

OUTPUT, INPUT AND INTERACTION IN FORMAL/INFORMAL
TEACHER INTERACTIONS AND IN NS, NNS CHILDREN'S INTERACTIONS

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ABSTRACT

Output, input and interaction are examined in this study for a native English speaking (NS) teacher and for native and non-native English speaking (NS, NNS) young children in two situations in the classroom, child organized and teacher organized. Video tapes and transcripts of fourteen samples of interactions in teacher organized situations and fourteen samples of naturally occurring interactions in child organized situations, each limited to the first consecutive one hundred utterances, were analyzed. Output was assessed in terms of verbal participation - utterances and words. Input and interaction were assessed both for discourse features (twelve negotiating devices) and in terms of the situational structure of the contexts that existed during the interactions - their distance from the speaker and the action was assessed with measures of exophoric and anaphoric reference (twenty-four reference items).

The results indicate: 1) that output or verbal participation varies for the teacher and the NS, NNS children with situation, 2) that discourse features, often used to assess input, vary in their use by the teacher and the children with the situational context, increase with verbal participation, and may not be useful measures of input, and 3) that the situational structure of the contexts that exist during teacher organized interactions and child organized interactions vary with situation - the distance of

the language and the action from the speaker as well as the nature of the interaction. Individual variations amongst items, within and across groups are noted.

It is concluded that: 1) output, input and interaction vary with situation, 2) data analyses concerning input and interaction are more meaningful if they are related to the output occurring in different situations, and 3) L2 researchers will benefit from moving beyond the analysis of discourse features as the sole predictors of input during interaction to examine other aspects of the interaction situation.

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CHAPTER ONE

REVIEW OF RELATED LITERATURE

1.1 Introduction

Since the 1970's second language (L2) research has given considerable attention to the study of discourse (not sentence) level structures and processes in general, and recently to the study of pragmatics and text in particular (Carrell, 1982:479). Earlier studies of the verbal output of second language learners (product) have been replaced by the phenomenal growth in research on input and interaction in second language learning (process). L2 research is presently concerned with the study of how text (oral and written) varies in different social and cognitive contexts both in and out of the classroom, with the study of the many differences in the backgrounds, characteristics and motivations of those who are participating in communication and with the study of various interactional features of talk in conversational exchanges (see, McLaughlin, 1984). It is generally held that research on input and interaction will lead to the identification of factors associated with the L2 learners' proficiency (oral and written output) in the second language, factors which may help to improve the quality of second language instruction - both methodology and curricula.

Although there has been this phenomenal growth in second language research on output, input and interaction, few studies directly investigate young children's interactions (ages three to seven years). Research is primarily concerned with adults in "foreign" language classrooms and/or with L2 students in their later elementary and adolescent years. In addition, the results of studies of output, input and interaction with young children are scattered and somewhat contradictory.

Discussions of L2 learner's output, largely concerned with verbal participation and proficiency in English, are few and somewhat contradictory. It is not presently clear what factor(s) are associated with increased proficiency in English. L2 children's success in speaking English has been associated with and attributed to a number and range of different factors. For some researchers motivation and personality factors are key to success in English, for others identification and socialization with the target language group is related to L2 success, still others note speaking one's native language to the virtual exclusion of English as significant (Fillmore, 1976; Chesterfield et al., 1982; Strong, 1983; Saville-Troike, 1984).

Studies of output are also generally restricted to teacher organized situations, though output may vary in different interaction situations such as those organized within the peer group (see, Halliday and Hasan, 1976).

The study of input - the features of the talk addressed to L2 learners has grown considerably (Long, 1981:135). Most research is concerned with adults and older children and centres on the analysis of those interactional features of language that are used to acquire and hold attention, maintain and/or repair conversation and negotiate input during various conversational exchanges (see, for example, Freed, 1980; 1981; Scarcella and Higa, 1982a; 1982b; Long, 1981; Pica and Long, 1982; Peck, 1985).

These measures are used somewhat consistently in that similar measures are deemed appropriate by a number of researchers for arriving at assessments of input and interaction (see, part 1.3). And, measures of input and interaction may prove useful for arriving at conclusions concerning the relative importance of various forms (e.g. "yes/no" questions, "display" questions, etc.) and their functions (e.g. confirmation checks, acquire attention, etc.) during conversation in different situations. However, these measures neither relate input to output in an effort to understand whether or not some measures are associated with increasing verbalization (e.g. Do L2 learners use "yes/no" questions, clarification checks/requests, etc. more frequently as they become more proficient in English?), nor do they consider the contexts of interaction situations, specifically the accessibility of the content of the discussions and/or tasks to L2 learners (e.g. their context dependence or independence).

L2 researchers are presently distinguishing between language for social versus academic purposes, the former generally identified as context bound or dependent and the latter identified as context reduced or independent (see, for example, Cummins, 1980; Fillmore, 1983; Krashen and Terrell, 1983; Saville-Troike, 1984). At present the trend in research favours a linear progression in the language learners' abilities to infer meaning from text. In its earlier forms of development or in casual/informal conversation communication is thought to be context dependent because the learner relies heavily on the situationally bound cues that exist in the communicative exchange. Later in development and/or in academic/formal classroom situations communication is said to be free of contextual cues or situationally independent.

The ability to comprehend messages in context reduced or text dependent situations is thought central to academic success and potentially difficult for the L2 learner if the learner does not have access to the appropriate background knowledge assumed by the text and necessary for L2 processing - curriculum must be relevant and accessible to the learner. Though L2 researchers have discussed differences between context dependent and independent discourse at a rhetorical level, there has been little actual research in this area, particularly with young children learning a second language. Some studies have been conducted with first language learners;

however, these tend to focus on the written text in classroom situations and seek literacy related answers to difficulties with literacy rather than exploring discourse in general (oral and written), including non-verbal and verbal experience in a variety of different situations.

In sum, at present researchers have identified some variables associated with output or verbal proficiency in the L2, but these factors are contradictory and have neither been examined in different situations (e.g. peer organized), nor have been related to input. The study of input finds agreement in the measures used by various researchers, but has tended to focus on the interactional features of conversation, that is, the forms (e.g. "wh" questions) used during conversation and their functions (e.g. to check for comprehension, to continue the conversation, to negotiate for input, etc.), rather than on the actual interaction situation or context. Studies of the interaction situation with first language learners tend to focus on written discourse and literacy related issues without giving adequate regard to the verbal and non-verbal social and cultural background experiences of the learners. And, finally, studies with young children are lacking in all areas.

It is with these difficulties related to studies of input, interaction and output that the present study is concerned. This research begins with an examination of the quantity

of the verbal participation (output) of native and non-native English speaking children (NS, NNS) in different situations (child, teacher organized). It then examines differences in the quality of the interactions in these situations by considering not only the interactional features of conversational exchanges (forms and functions) but also the accessibility and the relevance of the subject (content/context) of these exchanges for the child second language learner (i.e. context dependence/independence).

Practical Significance of the Study

The main goals of the ESL teacher in organizing a curriculum for NNS children are: 1) to provide the children with comprehensible input in interaction situations that are relevant and accessible to them, 2) to give the NNSs many opportunities to use the L2 orally in natural situations so they will become experienced conversationalists, 3) to reduce the interactional burden through grouping and other strategies, and 4) to provide learning experiences that assist children to progress from practical (experiential) to theoretical (expository) understanding to facilitate future academic success.

This study is concerned with these goals in that it examines various interactions in the classroom to provide evidence on which to base curriculum organization. Through understanding how childrens' and teachers' interactions vary, L2 researchers will be better able to assist teachers to improve the way they present activities to L2 learners through the content of various school curricula.

1.2 Output: Verbal Participation and L2 Proficiency

The earlier studies of output (prior to the 1970's) were mainly concerned with the products of second language acquisition, therefore studies reported results of the analysis of errors and/or the order of acquisition of various morphemes (McLaughlin, 1984:221). More recently, (since the 1970's) research has shifted to method and process, therefore studies of output report on L2 proficiency as an assessment of the numerous and diverse L2 programs and teaching methodologies employed and in analysis of the various interactional processes that occur in L2 classrooms (see, Gaies, 1983; Long, 1984).

Thus, at present, research on output discusses such factors as the second language learner's verbalization and second language proficiency in relation to and as an outcome of NS/NNS group interaction within various instructional environments (see, for instance, Fillmore, 1976; Strong, 1983; Saville-Troike, 1984).

Research on children's output is presently concerned with verbal participation and proficiency in English as a second language (ESL). In general, verbalization is related to the dynamics of group interaction (e.g. identification with the target language group) and /or to characteristics of the learners who participate in this interaction (e.g. motivation, personality factors) (see, Chesterfield, Chavez et al.; 1982; Strong, 1983). Few studies discuss output in relation to

input, the discourse features of conversation (forms and functions) are not related to verbal proficiency, neither is the quantity of participation in the classroom, nor the situational structure of conversations (e.g. context bound/reduced) within various groups (peer, teacher) considered.

Occasionally inferences about NNS output can be made from studies of input (see, for example, Scarcella and Higa, 1982a:184); however, the failure of most studies to consider output makes it difficult to determine to what extent the language learner is actually participating in various conversational interactions (e.g. child/child, adult/child, NS/NNS), and it is equally difficult to establish whether or not certain discourse features of conversation encourage the L2 learner to participate more actively.

For example, evidence suggests that NNS children do receive simplified input; however, there may be a lack of verbal participation by these children in adult NS/child NNS conversations (Scarcella and Higa, 1982a:184). In a study of input and age differences, Scarcella and Higa (1982a) note that L2 children did little to receive input; adult NSs received little verbal feedback from child NNSs. As Scarcella and Higa suggest, the children may not have even interacted enough to reveal their linguistic proficiencies. Why were the children not participating in adult/child conversations? Were they participating in peer group interactions? Scarcella and Higa (1982a:184) note that age may be a factor, the younger children were not verbal because they were not

responding as naturally as older subjects in the study - the NNS children were probably less experienced conversationalists. In addition, the children may have found the task too difficult, therefore, they were unable to concentrate on it. Some tasks do present difficulty for the L2 learner. In Nemoianu's (1980) study of the conversations of NNS children, the children had difficulty completing several of the tasks. Nemoianu (1980:102) concludes that the way in which children approach non-verbal tasks may be as important as the actual results on these tests.

Besides having difficulty with tasks, ESL children may be better conversationalists in different interaction situations, such as those occurring with age peers. There is some evidence, for instance, that NS peers provide NNS children with a very different sort of input than adult NSs (Peck, 1975; Fillmore, 1976; Scarcella and Higa, 1982). Given that the input provided during peer group interactions seems different, NNS output may also differ in spontaneous peer group interactions.

Presently, the research that does discuss verbal participation and proficiency with the young NNS is somewhat contradictory. Fillmore (1976) suggests that the more verbal child is the more proficient L2 speaker and that motivation to identify with the NS target group is key to successfully acquiring an L2. Chesterfield, Chavez et al. (1982; 1983)

support Fillmore's conclusions. In a study of child NNS/adult NS interactions, they found high correlations between increased English language proficiency and more frequent interactions between native and non-native English speaking children. Other studies contradict these findings (Strong, 1983; Saville-Troike, 1984).

Strong (1983:250) attributes success in learning an L2 to personality factors such as gregariousness or talkativeness; however, he makes no claims as to whether added contact with NSs causes greater proficiency for NNSs, or whether NNS proficiency is the result of this contact. Strong (1983:251/252) views the issue as "not that the better learners are getting more input than their peers but rather they are making more active use of the English they are exposed to". Support for Strong's position is found in Saville-Troike's (1984) study. She too found no cause-effect relationship between interaction and increased L2 proficiency. In fact, in Saville-Troike's (1984:209) situation, the majority of the higher achieving subjects "used their native languages to the virtual exclusion of English" or "rarely spoke at all in any language". Saville-Troike (1984:217) attributes this to the fact that there is a qualitative difference between peer group and teacher group interactions in the "communicative tactics and skills" used by the children. Though she identifies the fact that there is a difference, this qualitative difference is not explored further.

Some link between the foregoing studies is found in the work of Nemoianu (1980). She agrees with Strong in that personality factors influence the use of language and the rate of L2 learning. Nemoianu (1980:104) suggests that there is a relationship between active language use (ratio of NNS utterances to conversational partner utterances) and the rate of L2 learning. Those learners who made more active use of the L2 seemed to learn more quickly. And, although Nemoianu does not compare teacher and peer group interactions, she does indirectly identify what may be a qualitative difference between teacher and peer group interactions - the dynamic nature of peer group interactions between NS and NNS children seems to facilitate L2 learning.

In sum, it appears that there are a number of factors that are associated with NNS verbal participation and L2 proficiency, ranging from those directly related to the individual learner (e.g. personality) to those related to NS/NNS interaction patterns in specific classroom situations (e.g. identification with the target language group). And, although there are some contradictions in the results of studies such as those previously mentioned, it is possible to make some generalizations based on the analysis of this research:

- (1) NS/NNS group interaction patterns influence the verbal participation of L2 learners and therefore influence the learning of a second language and the L2 learner's proficiency in the second language,

(2) there appears to be a difference in the quality of the interaction that occurs in peer organized situations and in teacher/adult organized situations, therefore the verbal participation and proficiency of L2 learners may vary with the particular situation under consideration in any given study, and

(3) other factors such as cultural background, personality, motivation, and/or learning style influence output or verbal participation, hence must be considered in studies that assess L2 learner proficiency in the L2.

