teacher-child interactions has focused mainly on children's social development (re: attachment theory). Literature on the effects of teacher-child (or caregiver-child)

interactions as they pertain to language development have begun to receive attention mainly from the area of early literacy research, although there are a number of current studies (e.g., Wilcox-Herzog & Kontos, 1998; Rosemary & Kontos, 2002; Smith & Dickinson, 1994) that have begun to focus a much closer lens onto the specific aspects of these interactions as they relate to language learning. The overall theme of the research studies focusing on teacher-child talk can be characterized as focusing on the amount of teacher-child conversations, and the type, or nature of teacher-child talk that occurs in a typical childcare classroom (Kontos & Wilcox-Herzog, 1997). Other researchers concur that quality verbal interactions with adult caregivers positively correlate with increased child utterances and better performance on standardized language tests. West-Lewis and Bhavnagri (1991) for example, found that children exposed to longer and more verbally rich utterances as opposed to short and less rich discourse demonstrated more favorable language development outcomes (3 out of 4 highest scoring children had parents who engaged in a high quantity of verbal interactions with them). In addition, these researchers concluded that appropriate caregiver responses to child initiations as well as asking questions that stimulated new language learning were important factors in determining the favorable language outcomes observed.

Specific Types (Quality) of Teacher-child Language Interactions

Beginning with the nature of teacher-child conversations, Girolametto and Weitzman (2002), observed several different kinds of descriptors for the ways in which such conversational exchanges promote language development. Specifically, these researchers found that teachers' responsive comments, descriptions, interpretations and focus on children's own interests appear to create opportunities for conversational

exchanges that promote the acquisition of new words/concepts in young children. In essence their research has pinpointed the ways in which teachers can “scaffold” children’s emerging language through the provision of new information that is one step ahead of the child’s own but still within reach to be mastered. What these researchers discovered in examining how childcare environments facilitate the type of talk that is directed to children is that there appears to be a continuum along which types of teacher-talk can be characterized: 1) directiveness on the one end, and 2) responsiveness on the other end. In terms of directiveness, these researchers further divided this category into five sub-types which they defined as the following: 1) behaviour control whereby the teacher uses language to elicit attention and/or group participation, 2) conversational control occurs when the adult asks open-ended questions to elicit conversation (this could also be classified as a positive controlling effect), 3) response control – when teachers use commands, test-like questions and questions designed to elicit yes/no answers, 4) turn-taking control – involves teachers dominating the conversation by using frequent verbal turns, and 5) topic control, which involves the extent to which adults select the topic of discussion and/or direct the child’s attention towards adult-selected topics of conversation. Responsiveness was divided into three sub-categories: 1) child-oriented responses (e.g., teacher followed child’s lead, wait for child to initiate, getting down to child’s physical level when conducting conversations), 2) interaction-promoting responses (e.g., teacher engaged children in extended conversations, asked questions, encouraged turn-taking and participation), and 3) language-modeling responses (e.g., teacher used labeling, extensions, expansions – providing semantic/syntactic models of mature language forms). Using these categories in analyzing early childhood educators’

interactions with the children in their classrooms, Girolametto and Weitzman (2002) found that over half of the caregivers received consistently low ratings (e.g., a rating of 4 or lower – out of 7) for use of responsive strategies especially for asking a variety of questions, encouraging turn taking, and expanding/extending. Their study also revealed that child-directed activities elicited less behaviour and response control techniques from teachers and more balanced turn taking between teachers and children. Interestingly, child-directed activities also yielded the greatest amount of child talk (as measured by number of utterances and word combinations).

Similar studies provide further information about the nature of caregiver-child interactions in daycares. Examining the specific nature of teacher-child interactions, Goelman (2002) attempted to discover the precise nature of the language interactions that occur in childcare and to what extent these interactions facilitate children's language and literacy development. Towards this end, this researcher examined play sessions in childcare settings and attempted to find the frequency with which teachers used talk that encouraged children's "metalinguistic awareness". Definitions of this category included eight types of utterances: 1) endophoric whereby the teacher made explicit references to persons/objects/events previously mentioned in past conversations and used this to further maintain or extend a specific topic, 2) cognitive verbs included action words that reflected the speakers awareness of inner mental states (e.g., remember, I believe, etc.), 3) other verbs was used to classify all non-cognitive verbs used as well, acted as a measure of total talk, 4) labeling demands characterized utterances when the speaker asked the name of person/object, 5) recall demands involved requests for previously told stories/events, 6) describing demands occurred when the speaker wanted to know

descriptive details of an object/person, 7) explanation demands occurred when the speaker wanted to know the answer to a why question, and 8) 3R demands defined all requests involving how words were spelled, or what a word meant or how to draw a certain letter. Results of this investigation revealed that the frequency with which caregivers used endophoric references and cognitive verbs correlated positively with children's scores on standardized measures of language development. Goelman (2002) concludes, "the results indicate that not only is the global quality of a child care environment important in facilitating positive language development in the preschool years, but the nature of the individual daily language interactions within the environments are critical for expressive and receptive language development" (p.6).

Massey (2004) also attempted to investigate the quality of preschool classroom conversations and the ways in which these interactions promote oral language development. Specifically, her aim was to discover what the teacher's role is in directing and modeling cognitively (and linguistically) challenging conversations in child-care centers. This particular investigation utilized four levels of abstract language that teachers can incorporate into their daily conversational exchanges with children. These four levels go from the lowest cognitively challenging to highest and are the following: 1) matching-perception which included labeling and locating objects/characters, 2) selective analysis/integration of perception focuses on recall and providing descriptions of past events, 3) reordering/infering about perception deals with summarizing, defining, comparing and contrasting and providing judgments, and 4) reasoning about perception involves use of predictions, problem solving, concept explanation, etc. Based on earlier recommendations from Blank and Berlin (1978, as referred to by Massey, 2004), ideally

70% of discourse between teachers and preschoolers should be characterized by the three lower (more concrete) levels to promote a good cognitive foundation, while 30% should involve higher thinking skills that promote the acquisition of new concepts/words.

Especially important is the playtime when teachers are presented with opportunities to model language use, initiate conversations, and facilitate children's pretend talk (e.g. introduce props that encourage conversation, introduce new knowledge about the world, and make connections between child's experiences and world events).

In a very similar vein, researchers Rosemary and Roskos (2002) also examined both the quantity and quality of language input in daycares. Similar to Massey (2004) these researchers created three categories within which to examine teacher-child talk: 1) cognitively challenging talk (e.g. analysis, predictions, clarification), 2) lower cognitive demand talk (e.g. labeling, recall, chiming), and 3) management talk (e.g. organization, attention, safety). The observational target was the teacher of the classroom. Results revealed the following: only 10% of adult talk in the classroom was related to literacy (reading and writing), adults talked more often than children, most literary episodes between adults and individual children occurred during free play, small group activities and transitions, and the predominant tendency of adults was to ask, explain, and confirm when interacting with the children. Rosemary and Roskos (2002) also noted that overall, their study showed that verbal strategies such as elaborating, reporting, and correcting were the least observed characteristics of teacher discourse with the lowest of these being correcting.

Further support for the importance of elaboration in teacher-child discourse comes from a study conducted by Wilcox-Herzog and Kontos (1998) who also attempted to

examine the quality of teacher talk in daycares. These researchers categorized teacher utterances on a continuum from elaborative (highest) to non-elaborative (in the middle), followed by directives and no talk as the lowest. In this case elaborative talk was characterized as using open-ended questions, providing additional information, suggestives, and statements elaborating on child's previously uttered concept. Non-elaborative included closed-ended questions and declarative statements that described observable characteristics but did not give additional information. Results showed that 81% of the time observed, teachers did not talk to children. When teachers did engage in conversations with the children only 11% of those conversations were found to be elaborative.

A Canadian study conducted by Polyzoi (1997), also showed similar results. This particular investigation examined the quality of language used by four year olds when engaged with different conversational partners (3 and 5 year old peer, and early childhood educator). In attempting to classify the quality of talk, five categories or characteristics of each conversation were utilized: 1) turn-taking, 2) conversational gaps, 3) types of utterances, 4) conversational cohesiveness, and 5) overlapping utterances. Adult child interactions were found to be characterized by more turn-taking (almost twice as many turns with an adult compared to peers), children produced fewer utterances per turn (and fewer word utterances in total), adults asked more questions (66% of adult utterances were questions), and adults used more "teacher talk" (19% didactic utterances) than did peers. In terms of conversational contingency or cohesiveness, children produced more contingent responses with an adult (93%) and 70% of the adults' utterances were projectives defined as establishing a slot for the partner's next

contribution by ending in either a question or an imperative. In summarizing the results, this author noted that teachers' talk served to extend the child's utterances while simultaneously expanding the child's existing knowledge base. In addition, adults as compared to peers were much more adept at adjusting their input to fit to their partner's experience base, interest, and linguistic competence.

In a related vein but with a slightly different focus, researchers Wittmer and Honig (1991) examined the ways in which caregivers and teachers of young children use questions to promote cognitive development. Specifically, these researchers examined both the frequency of questions as well as the types of questions (divergent vs. convergent) asked by childcare teachers in their classrooms. Their results revealed that of the total (831) number of questions, 667 were "true" questions (e.g., suggestions, negative commands/criticisms, or positive comments). In addition, 88% of the questions that teachers asked were labeled as convergent while only 12% were divergent questions even though children answered both types of questions equally. The importance of these results becomes clear in light of the fact that divergent questions involve offering children choices, using an open-ended format, as well as allowing children to discover new information through a type of Socratic questioning method. These types of questions have been found to promote cognitive development in young children and have also been found to be positively correlated with increased language development. These results suggest that early childhood educators may not be aware of (or informed about) the ways in which they can ask different types of questions as well as when and how to ask these questions to facilitate a child's language and cognitive abilities.

