THE ORAL INTERACTION OF NATIVE SPEAKERS AND NON-NATIVE SPEAKERS IN A MULTICULTURAL PRESCHOOL: A COMPARISON BETWEEN FREEPLAY AND CONTRIVED NS/NNS DYADS

by

ELIZABETH ANNE KENNEDY

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS

in

CURRICULUM AND INSTRUCTION

THE FACULTY OF GRADUATE STUDIES

1988

We accept this thesis as conforming to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA

9 October 1988

© Elizabeth Anne Kennedy, 1988
In presenting this thesis in partial fulfilment of the requirements for an advanced degree at the University of British Columbia, I agree that the Library shall make it freely available for reference and study. I further agree that permission for extensive copying of this thesis for scholarly purposes may be granted by the head of my department or by his or her representatives. It is understood that copying or publication of this thesis for financial gain shall not be allowed without my written permission.
ABSTRACT

While researchers generally recommend a 1:1 ratio of native speakers (NSs) to non-native speakers (NNSs) be maintained in multicultural preschool classrooms, these ideal proportions are often unrealistic in regions where populations reflect high concentrations of ethnic groups. In these areas, where enrolments usually consist of a majority of NNSs, pedagogical modifications may be necessary to ensure second language learners are exposed to sufficient amounts of 'meaningful target language input' which is considered essential for second language acquisition (Krashen, 1979).

This study investigated the effects of deliberate pairing on NSs and those NNSs who had low English language proficiency (L) in one multicultural preschool where NNSs outnumbered NSs by 3:1. Four NS subjects were videotaped, employing a multiple baseline design, as they interacted with their peers during a math game activity time. The effects of the treatment on four interactional measures were analysed using Ruvusky's statistic.

Results, as predicted, indicated significant differences for three of the four measures. When deliberately paired, both NSs and NNSs(L) took more turns, and NSs uttered significantly more directives to their NNS(L) peers than they did during the freeplay situation. Deliberate pairing of NSs and NNSs(L) has been shown to be a successful technique for exposing NNSs(L) to increased levels of target language input in this multicultural preschool. Implications for teachers are outlined and the role of NSs in multicultural classrooms is discussed.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table of Contents</td>
<td>iii</td>
</tr>
<tr>
<td>Abstract</td>
<td>ii</td>
</tr>
<tr>
<td>List of Figures</td>
<td>v</td>
</tr>
<tr>
<td>List of Tables</td>
<td>vi</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>vii</td>
</tr>
<tr>
<td>I. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>II. THE NATURAL INTERACTION OF NATIVE SPEAKERS AND NON-NATIVE SPEAKERS</td>
<td>5</td>
</tr>
<tr>
<td>IN PRESCHOOL CLASSROOMS</td>
<td></td>
</tr>
<tr>
<td>A. Historical and Theoretical Background</td>
<td>5</td>
</tr>
<tr>
<td>B. The Role of Target Language Input in Children’s Second Language</td>
<td>8</td>
</tr>
<tr>
<td>C. Barriers to NS/NNS Talk</td>
<td>13</td>
</tr>
<tr>
<td>D. Why Typical Preschool Environments May Be Inadequate For Some</td>
<td>17</td>
</tr>
<tr>
<td>Language Learners</td>
<td></td>
</tr>
<tr>
<td>E. Methods of Encouraging Interaction</td>
<td>20</td>
</tr>
<tr>
<td>F. Research Question and Hypotheses</td>
<td>23</td>
</tr>
<tr>
<td>III. A STUDY INTO THE ORAL INTERACTION OF NATIVE SPEAKERS AND NON-</td>
<td>26</td>
</tr>
<tr>
<td>NATIVE SPEAKERS IN FREEPLAY AND CONTRIVED NS/NNS DYADS</td>
<td></td>
</tr>
<tr>
<td>A. Experimental Design</td>
<td>26</td>
</tr>
<tr>
<td>B. Method</td>
<td>28</td>
</tr>
<tr>
<td>1. Subjects</td>
<td>28</td>
</tr>
<tr>
<td>2. Grouping Instrument</td>
<td>29</td>
</tr>
<tr>
<td>3. Data Collection</td>
<td>30</td>
</tr>
<tr>
<td>a. Baseline Observations</td>
<td>30</td>
</tr>
<tr>
<td>b. Treatment</td>
<td>31</td>
</tr>
<tr>
<td>4. Transcription and Coding</td>
<td>32</td>
</tr>
<tr>
<td>5. Reliability Assessment</td>
<td>34</td>
</tr>
<tr>
<td>C. Analysis and Hypotheses</td>
<td>34</td>
</tr>
<tr>
<td>IV. RESULTS AND DISCUSSION</td>
<td>36</td>
</tr>
<tr>
<td>1. Number of NS Turns per Episode</td>
<td>36</td>
</tr>
<tr>
<td>a. Results</td>
<td>36</td>
</tr>
<tr>
<td>b. Discussion</td>
<td>40</td>
</tr>
<tr>
<td>2. Number of NNS(L) Turns per Episode</td>
<td>43</td>
</tr>
<tr>
<td>a. Results</td>
<td>43</td>
</tr>
<tr>
<td>b. Discussion</td>
<td>45</td>
</tr>
<tr>
<td>3. Number of NS Directives per Episode</td>
<td>47</td>
</tr>
<tr>
<td>a. Results</td>
<td>47</td>
</tr>
<tr>
<td>b. Discussion</td>
<td>49</td>
</tr>
</tbody>
</table>
4. Number of NS Turnabouts per Episode ........................................ 50
   a. Results .............................................................................. 50
   b. Discussion ......................................................................... 52
5. General Discussion ..................................................................... 53

V. CONCLUSIONS, RESIDUAL QUESTIONS & IMPLICATIONS FOR
   TEACHERS .............................................................................. 58
   A. Conclusions ......................................................................... 58
   B. Residual Questions ............................................................. 60
   C. Implications for Teachers ..................................................... 65

References .................................................................................. 69
LIST OF FIGURES

Figure 1. Number of NS Turns per Episode .................................................. 38
Figure 2. Number of NNS(L) Turns per Episode ......................................... 44
Figure 3. Number of NS Directives per Episode ........................................ 48
Figure 4. Number of NS Turnabouts per Episode ....................................... 51
LIST OF TABLES

Table 1. Number of NS Turns per Episode: Baseline Scores, Mean Treatment Scores and Ranks ................................................................. 40

Table 2. Number of NNS(L) Turns per Episode: Baseline Scores, Mean Treatment Scores and Ranks ................................................................. 43

Table 3. Number of NS Directives per Episode: Baseline Scores, Mean Treatment Scores and Ranks ................................................................. 49

Table 4. Number of NS Turnabouts per Episode: Baseline Scores, Mean Treatment Scores and Ranks ................................................................. 52
ACKNOWLEDGEMENTS

Expressions of warm appreciation and thanks are due to many people who have helped to make the completion of this thesis possible. To Dr. Ken Reeder, advisor extraordinaire, whose expert supportive criticism inspired and challenged me to meet his high academic standards; to Dr. Rita Watson and Pat Wakefield, committee members, and Dr. Margaret Early, whose insightful comments have made this a better thesis; to Dr. Walter Boldt, who contributed his expert measurement advice; to Sue Fraser, friend and colleague, who initially inspired this line of research and who assisted with transcriptions and coding; to Dr. Glen Dixon, director of the U.B.C. Child Study Centre, for sharing the research site and for his generous professional and practical assistance; to Dr. Ann Lukasevich, whose academic and personal support has assisted me tremendously; to Judi Ritchie, teacher at the preschool, for her patience, flexibility, and insight during this project; to the delightful children and their parents who participated so enthusiastically; to Kathy and Paul Dirks, Elizabeth Dunn, Barbara Trowbridge, Robert Dionne and others, without whose personal support and encouragement I could not have completed this thesis; to my children, Reid and Kristy, whose patience, understanding and good humour has been inspirational; to my family, who have offered their support in many ways, and especially to my father, whose belief in my abilities has played a significant role in helping me to achieve my goals, I extend my sincere appreciation.
I. INTRODUCTION

As a result of the recent shift of investigative focus from the product to the process of child second language acquisition, researchers have been identifying a number of environmental variables which seem to promote the acquisition process. Most significant of these appears to be the presence of a natural language sample which is tailored to the learner's individual abilities and interests, focused on meaning rather than form, and contextualized. Such a language sample may be readily provided by native speaking (NS) peers on occasions of authentic communication during natural cross-cultural play. Consequently, early childhood educators are beginning to recognize the NS child in multicultural classrooms as a valuable teaching resource.

The notion that NS children play a critical role in the acquisition process has become generally accepted and has prompted a widespread call for the integration of NSs into English as a Second Language (E.S.L.) classrooms. So significant and consistent are the research findings with regard to the benefits of mixing NSs and non-native speakers (NNSs) that a number of researchers have definitively recommended a 1:1 ratio be maintained in E.S.L. preschool enrolments (Wong-Fillmore, 1982).

However, such balanced ratios are not easily achieved in every geographical region. Many communities have been populated almost exclusively by particular ethnic groups who establish welcoming neighbourhoods for immigrating friends and relatives. Naturally, the preschool enrolments within these regions
reflect these concentrated proportions of particular linguistic and cultural groups. The suggestion to transport very young children out of their local neighbourhoods to selectively proportion preschool enrolments according to children’s linguistic and cultural backgrounds would undoubtedly be met with parental resistance. After all, many other factors such as convenience, friends, teachers and programs weigh heavily in the decision of preschool placement. So, in spite of the fact that most educators believe an ideal second language learning environment includes a balanced proportion of NSs, such an environment is often realistically unattainable. In reality, many E.S.L. preschool teachers are facing NS/NNS ratios that are not even close to the recommended ones.

The following research study addresses the reality of less than ideal NS/NNS proportions by focusing on an existing multicultural preschool where enrolment is determined on a first-come-first-served basis and where NNSs make up about seventy percent of total students. In so doing, this study will contribute to our knowledge of a language learner’s social and linguistic environment within classroom situations where the majority of children are NNSs. Its focus on NS/NNS oral interaction within this situation will provide us with important sociolinguistic data.