Each of these three areas requires additional research to arrive at firm conclusions concerning verbal participation and its relationship to L2 proficiency. Studies relating output to input during interaction in various situations involving various tasks/activities and interactants may help to clarify existing contradictions. Most importantly, researchers of verbal participation must begin to relate output to interaction in different situations (with various tasks/activities, participants) to move research beyond an assessment of learner proficiency in English (a product) toward an understanding of how this proficiency is influenced by various processes of learning and teaching a second language.

1.3 Input and Interaction: Measures of Discourse Features and Measures of Situational Structure

There are many ways of measuring input and interaction in L2 classroom situations. Some measures of input and interaction are more related to products of second language acquisition - the acquisition of specific forms is considered and associated with various functions during interactions between NSs and NNSs in various situations. Other measures are more related to processes of learning and teaching a second language - the relevance and accessibility of the input provided by various interactants in a variety of situations is considered, as is the influence of the structure of various situations on the learning of the new language, for instance, distance of the subject from the speaker/hearer.

Before discussing studies of input and interaction in terms of discourse features and situational structure (parts 1.4 and 1.5 to follow), a brief discussion of the measures associated with each form of assessment is presented to facilitate understanding of this discussion. Consider, for example, the kinds of measures used to analyze the discourse or interactional features of conversation and those measures used for analysis of aspects of the situational structure of conversational interactions. Each is briefly discussed as follows.

Measures of Discourse Features

Studies of conversational interaction generally use measures of discourse features to arrive at an assessment of input. One way of examining the input received by the NNS from the NS is to examine those conversation sustaining, negotiating and repairing devices used during an exchange between various partners. Measures of the discourse features of conversational interactions are usually concerned with speaker/hearer relationships and enable researchers to address issues such as:

- . Are there opportunities for the less competent NNS to initiate conversation? negotiate for input?
- . Is the input provided for the NNS made more comprehensible through the use of questioning and other techniques by the NS?
- . Do NSs use techniques such as confirmation, clarification and comprehension checks to ensure NNS understanding?

Studies of the discourse features of input and interaction give information about the dynamics of group interactions in and out of classrooms in terms of the features of the talk addressed to L2 learners, about NS/NNS negotiation for input, and about NS attempts reduce the interactional burden for the NNS (see, Long, 1981). Thus, at present, research on input and interaction discusses products of L2 acquisition - forms of utterances and their functions in interactions, for example, the quantity and type of questions used by NSs in addressing NNSs, the simplification of topics by NSs for NNSs and/or the use of repetition by NSs and NNSs (see, for instance, Gaies, 1983).

Presently, although the findings from various studies of input are somewhat in disagreement on most issues (see, discussion, part 1.4), there is agreement to be found in the kinds of measures that researchers of input have found acceptable. In fact, most investigators of input and interaction have used one or more of the same measures.

The following table (Table I) illustrates some of the measures commonly found in studies of the features of conversational interaction in adult/adult, adult/child, and child/child exchanges between NSs and NNSs. As illustrated in the table, numerous researchers generally accept the same measures as suitable for assessing input and interaction.

Although there is agreement on the measures used to assess the interactional features of conversation, other factors related to input and interaction cannot be analyzed with these measures. Specifically, measures of discourse features do not move beyond an analysis of talk in examining group dynamics; an evaluation of the organizational structure of conversations in various situations is not possible (e.g. consideration of the distance of the subject matter from the speaker/hearer). Yet, in L1 studies of mother/child conversations, there are aspects of the situational structure of interactions that facilitates L1 acquisition, and further, appear to characterize child/child interaction (see, Cross, 1977). For example, mother/child and child/child interactions

Table I
Summary of Measures of Discourse/Interactional Features
of Conversations

Discourse/Interactional Feature	Adult/Adult, Adult/Child, and Child/Child Interactions
Questions (display, referential, "or"choice, "wh", "yes/no", etc.)	Hatch, 1978 Long, 1981 Freed, 1980; 1981 Scarcella and Higa, 1982a; 1982b Long and Sato, 1983 Peck, 1985
Repetitions (self, other)	Pica and Long, 1982 Scarcella and Higa, 1982a; 1982b Freed, 1980; 1981 Peck, 1985
Frames	Scarcella and Higa, 1982a; 1982b Peck, 1985
Directives	Scarcella and Higa, 1982a; 1982b Freed, 1980; 1981 Peck, 1985
Inclusive "we"	Scarcella and Higa, 1982a; 1982b Peck, 1985
Confirmation (checks, requests)	Long, 1981 Pica and Long, 1982 Scarcella and Higa. 1982a; 1982b Peck, 1985
Clarification (checks, requests)	Long, 1981

generally take place in situations that are context dependent, that is, they take place in the here and now. The language used is easily understood by the NS child language learner because it is used in action, created spontaneously to suit the situational context as it is created, recreated or altered by mother and child, or by child and child. And recently, L2 studies have suggested that similar concrete referents are necessary for beginners in an L2 - conversational interaction in action oriented social contexts facilitates L2 learning (see, Mohan 1985).

Measures of the interactional or discourse features of conversations need to be supplemented by measures that allow the researcher to move beyond the bounds of the speaker/hearer relationship to consider other aspects of the interaction situation, such as the distance of the discussion from the L2 learner, and therefore, its relevance and accessibility to him/her for comprehension (as input). To move beyond the analysis of discourse features to consider other aspects of interactions during conversations, measures such as those concerned with situational structure are necessary.

Measures of the Situational Structure of Interactions

Studies of the situational structure of conversations are mainly found in first language acquisition (for detailed examples, see Garvey, 1984). These measures are used to

assess aspects of the situational structure of conversational interaction, for instance, to examine the dependence/independence of the conversational exchange on the context of the situation, thereby determining its relevance and accessibility for the language learner. As an example measures developed by Halliday and Hasan (1976:333) allow the researcher to code various language items (e.g. pronominals and demonstratives) as dependent upon the context of situation for reference (exophoric) and/or dependent on the preceeding or following text for reference (anaphoric).

Although the measures of Halliday and Hasan (1976) have been criticized for assuming that the anaphoric/exophoric reference categories are mutually exclusive of one another, and because the anaphoric items are said to indicate coherence between purely linguistic items ignoring background knowledge and experience (see, Carrell, 1982), nevertheless these items do allow the researcher to arrive at some general conclusions regarding the situational structure of conversations. Specifically, these measures allow the researcher to come to some general understanding about the context of an interaction situation to determine: 1) if the conversation during NS/NNS interaction deals with real objects and visual aids in the here and now, and/or 2) if the NS/NNS conversational interactions assume background knowledge of aspects of the situation because the discussion makes

reference to things not physically present, therefore, they may or may not be familiar to the learner depending upon his/her background socio-cultural knowledge and experience, and/or 3) if the interaction taking place between NSs and NNSs is mainly experiential (context dependent, exophoric) and/or expository (context independent, anaphoric). It is reasonable to posit that in the case of anaphoric items, it is not clear that these items exist in the here and now, and reference to them may indeed be found in the text or in an interaction between the assumptions made by the text, the learner's background knowledge about the text and certain cognitive processing strategies. Only in the case of the exophoric items is it likely that the input provided is meaningful to the learner because the items used during discussion are immediately visible and are being used during conversation in an ongoing action context. Using these kinds of measures L2 researchers can begin to answer questions like those that follow:

- . What is it the L2 learners are doing with language in various communicative situations? Is input related to task? Is input related to the context of situation?
- . How far removed is the discussion from the NNS in time and space? Is the input provided relevant and accessible to the NNS for comprehension? How effective is the instruction?
- . What happens during the discussion in various groups? What is important to teachers? learners?

In sum, several L2 writers suggest that the input addressed to the NNS must be meaningful and comprehensible to facilitate L2 acquisition. To be both meaningful and comprehensible the input provided for L2 learners is thought to be best if it is similar to that of L1 mother/child interactions as reported in studies of motherese (see, Cross, 1977; Krashen and Terrell, 1983). However, L2 researchers have based this conclusion on studies of input and interaction that are limited to the analysis of discourse features of conversational interactions and not on studies of the situational structure of this interaction. It is the latter, the situational structure of mother/child interactions that makes the input provided for L2 learners meaningful and comprehensible, in addition to the former, the use of discourse features during interactions. Studies of discourse features of second language learners interactions must, therefore, move beyond the analysis of discourse features of conversations to an analysis of the situational structure of interactions. This is not to say that the study of discourse features is not important, rather, that some of the contradictions existing in the results of studies of discourse features may be refined, and/or removed if the situational structure of conversational interaction is considered. And, most importantly, analysis of the situational structure of L2 learners interactions will move research toward considering aspects of the process of learning and teaching a second language, rather than solely researching products (discourse features) of interactions.

1.4 Input and Interaction: Studies of Discourse or Interactional Features of Conversations

The study of discourse or interactional features of conversations between NSs and NNSs has occupied a prominent place in L2 research in recent years (McLaughlin, 1984:240). Relationships amongst input, interaction and L2 acquisition are being sought to refine knowledge about the variables involved in L2 processing. At present, the results of studies of the discourse or interactional features of conversation are somewhat contradictory and have resulted in little consistent evidence concerning how discourse features affect L2 processing, other than to note that there are a great many variables to consider and that the frequency or use of one or more items varies with situation (see, Long, 1981). Part of the difficulty in finding consistency in reports of discourse features may be the result of gaps which exist in the current research.

Much of the existing research concerns NS, NNS conversational interaction. It is generally felt that through studying input during conversational interaction, suggestions will arise for aiding teachers to provide optimal input in classrooms, to facilitate L2 learning. Thus numerous studies focus on the discourse features of conversational interaction between adults and older learners, both in and out of the classroom, in efforts to understand how input is related to the processing of an L2 (Long, 1981:136). However, few studies

directly examine young children's interactions. And, although research has shifted from mainly emphasizing linguistic forms as sources of input, to consideration of the nature of the interaction through the various functions these forms serve, the study of input and interaction has not moved beyond consideration of discourse or interactional features to the examination of other aspects of interactions, namely the situational structure of these interactions (see, Long, 1981; Gaies, 1983).

Most research on the interactional features of discourse concerns foreigner talk (FTD) (see, Wagner-Gough and Hatch, 1975; Shapira and Gough, 1978; Freed, 1980; 1981; Long, 1981; Scarcella and Higa, 1982a; 1982b; Pica and Long, 1982; Long and Sato, 1983; Peck, 1985). FTD has been examined for differences in the devices used in NS, NNS adults and/or older learners' interactions. No consideration has been given to younger learners. And, although some efforts have been made to compare and contrast NS mother/NS child interaction with FTD, numerous variables have been found in examining the use of interactional devices, some related to form, some function and others to both (see, Freed, 1981).

In general, research on FTD has found that NSs make adjustments during conversations with NNSs to ensure NNS understanding, to maintain conversation, to include NNSs in conversation and to generally reduce the interactional burden placed on the NNS (see, Long, 1981:135). For instance,

studies have found that many adjustments are made in the forms used to aid the NNS -topics are simplified, words and sentences are clarified/repeated, and simplified to ensure NNS understanding, conversation continuers, the inclusive "we" and questions are used by NSs to ensure NNS involvement in the conversation, etc. (Long, 1981; Scarcella and Higa 1982a; 1982b). And, studies report on other adjustments made in the functions that these forms serve during various interactions. For example, mother/child, NS/NS talk and FTD has been contrasted for similarities/differences in the interactional features of this talk (see, Freed, 1981). Though some similarities have been found in the measures used to analyze discourse features (see discussion 1.3, this report) and though similarities and differences have been found in the use of specific forms and/or their functions, as Long (1981:136) comments, it is not even clear from existing research how NS/NS interactions differ in structure and content (situational structure) from NS/NNS interactions. Neither is it clear whether or not certain discourse features are specific to either NS/NS interactions and/or to NS/NNS interactions, nor has existing research determined which forms and features of discourse are not important and, therefore, absent during some conversations.

For example, Freed (1981:25) argues that the most significant difference between NS/NNS FTD and NS mother/NS

child discourse operates at a functional level; the functional intent of mother/child exchanges centres around the action or behaviour of the child while the intent of FTD interactions is directly related to information exchange. For example, conversation continuers such as repetitions function in mother/child interactions to maintain the interaction, but with FTD these devices are used to aid the exchange of information through clarifying ideas (Freed, 1981:24). Although she does not develop this distinction further, it appears to be the situational structure of the two interaction situations that differs, the mother/child context for using language is concrete, specific and action oriented (experiential), the FTD context is probably less dynamic, more abstract and general (expository). Long's (1981:136) assertion that FTD may differ in structure and content from NS/NS interactions may be relevant in Freed's situation - the functional differences she recognizes, seem to be differences in the situational structure of the two interactions.

In addition to studying the interactional features of FTD and comparing/contrasting it with mother/child exchanges some studies have attended to teacher talk in classrooms (see, Gaies, 1983). Studies of teacher talk (adult NS or bilingual adult to adolescent, adult or child NNS) are found less frequently in the literature (McLaughlin, 1984:240).