On a related note, Dickinson (2001) reported that for three and four year old children in their study, the percentage of rare words (defined as semantically complex words that are not typically used in day-to-day teacher-child interactions) used by their teachers during group time was significantly related to children's later language development (with one teacher it was only 1%). Also, teachers who were able to limit their talking and gave children more time to talk appeared to promote stronger performance in kindergarten as measured by standardized language/vocabulary tests as well as teacher reports. As well, teachers who tended to expand more on topics during free play appeared to influence children's kindergarten outcomes. Lastly, Dickinson (2001) also reported that teachers who "engaged children in more intellectually challenging conversations" (e.g., discussions about abstract ideas, or meanings of words, etc.) during large-group activities appeared to promote higher receptive vocabulary and stronger emergent literacy skills (p. 260).

In a similar manner, but with a departure from the usual correlational design, Wilcox (2002) utilizing an experimental design administered a teacher-training program that included specific strategies that are responsible for language development in preschool children. This particular program was based on three key aspects that researchers have come to view as being optimal for language learning environments: 1) responsivity, 2) consistency, and 3) opportunity-rich experiences for talk, stories, verbal problem-solving and reasoning. The intervention for the educators included a focus on six specific factors: 1) increasing use of decontextualized language (talking about events/topics not immediately present), 2) developing personal narrative skills, 3) encouraging complex verbal reasoning skills, 4) facilitating verbal interactions with

peers, 5) teaching new vocabulary/concepts, and 6) promoting second language acquisition (Spanish). Results revealed that at post-testing, experimental teachers demonstrated significant gains in all areas of language teaching, and furthermore substantial changes in their behaviours also occurred, demonstrating a transfer of theory into practice. Correspondingly, the children's own language abilities also underwent a change and increases were noted in the amount of child talk that occurred following the intervention as well as the quality of talk that children engaged in.

In a related, but earlier study, Tennant, McNaughton and Glyn (1988) also attempted a similar design in New Zealand. Their experimental group of teachers was divided into two sub-groups, one receiving a supply of interesting and appropriately stimulating materials (e.g., picture books, toys, etc.) to prompt initiations by children and the other receiving both the materials as well as specific training on ways that caregivers can respond to and maximize children's language acquisition. Basically, the general aim was to increase caregiver-child conversations in the daycare as a vehicle for language development. These researchers noted that at baseline, caregivers were responding to less than 1/3 of child initiations (between 9-34%) and less than half (between 18-45%) of these responses resulted in conversations with the children. The intervention itself involved showing and teaching caregivers ways that they can respond to (e.g., extensions, expansions, asking open-ended questions, following the child's lead, etc.) children so as to cue more child language leading to longer and more frequent conversations in which children were able to use new words/phrases with increased frequency. Following the intervention, results revealed that the conversations between caregivers and children increased both in frequency and quality. In addition to this, during the actual data

collection caregivers were also noted increasing their linguistic interactions with other children (not the target child) in their classroom, showing a generalization of the skills they were learning to implement. Interestingly, these researchers found that providing only the extra learning materials did not appear to be sufficient in promoting increased language interactions. Specifically, Tennant, et. al. (1988) noted that although there was an increase observed in the number of child initiations and requests due to the extra materials, the children did not engage in more conversations and their language development did not progress at the same rate as the group that received both the materials and the teacher training.

Research conducted by Orsolini and Pontecorvo (1992) further supports the importance of different types of classroom discourse on children's language and cognitive development. Their study examined 5 year-old children's conversations, both with peers and teachers during a group task. Results revealed that teacher's use of re-phrasing contributed to children's extension of a topic. Similarly, teacher's repetitions of children's answers prompted other children to extend and continue on the same topic. Lastly, Orsolini and Pontecorvo (1992) found that when teachers requested explanations for a particular point of view, children tended to elaborate on their previous answers and used more explanatory talk to justify their commitment to a particular point of view. Although the study did not directly assess the impact of these discourse patterns on children's language development, it nonetheless presents a significant glimpse into how different teaching techniques may promote the development of language skills.

In a related, but also somewhat different investigation, O'Brien and Xiufen (1995) examined how teachers' interactions impacted on toddlers' language learning.

Specifically, these researchers examined the ways in which different play areas (e.g., block/truck area, doll/house area, and large motor play) in the classroom appeared to promote the most language learning. Interestingly, the results reveal a complex picture with each of the different contexts eliciting its own individual pattern of teacher language. For example, in the doll/house areas, teachers tended to ask more questions, made many comments and actively taught language to the children, thus also eliciting a wider variety of teacher vocabulary than any of the other play areas. Conversely, in the truck/block area, teachers tended to be more directive, engaging in more attention focusing, and used complex language less frequently, while the children appeared to talk the most and used more complex language. Large motor play was characterized by a highly directive interaction, and teachers rarely elicited language during this type of play. Children's language use and complexity of speech were both low in this context. The results of this research further elucidate the many different factors that impact upon teacher behaviours in early childhood classrooms, as well, the importance of the context in which those interactions occur, and the implications that this has for children's language development.

The nature of teacher-child interactions has also been examined with children with special needs. Typically, there is a tendency in the special education literature to promote more structured (highly directive) teacher-child interactions in the belief that this leads to increased child participation in meaningful learning activities. Interestingly, Mahoney and Wheeden (1999) examined this assumption and found the following results: 1) teachers style of interaction (directive vs. responsive) changed according to the demands of the situation, with free play being less directive and more responsive while

instruction in turn elicited more directiveness and less responsiveness to the children's own interests and initiations. Interestingly, the children's own behaviours also changed in response to the teachers. Directiveness from the teacher encouraged children to interact with the teacher, however responsiveness encouraged children to initiate social and non-social behaviours. The authors conclude that highly responsive teachers were able to insert themselves into the children's activities by responding both to their play and communicative behaviours and were able to provide a moderate amount of direction only when the interaction further benefited from it as opposed to instilling direct control over the entire interaction. Although not directly measuring these styles of interaction on children's language learning per se, this particular study further demonstrates the importance of teacher responsiveness to the child's level of competence and skills when interacting with children.

Other research with typical children also further highlights the importance of responsive teacher-child interactional exchanges. Specifically, research conducted by Dickinson and Sprague (2001) examined the nature of teacher-child interactions and its contribution to children's language learning as well as early literacy development. Their research discovered that the quality of teacher-child conversations with four-year olds was related to children's level of receptive vocabulary measured at the end of their kindergarten year even when background and classroom quality were controlled for. Specifically, in analyzing the conversations between teachers and children during book reading, it was revealed that the back-and-forth conversational dialogues that occurred during these activities was related to children's vocabulary growth and new word acquisition (assessed by standardized measures of language and literacy at the end of

kindergarten). Interestingly, these researchers also discovered that children spent a limited amount of time engaging in conversations with caregivers and in fact over half of the 3-4 year olds and $\frac{3}{4}$ of the kindergarteners in their study did not engage in sustained audible conversations with their teachers. An analysis of teachers' conversations during free play revealed the importance of the frequency of teachers' extending children's comments and engaging children in cognitively challenging conversations (e.g., talk about non-present topics, and highlighting novel words/concepts). In addition, these authors point out that vocabulary growth is related to broader discourse skills and engagement in conversations that require the child to be able to talk about topics/events not immediately present (de-contextualized) plays an important role in fostering later literacy development. This conclusion is echoed in an earlier study also conducted by Dickinson & Smith (1991), in which they examined audiotapes of children's conversations during a morning in childcare. Their analysis revealed that children at age 3 spent 47% of their time with no conversational partner and this actually increased to 57% by age four. Similarly, 3 year-old children spent approximately 41% of their overall time conversing with teachers, however, 4 year-old children only conversed with teachers 29% of the time. Qualitative analysis of the types of talk that occurred between teachers and children revealed that the majority of it was instructional (skill related). As a result of this, Dickinson and Smith (1991) concluded that with age other children appear to become more interesting conversational partners than adults which, although not a negative occurrence per se, does limit the exposure that children have to more mature models of language use.

Further support for the importance of teacher-child discourse on language development comes from a later study conducted by the same authors (Dickinson & Smith, 1994). Particularly, these authors examined children's oral language experiences in Head Start classrooms with the underlying assumption that oral language use during the preschool years is tied to subsequent literacy development. More specifically, these authors posit the notion that decontextualized language skills (e.g., language that conveys information about abstract concepts and is exemplified by such talk as explanations, narratives, sharing opinions/ideas, and re-creating events,) are important precursors to literacy skills. The result of their study revealed that teachers who allowed children time to explore and engage in different role play opportunities and engaged children in small group activities where teachers used cognitive challenging talk and encouraged children to explore novel language/concepts were the same teachers who provided children with rich language experiences. Conversely, teachers who tended to focus on the immediate interactional context, rather than on pretending or other types of talk that are facilitative of further language development, and tended to engage in more didactic interactions with children and did not appear to contribute to a richer language learning climate.