Further, this study takes a novel perspective in its focus on the NS rather than the NNS. Traditionally, research in second language acquisition has focused on the second language learner. However, in this interactive study, it is assumed that the NS, who is generally well-established in the skills of the classroom, is in a better social position to initiate and maintain cross-cultural
Finally, this study challenges a traditionally accepted view that the informal, social language acquisition environment is not a manipulable research variable. In this study, the oral communication of NSs and NNSs during natural and contrived play situations is compared for frequency, duration and interaction. The natural play situation, for the purposes of this study, is an unstructured period of math-related games during which the children freely choose activities and partners. In the contrived freeplay situation the teacher encourages NS/NNS pairs to choose a math activity together. By focusing on frequency, duration and interaction, this study assumes that increased oral interaction between NSs and NNSs will provide the second language learners with more "meaningful target language input" which is considered so vital to second language acquisition (Krashen, 1981).

Findings may either confirm the value of children's natural and intuitive motivation for interaction or question its validity for the purposes of second language acquisition among all children. It is possible that the play-based curriculum found in most North American preschools may not provide the best second language learning environment in situations where recommended proportions of NSs to NNSs are not met. By looking at a pedagogical alternative to freeplay, this study will make a useful contribution to our knowledge of how children from different cultures interact when placed in two different situations. Determining whether teacher intervention into play can make a difference in the nature of NS/NNS interactions is a necessary prerequisite to the study of how
these altered patterns of interaction can affect second language development.

This quasi-experimental study attempts to answer the research question, "Can the meaningful target language input to which NNSs are exposed be increased by deliberately pairing NSs and NNSs(L) in a multicultural preschool classroom?". By investigating the NS/NNS oral interactions within a classroom situation where NNSs are the majority, this study hopes to contribute to our knowledge of language learners' social and linguistic environment within classrooms where balanced proportions of NSs and NNSs have not been met. In so doing, this study undertakes to make practical recommendations for early childhood educators faced with such challenging but realistic classroom enrolments.

The study will be presented in five major sections. Chapter Two, a review of the relevant theory and research background to the question, first focuses on the role of target language input in child second language acquisition, then describes some barriers to NS/NNS talk in preschool classrooms and finally outlines why and how NS/NNS interaction can be encouraged. A statement of the problem and justification for employing particular devices to measure "meaningful interaction" are delineated. Chapter Three outlines the research question, hypotheses, and the experimental method. Chapter Four presents the results and discussion, and Chapter Five summarizes with the conclusions of the study and its implications for educators.
II. THE NATURAL INTERACTION OF NATIVE SPEAKERS AND NON-NATIVE SPEAKERS IN PRESCHOOL CLASSROOMS

A. HISTORICAL AND THEORETICAL BACKGROUND

Traditionally, second language teaching methods have emphasized rote learning practice through audiolingual drills. Based on prevailing behavioristic paradigms, these drills emphasize the isolation of linguistic units of form from content to avoid confounding a stimulus/response (S/R) relationship with semantic and other associations. According to behaviorist theory, the repeated practice of such isolated units is critical in shaping a response to a given stimulus and for developing eventual "habit strength" (Osgood, 1956). Errors, considered detrimental to the formation of target S/R relationships, are carefully and consistently corrected. Although the behavioristic theory of child language development was widely accepted by second language teaching theorists until the late 1960's or early 1970's, it has been extensively criticized since then as being too simplistic to explain the very complex process of language learning (Brown, 1987).

Ausubel (1964) argued that rote learning through audiolingual drills lacked the meaningfulness necessary for successful first and second language acquisition. He posited, in his cognitive learning theory, that meaningful learning takes place through the process of relating and anchoring new material to existing cognitive concepts; that is, learners relate the new learning task to what they already know. According to Ausubel, the subsumption of new material under an inclusive conceptual system facilitates retrieval of the information much more efficiently.
than the storage of discrete and relatively isolated entities in an arbitrary fashion.

Behaviorist theory of language development also failed to account for the fact that (1) Children create many phrases they have never heard before, and (2) Children are able to master their native language in a very short time despite the highly abstract nature of the rules of language. In an effort to address these inadequacies in behavioristic theory, the generative approach to child language development became the accepted theoretical mode of thinking during the late 1960's. Theorists from the nativist school of thought attempted to explain creativity and abstractness with their conception that language acquisition is innately determined. Noam Chomsky (1965) and David McNeill (1966) claimed that we are born with a built-in language acquisition device (LAD) which predisposes us to a systematic and internalized perception of language. Their explanation addressed some of the language development issues that the behaviorists' could not, such as meaning, creativity and abstractness.

During the next decade the interactionists offered a new theory that challenged the traditional and fundamental notion that it is necessary for language learners to develop syntactic structures in order to converse by suggesting the antithesis; language learning evolves out of learning how to carry on conversations. Their "creative construction" view of language learning is founded on the premise that individuals can "creatively construct" novel sentences on the basis of a rule system which they are progressively building. They make hypotheses about the language and then test and revise them in interactive
contexts, based on responses which either reinforce or invalidate the hypotheses (Bloom, 1978; Bruner, 1980; Halliday, 1976; Hatch, 1978). According to interactionists, successful language learning cannot take place in the social isolation that typifies audiolingual instruction. Rather, it requires lots of oral interaction to both encourage and refine oral communication. Berko-Gleason (1982:20) describes this recent trend:

While it used to be generally held that mere exposure to language is sufficient to set the child's language generating machinery in motion, it is now clear that, in order for successful first language acquisition to take place, interaction, rather than exposure, is required; children do not learn language from overhearing the conversations of others or from listening to the radio, and must, instead, acquire it in the context of being spoken to.

In response to this growing recognition that language learning is of a multifaceted nature and cannot be extricated from social interaction, the study of conversational or discourse analysis became a major focus of child language acquisition research in the 1980's. Clearly, the current research interest in the communicative functions of language has important implications for educators as, increasingly, sociolinguistics is being seen as a vital element of language teaching. Advocates have begun calling for increased use of interactional communication within classrooms, suggesting that if teachers can provide their students with ample opportunity for oral language practice and can evaluate their progress within meaningful contexts, then the linguistic conditions which these students face outside the classroom will be more accurately simulated.

The idea that oral interaction should become a major focus in classrooms
is being widely accepted by language teaching theorists, whether it be in first language development, or in the development of second language proficiency. Virtually all theorists agree on the importance of interaction that is contextually rich, genuine, and focused on meaning rather than form (Cummins, 1984). Krashen (1977, 1979) specifically suggests that interaction which is truly "meaningful communication" is intrinsically motivating and can trigger the LAD. Cummins (1984) adds that a central function of language use is meaningful communication and warns that when this central function is ignored in classroom instruction, learning is likely to be by rote and supported only by less effective extrinsic motivation (Cummins, 1984). He contends that meaningful communication can be achieved only during occasions of real oral interaction which actively involves and is of interest to the learner. It is this meaningful communication, Cummins maintains, which promotes the tacit acquisition of language.

Although the best methods for encouraging oral interaction within the classroom may not yet have been identified, a new focus in language teaching research is emerging. Natural communication, long ignored as a language teaching device, is gaining increased recognition as a pedagogical tool. Language teachers have at their immediate disposal a teaching device which is potentially motivating, easy to administer and efficient.

B. THE ROLE OF TARGET LANGUAGE INPUT IN CHILDREN'S SECOND LANGUAGE ACQUISITION

There is an important distinction to be made between language learning, which is conscious and explicit and often occurs within formalized, didactic environments,
and *language acquisition*, which is unconscious and implicit and most often takes place within natural, interactive settings (Krashen, 1979; Rivers, 1983). Although language learning can be useful for correcting and refining the formal grammatical aspects of language, it has limited effectiveness in the development of overall communicative competence. Educators who direct inordinate amounts of their students’ language learning time with formal language teaching strategies may be neglecting certain processes of language acquisition that are critical for second language development. Furthermore, there may be specific periods during the development of language proficiency when language learners benefit minimally from formal, grammatical instruction.

According to recent research into child language development, early childhood appears to be a time during which language learners rely primarily on acquisition for developing their language proficiency (Krashen, 1981a). Olson (1984) found that NS preschool-aged children focus primarily on speakers’ intents (what is meant by language) rather than on form (what is said). And Reeder & Wakefield (1987), in their recent investigation into speech act comprehension, demonstrated that younger preschool-aged NSs rely primarily on contextual clues when decoding linguistic information, while older preschoolers showed decoding tendencies toward language and away from context. Moreover, there is little evidence to demonstrate that second language learners follow a distinctly different process of language acquisition from first language learners. If this is so, then it follows that most preschoolers who are learning a second language also rely primarily on context-dependent communicative strategies, at least at the early stages of language development. Consequently, any feedback they receive which is
related to the formal aspects of the target language may be ignored (Brown, 1987). If the metalinguistic awareness required to make use of language-based information has not been sufficiently developed in these very young children, then it appears that they can make little use of traditional, formal instruction in their language learning.

More appropriate to the learning styles of very young children are language teaching activities which are contextually-based and meaningful to them. Basically, that means activities which ensure children have exposure to the new language in natural settings. However, research demonstrates that exposure to a language alone does not automatically lead to acquisition. Rather, the significant variable seems to be the amount of individual participation or active involvement in meaningful communication with speakers of the language (Troike, 1981; Krashen, 1981a). Most researchers agree that when this meaningful interactive communication occurs, learners are provided with critical primary linguistic data on which they can base and test their hypotheses regarding the use of the new language. The resultant "feedback loop", as it is referred to by Pepinsky and DeStefano (1983), appears to be indispensable to the acquisition process.

Although it has been demonstrated that adults can provide language learners with a technically superior language sample than other children (Wells, 1980), it is impractical to expect one teacher to provide adequate amounts of meaningful, interactive target language input to each child in the classroom. Furthermore, it may be difficult for adults in the preschool classroom to motivate young NNSs to learn a second language. NS peers, on the other hand, if
enrolled in sufficient quantities, can not only provide NNSs with an abundance of target language input, but may also be able to provide their NNS peers with the motivation they need to try out the new language. Simply by engaging in natural childhood play, NS children in a multicultural classroom have the potential to trigger within the learner a powerful and facilitating motivation to communicate.