As McLaughlin (1984) comments, in spite of the large number of studies done in classrooms, little is actually known about teacher talk. Much of the existing research examines the interaction patterns of bilingual teachers for elements of language use or code switching during instruction (Chesterfield, Chavez, et al., 1983:401/402). And, some research has studied the effects of input from teachers on the NNSs subsequent (after instruction) proficiency in English (Snow and Hoefnagel-Hohle, 1982; Saviile-Troike, 1984). Other studies have compared/contrasted discourse in the classroom (various forms and functions) with NS/NS interactions, with FTD, and/or with talk outside the classroom (see, Gaies, 1977; Hatch et al., 1978; Henzle, 1979; Chaudron, 1979; Gaies, 1983). Results of these studies are scattered and have been somewhat inconsistent and contradictory.

For instance, teachers have been found to switch codes in various situations to accommodate various learners (see, Chesterfield et al., 1983). With respect to input and proficiency, no significant relationship has been found amongst input, interaction and increased proficiency in the L2 (see, Strong, 1983). And, although FTD has been found to be grammatically more complex than discourse in the classroom, both FTD and teacher talk have been found to differ functionally as well as syntactically from mother/child

interactions (see, Hatch et al, 1978; Freed, 1981; Gaies, 1983). At the same time, however, it is generally accepted that teacher talk constitutes a simplified code similar to caregiver talk, which like caregiver talk, may facilitate L2 processing (see, Gaies, 1983:207). Additional studies which examine how discourse features are related to what the L2 learner is doing in different situations are needed to clarify existing inconsistencies in studies of discourse features so that the language of the classroom may be better understood.

Research within another area of situational variables - the peer group - is also lacking (Nemoianu, 1980; Scarcella and Higa, 1981a). Two areas of interest have emerged, though studies within each are few: 1) peer group interactions in natural situations, and 2) peer tutoring in classroom situations. Studies within the peer group in natural situations have mainly examined social styles (Fillmore, 1980; 1983; Nemoianu, 1980; Strong, 1983), or conversation negotiating devices such as turn allocation (Keller-Cohen, 1979). Some have examined input, interaction and the L2 proficiency of the learner in child/child discourse, however, no consistent relationship has been found between factors such as increased proficiency and L2 learner access to simplified input (Strong, 1983; Saville-Troike, 1984).

Others have contrasted discourse features of adults conversations with older versus younger learners (Scarcella and Higa, 1982a; 1982b). And, a few have considered peer NS/NNS tutoring (Peck, 1985). Although several differences have been found in the specific forms used (e.g. questions) and in the function of these forms in different situations with older versus younger learners (e.g. negotiate for input, acquire attention), little is understood about how conversational interactions differ in teacher organized situations from NS/NNS child organized situations (Scarcella and Higa, 1982a). And, although the quality of the interaction taking place in the peer group with L2 learners is recognized as different from adult/adult or adult/child interactions, this qualitative difference and its effect on L2 processing is not explored further (Scarcella and Higa, 1982a:194).

In sum, although there are numerous studies of discourse features, investigators know little about conversational interaction except that the discourse features (both forms and functions) of conversations vary with the specific NSs and NNSs who are participating. Although research on conversational interaction has moved from an emphasis on the nature of input through the study of linguistic forms, to consideration of the nature of the interaction through the study of these forms and their functions during interaction, studies of discourse/interactional features must be expanded

to consider other aspects of the interaction situation during conversations. For instance, studies of discourse or interactional features might be supplemented with studies of the situational structure of conversations which consider, for example, the distance of the subject from the speaker/hearer. To fill a gap in existing research, studies of discourse features must be supplemented with studies of how the situational structure of conversations varies in different interaction situations with various interactants.

And finally, research is needed with very young children, with teachers and within the peer group, both in and out of L2 classrooms. If researchers study how children learn an L2 in different situations and compare/contrast this learning with the opportunities provided by teachers in the classroom, then researchers will begin to provide some of the answers needed for improving the quality of L2 instruction in classrooms. L2 researchers must begin to answer questions such as the following: 1) Are discourse features important to the children themselves during conversational interaction? Are they more important to teachers or to learners?, 2) How does the quality of children's interactions differ from that of teacher organized learning opportunities?, and 3) How might teachers bridge the gap, if indeed there is one, between what happens in child organized situations and what is occurring in situations organized by the teacher?

1.5 Input and Interaction: The Situational Structure of Conversations

Recent concern with discourse level processing has led to increased interest in the study of pragmatics and text (oral and written) (see, Carrell, 1982). Researchers recognize that the processing of an L2 makes many complex social and cognitive demands of the learner; language is used in a variety of social contexts for different purposes. As a result of this trend in research, and inspired by studies of mother/child NS interactions, first and second language discussions have made a distinction between the language of the classroom, necessary for academic success, and the language of spontaneous, naturally occurring conversations in day to day social interactions (see, for example, Cazden, 1974; Donaldson, 1978; Cummins, 1983; 1984; Nemoianu, 1980; Wells, 1981a; 1981b; 1983; 1984; Fillmore, 1976; 1983; Saville-Troike, 1982; 1984).

In various sources the language of the classroom has been termed context independent/reduced, formal/academic, and/or anaphoric language. The language and communication related to literacy and teacher organized situations in classrooms is of concern in these discussions. The language of spontaneous interaction is termed context dependent/ embedded/ bound, informal/social, exophoric and/or natural. Here, researchers are speaking of the language and communication related to day to day, small group interpersonal interaction in social situations not organized by a teacher.

At the present time, L1 and L2 studies of context dependent/independent discourse are somewhat contradictory, limited in scope and generally problematic. Many discussions of academic discourse exist only at a rhetorical level and have not been followed up by research (see, for example, Krashen and Terrell, 1983; Fillmore, 1983; Cummins, 1984; Saville-Troike, 1984). Some (directly/indirectly) advocate the use of language in social contexts because concrete referents facilitate comprehension in the L2 (see, Fillmore, 1976; Krashen and Terrell, 1983; Gaies, 1983). Others note that concrete contexts do not necessarily guarantee academic success because language in classrooms is context reduced - reference is anaphoric (see, Fillmore, 1983; Saville-Troike, 1984). Some view L2 learners' interactions in context dependent/independent situations as interactions with language and communication along a dynamic continuum (see, Cummins, 1981). Still others view classroom literacy related skills as somehow different from other social/cognitive skills (see, Donaldson, 1978; Wells, 1981a; 1981b). Some see the need to give greater attention to the learners' background social and cultural knowledge and experiences or to what the learner is doing with the text (oral and written) in different situations (Carrell, 1982). And, finally, others see a need to view language as a medium of learning as well as communicating - context dependent/independent discourse are interdependent (see, Dewey, 1916; Moffett and Wagner, 1976; Mohan, 1985).

This review of the research on the situational structure of various NS, NNS interactions begins with a brief discussion of the origins of the current distinction between context dependent (informal, social, exophoric) and independent (formal, academic, anaphoric) talk. It then relates this discussion to interaction in the peer group. And finally, some of the difficulties with the numerous L1 and L2 discussions of the situational structure of NS and NNS interactions (context dependence/independence, etc.) with various interactants (child, adult, adolescent) are considered.

Studies of context dependent/independent talk have their origins in discussions of "motherese" or NS mother/NS children's interactions (see, Cross, 1977). One of the reasons NS mother/NS child talk facilitates language learning is because it is meaningful to the learner, that is, the information exchanged between mothers and their children is concretely represented in the immediate social contexts of the interactions and devices are used, such as explicitly referential deictic terms, to draw the child's attention to aspects of the situation during the action (see, Cross, 1977 or Garvey, 1984, for details). The less competent NS child learns language because in addition to receiving help from mothers through their use of numerous interactional (discourse features) conversation sustaining, repairing

and negotiating devices, language is used in a context that is not dependent upon the rest of language for meaning. Language is instead closely tied to the actions of the partners in the conversational exchange and contexts for this interaction are created, recreated and/or altered as the action progresses.

Though little is known about the language of the peer group, there is some reason to expect that it is similar to mother/child communication in its context dependence. Halliday and Hasan (1976:36) suggest that the language of the peer group is language in action, children communicate during concrete interaction with one another and the information conveyed while interacting is mainly found in the context of the situation, reference to this action is therefore, exophoric or situated in the here and now.

Discussions of concrete conversational interaction and its context dependence seem to have led researchers to the conclusion that this language makes fewer cognitive demands of the learner and is in fact distinct from the language of the classroom which is said to make more complex demands of the learner. In the classroom, the language needed for academic success is said to be context reduced or independent, that is, the information conveyed from teacher to learner is situated in the preceeding or following text rather than the context of the situation (Halliday and Hasan, 1976). This makes more complex demands of the learner because meaning only becomes

comprehensible if the learner is able to make inferences from the text, and in the case of L2 learners, if the learner has the appropriate background knowledge about the meaning of the information contained in the text (Halliday and Hasan, 1976; Krashen and Terrell, 1983). Thus, it appears from the research that the situational structure of conversations may vary in different interaction situations. Therefore, the input provided during these different interaction situations may also vary, and be more or less accessible to the L2 learner depending upon the demands of the specific situation.

Studies of the situational structure of conversations are largely first language acquisition studies, and the focus has been on the differences between context dependent and context reduced discourse. The current trend in L1 research seems to favour a linear progression or development in children's abilities to deal with information (language) reduced from its immediate context. The notion as expressed in reports on linguistic/pragmatic awareness and emerging literacy is that children first ignore "linguistic" meaning and infer it from the immediate action, then children become skilled at mapping particular contexts onto particular meanings, and finally are able to create context based solely on literal meanings and/or on the use of language based strategies for retrieving meanings (see, for example, Cazden, 1974; Donaldson, 1978; Wells, 1981a; 1981b).

A similar distinction is found in L2 research. For instance, Saville-Troike, (1982:241) comments that because language is the medium of instruction, the L2 children who succeed at school are those who "learn how to learn through abstract linguistically mediated instruction". In a later study (1984) she further notes that there is a qualitative difference between the communicative tactics and skills which L2 children use for social needs and those necessary for academic achievement at school. Her views are reiterated by others (for example, Cummins, 1980; 1983; 1984; Fillmore, 1983). Cummins (1984), for instance, proposes that context embedded communication is more typical of the everyday world outside the classroom, however, the linguistic demands of the classroom require of the learners the ability to deal with information that is context reduced. The L2 learner moves along a continuum between context embedded and context reduced talk.

At the same time, however, other L2 researchers stress the need for meaningful as well as comprehensible input, and in so doing note that context dependent situations are important to the NNS to facilitate understanding (Cazden, John and Hymes, 1972; Nemoianu, 1980; Krashen and Terrell, 1983). Therefore, on the one hand L2 researchers are advocating the use of language in concrete contexts to facilitate comprehension, and, on the other hand, researchers

are noting that this instruction does not necessarily assist L2 students in academic situations because classroom language is generally context reduced. This and several other contradictions make studies of context dependence and independence problematic.

For instance, the use of context reduced talk in the classroom is often viewed as some specialized use of language that requires of the child the ability to learn how linguistic propositions are used to be able to infer intention. As Donaldson (1978) and others put it, children must be able to infer "what is meant" (communicative intention) from "what is said" (propositional content). This view places importance on aspects of the underlying content (here, propositional) of the interaction situation and the text, but it ignores the text processors and learning theory in general. Some researchers have pointed out that the focus should not only be placed on aspects of the underlying propositional content of the text, but also on what the learner is doing with the text, how the use of content varies in different contexts, as well as on the background socio-cultural knowledge and experiences of the learner(s) (Carrell, 1982:482). In addition, this view appears to ignore learning theory in general - language is both a medium of learning and a medium of communication. It is not only the child's ability to infer "what is meant" from "what is said" that is important, it is also the child's ability to make inferences (a thinking skill) in general that is essential for literacy and academic success.

Studies of context embedded/reduced language may also

be criticized for suggesting that the meaning of the text of a written passage is somehow different from meaning in general. For instance, Wells (1981a) notes that in written language the meaning is found in the text alone. Again, a question arises: Can meaning exist independent of some background experience, or is it the meaning of experiences that give the written text its meaning? Moffett and Wagner (1976:10) see meaning as an issue at the level of verbalization - social meanings are found in all nonverbal experience, social activities and their meanings are organized into linguistic meanings. Perhaps children having difficulty with written language have difficulty at the level of nonverbal experience, i.e. they may not understand the social/cultural meanings because they have had various background experiences different from those of the teacher, therefore, understanding the linguistic meanings requires experience, particularly in a second language.

Studies of context dependence/independence also tend to view classroom literacy related skills as different from other social/cognitive skills (Donaldson, 1978; Wells, 1981a; 1981b). For instance, Wells (1981a:265) sees a need to help bridge the gap between what he calls the "relatively abstract formulation of knowledge in the classroom and the child's first hand experiences". However, first hand experiences are not separate from knowledge, they are instead related to the abstract formulation of knowledge encountered in the classroom through literacy related activities (see, Moffett and

Wagner, 1976:12). Moffet and Wagner (1976) view literacy as the end not the means, the means is found in nonverbal experiencing and in verbalization - verbalizing involves abstracting knowledge from nonverbal experience. In fact, there is some evidence to suggest that there are universal cognitive/academic components of knowledge which are found in all action and experiences (see, Mohan, 1985). Mohan (1985) has developed a method for instructing students that helps to bridge the gap between oral and written language by focussing on the knowledge structures that underly both oral and written language, and by helping students to develop the skills common to both oral and written experience.