In summarizing the findings of the Home-School Study of Language and Literacy Development, Dickinson (2002) delineates several important factors that have emerged as a result of this longitudinal investigation. First of all the importance of teacher-child talk is undeniable in light of the fact that it's much richer than peer talk and the use of varied vocabulary by teachers during informal conversations was positively correlated with early language and literacy skills. Equally important, children who participated in conversations where they had opportunities to hear and produce explanations and

personal narratives were provided with supportive environments that provide linguistically and cognitively stimulating interactions. Results revealed however that conversational exchanges that extended a topic occurred only about 15% of the free play time, while the extent to which teachers engaged children in talk about past/future events or in conversations that expanded children's world knowledge occurred only 27% of the free play period. Dickinson (2002) concludes, "overall two thirds of teachers' conversations did not deal with the kind of content that our research indicates is the most likely to support language and literacy development" (p. 5). In a similar analysis of the results of the Home-School Study of Language and Literacy Development Dickinson and Tabors (2002) explain in more detail the ways in which early preschool experiences come to impact upon later language and literacy learning. The study itself began with the theoretical orientation that rich language experiences during early childhood play an important role in ensuring that children will be able to learn to acquire reading skills when they reach middle school. As well, these authors highlight three specific ways that preschool interactions are important in laying the foundation for later literacy success. The first of these three areas includes exposure to varied vocabulary through teachers' use of techniques such as definitions, synonyms, inference, comparisons to child's prior experiences, and embedding social/physical items into the semantic context to help children understand new words. In terms of varied vocabulary, it was not just the variety of words used by teachers, but also the variety of words used by the children when they spoke with the teacher that determined later literacy success. This makes sense in light of the requirement for reading comprehension that children have a strong vocabulary available to them from which to draw.

The second area for consideration focused on opportunities for children to be a part of conversations involving extended discourse. Extended discourse usually generates topics that are beyond the here-and-now and require children to reflect back on past experiences and to cognitively structure sentences/concepts that will relay these recalled events to the speaker. Teachers who were able to fine-tune the balance between talking and listening provided opportunities for children to actively hone their skills in creating narratives and engaging in pretend play activities. In addition, Dickinson and Tabors (2002) found that teachers needed to adjust their talk based on the type of activity that the children were participating in. For example, during free play, relaxed-back-and-forth exchanges with limited teacher talk was much more conducive to increasing children's participation in and creation of extended discourse exchanges, while during small group time, teacher talk that focused on cognitively stimulating and exploratory language helped children to acquire new concepts/words much more readily.

The third area of importance concerned the need for both the classroom and home environments to provide both cognitively and linguistically stimulating activities. Specifically, Dickinson and Tabors (2002) concluded that most preschool teachers lack a well-articulated system of beliefs linking their understanding of language and literacy development with effective classroom practices. Considering the fact that these researchers found the general classroom environment to be far less important in predicting language and literacy outcomes than measures of teacher-child interactions, this becomes an important consideration in both the educational as well as practical training that is provided to early childhood educators.

Teachers Beliefs/Education and Language Stimulation

As it is becoming evident through the examination of the research literature, the importance of caregiver-child language interactions cannot be underestimated. In light of these conclusions supporting the importance of specific interactional strategies in ensuring that children have access to rich language and literacy exchanges, it becomes important to examine the ways in which teacher beliefs and education may come to impact upon the types of linguistic input that caregivers provide in childcare settings. Research conducted by Lane and Bergan (1988) in Head Start classrooms focused on measuring whether the level and amount of instructional activities and accuracy of teacher's knowledge regarding children's skills impact language development. Results revealed that all of these variables influenced Head Start children's language scores on a standardized measure. Particularly, it was found that the amount of teacher-initiated activities significantly influenced the development of language skills. Similarly, teachers with greater knowledge about language development were also in turn more sensitive to individual children's language abilities – which combined, had a greater impact on children's language scores. Essentially, Lane and Bergan (1988) conclude, “teachers can modify their behaviours to enhance the child's language development by being more aware of the child's language skills and by providing instruction commensurate with the child's ability” (p. 281).

Other research supports their conclusions. For example, a study conducted by Kowalski, Pretti-Frontczak and Johnson (2001) found that early childhood teachers' beliefs about educational practice were shaped by both educational training and their personal experiences working with children in the classroom. As well, teacher beliefs

tended to influence classroom practices and teachers tended to emphasize those skills and abilities which they themselves deemed important for children's continued development and success when entering school. Kowalski, et. al. (2001) discovered that out of the four major areas (social/emotional, physical, language/literacy, and math ability) listed, teachers chose social/emotional development as the most important for preschool children to master. There were no differences in ratings of importance among the other three areas including language and literacy skills. In light of the importance of language and literacy skills for later academic success, this finding indicates the need for a careful examination of the ways in which early childhood teachers' training is designed and administered, and specifically a re-examination of the focus that certain areas of development receive in training and educating preschool teachers. Similarly, McCartney (2002) summarizing the NICHD Study of Early Child Care and Youth Development stated that the importance of the quality of caregiver-child interactions went unquestioned. This particular large-scale longitudinal study found that out of a total of nine outcome measures used, language stimulation was a significant predictor for seven of them. This author concluded that the observed association between language stimulation in childcare and children's language and cognitive outcomes seems likely to have been due to the language stimulation provided by caregivers.

Further support for the role of training and education in this area comes from research conducted by Honig and Hirallal (1998). These authors examined whether educational training and childcare experience facilitate children's language development. This observational study examined the amount of language stimulation strategies that teachers utilized in their day-to-day interactions with the children in their classrooms.

Honing and Hirallal (1998) found that early childhood educational training (ECE diploma), specifically education about child development, most markedly influenced teachers' facilitation of child language development. Not surprisingly, educators who had the least number of ECE courses and the least amount of professional experience had also received the lowest number of tallies (observed strategies) for facilitating language interactions. To further clarify, it seems that years of childcare experience did not contribute to group differences as much as degree of training did. In other words, teachers with more training were far more likely to provide children with linguistically rich childcare experiences and facilitated higher numbers of positive language interactions in their classrooms. This conclusion is echoed by Otto's (2002) review of the research in teacher-child interactions. His conclusion is that teachers who possess theoretically based perspectives on language acquisition and who incorporate specific language related goals into their classroom activities appear to have a positive impact on the type of linguistic interactions that occurred in their classrooms.

Summary

In examining the nature of the social context and its impact on language development, there appear to be many different factors that require consideration. Methodological issues aside, the available research studies are beginning to shed light on both the types and amounts of language interactions that occur between teachers and children in childcare environments. In addition, an examination of teacher beliefs, education, and practices reveals the need for early childhood education and training that focuses on expanding teacher knowledge of both the theoretical information regarding language acquisition but also the practical significance of specific language enriching experiences

in childcare environments. To this end, investigations that focus on naturalistic observations of the daycare environment as well as attempt to measure those aspects of teacher-child exchanges that are clearly tied to language development need to become more pervasive in the literature.

To further summarize this review, several important conclusions have emerged from the literature pointing to the following factors deemed as important when examining both the nature and amount of interactions that occur between teachers and young children as it influences language development:

1. The importance of sensitive, responsive caregivers who are able to accurately predict and build upon a young infant's and child's emerging communicative competence
2. The quality as well as quantity of language input that young children are exposed to have been shown to significantly correlate with the rate at which children acquire language skills
3. Teacher-child interactions that involve the child's interest provide extensions to existing conversational capabilities, and model novel words/concepts in a relevant fashion have been shown to positively correlate with child language learning (as measured by vocabulary size and rate of language acquisition).
4. Teachers who are aware of and possess knowledge regarding language development in general, and individual children's language skills in particular, appear to promote children's communication and literacy development by engaging children in extended discourse that is both responsive and intellectually

challenging. These skills have been shown to be correlated with the development of cognitive and language skills.

5. Providing frequent and varied opportunities for children to engage in conversations both with peers and especially with teachers creates a classroom environment that stimulates language acquisition
6. Amount, type and mode of language and communication exchanges during preschool influences the size and strength of children's language knowledge and academic readiness

The importance of understanding the nature of how linguistic interactions between caregivers and children promote and enhance language development cannot be stressed enough. Although research continues to focus on the role of parents as important contributors to children's language learning, the need for understanding how other important caregivers such as daycare educators can come to influence and impact on a child's language development needs to come to be viewed as equally worthy of investigation. It is for these reasons that the present investigation will focus on teacher talk in early childhood classrooms as it pertains to language acquisition in preschool children.

Research Questions

Given the importance of teacher-child conversations to language learning as well and the apparent shortage of available research that focuses on delineating the exact strategies that teachers should incorporate into their daily discourse patterns with children, this study will attempt to investigate the nature of teacher language use in childcare settings. In order to narrow the focus on one specific aspect of this rather broad

topic, this study will attempt to provide an exploratory analysis of the nature and frequency of certain linguistic strategies used by teachers only and will not examine the nature of children's responses to teacher language strategies. The use of a mixed methodology (both qualitative and quantitative) will allow for a much more in-depth exploration of this area of inquiry. The main objective of the study will be qualitative, and focus on investigating the use of teacher language strategies in a naturalistic setting (daycare). Observations and coding of data will utilize quantitative strategies thus providing the best of both types of research orientations. Specifically, this study is guided by following research questions:

1. Which specific types of language interaction strategies (i.e., labeling, directive questions, etc.) do teachers use most frequently in their conversational interactions with young children?
2. What is the frequency (amount) of different types of strategies used by teachers?
3. What are teacher's educational backgrounds and beliefs regarding child development in general and language development in particular?