Native-speaking (NS) peers may not only be the key motivators needed to encourage NNSs to learn the target language, but they may also be capable of providing an ideal language sample to their NNS peers. Wong-Fillmore (1976), in a year-long study of five Spanish-speaking children, compared child/child to child/adult discourse and found that adults asked many more questions, were more concerned with referential meaning and had a tendency to correct for form. Child/child talk, unlike adult/child talk, included word games, sound effects, plays, songs, imitations etc. There was a wider variety of input from children but fewer, shorter responses. Wong-Fillmore noted that NS peers "provided encouragement and made every effort to understand what the learner was trying to say in English". She found that these peers modified their language as much as adults do for children acquiring their first language. Their sentences tended to be syntactically simpler, though well-formed and natural. They provided lots of repetition and paraphrase and limited their choice of vocabulary. They focused mainly on the immediate situation and their language was carefully related to activities in which the children were engaged, thus providing important contextual clues. There were non-verbal supports such as gestures, sound effects and demonstrations. In their verbal interactions, NSs focused on meanings, not forms;
when correcting, it was for content, not form. They often rephrased and repeated learners' sentences by way of verifying their own interpretations or simply made no comment. No one ever corrected form. As the learners became more competent, the NSs' language became more complex; it was a perfect language sample, always beyond the learner's current proficiency level, yet usable (Wong-Fillmore, 1976).

Several other studies into the differences in input modification across proficiency levels demonstrate that syntactic complexity appears to be greater as proficiency levels increase (Gaies, 1977; Henzl, 1979; Chaudron, 1979; Freed, 1981). Moreover, Krashen (1983) found that in addition to modifying their speech to match NNS proficiency levels, NSs focus on communication rather than teaching *per se*. And Long (1980b, 1981a), in a survey of NS/NNS input modification studies, discovered statistically significant modifications from NS/NS norms to be pervasive in certain areas. Long noted that in addition to modifying the input itself, NSs made input comprehensible by consistently modifying the interactional structure of conversation through (1) self and other repetition (2) confirmation and clarification checks. These consistent and pervasive findings demonstrate that naturally occurring NS input modifications can provide NNSs with a language sample that is individually tailored to facilitate their language learning.

Most second language teaching theorists agree that NSs can provide NNSs with an ideal language sample. Hence, they recommend ample opportunity be given to learners to participate in and initiate a variety of interactive situations
with NSs where they can feel free to try out the new language and experiment with it (Cummins, 1980; Lindfors, 1983; Wong-Fillmore, 1982). But recent evidence suggests that in cases where NS/NNS proportions are not balanced, the provision of such a linguistic environment may not be enough to induce cross-linguistic interaction among very young children.

C. BARRIERS TO NS/NNS TALK

The earliest and most potent motivation for children learning a language is the desire to talk to another child or adult. But the degree of natural motivation to learn a language appears to vary significantly between first and second language learners. A first language learner must learn the language to communicate and is therefore aided by powerful, intrinsic motivation. A second language learner, however, already a member of a linguistic group and able to communicate with others, is not likely to have that fundamental and facilitating motivation to learn a new language. Furthermore, in first language acquisition, the initiative for establishing a social relationship that provides the learner with interactive feedback is often assumed by the teacher or parent; in second language acquisition, on the other hand, the learner must bear a major responsibility for initiating and maintaining interaction with speakers of the target language.

This situation is accentuated in the child-centred classrooms prevalent in North America, where children are expected to assume much of the initiative and direction for their own learning. In these settings, young second language learners
must play an active role in getting and maintaining contact with NSs to support their language learning. Obviously, this self-motivation takes a special desire on the part of the learner to have such contact and to maintain it once established.

Cross-linguistic discourse can be difficult for NSs too, especially if the NNSs with whom they are attempting to converse have low target language proficiency. Conversational turntaking between NSs and NNSs can be rather awkward for the interlocutors. In conversational dyads one speaker finishes a turn and then the other speaks, each participant making sense of the other's remarks in order to continue the flow of conversation. However, when interlocutors have widely differing proficiency levels, extra time must be taken to process the message after the speaker has finished but before responding (Gass & Varonis, 1984). It is not surprising, then, that some children, although sharing a classroom with others of differing linguistic skill, may prefer to interact with classmates whose level of proficiency in the language of the classroom approximates their own.

This phenomenon is not limited to cross-linguistic settings. In integrated preschools, it has been observed that handicapped and non-handicapped children tend to socialize in intact groups. The non-handicapped children prefer to interact with their non-handicapped or mildly handicapped peers. (Peterson and Haralick, 1977). And Curran (1961, 1972, 1976) points out that many language students exhibit the same kind of anxieties and fears as clients in psychotherapy. Competition, fear of failure, rejection and other personal conflicts and hostilities, he warns, can create serious blocks to intellectual learning and need to be dealt
with productively, if successful, non-defensive language learning and language use is to take place. Peer interaction, central in childhood socialization, contributes to the acquisition of social and communicative competencies in a manner unlike the contributions made by interactions with adults (Kent & Rolf, 1979). If children's lack of confidence in their verbal skills is reflected in their social competencies, then it is conceivable that some children who are not fluent in the language of the classroom may become unjustly trapped within a vicious circle of linguistic inferiority and social insecurity.

In her three year Berkeley Individual Differences Project, Wong-Fillmore (1982) detected some striking differences among children according to whether they are inclined to orient their activities in the classroom toward adults or peers. Wong-Fillmore reported that the Chinese-American children she observed tended to be more concerned with expectations and opinions of the adults than those of their classmates. They appeared to look much more consistently to their teachers and other adults in the room for guidance and support than to one another. Spanish-American children, on the other hand, were far more attuned to their peers. Children of both ethnic groups who were peer-oriented tended to spend a lot more time talking to their NNS classmates. Whether a child is peer-oriented or adult-oriented can have far-reaching effects on that child's motivation to learn a new language. And, since language learning is so closely linked to motivation, the linguistic composition of a class can significantly influence the degree of language learning that takes place. In classrooms with a high concentration of NNSs, the main reason for learning English is to please adults. This is alright for children who are adult-oriented, but those who are
peer-oriented tend to learn much less in this situation since, as noted above, they spend most of their time interacting with their NNS classmates. In fact, Wong-Fillmore pointed out that although some highly verbal and socially competent children in her sample had been predicted to be good language learners, they learned very little after a year due to their peer orientation.

There is still some debate among researchers with regard to whether most children are oriented towards adults or peers. Chesterfield et. al. (1982) noted that in spite of classroom environments designed to encourage child/child interactions, the majority of most children’s speech is with teachers. In seventy-five percent of individual observations in their study of peer interaction in multicultural preschools, children interacted more frequently with the teacher than with peers. This early orientation towards adults has also been documented by Gordon Wells in a longitudinal study of first language development. Wells discovered that most of children’s conversations is initially with adults, but gradually, over the whole preschool period, the amount of conversation with other children increases (Wells, 1985). If this is the case, then Chesterfield’s findings that the majority of preschool-aged children interact more frequently with the teacher than with their peers is not surprising. But with only limited access to the teacher, who must divide time among all the children, preschool second language learners who are adult-oriented may not be receiving sufficient target language interaction to learn the new language.

Even in classrooms where most children are peer-oriented, the nature of classroom interaction can be significantly influenced by the linguistic composition
of the class. Selinker, Swain and Dumas (1975), in their study of French immersion classes, found that children often interacted solely within their own secure cultural and linguistic group when language learners comprised the majority of the class. Even if they did choose to use the new language among themselves, these language learners supplied each other with an imperfect version of the language as input, resulting in the "junky data" phenomenon.

It is evident, then, that natural, cross-linguistic interaction does not occur automatically in multicultural classrooms. Even if balanced proportions of NSs and NNSs are maintained, many barriers to their oral interaction remain.

D. WHY TYPICAL PRESCHOOL ENVIRONMENTS MAY BE INADEQUATE FOR SOME LANGUAGE LEARNERS

"Freeplay" is a term commonly used by early childhood educators to describe that portion of time devoted to child-centred and child-directed play within preschool settings. Based on the teachings of Froebel and Dewey, who profess that children learn best when they are actively engaged in activities that are of interest to them, freeplay has been widely adopted into North American preschool programs. During a typical freeplay period, children are expected to take some direction for their own learning by engaging in self-directed activities such as block-building, painting, dramatizing, etc. Proponents of freeplay believe that children, given the opportunity to take some direction for their own classroom activities, will intuitively embark on an individualized learning process which capitalizes on their natural motivation to learn. The freeplay philosophy
has been extensively embraced by educators in all areas of early childhood education.

Second language teaching theorists generally agree that freeplay can provide second language learners with the motivation they need to learn a new language, but only in classrooms where there are many NSs in addition to the teacher for them to interact with (Wong-Fillmore, 1982). Where the majority of students are NNSs, however, the freeplay context may not provide an optimal or even adequate language learning environment. Primarily, what is lacking where there is a high concentration of NNSs is the incentive to learn a new language. After all, there is no obvious need for language learners to learn a new language when they already speak a language they can use with a majority of their classmates.

Even where there are balanced proportions of NSs and NNSs, the freeplay situation may not be the ideal language learning environment for all children. By presupposing that children will naturally initiate and assume responsibility for their activities, the freeplay philosophy neglects to consider certain individual characteristics that can play a role in facilitating access to second language input. Some children are naturally verbal and responsive to language. Others are shy and introverted. A child who is naturally verbal and responsive to language would probably not only attract more input from the interlocuter, but would also encourage further effort on the part of that interlocuter to get the message across. Wong-Fillmore (1976) found that individual children’s abilities and inclinations to interact with speakers of the target
language largely determines how much interaction and how much language data the learners get. Juan, a young language learner in Wong-Fillmore's Individual Differences Project, was reluctant to interact with individuals who did not speak his first language and thus cut himself off from potential input. Of all the subjects Wong-Fillmore studied, Juan made the slowest progress in English throughout the year (Wong-Fillmore, 1979).

Consistently high correlations have been found between target language use and increased proficiency (Chesterfield et. al., 1982). But it seems that motivation and tendencies toward becoming a part of the target language group may follow a certain level of proficiency in that language rather than contribute to that proficiency. Strong (1983), in an investigation of social styles and second language acquisition of Spanish-speaking kindergartners, compared beginners and advanced level NNSs and found significantly more integrative motivation and behavior tendencies in children who had a higher second language proficiency than children who had a low level proficiency. The results of his study indicate that these integrative tendencies may follow a certain level of proficiency rather than contribute to it. It is conceivable then, that until children achieve a certain level of competence in the language of the classroom, they may be severely limited in their ability to interact socially. Chesterfield (1982) also found children who were learning English as a second language were able to take linguistic advantage of their English speaking peers as their proficiency increased.