There is a tendency for studies of context independent language to seek literacy related answers for questions concerning difficulties related to literacy. For example, Wells (1981a) advocates experiences with the conventions of literacy as important for assisting children to deal with the context independent talk of the classroom teacher - i.e. parents exposing their children to print through storybooks and other media facilitate their children's developing literacy. However, the origin of difficulties with literacy may be related to issues other than those that deal with print (e.g. Does the learner have the background experiences needed to understand the meanings conveyed in the text?). As Hrushovski (1983:158) comments, language isn't "an independent

vehicle for conveying meaning, rather it is used to "(re-) orient the understander in a network of information". The printed word carries only a portion of a complete thought, to fully grasp the thought children must understand what the person/thing/event is, how it works, the rules for using it, and how to use it successfully in different contexts (Wilson, 1979). Children need skills in thinking and in using language to communicate about interactions with others (experience) before they can be expected to fully understand print. Perhaps literacy develops at an older age for some children. Or, maybe the method(s) of developing curricula and instructing students have greater educational importance than is presently realized - language learners may need more opportunities to participate in nonverbal and verbal experiences than those now offered in many classrooms (e.g. more active small group experience).

As mentioned previously, L2 studies of context are few, though discussions of differences between classroom language and informal, everyday speech are numerous. Recently, Long (1981) has studied the temporal aspects of interactions, though his focus has mainly been on linguistic forms, rather than on both the linguistic and nonlinguistic content of different interaction contexts. For example, he (1981:147) has found that participants in FTD and in NS/NS interactions use similar temporal reference in marking verbs. And, although this is not the focus of Long's study, he indirectly identifies one situational variation that may have implications for language learning and teaching; FTD is more concerned with present

issues than with past or future issues. Long (1981:147) views differences in the situational structure of interactions as quantitative ones rather than qualitative ones, differences in degree not absolutes. To what extent this is true of all interaction situations is not presently understood.

In sum, studies of context dependence/independence are concerned with the situational structure of interactions. It is not unreasonable to think that the situational structure of interactions may vary, however, as Long (1981) notes these differences are likely ones of degree and not absolutes. Although there may be a greater emphasis on literacy (quantitative difference) in classrooms, the skills underlying academic achievement through literacy related activities are not necessarily different from skills used during informal/non-academic situations (in other words inferences are inferences etc.) From a research perspective, more attention should be given to various L2 interaction situations to discover what, if any, quantitative/qualitative differences exist (e.g. Long's temporal/spatial relations). From an instructional perspective, if L2 students are to be academically successful, then greater attention must be given to study of the instructional experiences provided (e.g. Are they relevant and accessible to the L2 learner? To what extent does the L2 learner share the same socio-cultural meanings (experiences) as the instructor and have access to the information presented?).

And, finally given that the skills underlying academic achievement and informal interaction are the same (thinking, doing, communicating) there is a need for L2 researchers to bridge the gap they are creating in research between context dependent and independent language, to focus on their interdependence. As Moffett and Wagner (1976:388-392) note, it is abstracting from experience that makes information. Language should not become a medium of learning cut off from learning by doing, and split into formal written learning versus informal learning in society. L2 investigators need to seek ways of improving L2 instruction without removing it from learning experiences in general, or from the individual social and cultural background experiences of the learners.

For instance, Mohan (1985) has developed a method of instructing students that focuses on the knowledge structures underlying all experience, on the situational structure of activities and on the relationships between language, content and learning. Through using this method of organizing instructional opportunities in classrooms, discrepancies between context bound and reduced discourse can be eliminated - teachers begin by providing activities for L2 learners which involve conversational interaction in action contexts with concrete referents to facilitate comprehension in the L2, and gradually increase the distance of the lessons and topic(s) from the interactants (as is the case in all learning) through manipulating the activities offered to L2 (or L1) learners.

1.6 Summary and Conclusions

Although there has been a phenomenal growth in second language research on output, input and interaction in recent years, few studies directly investigate young children's interactions. Most research centres on the study of adults and/or adolescents and older elementary school children.

Studies of output or verbal participation are rarely related to input and interaction. Some efforts have been made to assess NNS children's proficiency in English after participating in a variety of different grouping situations; however, the results of these studies are somewhat contradictory. Some report relationships between increased proficiency and classroom participation, specifically interaction in the L2 and identification with NS peers, others refute these claims and attribute success in English to personality, motivation or speaking in one's native language.

Interactional analyses used to arrive at assessments of input have examined isolated linguistic items and other discourse features of conversation both in and out of the classroom. Although these measures may be useful in arriving at conclusions concerning speaker/hearer negotiation for input, they have not considered the situational structure of various interactions and therefore remain contradictory and inconclusive in their results concerning FTD and its relationship to mother/child and other interactions.

Some discourse features may, for instance, be used more frequently in some situations (e.g. informal interaction or with children) than in others (e.g. during formal instruction or perhaps with adults).

Studies of the situational structure of interactions are presently concerned with contrasting academic/context independent/formal discourse with informal/context dependent/spontaneous discourse. Although the former has been identified as problematic for L2 learners, and the latter has been deemed necessary for achieving success with the former, few studies have actually examined both the foregoing beyond the rhetorical level. Some research has been conducted by Long (1981), however, additional research is needed before any firm conclusions can be reached. In addition, there is a need for these studies to realize that the knowledge structures and skills underlying classroom and non-classroom interaction are the same, although there may be differences in the cognitive maturity, background experiences, languages and individual characteristics and motivations of the learners.

CHAPTER TWO

A STUDY OF OUTPUT, INPUT AND INTERACTION IN FORMAL/INFORMAL TEACHER INTERACTIONS AND IN NS/NNS CHILDREN'S INTERACTIONS

2.1 Purpose and Research Questions

This study analyses the situational structure in the classroom in both teacher organized situations and in child organized situations. For the purposes of comparison, the teacher's informal interactions with the children in child organized situations is also considered. The study seeks to bridge gaps in existing research by:

- 1) considering the interactions of a teacher with very young children (not adults and older children),
- 2) moving the analysis of output beyond consideration of the product alone (e.g. who says how much of what), to consider the process (e.g. how is the quantity of output related to the input provided, the opportunities available for interaction), and
- 3) moving the analysis of input and interaction beyond consideration of the frequency of occurrence of certain discourse features of interactions (products), to consideration of other factors that influence input and interaction such as the situational structure of interactions, here the distance of the input and interaction from the speaker/hearer in time/space (e.g. experiential/exophoric, expository/anaphoric relations), to assist in acquiring the data needed to begin improving the process of learning and teaching an L2.

This study is divided into two parts as follows:

Experiment I: NS teacher interactions in teacher organized situations are compared/contrasted with NS teacher interactions in child (NS, NNS) organized situations in the classroom. Results here are restricted to this study - no attempt is made to generalize beyond this teacher in this classroom. The research is of an exploratory nature.

Experiment II: NS/NNS children's interactions in teacher organized situations is compared/contrasted with NS/NNS children's interactions in child (peer group) organized situations. This research is also exploratory -though some generalizations may be made, they should be approached cautiously until further studies of a similar nature are conducted.

The research questions under consideration in this study are:

Experiment I: NS teacher interactions in teacher and in child organized situations:

(1) To what extent, if any, does teacher output or verbal participation vary with the situational structure (teacher, child organized) of interactions?

(2) To what extent, if any, does the input and interaction of the teacher vary with the situational structure (teacher, child organized) of interactions, specifically,

(a) to what extent does the teacher's use of twelve discourse features (see, "measures", p. 47) vary with

situation, and

(b) to what extent does the teacher's spatial/temporal reference (twenty-four exophoric/anaphoric items, see, "measures") vary with situation?

Experiment II: NS/NNS children's interactions in teacher and in child organized situations:

(1) To what extent, if any, does NS, NNS children's output or verbal participation vary with the situational structure (teacher, child organized) of interactions?

(2) To what extent, if any, does the input and interaction of the NS, NNS children vary with the situational structure (teacher, child organized) of interactions, specifically,

(a) to what extent does the children's use of twelve particular discourse features (see, measures) vary with situation, and

(b) to what extent does the NS, NNS children's spatial/temporal reference (twenty four exophoric/anaphoric items, see, "measures") vary with situation?

Data was collected and analyzed in answer to these questions as follows.

2.2 Sample and Data Collection:

The subjects in this study are:

1. Twenty children for whom English is a second language (non-native speakers of English, NNS), mainly from Punjabi/Hindi and Chinese first language backgrounds, mean age 3.74.
2. Ten children for whom English is a native language (native speakers of English, NS), mainly monolingual speakers, mean age 3.78.
3. One teacher, a monolingual English speaker with limited ESL training.

The NS/NNS children were generally from middle class backgrounds. Many of the NNS children were first or second generation Canadians who spoke their L1 at home (or whose parents were L2 learners) therefore, the children were beginners in English. All children attended early childhood classes at the Sexsmith school on a daily basis.

Video taped data was collected at regular intervals during the school year. Fourteen samples of spontaneous NS/NNS child organized interactions and fourteen samples of teacher organized interactions were collected. The video tapes were transcribed and coded in accordance with the measures, as defined in part 2.3. For the purposes of analysis, each sample was limited to the first consecutive one hundred utterances.

2.3 Measures and Analyses

The measures used in this study are defined as follows (note: the same measures are used in both experiments, 1 and 11):

(1) Output or Verbal Participation

Output is measured by the frequency of occurrence of the following:

(a) utterances/subject:

frequency count - turns/speaker

e.g. the following counts three turns

(Speaker A = 2 turns, Speaker B = 1 turn)

Speaker A: What comes next?

Speaker B: Blue.

Speaker A: Sure?

(b) words/subject:

frequency count - words/speaker

e.g. the following counts three words

Speaker A: What comes next?

Note: There were no nonverbal participants in this study.

Each subject took at least one turn of one or more word(s).

Both measures (a) and (b) above were applied to all groups (NS/NNS children and NS teacher) in all situations (teacher/child organized).

(2) Input and Interaction

Speech input and interaction was measured in two parts, with two different sets of measures. The first measurement consisted of an analysis of the discourse features of the interactions and the second measurement was an analysis of the use of exophoric/anaphoric (spatial/temporal) reference during the interactions. Both series of measurements are defined and described as follows.

Discourse Features

The discourse features of conversational interaction were coded and analyzed for each of the twelve items presented below. These measures of input and interaction are adapted from a number of L2 researchers, Scarcella and Higa, 1982a; 1982b; Freed, 1980; 1981; Brulhart, 1985; Peck, 1985.

1. Clarification Checks - questions which verify, rephrase or restate an item or an action

e.g. speaker A: I like red and green paint.

speaker B: Red or green?

speaker A: I'm putting this here.

speaker B: On the table or on the shelf?

2. Comprehension Checks - questions which help to check the addressee's understanding of an action or an item

e.g. Do you know what I mean?

Do you know why I want you to sit there?

3. Confirmation Checks - short tag questions which follow utterances and confirm preceeding items of speech or action

e.g. Yeah? Huh?

4. Self Repetitions - utterances which are the exact sequential repetition of the previous utterance (may or may not be accompanied by some action which is also repeated)

e.g. I have this book. This book. This book.

I'm skating on ice. Skating. Skating.

5. Other Repetitions - utterances which are an exact sequential repetition of the preceeding speaker's utterance (may or may not be accompanied by action which is also repeated)

e.g. speaker A: It's superman.

speaker B: Superman.

speaker A: He's flying away.

speaker B: Flying away.

6. Corrections - utterances which correct the speech or action of the addressee

e.g. speaker A: I'm putting this here.

speaker B: No, put it there!

speaker A: I put it on the table.

speaker B: No, you put it on the desk.

7. "You" in Directives - utterances which the speaker uses to direct the speech or action of the addressee

e.g. You do that. You tell him.

8. Inclusive "We" - "we" which designates the speaker and addressee are included in conversation and /or action

e.g. We are going to put this here.

We want to talk to you.

9. Need Statement - directives expressing the personal needs of the speaker/addressee, containing the verbs "need" or "want"

e.g. I want another one.

We need to sit down.

10. "Or" Choice Questions - questions which include a choice of two or more responses and/or actions

e.g. Is it blue or green?

Are you playing or are you leaving?

11. "Wh" Questions - all "wh" questions

e.g. Who is it? What is it?

12. "Yes/No" Questions - closed questions that require the addressee to respond with the words yes and/or no (may or may not be accompanied by appropriate action)

e.g. Will you hold this?

Is this blue?

Do you want another one?

For the purposes of analysis, all twelve measures were applied to all groups, NS/NNS children and the teacher, in all situations (teacher/child organized).

b) Exophoric/Anaphoric (Spatial/Temporal) Reference

Reference was measured with a coding scheme devised by Halliday and Hasan (1976). This scheme was chosen because (1) it gives consideration to the situational structure of interactions (exophoric/anaphoric items), and (2) it allows for the analysis of general or more specific referents (by grouping) where appropriate to the data.

As previously acknowledged (part 1.3) although Halliday and Hasan (1976) suggest that the categories exophoric/anaphoric are mutually exclusive, the writer accepts the notion that some items are ambiguous and may be classified as both exophoric and anaphoric. In this study, ambiguous items were too few to be significant (less than ten items), however, items were counted as both exophoric and anaphoric where ambiguous to avoid error.

"Exophoric" is used, in this study, to mean that reference to the items (one through twenty-four, presented below) is situationally dependent, that is, the here and now (action) context of the interaction is needed to understand what the item(s) used by the speaker "refer" to. (Similar jargon used in other sources is: context dependent/bound/embedded, social or informal conversation/interaction, concrete interaction, here and now or deictic terms).