Method

Participants

The participants in this study were 2 early childhood education teachers and 30 preschool children. Each educator worked in a licensed non-profit day care center in the Greater Toronto Area (GTA). Both teachers completed an Early Childhood Education Diploma at a recognized college in Ontario and worked as child-care teachers for an average of 10.5 years (12 and 9 years respectively). The preschool children attending the classrooms in which participating teachers were teaching were asked to participate in the

study. The mean age of the children was 4.03 years with the youngest child being 2 years 11 month and the oldest being 6. On average the children in classroom A were slightly older (Mean = 4.68 years old) from the children in classroom B (Mean = 3.47 years old). Of the 30 participating children 26 were developing typically according to teacher report and had normal speech and language development as determined by the Speech and Language Assessment Scale (Hadley & Rice, 1993) that was completed by the teacher for each child in the classroom. Four of the children (2 in each participating classroom) were diagnosed with special needs and did not have typically developing language abilities. All children attended the facilities on a full-time basis (at least 30 hours/week). Both participating teachers had completed high school as well as 2 years of post-secondary education, resulting in a diploma in Early Childhood Education (ECE). Neither of the teachers had received any specific training in how to stimulate language development. Both teachers were female and had been working in childcare settings for 9 and 12 years respectively. Both teachers were over 30 years old.

Measures/Instruments

Early Childhood Environment Rating Scale-Revised (ECERS-R; Harms & Clifford, 1992) This rating scale was used to assess the overall quality of each participating classroom, in order to eliminate the quality of the classroom environment as a confounding variable. The items on this scale examine the developmental appropriateness of classroom practices by assessing routine care needs, furnishings and display, activities and experiences related to motor, language, cognitive, and social development, and adult provisions. The ECERS-R contains 37 items rated on a scale from 1 (inadequate) to 7 (excellent) and demonstrates good reliability and validity

(Burchinal, et. al., 2000). Specifically the authors of the scale state that the percentage of agreement across the full 470 indicators in the scale is 86.1% with no item having an indicator agreement level below 70%. Inter-observer correlations are reported as the following: .921 for Pearson product moment correlation, and .865 for Spearman's rank order. Intra-class correlation was .915. Subscale internal consistencies ranged from .71 to .88 with a total scale internal consistency of .92.

The Speech and Language Assessment Scale (Hadley & Rice, 1993)– This particular scale is used as a screening tool for educators and caregivers and provides information about a child's speech and language development. This scale can be completed by both parents and other caregivers/educators, ideally who are familiar with the child and interact frequently with him/her. (For a copy of the scale see Appendix)

Procedure

The researcher contacted (via letter- see Appendix for a copy) the supervisors of 15 non-profit childcare centers located within the Greater Toronto Area explaining the basic objective of the study. Of the total number contacted two centers agreed to participate in the study. After the initial verbal consent, the researcher met with the supervisors of both centers and arranged for the specific classrooms to be observed. Each supervisor also nominated a teacher that they felt would be willing to participate in the research study so long as they were currently teaching children between the ages of 2-4. In the meantime parents of the children attending those classrooms were also contacted via a letter (See Appendix for a copy) asking for permission to videotape their child's classroom interactions with the selected teacher. Children whose parents did not give consent for videotaping were taken out of the classroom while the videotaping was being

conducted. One of the participating daycare centers was not able to make this provision and as a result of one parental denial of permission to videotape (but permission to participate), it was decided that observations would be conducted instead of videotaping for that particular daycare center.

Session one consisted of a meeting with the participating teacher and explaining the basic purpose of the study. During the visit, teachers were informed that the purpose of the study was to observe teacher and child communication in the classroom during a free play period. Each participating teacher was also asked at the first meeting to complete the Speech and Language Assessment Scale (Hadley & Rice, 1993) in order to ensure that children participating in the study were developing language at a typical rate. Children who had been diagnosed with special needs and/or delays were included in the study and the SLAS was completed for them as well. Sessions 2 consisted of the first data collection day. Before beginning to videotape and observe, teachers were instructed with the following statement: *“The purpose of videotaping (and observations) is to get an idea of what adult and children communicate during the course of their daily lives. Please talk and interact with the children as you would normally and try to ignore the presence of the camera (observer) as much as you can. If you want me to stop videotaping (observing) for any reason, let me know”*. Both the observations and videotaping occurred on a weekly basis (8 weeks for observations, 7 weeks for videotaping), lasting between 40 minutes to one hour. For observations a running record method was employed to collect data on the language use of the participating teacher. This method of observation consisted of the researcher observing and recording all speech output by the participating teacher in an area of the classroom that did not disrupt

too much the basic routine of the class. Videotaping was approximately 40-45 minutes in length for seven weeks. For videotaping a portable camera was used to permit the researcher to position herself so as to capture as much of the teacher's language output as possible. Sessions missed due to illness, professional training, closures, etc. were re-scheduled for other days depending on teacher's choice. Once both observations and videotaping were concluded, the researcher met with each participating teacher in order to conduct the semi-structured interview and gather demographic information about their education and years of experience, and to de-brief about their participation in the study.

Coding and Transcription

All observations were transcribed. All teacher talk on the videotapes was coded according to the categories devised for this study (see Appendix for a copy of the coding sheet used). Generally speaking, the majority of the coding categories used in the present study were taken from a similar study conducted by Girolametto, Weitzman, van Lieshout and Duff (2000) in which the authors examined directiveness and responsiveness of the speech of day care teachers towards children. For speech that did not "fit" into these categories, the present author devised categories to capture them. More specifically categories under the general headings of: Behavioural Control, Response Control, Conversation Control and Language Modeling are adopted exactly as Girolametto, et. al. (2000) defined them. The rest of the categories listed were created and defined by the present researcher based on the nature of the data collected. For a complete list of the coding categories used in the study see Appendix.

Reliability

A research assistant was trained to code transcripts of the data collected. A random sample of 120 minutes of observations and 88 minutes of video-recordings (comprising approximately 25% of the total data analyzed) was coded for reliability. Inter-rater reliability was calculated using percentage agreement (i.e., the number of agreements/the number of agreements + disagreements x 100) and was 89% for observations (N = 274 codes) and 86% for the video recordings (N = 680 codes).

Results

Teachers at each center completed the Speech and Language Assessment Scale (SLAS) for each child participating in the study. The average rating received for this scale was 3.1 (SD=1.2), which corresponds to a verbal description of “Normal for Age”. An ANOVA analysis of two independent means ($F=.88$, $df=1$) revealed no significant differences in the children’s scores between the two centers.

Table 1: Descriptive Statistics (N=30)

	Age	SLAS scores
Mean	4.0	3.1
Standard Deviation	.83	1.2

Center/program quality was assessed using the Early Childhood Environment Rating Scale-Revised (ECERS-R). Center A (video recording) received a score of 5.59 while Center B (observations) received a score of 5.14. Both of these numerical designations correspond to a rating of “Good” within the ECERS-R. Average scores in areas of the ECERS-R that focus on language as well as interactions between teachers

and children are as follows: 1) Language for Center A =5.25 and 4.75 for Center B, corresponding to a verbal rating of “Good” for both centers; 2) Interaction for Center A= 6.00 and for Center B = 4.40 corresponding to a rating of “Good” for both centers. In addition to the ECERS-R, informal observations and conversations at both centers revealed that both each center has been in existence for a long period of time and had strong ties to the communities in which they operated. Specifically, center A was involved in providing community programming in conjunction with other agencies helping children with special needs.

Types of Teacher Verbal Interactions

The types of language use that a teacher most frequently exhibited were assessed using both videotaping (for one teacher) and observational recordings (via running record) for the other participating teacher. Results are reported separately for each teacher and type of recording method. Table 2 illustrates the breakdown of the number of utterances in total (3515) that were coded as well as the duration (in minutes = 806) of the data collected. Although longer in duration, the observations produced much fewer teacher utterances when compared to the videotaping. This discrepancy can be partially explained by the fact that the observations did not capture all of the verbal utterances produced by the teacher. It is also possible that Teacher A did not produce as many utterances during the course of the observations as did Teacher B.

Table 2 – Duration and types of data collection

	Duration (min)	Number of Utterances Coded
Video Recording	329	2346
(Teacher A)		

Table 2 (continued)

	Duration (min)	Number of Utterances Coded
Observations (Teacher B)	477	1169
Total	806	3515

Types of verbal output were coded into seventeen mutually exclusive categories.

These seventeen categories are also grouped under five more general headings: 1)

Behavioral Control, 2) Response Control, 3) Conversation Control, 4) Language

Modeling, and 5) Miscellaneous.