Lily Wong-Fillmore (1976) identified three stages in second language acquisition which are evolving concerns of the learner. The first stage and
earliest concern is to establish social relationships with speakers of the language. The second stage is to communicate messages to NSs and the third is to be correct in speaking the language. As noted above, very special skills are required on the part of the learner to establish social relationships with peers who do not speak the language. If the learner does not have these special social skills, then arriving at even the first stage of language learning becomes an insurmountable task; subsequent stages of communicating messages are beyond reach. Strong offers some advice to educators who want to assist young language learners:

If it is true that second language learning is most enhanced through exposure to meaningful input and that young children are unlikely to expose themselves to such input while they are still beginners, then teachers should take pains to encourage students from different language groups to work and play together...In this way teachers may counteract some of the negative effects of a phenomenon which delays the point at which young language learners develop inclinations to integrate socially with members of the target group (Strong, 1984:12).

E. METHODS OF ENCOURAGING INTERACTION

If establishing social relations with speakers of the target language is a necessary first step in second language learning, and if many preschool-aged children are not developmentally capable of initiating and maintaining these relations, then it is reasonable to posit that teachers might help young language learners to make some initial contacts with their NS peers. How to best facilitate meaningful interaction between NSs and NNSs, however, is unclear. It is evident that intervention into the social dynamics of any multicultural classroom must be entered into with extreme sensitivity. Where some children are
not proficient in the language of the classroom, there is a very real danger that these language learners will feel a sense of inferiority due to their inability to communicate in the target language, especially if the language is the most prestigious one at school or in the community. Similarly, if second language learners are expected to compete academically with NSs of the language, negative attitudes can be easily formed towards self and school.

It is equally important that teachers be sensitive to individual children’s stages of linguistic development and aware of the corresponding limitations. For example, caution must be taken to allow language learners adequate time for listening to language before production is expected or encouraged. First language learners typically develop comprehension long before they speak (e.g. non-verbal response to directions). This reflective listening is also a vital part of second language acquisition. Cummins (1980) warns that if a learner’s first language is endangered through premature emphasis on second language learning, then "subtractive bilingualism" may occur. This phenomenon can be devastating to a learner’s self-esteem as well as his/her future ability to learn other languages. Given the very serious consequences that may result when a child is expected to produce language before he/she is developmentally ready to do so, it is imperative that teachers refrain from aggressive intervention techniques.

Because the key variable in establishing and maintaining NNS contact with NSs appears to be whether or not the learner is motivated enough to assume some personal responsibility for the contact, this responsibility cannot be assumed by the teacher. Most researchers agree that where there is a pressing
need to communicate and the motivation is high, the acquisition process seems to
continue (Taylor, B., 1983). Wells' Theory of Interpersonal Purpose states that
communication is "an essential instrumental means" where the goal requires
collaboration between individuals (Wells, 1985:61). It appears that if educators are
to increase the meaningful target language input that NNSs receive from their
NS peers, they must facilitate natural communicative interaction in their
classrooms.

Research indicates that specific communicative interactions may motivate
NSs to modify their input to make it comprehensible to the language learners.
Long (1983), in his study into the input modifications of NSs in NS/NNS dyads,
found no significant change from NS/NS conversation when the situation involved
communicating information to others who lacked it, or "one-way" tasks.
 Modifications occurred only on those tasks where two-way input was required. He
posits that classroom discourse is rarely motivated by a one-way exchange of
information. Rather, participants must be information equals (e.g. engaged in
problem-solving or games for entertainment). Brulhart (1985) similarly found
differences on interactional measures were, in general, greater for tasks requiring
a two-way exchange of information, especially conversation and game playing. She
suggests that it is some aspect of the verbal feedback provided by the learners
that prompts NSs to adjust their speech and to avoid or repair conversation
breakdown. Johnson and Paulson (1976) point out that practice is most effective
when it is conducted in a responsive environment in which what is said by one
learner matters to another or other learners, because they may, in turn, have to
respond to what is said.
In summary, researchers overwhelmingly recommend that teachers facilitate NS/NNS interaction in preschool classrooms by encouraging natural, interactive communication. Activities which are mediated through language but not focused on it, and which prompt a two-way, collaborative exchange of information should be provided. Above all, activities should motivate the interlocutors to communicate naturally.

F. RESEARCH QUESTION AND HYPOTHESES

The central focus of this study is to investigate the quality and quantity of meaningful target language input NNSs with low English language proficiency levels (NNSs(L)) receive from their NS peers in one multicultural preschool during both typical freeplay periods and contrived NS/NNS(L) dyads. The research question to be addressed is:

Can the meaningful target language input to which NNSs(L) are exposed be increased by deliberately pairing NSs and NNSs(L) in a multicultural preschool classroom?

The research hypotheses derived from the question are:

1. NSs will contribute more turns per episode in NS/NNS(L) interactions if they are paired deliberately during periods of freeplay.

2. NNSs(L) will contribute more turns per episode in NS/NNS(L) interactions if
they are paired deliberately during periods of freeplay.

3. NSs will utter more turnabouts in their conversations with NNSs(L) if they are paired deliberately during periods of freeplay.

4. NSs will utter more directives in their conversations with NNSs(L) if they are paired deliberately during periods of freeplay.

By measuring frequencies of turns, turnabouts and directives that occur during NS/NNS(L) interactive episodes, this researcher sought to obtain an indication of both the quantity and quality of talk between interlocutors. The number of turns a speaker contributes to the construction of a topic indicates the degree of participation that speaker maintains in an interaction, as well as providing some insight into the linguistic environment being provided to both participants in the interaction. Turnabouts and directives, on the other hand, are considered to be discourse facilitating devices (Shatz, 1982; Torrance & Olson, 1985), and, as such, indicate a desire on the part of the speaker to maintain and extend an interaction. These measures will be discussed in operational terms in Chapter Three.

For the purposes of this study, only those turnabouts and directives produced by NSs were recorded. It was projected, on the basis of a pilot study, that the numbers of turnabouts and directives likely to be produced by NNSs(L) would be minimal. This is not surprising, given that they are complex discourse devices and consequently, may be beyond the language and cognitive development of many young children (Shatz, 1982). As this researcher sought to measure
significant differences between two pedagogical methods, the frequencies of
turnabouts and directives were recorded only for the NS subjects, who were
considered to be more capable of producing these devices.
III. A STUDY INTO THE ORAL INTERACTION OF NATIVE SPEAKERS AND NON-NATIVE SPEAKERS IN FREEPLAY AND CONTRIVED NS/NNS DYADS

A. EXPERIMENTAL DESIGN

A single subject, multiple baseline design was employed to assess the effects of deliberate pairing of NS and NNS(L) pre-school aged children on four discourse behaviours:

1. the number of turns per episode NSs have with NNSs(L).
2. the number of turns per episode NNSs(L) have with NSs.
3. the number of turnabouts per episode in NSs' conversations with NNSs(L).
4. the number of directives per episode in NSs' conversations with NNSs(L).

Most researchers agree that language learners should be exposed to abundant "meaningful target language interaction". Although descriptive terms such as "actively involved" and "engaged" have been used to portray NNSs receiving meaningful target language interaction, no specific measures have been identified to determine what constitutes such interaction. This researcher selected the above measures as indices of the quantity and quality of interaction that takes place between NSs and NNSs(L). By investigating the number of NS turns per episode (#1), this study sought to determine how many times NSs directed target language input to their NNS(L) peers during baseline and treatment phases of the experiment. Although sheer amount is not as critical in NS/NNS(L) interactions as is the quality of those interactions, frequency and duration of
target language input are significant factors in assessing the quality of the language learners' linguistic environment.

The number of turns a NNS(L) takes in an interactional episode (#2) can be helpful in determining not only frequency and duration but also the degree of participation the NNS(L) takes in the interaction. This study assumed that the more turns NNSs(L) took in exchanges with NSs, the more actively involved they were in the discourse, and hence, the more meaningful target language input they received.

Both turnabouts (#3) and directives (#4) are considered to be discourse facilitating (Shatz, 1982; Torrance & Olson, 1985). An interlocuter who uses such devices in discourse sets up expectations for the other speaker to respond. The presence of turnabouts and directives in NSs speech to NNSs(L) indicates that NSs are making attempts to maintain and extend the discourse with their NNS(L) peers. These four variables will be discussed in detail in the Transcription and Coding section of this report.

The discourse behaviors outlined above were the dependent variables in this study. They were measured at one week intervals along a multiple baseline design over a period of ten weeks. The baseline phase for each subject was progressively extended; that is, for subject #1 the baseline phase was three weeks, for subject #2 it was four weeks, for subject #3 it was five weeks and for subject #4 the baseline phase was six weeks in duration. Similarly, the treatment phase (deliberate pairing) for each of the four subjects was
progressively reduced; that is, the treatment phase for subject #1 was seven weeks in duration, for subject #2 it was six weeks, for subject #3 it was five weeks and for subject #4 the treatment phase was four weeks in duration. The gradual introduction of the treatment phase at regular intervals served to control for history by reducing the likelihood that differences in the amount of talk might be attributable to the number of days a subject had been in school, which may have some effect on that subject's degree of comfort. This design also increased stability by ensuring treatment was introduced and withdrawn on different days, thereby reducing the possibility of results being attributable to certain events at school, teacher variables or other special circumstances. Finally, by using four subjects within a multiple baseline design, the treatment effects were replicated within the experiment.

B. METHOD

1. Subjects

The subjects were four NS children who attended Sexsmith community preschool, where enrolment was on a first-come-first-served basis and where the proportion of NSs to NNSs was 1:3 in both the morning and afternoon classes. The subjects ranged in age from 4.1 to 5.0 years. They were randomly selected from the total 10 NSs registered in the morning and afternoon classes and all scored average or better on the Peabody Picture Vocabulary Test (Revised -1981) (PPVT-R).
The NNSs in the program consisted of twenty children, aged three to five years, who spoke Cantonese, Mandarin, Punjabi, Hindi or Italian as their first languages. For the purposes of this study, the NNSs were assigned to two groups: those with high English receptive vocabulary (NNS(H)) and those with low English receptive vocabulary (NNS(L)). Assignments were made on the basis of PPVT-R test scores. Those NNSs achieving a standard score of 80 or better were assigned to the NNS(H) group; those scoring below 80 were assigned to the NNS(L) group.