"Anaphoric" is used to mean that reference to the items (one through twenty-four, presented below) is situationally independent, that is, the item(s) being "referred" to

cannot be discerned from the immediate concrete interaction, but rather requires background knowledge of the text (preceeding or following, past or future) and experience (non-verbal, social and cultural) to be fully understood.

Halliday and Hasan's original code (1976:333) was modified for this study to include only the items in the first two categories, pronominals and demonstratives. The specific measures used were:

Spatial/Temporal Reference - Anaphoric/Exophoric Items
(adjusted from Halliday and Hasan (1976:333))

	<u>Items</u>	<u>Exophoric and/or Anaphoric</u>
<u>A. Pronominals</u>		
1. Speech Roles		
Speaker	(1) I	
	(2) Me	
	(3) My	
Addressee	(4) You	
	(5) Your	
Inclusive	(6) We	
2. Other Roles		
Sing. masc.	(7) he	
	(8) him	
	(9) his	
Sing fem.	(10) she	
	(11) her	
Sing. neuter	(12) it	
Plural	(13) they	
	(14) them	
	(15) their	

(Note: the items "hers", "its" and "theirs", originally included in Halliday and Hasan's (1976:333) code were excluded in this study because they were not used by any of the speakers in this study).

B. Demonstratives

	<u>Items</u>	<u>Exophoric and/or Anaphoric</u>
1. Participant	(16) this (17) that (18) these (19) those	
2. Circumstance	(20) here (21) there (22) then (23) now	
3. Def. Article	(24) the	

Each of the samples was coded for items one through twenty-four for all groups (NS, NNS children and the teacher) in all situations (teacher organized, child organized).

Analyses

The data was analyzed as follows.

a) Experiment I

NS teacher interactions in teacher organized situations and in child organized situations were analyzed with paired t-tests: category A (teacher organized samples one to n) paired with category 1A (child organized samples one to n) = two tailed probability, F value.

A paired t-test was used to analyze the data for this study because: 1) in this study the subject was the same for both category A and 1A above. Even though there are n sessions in each case (A, 1A) these are not entirely independent because the teacher is the same, therefore, the subjects cannot be randomly assigned to two groups, a requirement of other analyses (e.g. one way ANOVA), and 2) a paired t-test is slightly more powerful than a static group comparison (e.g. one way ANOVA).

b) Experiment II

NS, NNS children's interactions in teacher organized situations and in child organized situations were analyzed with a two way ANOVA: factors - category (teacher organized, child organized), by group (NS, NNS), by sex with age = F, significance of F, $p < .05$.

A two way ANOVA was used over non-parametric analyses because: 1) the data is "close" to continuous and not categorical or dichotomous as required for non-parametric analyses, and 2) the interaction of various groups and/or sub-groups on one or more factors cannot be ruled out a priori, various factors may interact as well as differ significantly from one another, a two way ANOVA better facilitates the analysis of this interaction effect than do various non-parametric measures.

CHAPTER THREE

RESULTS AND DISCUSSION

The results of Experiments I and II are presented in figures and tables on the pages that follow. Subsequently, these results are discussed in terms of the purpose of the study, in answer to the research questions proposed in chapter two.

3.1 Results: Experiment I

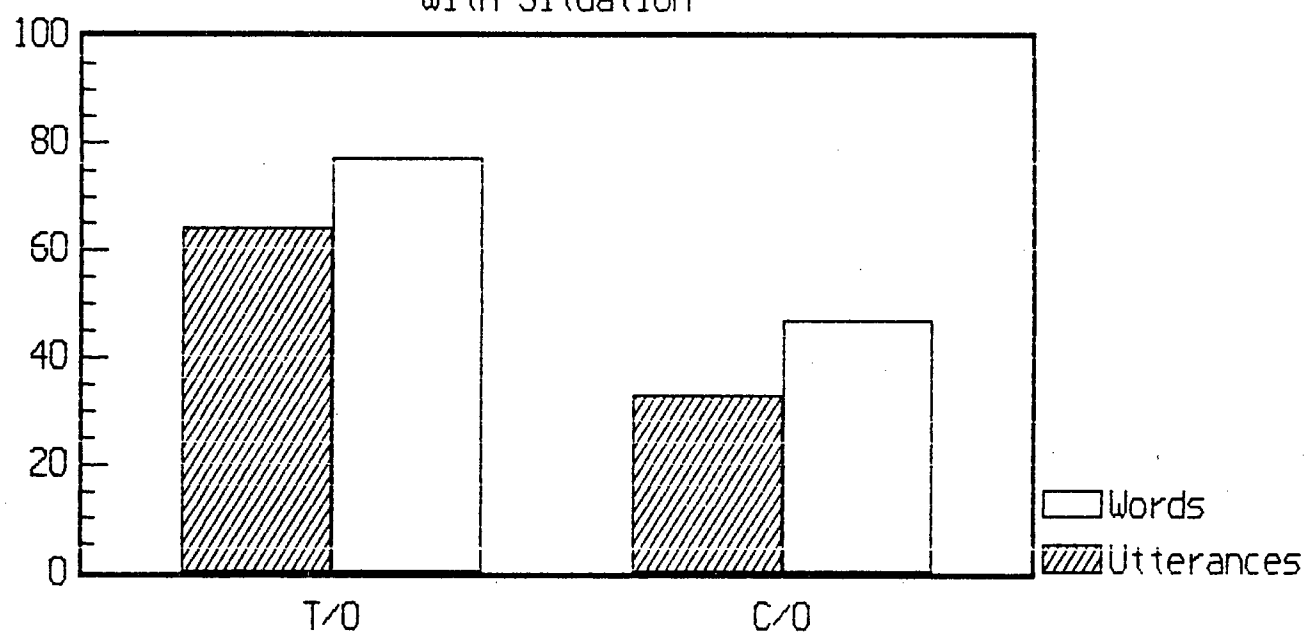
The results of Experiment I, NS teacher interactions in teacher organized and in child organized situations are:

a) Teacher Output or Verbal Participation

Output or verbal participation is discussed relative to the results presented in figure one and in table two. Figure one shows the relative percentage (of grand total) of teacher utterances and words in teacher organized and in child organized situations. Table two shows the relative frequencies of utterances and words for the NS teacher in each of the two situations.

The results show that the null hypothesis must be rejected for utterances, the differences were statistically significant for utterances, $F(26, 19.7) = 3.61, p < .03$. However, although proportionately slightly more words were used in child organized situations (see, figure one), the results of the analysis for words did not prove significant (ns), $F(26, 25.9) = 1.14, p > .05$.

Figure 1
Profile of Teacher Output:
Relative Percentage of Participation
With Situation



T/O=teacher organized situations (n=14)

C/O=child organized situations (n=14)

Table II
Profile of Teacher Output:
A Comparison of Frequencies of Utterances and Words with
Situation

Variable	n	\bar{x}	F	probability*
utterances	group 1	2.86	3.61	.028
	n = 14			
	group 2	6.43		
	n = 14			
words	group 1	498.86	1.14	ns
	n = 14			
	group 2	351.14		
	n = 14			

*two tailed test of significance

group 1 = NS, NNS child organized situations

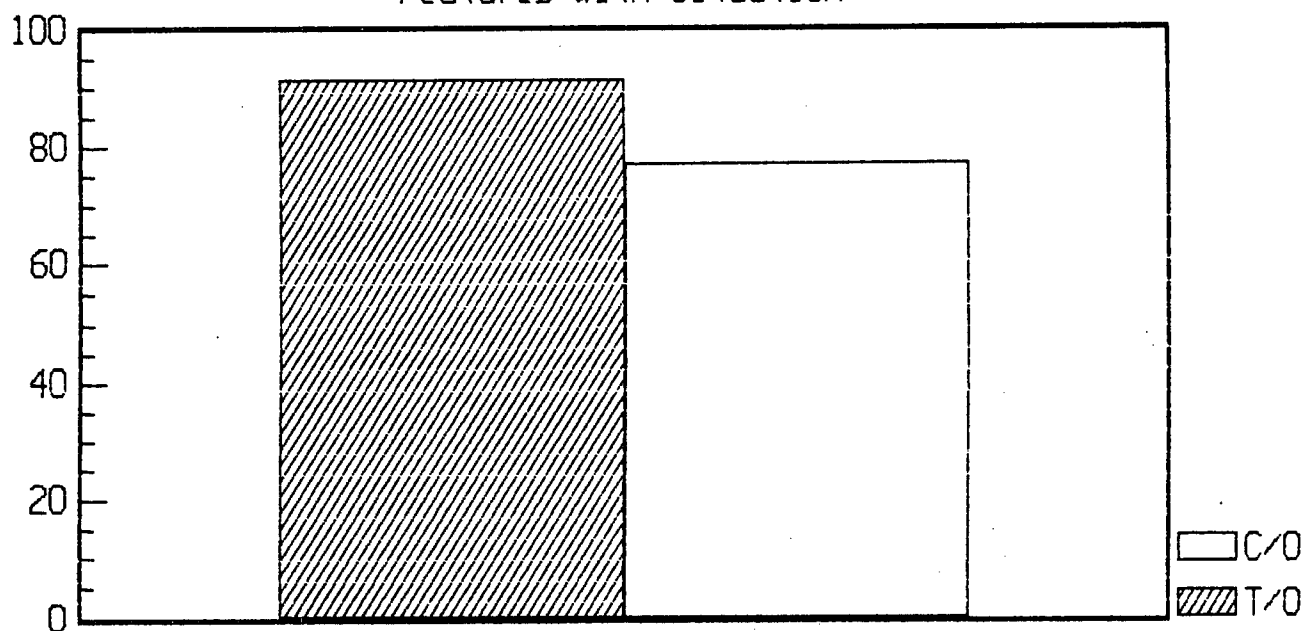
group 2 = teacher organized situations

b) Teacher Input and Interaction: Discourse Features

Teacher input and interaction, specifically the discourse features (forms and functions) of interactions, is discussed relative to the results presented in figures two and three, and in tables three and four. Figure two shows the relative percentage of the teacher's use of the total discourse features (items one through twelve) in teacher organized and in child organized situations. Figure three gives a breakdown of this use by item, one to twelve. Table three shows the rank order of the means for each of the discourse features, one to twelve. Table four shows the relative frequencies of discourse features in each of the two situations, teacher and child organized, both in terms of the teacher's use of the total items (one through twelve) and for each feature, one to twelve.

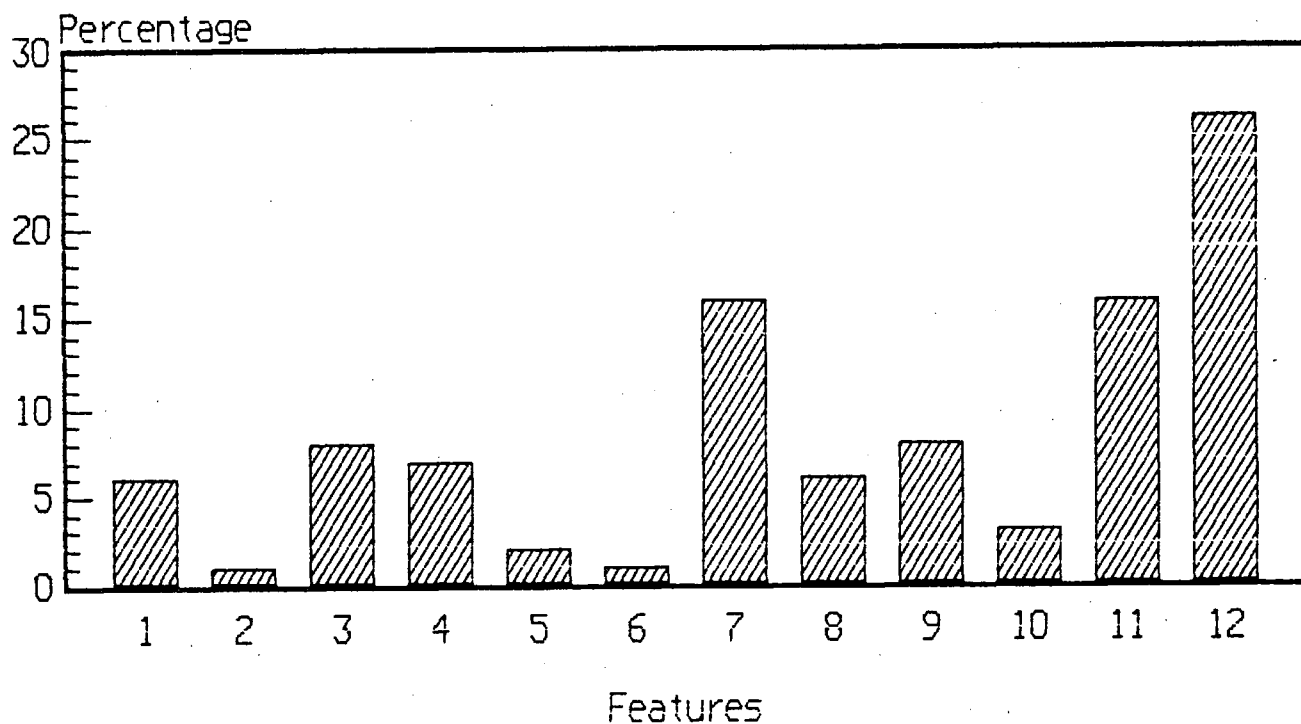
The results presented in table three show that this teacher's percentage use of discourse items (total of all items one through twelve) is greater in teacher organized situations than it is in child organized situations. However, the relative frequencies of the total discourse features (individual features, one, two etc.) does not vary significantly between the two situations, $F(26, 24.6) = 1.63$, $p > .05$, (see, table, four).