Table 3 – Number and percentage of teacher utterances by each specific coded category

Type of Utterance	Video Recorded (Teacher A)		Observations (Teacher B)	
	Number	Percentage	Number	Percentage
Behavioral Control				
Group Management	287	12.2	254	21.7
Attention Calls	131	5.6	77	6.6
Giving Permission	47	2.0	10	0.8
Total	465	19.8	341	29.1
Response Control				
Commands	217	9.2	73	6.2
Directive y/n	167	7.1	47	4.0
Test Questions	45	1.9	5	0.4
Choice Questions	26	1.1	27	2.3

Table 3 (continued)

Type of Utterance	Video Recorded		Observations	
	(Teacher A)		(Teacher B)	
	Number	Percentage	Number	Percentage
Total	455	19.3	152	12.9
Conversation Control				
Clarification	149	6.3	87	7.4
Wh-questions	192	8.2	72	6.2
Total	341	14.5	159	13.6
Language Modeling				
Labeling	615	26.2	175	15.0
Expansions	12	0.5	13	1.1
Extensions	65	2.8	43	3.7
Total	692	29.5	231	19.8
Miscellaneous				
Vague	131	5.6	50	4.3
Greetings	91	3.9	48	4.1
Praise	141	6.0	47	4.0
Bodily Functions	30	1.3	141	12.1
Total	393	16.8	286	24.5

Note: Percentages denote the number of teacher utterances that were coded in a given way over the total number of utterances coded for that specific teacher

As Table 3 indicates the most frequent type of utterance produced by Teacher A was Language Modeling – Labeling comprising of 26.2% of total utterances produced. For teacher B the most frequent type of utterance was Behavioral Control – Group Management related (21.7% of the total number of utterances). The second most frequent type of utterance produced by Teacher A was Behavioral Control - Group Management at 12.2 %, for Teacher B it was Language Modeling – Labeling at 15.0%. The third most frequent utterance for Teacher A was Response Control – Commands at 8.2% while for Teacher B it was Bodily Functions comprising of 12.1% of all utterances produced by this teacher. There appear to be noticeable differences between the two teachers when examining both the Labeling and Group Management categories. For example, Teacher A was using Labeling 26% of the time compared to Teacher B who was using Labeling only 15% of the time when verbally addressing the children. Conversely, for utterances under Behaviour Control (Group Management) Teacher A's percentage of utterances is only 12% compared to almost the double amount characterizing Teacher B (22%). Lastly, the most noticeable difference between the two teachers appears in the amount of their verbal output characterized as Bodily Functions related. For Teacher A this particular category comprises only 1.3% of the total amount of language use however, for Teacher B this category comprises 12.1% of the total number of verbal utterances produced. Lastly, number of Expansions and Extensions for both teachers was significantly low (0.5%, 2.8% for Teacher A, and 1.1% and 3.7% for Teacher B) when compared to any other type of utterances coded.

Teacher Experience and Education

As indicated earlier as well as in Table 4, both participating teachers completed a post-secondary program of 2 years at a recognized college in Ontario graduating with an Early Childhood Educator (ECE) diploma. In addition, both teachers also have extensive working experience with children with an average of 10.5 years (9 and 12 years respectively) working in a childcare setting. Teacher A also reported conducting her own babysitting service at home when her own children were young and later attending college to acquire her ECE diploma. Combined with her previous experiences working and interacting with children, the total number of years that she has spent teaching is closer to 20 years. Their responses during the semi-structured interview appeared to be very similar with both identifying social skills as being the most important area of consideration for preschool children. Interestingly neither teacher related language acquisition to the development of social skills. In terms of specific questions regarding language development there are some differences in their opinions. For example, when asked to state her views on language development in the preschool years Teacher A felt that literacy and conversational exchanges were the key to aiding language learning, while Teacher B identified early detection of delays and not meeting developmental milestones as being the most important way to assess a child's language learning. Both teachers agreed that early childhood environments are extremely important for language development in young children and that the center they worked in was supporting the curriculum that they deemed important for young children. In terms of participating in the study, Teacher A (videotaping) expressed some initial discomfort with being videotaped, but also stated that she became more and more comfortable with each

session. Teacher A also stated that having the video camera in the classroom prompted her to be more conscious of her verbal interactions with the children. Teacher B on the other hand reported that she was comfortable with the observations from the beginning although she also identified being more aware of her verbal interactions with the children as a result of being observed. Teacher B also reported that she felt comfortable in the classroom and in her role as the head classroom teacher and therefore did not feel much pressure to change her usual routines/behaviours during the observation sessions. In terms of general comments and observations during the interview, this author noted significant personality (character) differences between the two teachers. Teacher A mostly used a soft tone of voice when addressing the children and spent significant amounts of time in one-to-one conversations with them. Teacher B on the other hand had very clear and firm expectations for the children in her classroom and spent more time interacting with the children in groups as opposed to one-to-one. When asked more probing questions about language development both teachers expressed their desire to learn more about this area of development, specifically noting that most teachers (themselves included) merely assume that language development occurs in a “natural” way without requiring much interference from adults except when problems and delays occur. When both teachers were shown some of the research literature on the social bases of language development they expressed surprise at the strong connections between adult-child conversations and language learning in young children. As a result of participating in the study both teachers reported a stronger desire to learn more specific teaching strategies that aid language learning and to becoming more aware of the

importance of their everyday linguistic interactions with the children attending their classrooms.

Table 4 – Summary of teacher responses during semi-structured interview

Interview Questions	Teacher A	Teacher B
	(Videotaping)	(Observations)
Educational background	ECE diploma Various professional development workshops and training programs	ECE diploma Various professional development workshops and training programs
Working experience	12 years	9 years
Most important areas of child development	Social development	Social development Motor development the least important
Language development	Conversations crucial for children to acquire appropriate language skills Providing opportunities for conversations Use of stories and other literacy-related activities Consistency in routines and	Importance of noting delays Being aware of important milestones Social interaction and communication Siblings and parents crucial

Table 4 (continued)

Interview Questions	Teacher A (Videotaping)	Teacher B (Observations)
	the language used to describe them	Adult modeling is very important
	Allowing for child autonomy and sense of discovery	Taking into consideration cultural issues/factors
Early Childhood environments and language development	Very important for early response to language, and social interaction Presence of other children aids in acquiring language skills – observing and learning from other children Increased opportunities language modeling	Extremely important for social development, school readiness, Role modeling, Learning to cope with expectations
Does the curriculum match areas of development most important	Yes it does The focus on social skills reflects issues such as sharing, aggressiveness Talking to children about conflict	Yes it does The focus of the center is to recognize children having difficulties and approach

Table 4 (continued)

Interview Questions	Teacher A	Teacher B
	(Videotaping)	(Observations)
	Helping children problem solve when conflict situations arise	appropriate support agencies Trust in teachers' judgment/ evaluations Social development is the major focus of the center dealing with specific issues (e.g., racism, and bullying)
Participating in the research study	Self-conscious of being videotaped at first but Became more comfortable being observed prompted at times to be more conscious of what is said to the children	Very comfortable Children reflect teacher's behaviours Very used to being observed - other professionals attend the classroom on a regular basis

Table 4 – (continued)

Interview Questions	Teacher A	Teacher B
	(Videotaping)	(Observations)
		Classroom is busy and due to different drop-off times for the children, teacher is used to having adults observe without her awareness
Additional Comments	Would like to learn more about language development and specific ways that it can be focused on in early childhood Did not fully realize (until now) the importance of language skills in enabling social skills	Would participate again readily in a research study It is a wonderful way to learn about children and teachers early childhood

Discussion

The results of this study reveal several important findings concerning the nature of teacher talk in daycare centers. As can be seen both behavioral control and response

control, which can be, characterized as a general measure of “directiveness” comprise almost half (40%) of the total number of teacher utterances. This finding appears to support other research findings (e.g. Girolametto, Weitzman, van Lieshout & Duff, 2000) in terms of the amount of directiveness characterizing teacher talk in daycare settings. Although the design of the present study did not allow for correlational analysis between teacher’s directive speech and child language production, other studies indicate a pattern of correlation revealing that teacher language input that constrains behaviour (behaviour control) and dominates turn-taking (response control) is associated with restricted and less complex language use by children (Girolametto, Weitzman, van Lieshout & Duff, 2000). Interestingly, in terms of language modeling teacher talk the highest percentage (22.5%) occurred with teachers labeling items, events, and giving information about routines. Conversely expansions and extensions characterized less than 4% of the overall number of teacher utterances. Considering that both extensions and expansions have been shown to foster linguistic development in young children (Goelman, 2002; Girolametto & Weitzman, 2002; Massey, 2004; Rosemary & Roskos, 2002) the results of the present study are especially noteworthy. While it is important to acknowledge that labeling is an important way for teachers to provide language feedback, it is also much more important (especially in the preschool years) that children are provided with extensions on their current language level as well as expansions whereby adults (teachers) model novel words, ideas, and expressions. This conclusion is echoed by Dickinson and Smith (1994) who discovered that extensions comprised only 15% of the total number of conversational exchanges that occurred between teachers and children. In light of the low number of these types of teacher utterances this particular

area requires more careful investigation in the future to determine if more of this type of input has significant relationships with child language acquisition/production.

In terms of asking questions and clarifying information (both of which have also been found to be associated with increased language productivity in children), in the present study it was found to be less than 15% of the total number of teacher utterances. In light of the fact that similar studies (Girolametto & Weitzman, 2002) found these types of teacher talk (especially asking wh-questions) to be involved in increased language productivity in preschoolers this has important implications for the ways in which teachers interact and converse with young children. Although not within the scope of the present study to investigate, it would be pertinent for future investigations to attempt to examine the types of questions that teachers most frequently ask of preschoolers as well as how different types of questions relate to their language productivity.

Overall, when examining the percentage of teacher talk associated with language productivity and increased numbers of conversational exchanges between teachers and children, the present study appears to indicate an even division (both 40%) between those types of talk that are directive and serve to constrict child language productivity and those that appear to promote and increase it (usually labeled as responsiveness or language modeling). Although these results can be interpreted to be encouraging in terms of the fact that almost half of all teacher talk is conducive to children language learning, it is also important to note that the quality of teacher language use (e.g., teacher using extensions, expanding on child's verbal utterances, asking wh-questions and promoting conversational interchanges) may have a different association to children's language

development. Although directive-type utterances are often deemed to be necessary for teachers to be able to impart information and to maintain order in the classroom, the overall reliance on this type of communication strategy may differentially relate to child initiated language use (Girolametto, Weitzman, van Lieshout, & Duff, 2000).