2. Grouping Instrument

The Peabody Picture Vocabulary Test - Revised (1981) was administered to all the children in the preschool in October and readministered in May. The PPVT-R assesses receptive English vocabulary and is commonly used with NNS children as it does not require the child to speak at all, but only to point to the correct picture. Although this test has a high positive correlation with academic success, it has been criticized as being invalid for the purposes of assessing E.S.L. children. The purposes of using the test for this study, however, are mainly pragmatic. First, in consideration of the fact that this test was being routinely administered to the children at this preschool semi-annually, it was decided that an additional testing session would be an unnecessary hardship for these very young children. Second, there was no measuring instrument currently acceptable as a valid and reliable instrument for assessing the second language skills of this group of preschool multicultural children. Third, the objective of using the instrument in this study was to arrive at broadly defined categories of
high and low English language proficiency, rather than precise proficiency scores. Finally, if the test, as it is accused, assesses E.S.L. children unfairly, and consequently assigns them artificially low scores, then this serves only to add credence to this thesis.

3. Data Collection

a. Baseline Observations

The teacher scheduled a one hour math game activity time to take place in the classroom on one day per week. During this period the children were free to choose and engage in math-related games and activities. The wide selection of math games and manipulable materials available in the classroom were based on Mary Baratta-Lorton's *Math Their Way* program, which is designed to encourage open-ended mathematical concepts such as matching, sorting and counting. The children were familiar with the activities as the math game activity time had been a regular part of their preschool program throughout the year.

There was one regular classroom teacher in the classroom as well as a temporary assistant teacher on practicum. They were requested to interact as little as possible with the subjects during the five minute observation periods.

During each observation the subject wore a bib-type apron which was fitted with a battery-operated remote microphone. An identical apron with an inactivated microphone was worn by another student to reduce the focus of
attention on the subject and to permit each child in the class the opportunity to wear the coveted apron.

The sequence of observations for each of the subjects was randomly determined at the beginning of each observation day. One baseline observation consisted of a subject being video and audiotaped for a five minute period while engaged in freestyle during the math game activity time. As the Sexsmith preschool had been a research centre for four years, the children were accustomed to video cameras in their classroom and had become generally oblivious to them. However, in order to ensure that the observations interfered as little as possible with children's normal interactions, this researcher restricted the video equipment to the rear corner of the classroom.

b. Treatment

The math game activity time was also used for the treatment phase of the experiment, with the only variance being the deliberate pairing of NS and NNS(L) children. Manipulative math games were considered ideal tools for bridging the cultures as the objects and patterns used were likely to be familiar and appealing to most children.

The treatment was designed to impose as little as possible on normal classroom routines. On treatment days, the regular classroom teacher was asked to select a NNS(L) child who might naturally interact with each NS subject. The teacher was instructed to encourage the NS subject and the selected NNS(L)
partner to choose a math game together by saying, "NS Child's Name, and NNS Child's Name, I would like you to choose a math game together today. You can be partners". Audio-videotaping began immediately following the teacher's initial request. The teacher was instructed to make one more request if the NS and the NNS(L) did not begin to interact. If the pair failed to interact after two teacher requests, no more requests were made. The audio-video recorder continued to focus on the NS subject for the allotted five minute time period, whether or not the intended interaction actually took place.

4. Transcription and Coding

Five minutes of audiotaped data were transcribed for each of the forty samples and the videotaped record of the subjects' nonverbal activities during the observation periods were noted.

The units of analysis were interactional episodes between talkers. Interactional episodes consist of a series of semantically related topics which may be linked by similar subjects, predicates or other semantic links (Scribner & Cole, 1981; Dore, 1980). For a sequence to be classed as an interactive episode, each dyad member had to exhibit at least one interactive behavior toward, or contingent upon a partner. Turns, the discrete contributions of different speakers to the construction of a topic, are marked by the terminal boundaries of possibly complete utterances (i.e. word, phrase, clause or sentence, depending on its context) (Sacks et. al., 1974).
**Turnabouts** are devices used for extending communication, and, along with coordinating conjunctions, are the strongest correlates of global conversational skill (Torrance & Olson, 1985). They are turns in which a speaker both responds to the listener's prior turn and makes another request of the listener to respond again (Kaye & Charney, 1980; Torrance & Olson, 1985; Shatz, 1986). In the following example, Rebecca responds to Jasbir's prior turn and then sets up an expectation for Jasbir to respond again:

Jasbir - "We ride the car?"
Rebecca - "O.K. I'm going in the car. Quick! Get in!"

Also discourse facilitating are **directives** which can take the form of direct questions, indirect questions, clarifications, requests for action, or suggestions. Although they are minimally-linked backwards in conversations, they act to maintain the discourse by being maximally-linked forwards. The following examples are directives:

"Wanna hide?" (direct question)
"You know what?" (indirect question)
Jasbir - "Let's make big house".
Rebecca - "You want to make a castle?" (clarification)
"Let's feel them, Jasbir". (suggestion)
"Come here, Jasbir!" (request for action)
5. Reliability Assessment

Another rater coded ten percent of each of the data sets. The percentage of agreement ranged from 69% to 88%, with an overall inter-rater reliability of 83%. The area of difficulty arose from inexplicit instructions regarding the identity of directives and turnabouts which resulted from an inadequate training period. Once these areas of deficiency were rectified, general agreement was reached.

C. ANALYSIS AND HYPOTHESES

The data were graphically plotted and trends identified both descriptively and statistically using Ruvusky's statistic. Ruvusky's statistic has traditionally been used in medical research, but is particularly suitable for any multiple baseline design which has a small sample. The statistical method of analysis will be discussed in detail in Chapter Four.

For the purposes of analysis, the research hypotheses outlined in Chapter Two are now restated in operational terms. They are:

1. The number of NS turns in NS/NNS(L) interactional episodes will increase when NSs and NNSs(L) are deliberately paired during math games.

2. The number of NNS(L) turns in NS/NNS(L) interactional episodes will increase when NSs and NNSs(L) are deliberately paired during math games.
3. The number of NS turnabouts in NS/NNS(L) interactional episodes will increase when NSs and NNSs(L) are deliberately paired during math games.

4. The number of NS directives in NS/NNS(L) interactional episodes will increase when NSs and NNSs(L) are deliberately paired during math games.
IV. RESULTS AND DISCUSSION

All analyses demonstrated that when NSs and NNSs(L) were deliberately paired the quality and quantity of their classroom interactions increased substantially. Graphic illustrations portray pre- and post-treatment differences for each of the four measures in the predicted directions.

1. Number of NS turns per episode
2. Number of NNS(L) turns per episode
3. Number of NS directives per episode
4. Number of NS turnabouts per episode

Statistical analysis confirmed that in all cases except NS turnabouts per episode differences were significant to the \([p<.05]\) level.

1. Number of NS Turns per Episode

a. Results

The number of NS turns per episode rose significantly for each of the four subjects when treatment was introduced and these values remained consistently higher than baseline levels over the entire treatment phase. In one isolated case, however, Dana (NS) initiated interaction with Janet (NNS(L)) during the baseline phase, and took a total of forty-five turns during an episode which continued for the entire five minute observation period. On this particular day, the teacher had introduced the concept of working with partners. She had asked
one of the subjects, Erin, to choose a math game with Hardeep (NNS(L)) and had also asked four other children to work in partners. Although the teacher had not requested that Dana choose a math game with a partner, it appears that Dana may have decided to do just that. For on this day she interacted with Janet (NNS(L)), changing manipulative materials three times during the five minute observation. Dana obviously wanted to be in control of the interaction, directing Janet several times, (Ya, come on, let's play with this, Janet.", "We're not allowed. Don't be a pain.", "No, that's not the way how you do it.") but when Janet indicated her choice for a math game by simply sitting down on the floor to play with the one she had chosen, Dana complied with her non verbal statement by saying, "O.K., O.K., We'll play that, O.K."

It appears that Dana chose Janet to be her partner during the math game activity time that day, and persisted in maintaining the interaction using whatever methods she could. If this was indeed the case, then Dana's high number of turns with Janet could be considered, in effect, to be a treatment score.

At any rate, the value for this single baseline observation is obviously much higher than the average two turns that NSs took over the other seventeen baseline observations (Figure 1). The range of scores, with the exception of the forty-five in question, fell between zero and eighteen. Sixteen of the eighteen scores were below five turns per episode. Twelve were one or less than one. Since this episode is not representative of the general baseline trend, it has been treated as an outlyer for the purposes of the statistical analysis. That is, Dana's
Figure 1. Number of Native Speaker Turns per Episode

<table>
<thead>
<tr>
<th>Observations</th>
<th>Erin</th>
<th>Dana</th>
<th>Rebecca</th>
<th>Jordan</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend:
- Baseline
- Treatment
score of forty-five has been replaced by her mean baseline score of 14.75 turns per episode.

Ruvusky's statistic was employed to determine the significance of the treatment effect. First, baseline scores for each subject and each observation were recorded. Then a mean treatment score was determined for each subject based on that subject's entire treatment phase. These scores were recorded for each subject on the day that treatment was introduced and were followed by the letter "b" to denote mean treatment score. On each occasion that treatment was introduced (days 4 through 7) a rank of one was given to the highest score, two to the next highest score, and so on. When treatment was introduced for the first subject, all subjects were ranked. When treatment was introduced on subsequent occasions, all subjects except those who previously received the treatment were ranked. Scores and ranks are summarized in Table 1.