Figure 2
Profile of Teacher Input & Interaction:
Relative Percentage of Total Discourse
Features with Situation



T/O = teacher organized situations
C/O = child organized situations

Figure 3
 Profile of Teacher Input & Interaction:
 Percentage Use of Twelve Discourse
 Features Across Situation



1. clarification checks
2. comprehension checks
3. confirmation checks
4. self-repetitions
5. other repetitions
6. corrections

7. "you" in directives
8. inclusive "we"
9. need statements
10. "or choice" questions
11. "wh" questions
12. "yes/no" questions

Table III
A Comparison of the Teacher's Use of Twelve Discourse
Features by Rank with Situation

SITUATIONS					
TEACHER ORGANIZED			CHILD ORGANIZED		
Rank	Features	Means*	Rank	Features	Means*
high					
1	"yes/no" questions	6.00	1	"yes/no" questions	7.57
2	"you" in directives	3.93	2	"wh" questions	5.86
3	"wh" questions	2.71	3	"you" in directives	4.57
4	need statements	1.56	4	confirmation checks	3.00
5	clarification checks	1.43	5	self-repetitions	2.71
6	confirmation checks	1.14	6	inclusive "we"	2.29
7	self-repetitions	.93	7	need statements	2.21
8	inclusive "we"	.93	8	clarification checks	1.50
9	"or choice" questions	.64	9	"or choice" questions	.86
10	other repetitions	.36	10	other repetitions	.71
11	comprehension checks	.21	11	comprehension checks	.11
12	corrections	.00	12	corrections	.00
low					

*Means reported are those adjusted for t-test analyses.

Table IV
Profile of Teacher Input and Interaction:
A Comparison of Frequencies of Twelve Discourse Features with
Situation

Variables	n	df	\bar{X}	F	probability
Feature					
1. clarification checks	group 1 n=14	26	1.42	1.55	ns
	group 2 n=14	25	1.50		
2. comprehension checks	group 1 n=14	26	0.21	2.06	ns
	group 2 n=14	23	0.29		
3. confirmation checks	group 1 n=14	26	1.14	2.02	ns
	group 2 n=14	23	3.00		
4. self-repetitions	group 1 n=14	26	0.93	2.26	ns
	group 2 n=14	23	2.71		
5. other repetitions	group 1 n=14	26	0.63	6.68	.002
	group 2 n=14	17	1.64		
6. corrections	group 1 n=14	26	0.0	0.00	ns
	group 2 n=14	0	0.0		
7. "you" in directives	group 1 n=14	26	3.47	1.25	ns
	group 2 n=14	26	3.88		
8. inclusive "we"	group 1 n=14	26	0.93	1.65	ns
	group 2 n=14	25	2.29		

Table IV continued

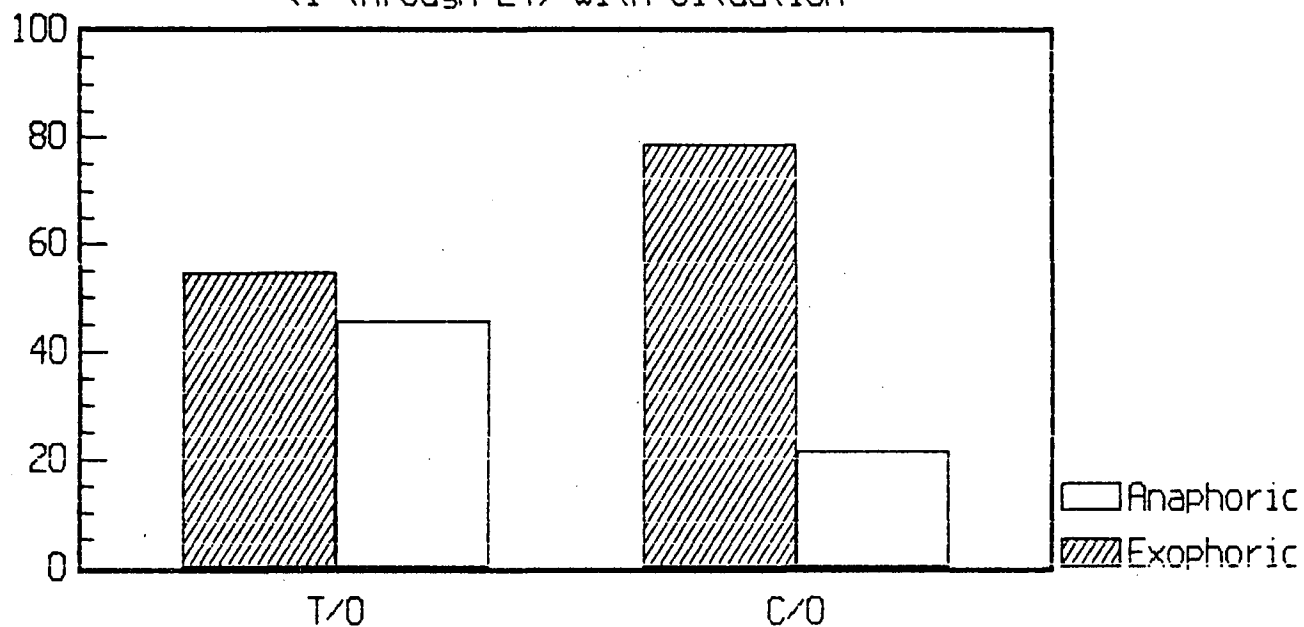
Variables	n	df	\bar{X}	F	probability
9. need statements	group 1 n=14	26	1.57	1.61	ns
	group 2 n=14	25	2.21		
10. "or choice" questions	group 1 n=14	26	0.64	1.79	ns
	group 2 n=14	25	0.86		
11. "wh" questions	group 1 n=14	26	2.71	2.68	ns
	group 2 n=14	22	5.86		
12. "yes/no" questions	group 1 n=14	26	6.00	1.22	ns
	group 2 n=14	26	5.86		
Total features one through twelve	group 1 n=14	26	19.86	1.63	ns
	group 2 n=14	25	31.57		

The results of the rank ordering of the means of discourse features one through twelve is somewhat similar in both teacher and in child organized situations (see, table three). This result is somewhat substantiated by the results of the analysis of the individual features (each item one through twelve), as presented in table four. Only one item proved significant - discourse feature "other repetitions" was used significantly more frequently in the teacher organized situations over child organized situations, $F(26, 16.8) = 6.68, p < .002$.

c) Teacher Input and Interaction: Exophoric/Anaphoric
(Spatial/Temporal Reference)

This teacher's use of exophoric and anaphoric reference items is discussed relative to the results given in figure four and in table five. Figure four shows the relative percentages of the use of exophoric/anaphoric items (of grand total) by this teacher in each of the two situations, teacher organized and child organized. Table five shows the relative frequencies of teacher use of the total exophoric to anaphoric items (proportion) for the total items, and for the individual items (one through twenty-four) for each of the two situations, teacher and child organized.

Figure 4
Profile of Teacher Input & Interaction:
Relative Percentages of Reference Items
(1 through 24) With Situation



T/O = teacher organized situations
C/O = child organized situations

Table V
Profile of Teacher Input and Interaction:
A Comparison of Frequencies of Two Reference Categories with
Situation

Variables: (Exophoric to Anaphoric Ratio)			SITUATIONS					
			Teacher Organized			Child Organized		
Reference (difference) Item (1-24)	\bar{X}	df	(difference)					
			T	probability	\bar{X}	df	T	probability
1 I	6.36	13	4.27	.001	3.57	13	4.02	.001
2 me	1.36	13	3.98	.002	0.79	13	3.02	.01
3 my	0.86	13	1.19	ns	1.14	13	1.32	ns
4 we	4.93	13	4.39	.001	0.93	13	2.74	.017
5 you	17.57	13	7.96	.001	12.57	13	5.16	.001
6 your	4.86	13	4.76	.001	3.21	13	4.61	.001
7 he	-0.07	13	-0.14	ns	0.57	13	2.28	.04
8 him	0.00	13	0.00	ns	0.29	13	1.75	ns
9 his	-0.21	13	-1.38	ns	0.07	13	0.37	ns
10 she	-0.50	13	-0.23	ns	0.43	13	1.71	ns
11 her	-1.36	13	-2.14	.05	0.21	13	0.90	ns
12 it	-7.86	13	-2.81	.02	-0.43	13	-0.33	ns
13 they	0.29	13	0.50	ns	-0.43	13	-1.31	ns
14 them	0.00	13	0.00	ns	0.07	13	0.29	ns
15 their	-0.29	13	-1.75	ns	0.00	13	0.00	ns
16 these	0.43	13	1.15	ns	0.57	13	2.83	.01
17 this	3.14	13	3.44	.004	2.21	13	3.25	.006
18 here	1.43	13	3.55	.004	0.93	13	3.24	.006
19 now	0.93	13	2.62	.02	0.29	13	1.30	ns
20 those	0.14	13	1.47	ns	0.21	13	0.90	ns
21 there	0.43	13	0.52	ns	0.86	13	2.75	.017
22 that	-2.21	13	-2.30	.04	1.64	13	3.63	.003
23 then	-1.00	13	-1.87	ns	0.29	13	1.30	ns
24 the	-9.50	13	-4.75	.001	-2.93	13	-2.15	.05
Total Items	\bar{X}	df	T probability					
1 through 24	5.25	12	1.81	ns				
EX/AN Ratio	1.66							

The results show that:

- 1) the teacher's percentage use of reference items is more exophoric than anaphoric in both teacher and child organized situations (see, figure four),
- 2) the percentage of anaphoric items used by the teacher increases substantially in the teacher organized situations over the child organized situations (see, table four), however,
- 3) proportionately (exophoric to anaphoric ratio) the teacher's use of items does not vary significantly with situation, $t = 1.81$, $df = 12$, $p > .05$ (see, table five), and
- 4) the relative use of individual exophoric and anaphoric items varies somewhat with situation (see, table five), specifically:

- i) some items (pronominals and demonstratives) are used by this teacher consistently more exophorically than anaphorically - items "I, me, we, you, your, this and here" were more exophoric in all situations
- ii) some items were used more exophorically by the teacher in child organized situations only and not in teacher organized situations - items "he, these and there"
- iii) one item was more exophoric than anaphoric only in teacher organized situations, it was not used in child organized situations - "now"

- iv) one item was used consistently more anaphorically than exophorically by the teacher in all situations - "the"
- v) one item was used more exophorically by the teacher in child organized situations and not in teacher organized situations = "that"
- vi) two items were used more anaphorically in teacher organized situations and not in child organized situations - "her, it"
- vii) the teachers use of the remaining items did not vary significantly with situation - "my, him, his, she, they, them, their, those, then" - were either not used enough to be significant and/or were used by the teacher as frequently exophorically as anaphorically in all situations, teacher and child organized.

3.2 Results: Experiment II

The results of Experiment II, NS, NNS children's interactions in teacher organized and in child organized situations are:

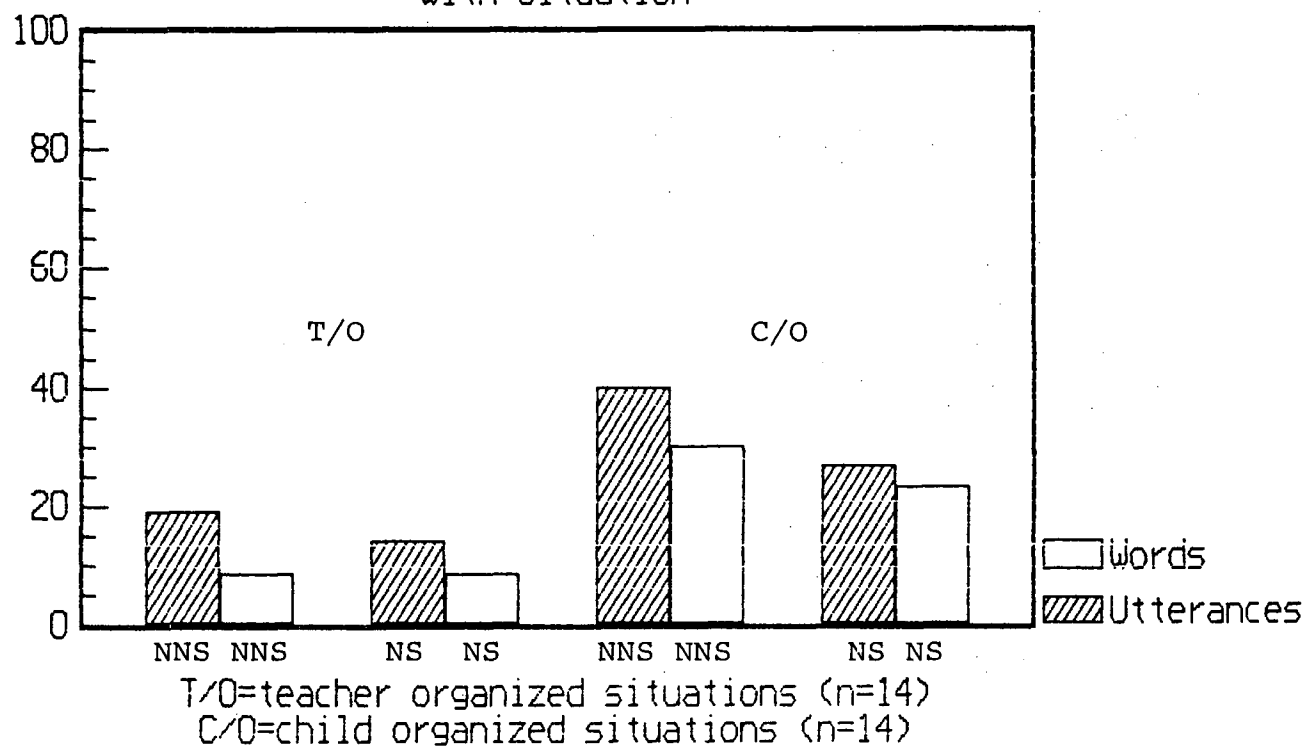
a) NS, NNS Children's Output or Verbal Participation

Output or verbal participation for the NS, NNS children is discussed relative to the results presented in figure five and in table six. Figure five shows the relative percentages (of grand total) of verbal participation in terms of utterances and words for each group (NS, NNS) in each of the two situations (teacher organized, child organized). Table six shows the relative frequencies of utterances and words for the NS, NNS children's verbal participation (output) in each of the two situations, teacher and child organized.