The present study has also revealed the need for a more systematic and specific measures of directiveness and responsiveness of daycare educators. One example of ways in which a more systematic measure can be designed to assess this area of study exists at present created by researchers Girolametto, Weitzman, and Greenberg (2000) who designed such an instrument calling it the *Teacher Interaction and Language Rating Scale*. Although not a standardized measure at this point in time, this scale provides educators with information about ways in which their interaction styles can be made to be more effective. Girolametto, Weitzman, and Greenberg, (2003) have also designed a child-care staff-training program that uses the scale to assess teachers' skills before and after attending the training program. Working in collaboration with other community agencies, training programs such as this have begun to be implemented in several centers across the Greater Toronto Area. However, in order to determine the use of this scale as a tool for staff training ongoing monitoring and evaluations need to be conducted on a systematic basis.

The last part of this investigation (via the semi-structured interviews) revealed specific values and opinions of two early childhood educators. Their responses showed that both of them deemed social development to be the most important area for preschool children to master. Interestingly, neither teacher made the connection between language skills and success in social interactions and mastering social skills. Other researchers

have also found this to be the case when examining beliefs of early childhood educators (Kowalski, Pretti-Frontszak & Johnson, 2001). This discovery has important implications for the ways in which childcare teachers view the importance of language development and the role that they can play in enhancing this process. Although stressing the importance of social skills, when asked to further elaborate, both teachers articulated the importance of a child's communicative competence in building healthy social relationships with both peers and adults. Without conscious awareness both participants were emphasizing the importance of language ability. To this end, the ways in which teachers model language related to problem solving, maintaining order in the classroom, giving instructions, and give information all serve to provide the kinds of language models that children will learn from and adopt as their own. Bringing this kind of connection into more conscious awareness and making it a specific part of teacher training needs to be done in a more systematic manner.

In terms of teacher education and training the present study indicated that both participating teachers have obtained their ECE diplomas and have extensive experience working in childcare settings. It is interesting to note however that other researchers (Honig & Hirallal, 1998) have found that increased amounts of early childhood training were significantly correlated with both positive emotional support as well as language facilitation (defined as conversing, reading, singing, role playing, questioning, modeling and expanding language). Number of years of experience did not appear to have any significant impact on these behaviours according to Honig and Hirallal (1998). In the present study Teacher A did acknowledge that she has spent significant amounts of time in one-to-one interactions with children when she was conducting her home daycare.

This comfort with children on a one-to-one basis was noted in her interactions with the children in her classroom. She was much more comfortable interacting with smaller groups of children and appeared to enjoy engaging children who were alone in play activities that promoted one-to-one conversations. Due to the anecdotal nature of teacher responses from the present study it is impossible to conclude whether the types of professional development courses that teachers attended had affected their ability to include more language-building strategies into their interactions, however this would be a viable investigation to conduct in the future.

Although presenting some interesting findings regarding the types of teacher utterances that occur most frequently in early childhood classrooms, it is important to note that the scope of the present study does not allow for a more thorough analysis of the ways in which child language productivity and teacher talk are associated. In other words, it would have been much more beneficial for the study to present correlations between the amount of child language productivity and conversational exchanges as well as the type of teacher talk most frequently exhibited. Due to small sample size (in teachers) correlational analysis would not have been feasible. In addition to that, the present study also did not attempt to measure child language productivity, which would have been necessary for a correlational analysis.

It is noteworthy to point out that one of the strengths of the present study is the high inter-rater reliability (over 85%). Another particular strength of the present study includes the use of coding categories that have been used in previous research studies (i.e., Girolametto, Weitzman, van Lieshout & Duff, 2000; Girolametto & Weitzman, 2002). Although not standardized, these coding categories lend themselves much more

readily to capturing the essence of the types of adult talk that occur within early childhood settings.

Implications for Curriculum and Educational Practice

The importance of most research results to the field of actual practice lies in its ability to highlight strategies and areas that require revision and change in order to better equip practitioners with a sense of competence. To this end, the present study also highlights some noteworthy areas for future consideration in early childhood education and training. Specifically, the present study suggests ways in which teachers talk to young children and how their perceptions of language learning influence their abilities to provide competent verbal modeling to the children in their care. As revealed during the semi-structured interview, both teachers revealed a lack of conscious awareness of the role language skills play in the development of social relationships in young children. Furthermore, although noting the importance of language development neither teacher was able to articulate specifically the importance of language development in early childhood.

The interview also revealed that although early childhood educators are familiar with all areas of development, they may not always make a direct link between children's language learning and other areas of development. Specifically, both teachers expressed a desire for more training in this area especially in providing practical suggestions and ideas that they can incorporate into the existing routines of their classrooms. To further aid teacher training it would also be beneficial to include more systematic evaluations and observations from other professionals well versed in specific areas of child

development in order to provide teachers with ongoing support and training in their classrooms.

Conclusion

Through the exploratory nature of the present study several areas of the social aspects of language development have been highlighted. Specifically the frequency of certain types of teacher talk (i.e., directiveness, labeling, extensions, and expansions) in early childhood classrooms was measured. Further information was gained from the teachers participating in the study via interviews revealing their opinions about child development as well as whether early childhood programs are important for language acquisition. As more and more researchers begin to examine the social aspects involved in language development and learning it is becoming clearer that there exists a need for early childhood educators to be aware of the ways in which they can facilitate young children's language learning and participation in dialogue that is conducive to the process of acquiring language. In light of the increasing demand in our culture for people to be articulate and to understand the nuances of communication and dialogue, it is of utmost importance that early childhood environments provide these foundations. As one researcher so eloquently stated:

“For in learning to communicate the child is also building his working model of reality: the values that he adopts and the abilities that he develops to understand and control the world in which he lives will owe much to those aspects of experience and interpersonal collaboration that are given salience in his day-to-day conversational interactions.” (Wells, 1981, p.115)

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APPENDICES

APPENDIX A
INTRODUCTORY LETTER TO THE DAYCARE



DEPARTMENT OF EDUCATION

Date: April 2005

Dear Supervisor,

My name is Olga Bakai and I am a Masters of Child Study student currently attending Concordia University in Montreal, Quebec.

As part of my degree requirement I am conducting a thesis project under the supervision of Dr. Miranda D'Amico. The research project, entitled *An exploration of language development in early childhood environments*, explores the ways in which young children participate in language interactions with adults and how this comes to impact their language learning.

Using language successfully to communicate with others is a cornerstone of the way that human beings interact with each other. Thus the importance of young children learning to successfully utilize language in their day-to-day interactions cannot be stressed enough. In addition to promoting healthy social/emotional development, children also use language to learn about and talk about the world around them. Other researchers in this area have noted the ways in which young children learn to acquire language by participating in conversations with other adults and peers. The study's goals is to observe young children in the naturalistic environment of their classrooms in order to be able to assess the ways in which language development occurs in young preschool children.

In order to be able to effectively implement this research study I am seeking daycares in the Halton/Peel/Toronto Region who are interested and willing to participate. The requirements of the study involve videotaping 3-4 year old children in their classrooms along with their teacher for approximately 6-8 weeks. This videotaping would take place approximately 1 day/week for about 1-2 hours during free play as well as one structured activity (e.g. art/craft activity, science lesson, etc.) The videotaping would be done as unobtrusively as possible and would ideally be set up in an area of the classroom that would afford a good view of the majority of the classroom area. In addition to the videotaping, I would also like the chance to interview the participating teachers to obtain information about their educational backgrounds, years of experience, etc. as well I would also require that they complete a short language learning screening form for each child (to get an impression of the children's current level of language skills).

Please be absolutely assured that **confidentiality** of the highest order would be maintained during the entire duration of this project. Both the children and the teachers who would participate would be identified via a code as opposed to their names and no identifying information would ever be used in the final report. In addition, the videotapes

would be stored in an absolutely safe manner so as to ensure that no one except the researcher and research assistant have access to it.

The relevance of this kind of research is very much evident in the fact that currently there is not much information available about the ways in which young children learn language in their everyday environments. To this end, I cannot stress enough the importance that this research study has for educators and other clinicians working with young children.

I would appreciate your cooperation and willingness to participate in my research study. I would also be willing to personally come into the daycare and speak with both the staff as well as parents about the project and to answer any questions/concerns that you may have.

If you require further information about this research study or if you would like to express your interest in participating in my study please feel free to contact me at (905) 467-1235 or via e-mail at o_baki@education.concordia.ca. My academic advisor/supervisor Dr. Miranda D'Amico is also available for information about my research study and can be reached at (514) 848-2424 ext. 2040 or via e-mail at miranda@education.concordia.ca.

I hope that you will grant me the opportunity to conduct my study at your daycare center. I am looking forward to working with you.

Sincerely,

Olga Bakai
MA Child Study
Department of Education
Concordia University

APPENDIX B
PARENT/CHILD CONSENT FORM



March, 2005

Dear Parents,

My name is Olga Bakai and I am a graduate student at Concordia University currently enrolled in the Masters in Child Study program. As part of my degree requirement, I am conducting a study about young children's language development in childcare settings.

In order to be able to do this particular research study I would be observing your child's classroom within the daycare one day a week for a period of 6-8 weeks and recording the language interactions that occur in the course of their routines in the classroom.