Results indicate that when treatment was introduced, each of the four NSs took substantially more turns when interacting with NNSs(L) than they did during the baseline phase. In every case the treatment score significantly outranked all baseline scores.
Table 1. Number of NS Turns per Episode: Baseline Scores, Mean Treatment Scores and Ranks

<table>
<thead>
<tr>
<th>NS Subjects</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>23b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>1</td>
<td>18</td>
<td>14.75</td>
<td>20b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>5a</td>
<td>4a</td>
<td>18b</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>.6a</td>
<td>0a</td>
<td>1a</td>
<td>21b</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Ranks = 1 1 1 1 \( \Sigma R = 4 \)

b. Discussion

The fact that NSs took more turns during the treatment phase of the experiment suggests that NSs, during interactive episodes with their NNSs(L) peers, had longer conversations and were more engaged in the interactions when NSs and NNSs(L) were encouraged to choose math games together than when they were left to their own interactive devices. It is possible that even though dialogue was often difficult, the NSs felt a sense of commitment to maintain interaction with their NNS(L) partners, after they had been asked by their teacher to choose a game with a NNS(L) classmate. They were presumably more capable of initiating and maintaining the interaction, being both more proficient in the language of the classroom and often more familiar with North American
It is evident from the transcriptions that on those occasions when NSs and NNSs(L) took many turns during an interaction, they were engrossed in their activities and turn-taking was self-motivated. In the following sequence, Jordan (NS) and Stephanie (NNS(L)) are building a tall tower using snap blocks. Their dialogue testifies to their genuine absorption into the play.

Stephanie - "Oh, oh! It broke."
(They fix it.)
Jordan - "Come. Hold it. I think it's going to burst! Just - I'll put this... Yow! (noises)
Stephanie - "You do this. Hold this."
Jordan - (noises as he holds it.)
Stephanie - (picks it up) "Hey! Judi! Judi! (the teacher) [To Jordan] "We make it O.K? (takes tower across classroom and returns with it) "Hey! Hey, Jordan! Here's what you made! Oh, no! Oh!
(They laugh and try to catch it as it falls.)
Jordan - "Ahh!"
(They both make noises together again.)
Stephanie - "You ready? Yes, come back."
(Jordan puts the pieces together again.)
Stephanie - "Hey! How you get this?"
Jordan - "Ahh! There's a tower!"
(They both make noises together.)
Stephanie - "You ready? Yes, come back."
(Jordan laughs)
Stephanie - "It fall. I make it."
Jordan - "Oh! ...seven, eight...ahh! ahh! ahh! Timber! ahh!"

Stephen Krashen (1977, 1979) has suggested that interaction which is truly "meaningful communication" is intrinsically motivating and can trigger the LAD. And Jim Cummins (1984) contends that meaningful communication can only be achieved during occasions of real oral interaction which actually involve and
are of interest to the learner. It is this meaningful communication that seems to promote the subconscious acquisition of language. Clearly, Jordan and Stephanie are focusing on their activity, not on their language. But they are undoubtedly acquiring increased language skills through their motivation to purposefully communicate.

It was not always easy for the NSs to maintain their conversations with NNSs(L). Often their interactive attempts would break down when the interlocutors were attempting to communicate on a conceptual level and could not rely on non-verbal and other communicative strategies to help get the meaning across. In the following sequence, for example, Dana finally gives up after many attempts to gain information from Stephanie (NNS(L)).

Dana - "Let me see the stickers." (She stands up, goes to Stephanie and picks up the stickers.) "Who bought these for you?"
Stephanie - "My sis- my grandma." (She takes the stickers back from Dana.)
Dana - "and where?"
Stephanie - "My grandpa."
Dana - "Where did he buy it from?"
Stephanie - "Um, the money. {unintelligible} (She takes the stickers back again.)
Dana - (louder) "Where did he buy it from?"
Stephanie - "um, I don't know."

It seems that the more genuinely interested NSs were in an exchange of information, the more persistent they were in their attempts to communicate.
2. Number of NNS(L) Turns per Episode

a. Results

The number of NNS(L) turns per episode increased significantly in all cases once the treatment was introduced (Figure 2). In fact, mean baseline levels of 6.4 turns per episode increased to mean treatment levels of 27.1 turns per episode. Using Ruvusky's test, all treatment scores consistently outranked baseline scores (Table 2).

Table 2. Number of NNS(L) Turns per Episode: Baseline Scores, Mean Treatment Scores and Ranks

<table>
<thead>
<tr>
<th>NS Subjects</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>21b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>24</td>
<td>18</td>
<td>45b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>2a</td>
<td>5a</td>
<td>21b</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>abs</td>
<td>0a</td>
<td>4a</td>
<td>20b</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Ranks = 1 1 1 1 \( \Sigma R = 4 \)
Figure 2. Number of NNS(L) Turns per Episode

Treatments start here→

Turns per Episode

#1 #2 #3 #4 #5 #6 #7 #8 #9 #10
Observations

Erin

Dana

Rebecca

Jordan

Baseline
Treatment
b. Discussion

In choosing to take so many turns during interactive episodes with their NS peers, NNSs(L) were actively involving themselves in the discourse and therefore exposing themselves to abundant amounts of target language input. It is likely that their child-centred, self-initiated interaction may not only provide these young language learners with the input, practice and feedback that is so essential to second language learning, but it may also provide them with intrinsically motivating experiences that can promote the subconscious acquisition of language. The NNSs(L) too, like the NSs, may have sensed the commitment that "partners" connotes. In fact, during Hardeep's pairing with Erin, he said, at one point, "Erin, no. My Erin.", as he directed her back to join him at the table.

Generally, a balanced sequence of turn-taking was evident in NS/NNS(L) interactions. Even though many NNSs(L) had not yet developed sufficient second language skills to maintain a conversation with their NS partners, they were undoubtedly aware of turn-taking conventions. They consistently responded to NSs statements and directives with imitations, repetitions and gestures at appropriate intervals during their interactions. It has been suggested that these imitations and other reactions are a strategic response to the obligation to take a turn when linguistic skills are underdeveloped (Shatz, 1980; Boskey & Nelson, 1980).

Catherine Garvey (1984) suggests that the turn-taking skills of young children are fragile and are likely to be most effective in interchanges with one
other person. Garvey refers to a study conducted by Ervin-Tripp which found that children younger than four and one-half years had difficulty following fast-paced exchanges and were often interrupted, or interrupted others. It is not surprising, then, that Garvey identifies interchanges with one other person as the preferred and most frequent type of interaction of young children.

In addition to being the preferred type of communication among young children, dyadic interaction makes wide-ranging provisions for personalized learning techniques and strategies. The data from this study indicate both NSs and NNSs(L) creatively and uniquely modified their communicative strategies when interacting with each other. NNS(L) input during these interactions ranged from barely perceptible to very extensive oral participation. All forms of participation during baseline and treatment phases of the experiment were accepted and encouraged. This personalization of NS/NNS(L) interaction not only allows for greater flexibility in individual learner preferences, but also facilitates increased levels of participation and attentiveness, which, if present, indicate a greater tendency on the part of the learner to process target language input (Strong, 1983).

In the following example, Dana (NS) and Michelle (NNS(L)) are using sponge numbers and a large die. Michelle, who has very limited English language skills, manages to take regular turns during her interaction with Dana by using nonverbal communication and repetition. Michelle’s regular turn-taking suggests she is actively involved in the interaction.
Dana - "O.K. Now. I'll roll the dice first, O.K. I'll roll the dice (x3)."
(Michelle gives the die to Dana.)
(Dana rolls the die.)
Michelle - "Two".
Dana - "I'll roll the dice, O.K."
(Michelle picks it up.)
Dana - "That's one. Where's a one, one, one? There's one right here. I picked a one."
(Michelle rolls the die.)
Dana - "Two. Oh! I knew you were going to take two. Two's right..."
Michelle - "Two, two, two."
Dana - "Two!" (points to the die) "Put-put it next to me. See one, then comes two."
Michelle - (picks up the two, finds a card that has two dots on it, and puts the numeral two on top of it) "Hey! Two! Two!"
Dana - "You're after...um... This is two!" (points to where Michelle should put it)
(Michelle complies.)
Dana - "And now it's my turn to roll a play. Here it comes!" (rolls die)
Michelle - (catches die) "Four!"
Dana - "Hm, Um, let me see." (holds die with Michelle) "One, two, three, four, five, six." (pointing to dots on die) "Six, ha! I knew I would roll a six." (picks up numeral six and the card with six dots) "Ya."

3. Number of NS Directives per Episode

a. Results

Directives, which are discourse facilitating, occurred very infrequently during the baseline phase (Figure 3), with the exception, once again, of Dana's (NS) extended interaction with Janet (NNS(L)). On this occasion, Dana addressed twenty-six directives to Janet, compared to an average 0.9 directives during the entire baseline period. Once again, this extraordinarily high value has been replaced with Dana's mean baseline score for the purposes of the statistical analysis. Once a more representative value has been substituted for the outlyer, the statistical significance is readily apparent. For each of the four subjects, a
Figure 3. Number of NS Directives per Episode

<table>
<thead>
<tr>
<th>Observations</th>
<th>Erin</th>
<th>Dana</th>
<th>Rebecca</th>
<th>Jordan</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1, #2, #3</td>
<td>#4,</td>
<td>#5,</td>
<td>#6,</td>
<td>#6,</td>
</tr>
<tr>
<td>#4,</td>
<td>#5,</td>
<td>#6,</td>
<td>#7,</td>
<td>#8,</td>
</tr>
<tr>
<td></td>
<td>#7,</td>
<td>#8,</td>
<td>#9,</td>
<td>#9,</td>
</tr>
<tr>
<td></td>
<td>#10,</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Directives per Episode

- Baseline
- Treatment
rank of 1 is achieved when the treatment is introduced (Table 3).

Table 3. Number of NS Directives per Episode: Baseline Scores, Mean Treatment Scores and Ranks

<table>
<thead>
<tr>
<th>NS Subjects</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>6b</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>1</td>
<td>9</td>
<td>3</td>
<td>13b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1a</td>
<td>2a</td>
<td>10b</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>abs</td>
<td>0a</td>
<td>1a</td>
<td>7b</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Ranks= 1 1 1 1 \[\Sigma R=4\]

b. Discussion

Although directives can be blatant "orders" for action, they can also be questions requiring a response, indirect questions, clarifications, or suggestions for action. In spite of the fact that NSs used many directives in their interactions with NNSs(L), the NSs were not necessarily controlling the interactions. In this example, Dana (NS) and Stephanie (NNS(L)) negotiate regarding which math
game they will share. It is Stephanie who eventually succeeds in having her choice accepted.