The results show that the relative percentage of utterances and words for the children, both native and non-native speakers of English, was much greater in child organized situations than it was in teacher organized situations (see, figure five).

Verbal participation or output varies significantly with situation (see, table six): 1) the frequency of occurrence of utterances was greater in child organized situations than in teacher organized situations, $F = 4.62$, $p < .03$, and 2) the frequency of occurrence of words was

Figure 5
 Profile of NS, NNS Children's Output:
 Percentage of Participation
 With Situation



NS = native English speakers
 NNS = non-native English speakers

*Proportion of words to utterances:

T/O	NS = 3.7
	NNS = 2.5
C/O	NS = 3.8
	NNS = 3.2

Table VI
Profile of NS, NNS Children's Output:
A Comparison* of Frequencies of Utterances and Words with
Situation

Variables:		SS	df	ms	F	significance of F
Verbal Participation	Sources of Variation					
<hr/>						
1.						
Utterances	situation					
	(T/O, C/O)	1357.85	1	1357.85	23.75	.001
	group (NS, NNS)	0.02	1	0.02	0.00	ns
	sex	277.89	1	277.89	4.86	.03
	covariates above with age	263.99	1	263.99	4.62	.03
	(situation x group)	86.94	1	86.94	1.52	ns
	(situation x sex)	60.37	1	60.37	1.06	ns
	(group x sex)	97.85	1	97.85	1.71	ns
	(situation x group x sex)	235.47	1	235.47	4.12	.04
<hr/>						
2.						
Words	situation	20569.64	1	20569.64	27.91	.001
	group	1379.02	1	1379.02	1.87	ns
	sex	4514.02	1	4514.02	6.12	.01
	covariates above with age	6809.37	1	6809.37	9.24	.01
	(situation x group)	1355.79	1	1355.79	1.84	ns
	(situation x sex)	2126.93	1	2126.93	2.89	ns
	(group x sex)	1591.76	1	1591.76	2.16	ns
	(situation x group x sex)	2537.04	1	2537.04	3.44	ns

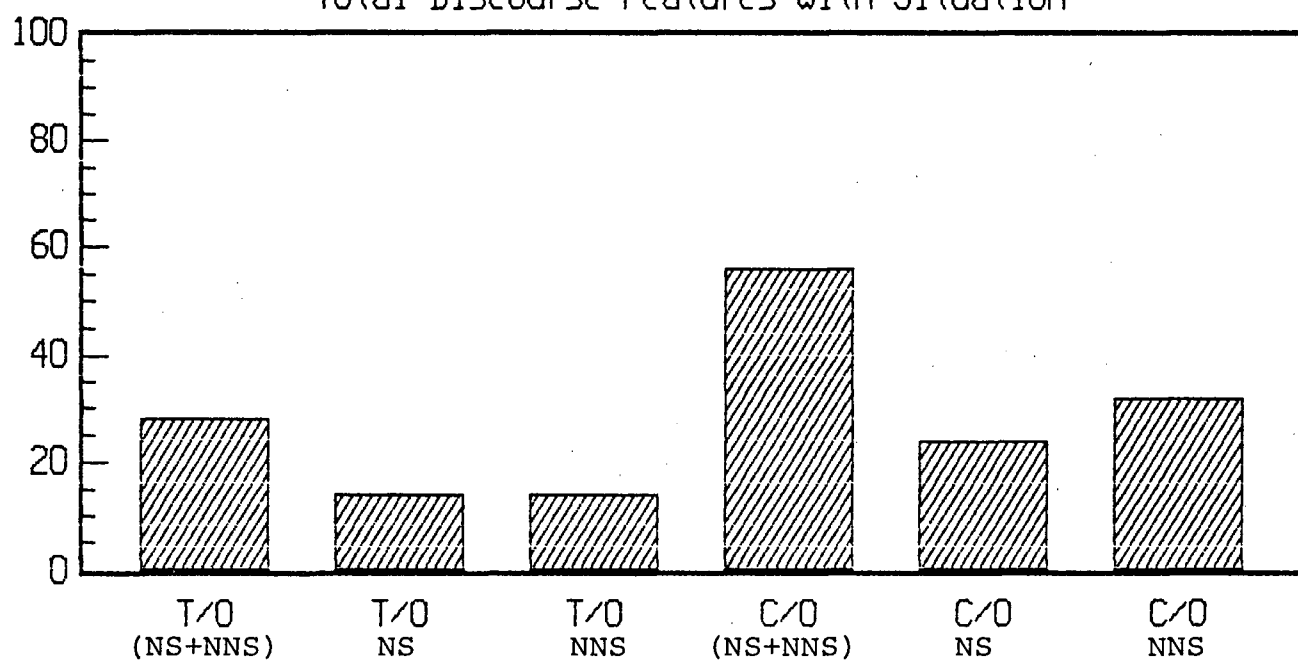
*Two way ANOVA

greater in child organized situations than in teacher organized situations, $F = 9.24$, $p < .003$. This increase in child organized situations was not significantly greater for either the NS or the NNS children, however, age and sex both emerged as significant factors. Both the frequency of occurrence of utterances ($F = 4.62$, $p < .03$) and of words ($F = 9.24$, $p < .003$) increased with age. In general, boys used significantly more utterances ($F = 4.86$, $p < .03$) and more words ($F = 6.12$, $p < .01$) than girls. In addition, English speaking boys used significantly more utterances than English speaking girls in child organized situations, $F = 4.12$, $p < .04$.

b) NS, NNS Children's Input and Interaction: Discourse Features

Results of the analysis of the discourse features used during NS, NNS children's interactions in teacher and in child organized situations are presented in figure six and in table seven and eight. Figure six shows the percentage use (of grand total) of discourse items (one through twelve) in each of the two situations, teacher and child organized by the NS and NNS children. Table seven gives a summary of the results of the two way ANOVA concerning the relative frequencies of the total discourse items and of each of the twelve items as used by the NS and NNS children in the two situations. Table eight shows the rank order of the grand means for each of the twelve discourse features used by these children.

Figure 6
 Profile of NS, NNS Children's Input &
 Interaction: Relative Percentages of
 Total Discourse Features with Situation



T/O = teacher organized situations
 C/O = child organized situations

NS = native English speakers
 NNS = non-native English speakers

Table VII
Profile of NS, NNS Children's Input and Interaction:
A Comparison* of Frequencies of Twelve Discourse Features
with Situation

Variables:							
12 Discourse Sources							Significance
Features	of variation	SS	df	MS	F		of F
<hr/>							
Total Features							
(1 through 12 below)							
1.	clarification situation (T/O, checks C/O)	196.72	1	196.72	16.91		.001
2.	comprehension checks group (NS, NNS)	12.42	1	12.42	1.07		ns
3.	confirmation sex	35.14	1	35.14	3.02		ns
4.	self-repetitions covariates above with age	39.76	1	39.76	3.42		ns
5.	other repetitions (situation x group)	9.56	1	9.56	0.82		ns
6.	corrections						
7.	"you" in directives (situation x sex)	0.02	1	0.02	.002		ns
8.	inclusive "we"						
9.	need statements (group x sex)	38.65	1	38.65	3.32		ns
10.	"or choice" questions						
11.	"wh" questions (situation x group x sex)	53.65	1	53.65	4.61		.03
12.	"yes/no" questions						
<hr/>							
Summary of significant items							
1 to 12 above							
1.	see above situation	1.75	1	1.75	13.55		.001
2.	(situation x group)	0.04	1	0.04	4.36		.04
3.	situation	7.51	1	7.51	13.50		.001
4.	situation	7.24	1	7.24	4.69		.03
7.	situation	5.90	1	5.90	15.42		.001
8.	(situation x group x sex)	0.28	1	0.28	4.50		.04
11.	situation	6.26	1	6.26	12.01		.001
12.	group	10.48	1	10.48	11.97		.001
	(situation x group x sex with age)	8.38	1	8.38	9.58		.002
<hr/>							

*Two way ANOVA

Table VIII
(NS + NNS) Children's Overall Use of Discourse Features by
Rank Across Situation

Ranks	Features	Grand Means \bar{X}
high		
1	Self-repetitions	.81
2	"yes/no" questions	.37
3	confirmation checks	.30
4	"wh" questions	.30
5	"you" in directives	.18
6	other repetitions	.12
7	need statements	.11
8	clarification checks	.10
9	inclusive "we"	.05
10	corrections	.03
11	comprehension checks	.01
12	"or choice" questions	.00

*Means reported are those adjusted for two-way ANOVA

The results presented in figure six show that the children's percentage use of discourse features increases substantially in child organized situations over teacher organized situations - for both the NS and NNS children.

Table seven gives the level of significance for discourse features one through twelve as used during the NS, NNS children's interactions. Table seven also shows the level of significance for the overall use of discourse features by the children, NS and NNS.

The results show that the main effect was indeed situation, $F = 16.91$, $p < .001$, the use of the total discourse features by the children was far greater in child organized situations than it was in teacher organized situations. Age and sex were not significant factors in this case, however, further analysis revealed a three way interaction (situation x group (NS, NNS) x sex), $F = 4.61$, $p < .03$, boys used more discourse items in teacher organized situations and girls used more in child organized situations.

As far as the individual discourse features (one through twelve) were concerned, only one specific item emerged as significant with the covariates and age (see, table seven) - "yes/no" questions, $F = 9.58$, $p < .002$. Further analysis of this finding revealed that NSs used significantly more discourse items than NNSs, $F = 5.24$, $p < .002$, and

that age was significant across groups, that is the use of "yes/no" questions increased for both NS and NNS children with age. In addition, the use of "yes/no" questions was most significant for NS boys in child organized situations, $F = 11.97$, $p < .001$.

The use of other discourse features by the children varied in level of significance with the individual items. For instance, clarification checks ($F = 13.56$, $p < .001$), confirmation checks ($F = 13.50$, $p < .001$), and self-repetitions ($F = 4.69$, $p < .03$) proved significant with situation - both NS and NNS children used more of these items in child organized situations over teacher organized situations. Self-repetitions also proved significant for group (NS, NNS), $F = 10.18$, $p < .002$. This is attributed to a greater use of self-repetitions by NNS children in all situations, both teacher and child organized.

The analysis of some discourse features yielded significant two way interactions:

- i) Comprehension checks proved significant for situation (teacher, child organized) x group (NS, NNS), $F = 4.36$, $p < .04$. This was due to the NNS children's use of these items which was significantly greater in child organized situations than it was in teacher organized situations.
- ii) The use of the inclusive "we" revealed a significant result for group x sex, $F = 4.18$, $p < .04$. This was due to a

greater use of this item by NS boys. Further analysis of this item revealed a three way interaction (situation x group x sex) - NS boys used more instances of inclusive "we" in child organized situations, $F = 4.50, p < .04$.

- iii) "You" in directives proved significant for situation x group, $F = 5.31, p < .002$, and for situation by sex, $F = 15.42, p < .001$. NS boys used this item more frequently in child organized situations.
- iv) "Wh" questions yielded significant results for situation x group, $F = 4.13, p < .007$, and for situation x sex, $F = 12.00, p < .001$. Again this was explained by the more frequent use of "wh" questions by NS boys in child organized situations.

The remaining discourse features (not previously discussed as significant) were either not significant and/or used too infrequently by all children in all situations to make their analysis feasible.

c) NS, NNS Children's Input and Interaction: Situational Structure - Exophoric/Anaphoric (Spatial/Temporal)

Reference

The results of the analysis of the reference items for NS and NNS children in teacher organized and in child organized situations are presented in figure seven and in table nine. Figure seven shows the relative percentage (of grand total) of exophoric and anaphoric reference items used by the NS and NNS children in teacher and child organized situations. Table nine shows the relative frequencies of exophoric and anaphoric reference items in teacher and child organized situations as used by the two groups of children, NS and NNS.