Please be assured that absolute confidentiality will be maintained for the entire duration of this study and your child's name will not be used in any of the data analyzed or in the final report. **Please also be advised that you are free to withdraw your consent to have your child participate in this project at any time.**

If you have any questions or concerns, please do not hesitate to call me at (905) 467-1235, or via e-mail at o_baki@education.concordia.ca. If you require further information you may also feel free to contact my advisor, Dr. Miranda D'Amico who can be reached at (514) 848-2424 ext. 2040.

Please fill out the slip provided with this letter and return it as soon as possible to your child's teacher. Thank you for your cooperation.

Sincerely,

Olga Bakai
Concordia University
Department of Education

_____ I give permission for my child to participate in the study on language development. I understand that I am free to withdraw my child's participation at any time.

_____ Parent's Name (please print)

_____ Signature _____ Date

_____ Child's Name



April 2005

Dear Parents,

My name is Olga Bakai and I am a graduate student at Concordia University currently enrolled in the Masters in Child Study program. As part of my degree requirement, I am conducting a study about young children's language development in childcare settings.

In order to be able to do this particular research study I would be videotaping your child's classroom within the daycare one day a week for a period of 6-8 weeks.

Please be assured that absolute confidentiality will be maintained for the entire duration of this study and your child's name will not be used in any of the data analyzed or in the final report. **Please also be advised that you are free to withdraw your consent to have your child participate in this project at any time.**

If you have any questions or concerns, please do not hesitate to call me at (905) 467-1235, or via e-mail at o_bakai@education.concordia.ca. If you require further information you may also feel free to contact my advisor, Dr. Miranda D'Amico who can be reached at (514) 848-2424 ext. 2040.

Please fill out the slip at the bottom of the page and return it as soon as possible to your child's teacher. Thank you for your cooperation.

Sincerely,

Olga Bakai
Concordia University
Department of Education

_____ I give permission for my child to participate in the study on language development.

_____ I do not give permission for my child to participate in the study on language development.

_____ I give my consent for my child to be videotaped for the purposes of this particular research study

_____ Parent's Name (please print)

_____ Signature _____ Date

_____ Child's Name

APPENDIX C
EDUCATOR CONSENT FORM



February 2005

Dear Educator,

My name is Olga Bakai and I am a graduate student at Concordia University currently enrolled in the Masters of Child Study program. As part of my degree requirement, I am conducting a research study about young children's language development in childcare settings.

As part of the research methodology, I am interested in conducting observations of young children in their classrooms during free play and also during a structured group activity. As a teacher who is interacting with the children you would also be observed and a part of the data collection process. The duration of the observations would ideally occur for one day/per week for approximately 6-8 weeks in total. In addition to the observations, you would also be interviewed and your responses used as part of the analysis of the results.

Please note that confidentiality will be ensured for both the observation notes as well as your responses during the interview and your name will not appear in any of the data analysis or subsequent reports. Your contributions will not be shared with anyone else in the childcare center and will remain at all times with the researcher.

Should you choose to participate in this research study please be advised that you can withdraw your consent to participate at any time during the course of this study.

If you have any concerns or questions, please do not hesitate to call me at (905) 467-1235 or e-mail me at o_baki@education.concordia.ca. If you have any additional concerns you can also contact my advisor Dr. Miranda D'Amico at (514) 848-2424, ext. 2040.

Sincerely,

Olga Bakai
Concordia University
Department of Education

I (print name) _____ agree to participate in the study
on language development.

Signed _____ Dated: _____



March 2005

Dear Educator,

My name is Olga Bakai and I am a graduate student at Concordia University currently enrolled in the Masters of Child Study program. As part of my degree requirement, I am conducting a research study about young children's language development in childcare settings.

As part of the research methodology, I am interested in videotaping young children in their classrooms during free play and also during a structured group activity. As a teacher who is interacting with the children you would also be videotaped and a part of the data collection process. The duration of the videotaping would ideally occur for one day/per week for approximately 6-8 weeks in total. In addition to being videotaped, you would also be interviewed and your responses used as part of the analysis of the results.

Please note that confidentiality will be ensured for both the videotaped interactions as well as your responses during the interview and your name will not appear in any of the data analysis or subsequent reports. Your contributions will not be shared with anyone else in the childcare center and will remain at all times with the researcher.

Should you choose to participate in this research study please be advised that you can withdraw your consent to participate at any time during the course of this study.

If you have any concerns or questions, please do not hesitate to call me at (905) 467-1235 or e-mail me at o_baki@education.concordia.ca. If you have any additional concerns you can also contact my advisor Dr. Miranda D'Amico at (514) 848-2424, ext. 2040.

Sincerely,

Olga Bakai
Concordia University
Department of Education

I (print name) _____ agree to participate in the study
on language development.

Signed _____ Dated: _____

APPENDIX D
SPEECH AND LANGUAGE ASSESSMENT SCALE

SPEECH AND LANGUAGE ASSESSMENT SCALE

Rater's Name:

Date:

Child's Name:

Please rate this child's language and social skills compared to other children his or her own age.

1. This child's ability to *ask* questions properly is:

1	2	3	4	5
very		normal		very
low		for age		high

2. This child's ability to *answer* questions properly is:

1	2	3	4	5
very		normal		very
low		for age		high

3. This child's ability to understand what others say to him/her is:

1	2	3	4	5
very		normal		very
low		for age		high

4. This child's ability to say sentences clearly enough to be understood by strangers is:

1	2	3	4	5
very		normal		very
low		for age		high

5. The number of words this child knows is:

1	2	3	4	5
very		normal		very
low		for age		high

6. This child's ability to use his/her words correctly is:

1	2	3	4	5
very		normal		very
low		for age		high

7. This child's ability to get his/her message across to others when talking is:

1	2	3	4	5
very		normal		very
low		for age		high

8. This child's ability to understand directions spoken to him/her is:

1	2	3	4	5
very		normal		very
low		for age		high

9. This child's ability to follow directions spoken to him/her is:

1	2	3	4	5
very		normal		very
low		for age		high

10. This child's ability to use the proper words when talking to others is:

1	2	3	4	5
very		normal		very
low		for age		high

11. This child's ability to get what he/she wants by talking is:

1	2	3	4	5
very		normal		very
low		for age		high

12. This child's ability to start a conversation or start talking with other children is:

1	2	3	4	5
very		normal		very
low		for age		high

13. This child's ability to keep a conversation going with other children is:

1	2	3	4	5
very		normal		very
low		for age		high

14. The length of this child's sentences is:

1	2	3	4	5
very		normal		very
low		for age		high

15. This child's ability to make "grown up" sentences is:

1	2	3	4	5
very		normal		very
low		for age		high

16. This child's ability to correctly say the sounds in individual words is:

1	2	3	4	5
very		normal		very
low		for age		high

17. This child's awareness of differences in the way people act, speak, dress, etc. is:

1	2	3	4	5
very		normal		very
low		for age		high

18. This child usually speaks:

1	2	3	4	5
too		normal		too
low		for age		loud

19. This child usually speaks:

1	2	3	4	5
not often		about		too
enough		often enough		often

APPENDIX E

SEMI-STRUCTURED INTERVIEW QUESTIONS

SEMI-STRUCTURED INTERVIEW QUESTIONS

1. What is your educational background? How long have you been working as an ECE? Please indicate also any professional development/training that you have attended during the course of your career in the field of early childhood education.
2. Which area(s) of a child's development (e.g. social/emotional, language, physical, cognitive/academic) do you think are the most important to foster in early childhood? Which one is the MOST important in your estimation and which one the least important?
3. What do you think about language development in the preschool years? What are your observations about what appears to facilitate children's language learning during these years?
4. How important do you think early childhood environments are in helping children acquire language?
5. In your opinion does the curriculum in your center reflect (match) the areas that you find to be the most important to focus on for preschool children? If yes, in what specific ways?
6. How did you find participating in the research study? Do you have any future suggestions for the researcher?
7. Do you have any additional comments that you would like to make?

APPENDIX F

TEACHER INTERACTION AND LANGUAGE SCALE



HELPING CHILDREN COMMUNICATE

The Hanen Centre

1075 Bay Street, Suite 515, Toronto, ON, M5S 2B1

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www.hanen.org

TEACHER INTERACTION AND LANGUAGE RATING SCALE

Developed by Lutz Ceballos, Elaine Weisman and Linda Greenberg

Instructions for Use:

This rating scale is designed to evaluate teachers' interaction prior to and following participation in a training program. Please read over the instructions, scoring system, and scale items carefully before rating. It is important to be familiar with the scale before using it.