Dana - (selects a game) "Let's take this!"
Stephanie - "No".
Dana - "Ya".
Stephanie - "I want other one. Don't want play with that". (runs to the science table, rolls up her sleeves and puts her hands in the water bucket.)
Dana - "Let's play with this one". (walks towards Stephanie carrying a game under her arm.)
Stephanie - "Let's play this one".
Dana - "O.K." (She puts down her game, rolls up her sleeves and joins Stephanie in the water.)
Dana and Stephanie proceed to experiment with floating and sinking objects.

4. Number of NS Turnabouts per Episode

a. Results

Although the number of turnabouts increased in three out of four cases (the number of turnabouts for Subject #4 remaining at zero throughout both the baseline and treatment phases) the increases were not sufficient to produce a statistically significant result (Table 4). However, graphic illustrations indicate this pattern in the number of turnabouts once the treatment phase was introduced (Figure 4). Prior to treatment, no turnabouts were produced by any of the four NSs. During treatment, however, some turnabouts were produced and during one treatment observation Dana (NS) uttered six turnabouts.
Figure 4. Number of NS Turnabouts per Episode

- **Erin**
- **Dana**
- **Rebecca**
- **Jordan**

### Erin
- Baseline: 0.9 -
- Treatment: 2.0 -

### Dana
- Baseline: 0.5 -
- Treatment: 6.0 -

### Rebecca
- Baseline: 0.3 -
- Treatment: 1.0 -

### Jordan
- Baseline: 0.1 -
- Treatment: 1.0 -

**Legend:**
- □ Baseline
- ■ Treatment
Table 4. Number of NS Turnabouts per Episode: Baseline Scores, Mean Treatment Scores and Ranks

<table>
<thead>
<tr>
<th>NS Subjects</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2b</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0a</td>
<td>0a</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Ranks = 0 1 0 0 \( \Sigma R = 4 \)

b. Discussion

It is likely that the language and cognitive development of these young children is not sufficiently advanced for them to produce complex discourse devices such as turnabouts, which both respond to the previous speaker and make demands on that speaker to reply (Shatz, 1982). But the fact that some turnabouts were produced during the treatment phase when none at all were produced during the baseline phase suggests that when NSs and NNSs were deliberately paired, their discourse was extended more frequently. It may be that these children, when paired, assumed some measure of commitment to interact with their partners; hence, there was a marked increase in the number of discourse facilitating directives and an attempt to increase those devices such as
5. General Discussion

The transcribed data from this empirical research study yield more than quantitative results regarding the interaction of NSs and NNSs(L). In addition to numerical data, the transcriptions exemplify the creative communicative strategies that young children regularly employ when they attempt NS/NNS(L) discourse. If a child is motivated to become a participant in NS/NNS(L) communications, that child, drawing from some internal knowledge of how language works, can readily summon up a variety of conversational devices that serve to maintain and extend the dialogue. Following are some examples of the frustrations and successes experienced by the multicultural preschool aged children in this study during their attempts to communicate.

There were occasions when creative attempts at communication did not work. In this example, Hardeep (NNS(L)), who spoke very little English, is observing Jordan (NS) building with blocks. Hardeep watches Jordan, inches closer and knocks a block with his foot.

*Jordan - "Don't! Why you...AHH!"
(Hardeep exits...A few minutes later, he returns.)
(Hardeep taps Jordan on the shoulder.)
*Jordan - "Ow!"
(Hardeep points to his block structure.)
*Jordan - "Yeoww!" (runs back across the room to his block structure.)

More often, however, sincere attempts at NS/NNS(L) communication were
met with success. NSs and NNSs(L) often maintained their discourse by relying on such conversational strategies as nonverbal signals, repetition, prosody, nonsense words and general word play. In the following example, word substitution is used by Karen (NNS(L)) and accepted by Dana (NS). The two girls are engaged in putting small round sea shells into egg carton compartments. Earlier, Karen had asked Dana, "What is this?", as she carefully studied a shell, felt it, smelled it, tasted it. She received no reply from Dana at that time.

Dana- "You take--you take a lot. (gives handful of shells to Karen) You have--you have to sort them. You have to sort them out.
Karen - "OK."
Dana- "These are--the rest are--the rest are mine." (gives herself some.)
Karen - "Yolk." (putting shells in her hand, one by one.) "Yolk." (holds out her hand to show Dana) "Yolk. Look. Yolk. You take some yolks. Yolk. Take out some yolks first. Yolk." (points to Dana's pile of shells.)
Dana - "Put all the yolks in there!" (puts shells in egg carton)
Karen - "Ya, yolk." (puts shells in box)
Dana - "Yolk, yolk, yolk ..."(as she drops each shell into box)

It is possible that Karen was not familiar with sea shells but linked them with their egg carton container. Once Karen had labelled them "yolks", however, Dana accepted the initiation as word play and obligingly took a role in maintaining the discourse.

Word play is even more evident in the following example where Tina (NNS(L)) and Rebecca (NS) are matching coloured geometric shapes to pattern cards. Rebecca has just dropped some pieces on the floor.

Tina - "Oh, no! Wooka, wooka, wooka, wooka, wooka, wooka, wooka." (picking up the pieces)
Rebecca - (laughing) "Wooka, wooka!" (loudly)
Tina - "Wooka, wooka." (gets another card) "Oh, this is a hmmm... blue."

During another observation, Dana, again using the shells, interacts with Stephanie (NNS(L)), using prosody and repetition:

Dana - "white, white, shelly, shelly" (puts shells in a line on the table)
Stephanie - "white, white, shell-" (one drops to the floor) She laughs and picks it up.
Later,
Dana - "Look! Mine's all sh, sh..."
Stephanie - "Mine too!"

They both make rhythmic noises together as they put their boxes together to make one.)

Familiar phrases and the chunking together of unprocessed segments of language were also used by NNSs(L) to contribute to the dialogue when it was their turn. In the following example, Michelle (NNS(L)) finds a candle in a bucket of water:

Michelle - "Candle!"
Dana - "O.K."
Michelle - "Happy birthday to you,
Happy birthday to you,
Happy birthday to Dana,
Happy birthday to you."
(Holding the candle, she pretends to blow it out, then hums the tune again.)

Bernie (NNS(L)) relies on phrases he has heard on a television program to participate in turn-taking in this interactive episode:
It is evident that through the use of various conversational devices, this multicultural group of preschoolers is managing to communicate. During occasions which actively involved and interested them, NSs and NNSs(L) participated in extended periods of discourse. Most frequently, these interesting and involving occasions of NS/NNS(L) interactions occurred during periods of natural, authentic play, when the participants were intrinsically motivated to maintain and extend their conversations. The following sociodramatic play episode, which occurred during the deliberate pairing of Jasbir (NNS(L)) and Rebecca (NS), exemplifies the tremendous possibilities that an intrinsically motivating situation can have on language acquisition.

Jasbir - "Daddy!"
Rebecca - "What?"
Jasbir - "Daddy!"
Rebecca - "What?"
Jasbir - "I want to go in that car!" (pointing to a chair)
Rebecca - "You know what, Honey? We’re going out somewhere."
Jasbir - "Daddy?"
Rebecca - "You know what? We have to go out somewhere."
Jasbir - "I want to do that."
Rebecca - "No, kid! No! We have to use all these kids to get in the car."
Jasbir - (makes car noises)
Rebecca - "You broke the car!"
Jasbir - (laughs)
Rebecca - "Give me that key now."
Jasbir - (makes car noises and laughs) "It’s gone car. It’s gone car. It’s gone there." (points upwards and laughs)
Later, after Rebecca interacts with Samantha (NS), Jasbir taps Rebecca on the shoulder and says,
"It's going! Car is going!"

Surely this type of involving discourse constitutes "meaningful interaction". Both the NS and NNS(L) have immersed themselves in the episode, assumed roles, and have initiated their own ideas to keep the play going. Communication has become an essential means to achieve a desired goal, suggesting benefits over and above the strictly-defined skills studied formally.
V. CONCLUSIONS, RESIDUAL QUESTIONS & IMPLICATIONS FOR TEACHERS

A. CONCLUSIONS

We began this study by asking the question,

Can the meaningful target language input to which NNSs(L) are exposed be increased by deliberately pairing NSs and NNSs(L) in a multicultural preschool classroom?

On the basis of the study, we can conclude by answering the question affirmatively. With reference to the research hypotheses, numbers 1, 2, and 3 were confirmed. There were insufficient numbers of turnabouts to permit conclusive tests on hypothesis number 4. All significant treatment effects were in the direction predicted. Results indicate significant increases in the frequencies of NS turns, NNS(L) turns and NS directives, when NSs and NNSs(L) were deliberately paired. This investigation of two pedagogical methods clearly demonstrates that teacher intervention into the freeplay situation provided some NNSs with an enhanced language learning environment.

Most researchers recommend that learners be given ample opportunity to participate in and initiate language in a variety of interactive situations with NSs, where they can feel free to try out the new language and experiment with it (Cummins, 1980; Lindfors, 1983; Wong-Fillmore, 1982). But this study reveals that simply providing NNSs(L) the opportunity to use language in ways which are
meaningful to them, is not enough to stimulate NS/NNS(L) interaction in a classroom situation where NNSs are the majority.

The freeplay philosophy, commonly subscribed to in early childhood programs, presupposes that NNS children will naturally assume the responsibility for exposing themselves to target language input. However, it fails to take into account certain learner characteristics that may delay or prevent peer interactions in certain environments. For example, Strong (1983), in his study of Spanish-speaking kindergarteners, found there was significantly more integrative motivation and behavior tendencies in children who had higher levels of target language proficiency. And Chesterfield et. al. (1982) similarly found children who were learning English were able to take more linguistic advantage of their English-speaking peers as their proficiency increased.

This study has illuminated the fact that the NSs in a multicultural preschool also have more integrative motivation and behavior tendencies towards their NNS peers as the target language proficiency of the language learners increases. Further, this study reveals that when a teacher assisted NSs and NNSs(L) in initiating contact by deliberately pairing them, the NS/NNS(L) dyads were able to sustain interaction.

Simply exposing NNSs(L) to target language input, however, does not automatically lead to acquisition. Rather, it appears that the learner must engage in interaction which facilitates intrinsically motivating 'meaningful communication' in order to trigger the LAD (Krashen, 1977, 1979). Since language acquisition is
unconscious and explicit and most often takes place within natural, interactive settings (Krashen, 1979; Rivers, 1983), and since early childhood is a time during which learners rely primarily on acquisition for developing their language proficiency (Krashen, 1981a), it follows that language teaching activities for young children should be mediated, as much as possible, through natural peer interaction.