1. Observe the videotaped interaction once all the way through, without stopping. Use the "Comments" column for jotting down your frequency observations as you are watching the tape. At the end of the tape, use these comments to guide you in rating each of the 11 items on the rating scale.
2. Observe the videotape a second time all the way through without stopping. Focus on those items about which you feel you need more information. You may use your "Comments" sheets for jotting down your observations as you are watching the tape. Then complete the rating of any of the 11 items you did not previously rate.
3. This is a 7-point scale. A rating of "1" indicates that the teacher almost never uses the technique, whereas a rating of "7" indicates that the teacher consistently uses the technique.
4. Ratings of 1-3 indicate that the teacher's use of the technique needs improvement and would definitely be a program goal for future interactions.
5. A rating of "4" indicates that fine tuning of the technique is required to achieve a rating of "5" or "Frequently." Therefore, this would be a program goal. If you think that a teacher definitely needs improvement on a particular technique, assign a rating of 3 or below. If the teacher definitely does not need improvement, assign a rating of 5 or above.
6. A rating of 5-7 indicates that the teacher's use of a technique achieves expectations. A rating of 5 or 6 is quite acceptable and the item should not be a goal for the program. However, improvement to a rating of 7 is possible after participation in a program if a teacher is very motivated and makes outstanding changes across a number of techniques.
7. Some items have two or more skills within their definitions. For example, Item 1; Wait and Listen includes both waiting and listening as skills to rate. If a teacher uses some aspects of an item frequently (i.e., "5") and others only sometimes (i.e., "3"), you may assign an in between score (in this case, a "4").
8. A rating of N/A should be used rarely. If there are very few examples of a technique or no examples of a technique you should use ratings from 1-3. That is, the assumption is that opportunities for using the technique were missed. N/A should be used only in circumstances where:
 - (a) the technique is not appropriate to rate because of the activity (e.g., book reading is not conducive to joining in and playing), or
 - (b) the child is beyond the age at which a particular technique is helpful (e.g., imitation for a preschool-aged child), or
 - (c) the teacher does not need to use the skill (e.g., all children are participating and interacting making "scanning" unnecessary).
9. If rating a book-reading situation, do not rate teacher's reading of text since this does not constitute spontaneous communication.
10. *Note:* if the child is using sign language, a picture communication system or some other alternative or augmentative communication device, please interpret the words "gestures, sounds, words" to include these forms of communication.

Copies of this scale can be obtained from:

The Hanen Centre,

1075 Bay Street, Suite 515

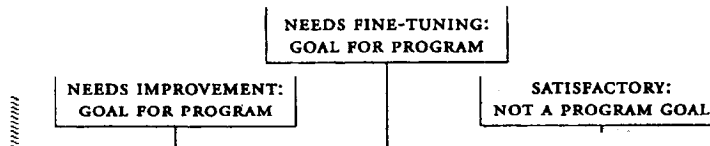
Toronto, Ontario, M5S 2B1, Canada

TEL: 416 921-1073 - FAX: 416 921-1225

E-mail: info@hanen.org

Web: www.hanen.org

TEACHER INTERACTION AND LANGUAGE RATING SCALE



Teacher encourages most of the children in the group to initiate verbally and/or nonverbally by:

- waiting expectantly for initiations
- using slow pace which allows lots of time for children to initiate
- listening to allow children to complete their messages

Comments:

Follow the Children's Lead

When the children initiate verbally or nonverbally, teacher follows their lead by:

- responding verbally to their initiations
- using animation
- avoiding commands and vague acknowledgements (e.g., uh huh, yeah, that's right)

ALMOST NEVER		SOMETIMES		FREQUENTLY	CONSISTENTLY	
1	2	3	4			N/A

Comments:

Join in and Play

Teacher actively joins in the children's play as a partner

- building on their focus of interest
- playing without dominating

ALMOST NEVER		SOMETIMES		FREQUENTLY	CONSISTENTLY	
1	2	3	4			N/A

Comments:

Be Face to Face

Teacher adjusts her physical level by:

- sitting on the floor or in child-sized chair
- leaning forward to facilitate face to face interaction
- if above children's level, bending to be close whenever possible

ALMOST NEVER		SOMETIMES		FREQUENTLY	CONSISTENTLY	
1	2	3	4	5	6	N/A

Comments:

Use a Variety of Questions

Teacher encourages conversation with most of the children in the group by:

- asking a variety of WH questions
- only using Yes/No questions to obtain information and clarify messages
- waiting expectantly for a response
- avoiding test and rhetorical questions

ALMOST NEVER		SOMETIMES		FREQUENTLY	CONSISTENTLY	
1	2	3	4			N/A

Comments:

6. Encourage Turn-Taking

Teacher encourages extended verbal turn-taking by:

- linking comments and questions to invite children to take turns
- responding with animation
- waiting expectantly for a response
- balancing the number and length of adult to child turns
- using sentence completion only with children at one word stage

ALMOST NEVER

1

2

SOMETIMES

3

4

5

6

7

N/A

Comments:

Note: must achieve four or more turns on a topic with one or more children for a score of 5

7. Scan

Teacher facilitates the participation and interaction of all children in group activities by:

- encouraging uninvolved children to participate and/or interact
- ensuring that no one child dominates the interaction

ALMOST NEVER

1

2

SOMETIMES

3

4

5

6

7

N/A

Comments:

8. Imitate

(Evaluate only if children are preverbal or at one word stage)

Teacher imitates the actions, gestures, sounds or words of most of the children in the group.

ALMOST NEVER

1

2

SOMETIMES

3

4

5

6

7

N/A

Comments:

9. Use a Variety of Labels

Teacher uses a variety of vocabulary (nouns, verbs, adjectives, adverbs) by:

- emphasizing key words
- repeating words
- labeling objects, actions, attributes, events
- avoiding non-specific words (e.g. it, this, that, there, thank you)
- adjusting complexity of vocabulary for different children in the group

ALMOST NEVER

1

2

SOMETIMES

3

4

5

6

7

N/A

Comments:

10. Expand

Teacher expands by:

- repeating the children's words and correcting the grammar
- repeating the children's words and adding another idea

ALMOST NEVER

1

2

SOMETIMES

3

4

5

6

7

N/A

Comments:

11. Extend

Teacher provides information related to the children's topics or the ongoing activity by:

- using comments and questions to inform, project, pretend/imagine, explain, talk about the future, talk about feelings

ALMOST NEVER

1

2

SOMETIMES

3

4

5

6

7

N/A

Comments:

Note: to obtain a rating of 5 adult must extend frequently and include at least two functions other than Informing

Chart of Teacher Ratings

[illegible]

Areas for Improvement

APPENDIX G
CODING CATEGORY DESCRIPTIONS AND CODING SHEET

Coding Category Definitions:

BEHAVIOR CONTROL

A. Group Management: Utterances (commands, questions and requests) that suggest or direct the child's behavior in order to promote safety and to encourage participation in the routines and activities of the classroom (e.g. "take that out of your mouth", "come here and play", etc.). These utterances are more directed towards eliciting specific behaviours.

B. Attention Calls: Utterances that direct a child's attention to an object or activity or call a child's name to get the child's attention (e.g. "Look at this", let's see what's in here", etc.)

C. Giving Permission: Includes all utterances that give permission to the child to engage in a certain activity, perform a certain action, etc. following a specific request from the child (children) Examples include: "yes, go ahead", "of course you can", etc.

RESPONSE CONTROL

A. Commands: Utterances that suggest or direct the child to play a certain way, commands used to elicit words, phrases, etc. (e.g. make a dog, write your name here, say "excuse me", etc.)

B. Directive Yes/No Questions: Questions that can be answered with a yes or no but that suggest or direct the child to play a certain way or to speak in a certain way (e.g. Can you draw a picture for me?)

C. Test Questions: Questions that test the child's knowledge; the answer is usually one word and obvious from the context (rhetorical). Examples include: "what colour is this?", how many bears can you count?", etc.

D. Choice-Related Questions: This category includes choice questions (e.g. "do you want a carrot or a banana?")

CONVERSATION CONTROL: Includes all open-ended wh-questions, clarification questions that repair breakdowns, and yes/no questions *that promote conversation without directing behaviour*.

A. Clarification Questions: Questions that clarify the child's meaning in the preceding utterance. They are usually yes/no questions (e.g. child says "Pak", Teacher asks: He's going to the park?"

B. Wh-questions: These are questions that include a wh-word (e.g. who, what, where, how, etc.). They are considered to be open-ended questions because the answer is not constrained)

C. Use of Vague or Non-specific words: Includes utterances such as this, that, here, yeah, etc.

LANGUAGE MODELING/PROMOTING UTTERANCES/RESPONSES

A. Uses a variety of labels: Utterances that comprise of nouns, verbs, adjectives, also emphasizes key words (e.g. repeating words), labeling actions, attributes, routines, and events. This category also includes phrases conveying information about routines within the classroom *without directing the behaviour of the child*.

B. Expansions: Utterances whereby the teacher repeats a child's words and corrects for grammar or repeats a child's words and adds another idea

C. Extensions: Utterances whereby the teacher provides information related to the child's topic or on-going activity using comments and questions to inform, project, pretend/imagine, explain, talk about the future, and talk about emotions.

GREETINGS: Utterances that greet a child upon arrival and/or departure from the classroom.

SOCIAL ETIQUETTE-RELATED: Utterances that serve a social/etiquette purpose (e.g. thank you, how are you?, etc.)

PRAISE: Includes utterances that convey appreciation and encouragement regarding a child's actions, words, etc. (e.g. good job, high five, etc.)

BODILY FUNCTIONS RELATED REQUESTS/DIRECTIVES: Utterances (commands and questions) that serve to direct and/or request a child to perform actions related to toileting, eating, hygiene, etc.

CODING CATEGORIES

Date of Observation: _____

Time Period of Observation: _____

Behavioral Control		Total
Group Management		
Attention Calls		
Giving Permission		
Response Control		
Commands		
Directive yes/no questions		
Test-like questions		
Choice questions		
Conversation Control		
Clarification questions		
Wh-questions (open-ended)		

Use of vague, non-specific words (e.g. this, that, yeah, etc.)		Total
Language Modeling Utterances/Responses		
Labeling		
Expansions		
Extensions		
Greetings		
Social Etiquette-related utterances (e.g. thank you)		
Praise		
Bodily Functions Related Requests/Directives		
	Total Teacher Utterances =	