The results of this study demonstrate that the deliberate pairing of young NSs and NNSs(L) encourages the natural peer interaction that is the essence of their communication. Providing language learners with many opportunities to engage in these real, authentic communicative episodes, and assisting them in initiating NS/NNS(L) conversations has been shown to be a successful technique for exposing NNSs(L) to increased levels of meaningful target language input.

B. RESIDUAL QUESTIONS

There are residual questions, however, stemming from this study, which remain unanswered. In this final chapter, I shall address two of these:

1. Is the sociolinguistic environment within multicultural classrooms sufficiently stimulating for NSs?
2. What are the long-term sociolinguistic effects of deliberate pairing of native and non-native speakers?

1. Is the sociolinguistic environment within multicultural classrooms sufficiently stimulating for NSs?

Very often parents of NSs are hesitant to enroll their children in multicultural classrooms. Their concern is reflected in some commonly asked questions, such as: "Won't my child be held back in a classroom that enrolls many NNSs?" Some teachers, as well as parents, instinctively feel that NSs in multicultural classrooms are exposed to an insufficient quantity of language at or beyond their present levels of linguistic development. Hence, they fear their children's language will not develop as rapidly in a multicultural environment as it might in a classroom made up entirely of NSs.

This argument may sound logical on the surface, but research into the role of NSs in multicultural classrooms, although just beginning, is demonstrating some very positive effects for NSs in multicultural programs. First, NSs in multicultural preschool classrooms are exposed to much language at and beyond their present levels of development. The present study, in fact, reveals that NSs direct most of their peer talk to other NSs and to those NNSs who have high levels of English language proficiency. Other research into children's natural interactive patterns indicates that preschool children speak more often to their
CONCLUSIONS, RESIDUAL QUESTIONS & IMPLICATIONS FOR TEACHERS

teachers than to their peers (Chesterfield et al., 1982). And Wells (1985), reporting on his thirteen year long Bristol Language Development Study, states that it is adults, and particularly parents, who most often sustain and extend the conversations of children who are learning their first language. It seems that the major linguistic value of peer interaction is generally attributable to the repeated practice children derive from conducting conversations with their playmates. Actually using the language in meaningful situations provides language learners with a perfect atmosphere for making and testing their hypotheses about the language.

It is evident from this study and others that NSs in multicultural classrooms have numerous opportunities to practice using language with teachers, NS peers, NNS(H) peers and NNS(L) peers. In fact, in having so many potential language partners at diverse levels of linguistic development, NSs in this classroom are learning important facts about their language. They are learning that in order to maintain and extend communications, they need to modify their language in ways that make it comprehensible to their partners.

It has been well-documented that adults' language to young children is different from adult-directed speech. Sentences are short, simple, well-formed and well articulated (Brown & Bellugi, 1964; Snow, 1972). But Shatz and Gelman (1973) discovered that even four year olds adjust their speech when talking to two year olds. They found that four year olds' speech modifications were not based solely on linguistic considerations, but, to a greater degree, on attentional, social and cognitive considerations. The older children, incorporating social
conventions of sequencing and turn-taking, and using feedback from their two
year old partners, managed to provide a language sample which was adjusted to
the individual needs of the language learners. It appears, then, that children who
are learning to modify their language in ways that make it comprehensible to
their partners are developing special metalinguistic awareness as they continually
adjust their speech in response to their partners’ levels of proficiency.

NSs in multicultural classrooms are also less likely to develop ethnocentric
perspectives. Lambert (1967), in an international study into the development of
stereotyped thinking in children, found that "rigid and stereotyped thinking about
in-groups and out-groups, or about own groups in contrast to foreigners, starts
during the preschool period when children are trying to form a conception of
themselves and their place in the world". He suggests that the ethnocentrism
which develops when differences and contrasts are highlighted can have
permanent consequences. Young NSs who attend school in a multicultural
environment develop social and cultural awareness that can help to promote
positive attitudes towards cultural and linguistic groups different from their own.
With the Canadian government’s recent entrenchment of multiculturalism into the
country’s constitution, it appears that those children who have early opportunities
to develop friendships within an ethnically diverse group will benefit in the
future.

2. What are the long-term sociolinguistic effects of deliberate pairing on
native and non-native speakers?
This question cannot, of course, be answered prior to conducting longitudinal studies to investigate the problem. However, we do know that young children are powerfully motivated to learn about the world in which they live and possess a drive to interact that appears to motivate an internal desire to master some form of communication with others.

This study demonstrates that children's natural motivation to interact can be impeded by linguistic and cultural barriers which interfere with their attempts to communicate. Results suggest that in classrooms where enrolments reflect a majority of NNSs, those NNSs who have low target language proficiency are often being left out of natural classroom interaction. If NS/NNS(L) interaction is triggered by some mutually attractive object or conversational topic, these children are capable of conducting extended periods of interaction through the use of conversational devices such as nonverbal signals, repetition, prosody and word play. But, as this study reveals, the incidences of natural NS/NNS(L) interactions are rare in these classrooms, unless these very young children are given some assistance with initiating such interactions.

Traditional E.S.L. programs emphasizing rote language drills, not only deprive children of the necessary motivation they need to engage in meaningful communication, but they may also exacerbate social problems. By segregating NNSs(L) and assigning them to modified programs, educators may be unwittingly perpetuating the myth that NNSs are academically inferior to NSs. Teachers who include NNSs in regular classrooms where they are given many opportunities to engage in meaningful interaction, demonstrate to others that NNSs can be
CONCLUSIONS, RESIDUAL QUESTIONS & IMPLICATIONS FOR TEACHERS

intelligent and capable students.

C. IMPLICATIONS FOR TEACHERS

Although the results of this study are, strictly speaking, not generalizable to other populations, the sample used is not radically different from that facing many early childhood teachers in preschools, daycares and kindergarten classrooms. With that in mind, I would like to make two suggestions, based on the findings, as to what teachers might do to provide their students with a positive language learning environment.

1. Teachers should maximize opportunities for real oral communication in their classrooms.

While there seems to be general agreement among researchers that language acquisition is facilitated when learners are actively engaged in comprehending and using the target language in a meaningful way, many classroom teachers are still not providing their students with opportunities for peer interaction. The idea of using student talk as a language teaching strategy is not a new concept. There has been a strong movement away from highly structured, teacher-centred, grammar-based teaching, in favor of task-oriented, communicatively-based, learner-centred teaching. But, for many of us, there remains an incompatability between "noisy" classrooms and teachers' ability to direct classroom instruction in an effective way.
It has been suggested that it is not the amount of target language input that learners receive that increases the rate at which they acquire a new language, but rather, their active involvement in using the language (Strong, 1982, Wong-Fillmore, 1981). Our goal as language teachers must be to maximize opportunities for our students to engage in using language in meaningful ways. A non-threatening atmosphere, where students can actively make hypotheses about the language and then test them in interactive contexts, provides the best environment for practicing language. Learners can then, by using input and feedback from their partners, become active creators of language, rather than passive recipients. Furthermore, putting NNSs(L) in learner-centred communicative situations, rather than teacher-centred ones, places the responsibility for learning squarely on the learner, not the teacher. If the learner assumes this responsibility within the classroom, he/she will be more likely to maintain it beyond the classroom.

2. Teachers should take some measures to encourage NS/NNS(L) interaction.

This study has demonstrated that in a preschool classroom where the majority of children are NNSs, the provision of a supportive, student-centred environment was not enough to motivate NS/NNS(L) interaction. Teachers should encourage NS/NNS(L) contact by creating situations where NSs and NNSs(L) will be motivated to communicate with each other. This study confirms Michael Strong's (1984) suggestion that we cannot assume these very young children will seek each other out naturally, especially in the beginning of our programs.
Results clearly indicate there is limited interaction between NSs and NNSs(L) when they are left to their own interactive devices. However, given some initial assistance by a sensitive and understanding teacher, these multicultural children can maintain long, intensive interactive episodes. Children who have initiated their own interactions are more likely to be actively involved in real oral communication which is of interest to them. A word of caution needs to be expressed here. In taking control, teachers must be careful not to monopolize initiatives by the children. Sensitivity to individual needs is obviously a necessary prerequisite to teacher intervention. By creating situations where children will want to communicate with each other, teachers are assisting them to overcome cultural and linguistic barriers that delay the point at which NSs and NNSs(L) would naturally be motivated to interact (Strong, 1984).

This study has contributed to our knowledge of how language learners' social and linguistic environment is affected by the linguistic composition of a class. As stated in Chapter One, a number of researchers recommend a 1:1 ratio of NSs to NNSs in preschool enrolments to provide an optimal environment for language learning (Wong-Fillmore, 1982). But this study, focusing on an enrolment scenario typical of many early childhood classrooms, illuminates the fact that in preschool classrooms where recommended NS/NNS proportions have not been met, children's natural interactive patterns may be radically altered. In these classrooms, the typical freeplay situation does not generally stimulate NS/NNS(L) interaction. Consequently, many young language learners may not be receiving the target language input they require to learn the language.
There are other, more practical reasons that justify the deliberate pairing of NSs and NNSs(L) in preschool classrooms. Although there are no comprehensive figures available for preschool enrolments, a 1988 Vancouver School Board survey indicates 43.9% of the students enrolled in Vancouver kindergarten classrooms speak English as a second language. This is the highest percentage in the history of the survey, and there is no indication these numbers will decline in the future. As one early childhood teacher often has the dubious responsibility of teaching fifteen to twenty children, many teachers find it difficult, if not impossible, to attend to the myriad needs that all these children have. If we can utilize NSs in multicultural classrooms to assist in the provision of target language input for NNSs, especially with such positive sociolinguistic results, then it makes sense to capitalize on a potentially rewarding situation.

Finally, in promoting the natural interaction of NSs and NNSs in their classrooms, teachers have a responsibility to discuss the benefits of multicultural classrooms for NS children with parents, with other teachers and with educational administrators. Encouraging positive attitudes towards other people, regardless of their cultural or linguistic backgrounds, can only be beneficial to us all.
REFERENCES


Dore, J. (1980). *The pragmatics of conversational competence: Two models, a method and a radical hypothesis.* Typescript, New York: Baruch College and the Graduate Centre, City University of N.Y.