The results as presented in figure seven show that all groups of children (NS and NNS) use a greater percentage of exophoric and anaphoric reference items in child organized situations than they do in teacher organized situations. The results presented on table nine substantiate this finding, significantly more items, both exophoric ($F = 15.68, p < .002$) as well as anaphoric ($F = 15.68, p < .001$), were used in child organized situations over teacher organized situations for all groups of children, NS and NNS. In addition, the proportion of exophoric to anaphoric items was significantly greater in child organized situations, $F = 16.56, p < .001$. A group (NS and NNS children) effect also emerged as

Figure 7
Profile of NS, NNS Children's Input &
Interaction: Relative Percentages of
Two Reference Categories with Situation

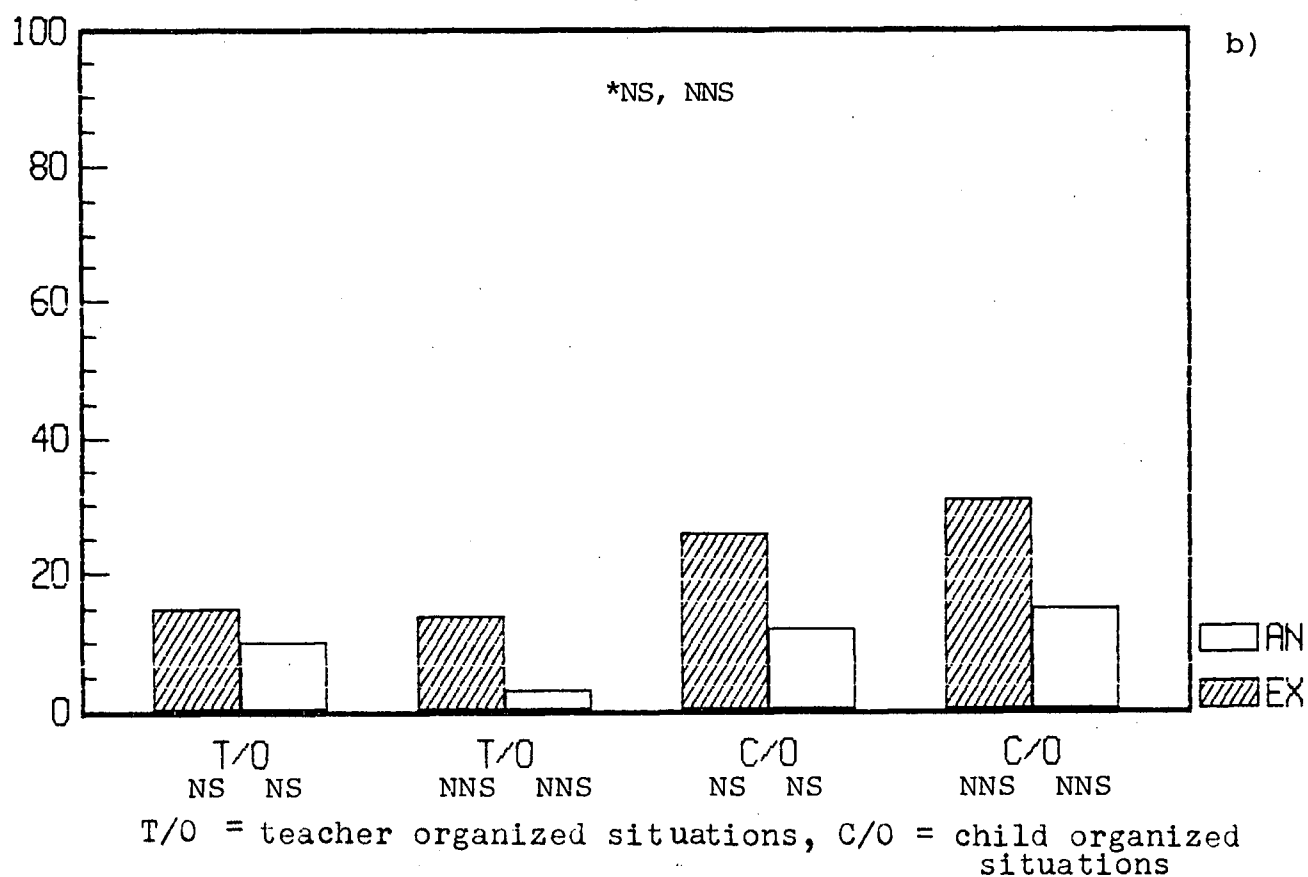
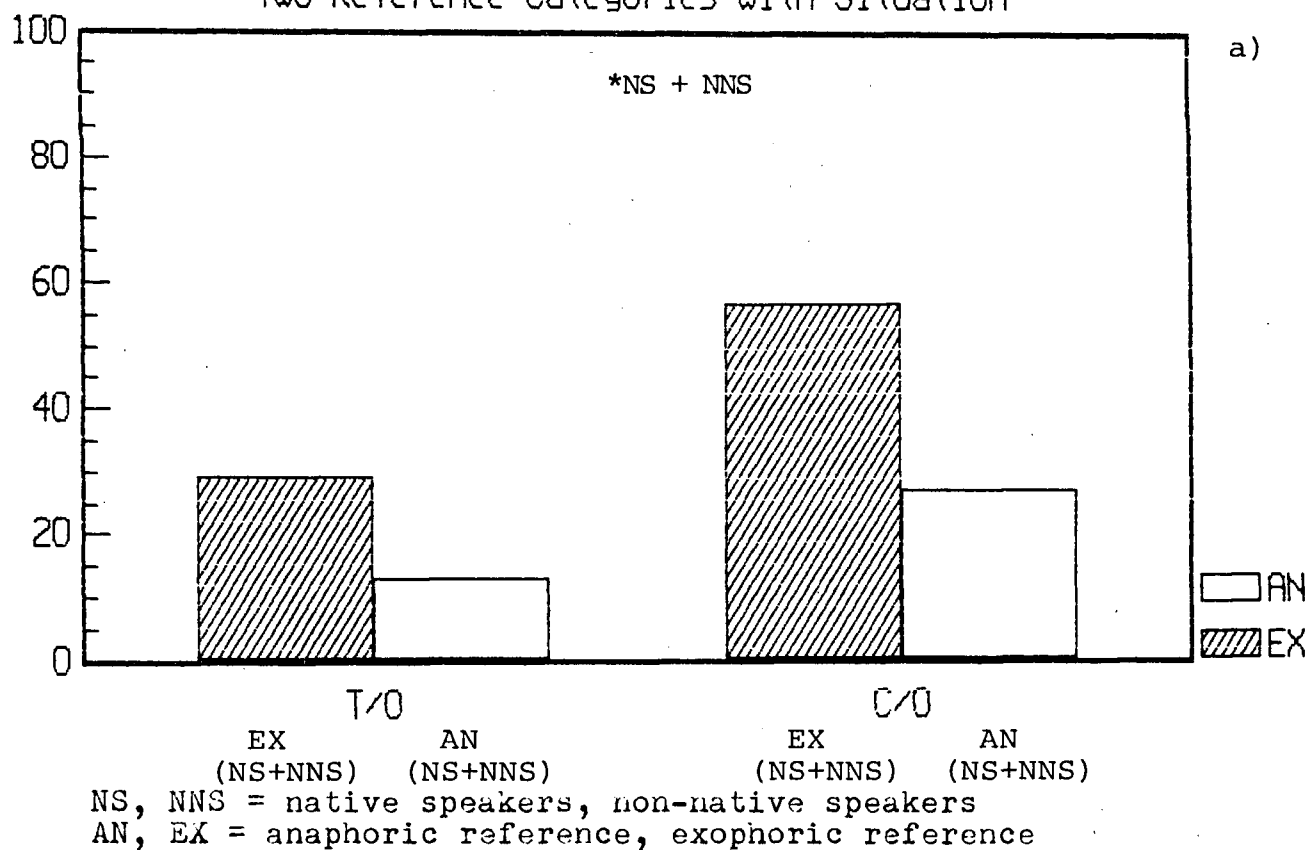


Table IX
Profile of NS, NNS Children's Input and Interaction:
A Comparison of Two Categories of Reference Items (1 to 24)
by Proportion with Situation

Variables:			Significance				
Reference	Sources		SS	df	MS	F	of F
Items	of variation						
(Exophoric to Anaphoric Proportion)							
a)	Total items 1 through 24 below						
1.	13	situation	170.09	1	170.09	16.56	.001
2.	14	group	17.42	1	17.42	1.70	ns
3.	15	sex	16.90	1	16.90	1.65	ns
4.	16	covariates					
5.	17	above with age	58.00	1	58.00	5.65	.02
6.	18	(situation x group)	39.89	1	39.89	3.89	.05
7.	19	(situation x sex)	1.03	1	1.03	0.10	ns
8.	20						
9.	21	(group x sex)	28.58	1	28.58	2.78	ns
10.	22						
11.	23	(situation x					
12.	24	group x sex)	89.15	1	89.15	8.68	.004
Summary of significance of							
above proportion for individual							
items 1 to 24 above							
1	sex		0.34	1	0.34	4.06	.05
3	(group x sex)		0.06	1	0.06	4.29	.04
	(situation x group						
	sex with age)		0.09	1	0.09	6.86	.009
4	group		0.05	1	0.05	4.27	.04
	(situation x sex						
	x group)		0.09	1	0.09	8.06	.005
5	(situation x sex						
	x group with age)		0.11	1	0.11	5.30	.02
6	situation		0.04	1	0.04	6.16	.01
	group		0.04	1	0.04	5.41	.02
	(situation x group)		0.05	1	0.05	7.32	.007
8	(situation x sex)		0.02	1	0.02	3.78	.05
10	(situation x group)		0.01	1	0.01	4.27	.04
17	situation		0.15	1	0.15	8.11	.005
	group		0.08	1	0.08	4.20	.04
19	situation		0.01	1	0.01	5.42	.02
23	situation		0.00	1	0.00	4.31	.04
24	sex		0.11	1	0.11	4.28	.04

significant. For the NNS English children, there was a significant exophoric to anaphoric effect: NNS children's proportion of exophoric to anaphoric reference items was greater in child organized situations over teacher organized situations than was the proportion of exophoric to anaphoric items for NS children, $F = 3.89$, $p < .05$. In addition, a three way interaction (situation x group x sex) proved significant, $F = 8.68$, $p < .004$. Further scrutiny of the data revealed that this could be attributed to the NNS children's interactions: NNS boys had a greater ratio of exophoric to anaphoric reference items in teacher organized situations (more boys scored more items), whereas the NNS girls recorded a greater proportion of exophoric to anaphoric reference items in child organized situations (more girls scored more items). This was not a significant factor for the NS English children, boys and girls scored equally in the two situations.

The significant results for each of the specific reference items, one through twenty-four, are presented below under three headings: exophoric to anaphoric proportion, exophoric (not anaphoric) items and anaphoric (not exophoric) items. Each significant reference item is numbered under these three headings and the results of the analysis are briefly reported. These are:

Exophoric to Anaphoric Proportion

The significance of the relative proportion of exophoric to anaphoric items for each individual item, one through twenty-four, is illustrated in table nine. The results show significance for the following items:

Item 3 - "my"

a) varied significantly with the covariates - situation x group (NS, NNS) x sex, $F = 6.86$, $p < .01$. The frequency of exophoric to anaphoric reference items was greater in child organized than teacher organized situations, NSs used "my" more frequently than NNSs and males relatively more frequently than females. In general, males used more items in teacher organized situations and females in child organized situations.

b) varied significantly with the covariates and age, $F = 6.86$, $p < .01$. The use of both exophoric and anaphoric items increased with age for both males and females, and for NSs and NNSs across both situations - teacher as well as child organized.

c) varied significantly with group (NS, NNS) by sex, $F = 4.29$, $p < .04$. The relative proportion of "my" for NNS males was generally more anaphoric than the frequency for NNS females, and for both NS males and females.

Item 4 - "we"

a) varied significantly with group (NS, NNS), $F = 4.27$, $p < .04$. The proportion of exophoric to anaphoric items was more exophoric for NSs, neither NSs nor NNSs of English used any anaphoric items.

b) varied significantly with situation (teacher, child organized) x group (NS, NNS) x sex, $F = 8.06$, $p < .005$. NS males had a greater proportion of exophoric to anaphoric items in child organized situations than either NNS males or (NS, NNS) females.

Item 5 - "you"

a) varied significantly with the covariates, situation x group x sex, $F = 5.30$, $p < .02$. There were no anaphoric instances of this item. Overall the frequency of exophoric items was greater in child organized situations than in teacher organized situations, greater for males than for females, and greater for NSs than NNSs in all situations.

b) varied significantly with age, $F = 5.30$, $p < .02$. The frequency of this item increases with age for all groups in all situations. In addition, the NNSs who used the item were slightly older than the NSs, and both males and females across groups (NS, NNS) were slightly older in child organized over teacher organized situations.

Item 6 - "your"

a) varied significantly with situation by group, $F = 7.32$, $p < .01$. NNSs used this item more frequently than NSs in child organized situations over teacher organized situations. There were no examples of "your" in teacher organized situations by NS or NNS children, and no anaphoric examples in either situation.

Item 10 - "she"

a) varied significantly with situation by group, $F = 4.27$, $p < .04$. This item was used more frequently by NSs in teacher organized situations. There were no anaphoric instances in any situation.

Item 17 - "this"

a) varied significantly with situation, $F = 8.11$, $p < .005$. All examples of this item were exophoric. The use of exophoric examples was far greater in child organized situations than it was in teacher organized situations.

b) varied significantly with group, $F = 4.20$, $p < .04$. NS and NNS children used this item equally in teacher organized situations (not at all), and there were far more examples of use in child organized situations. In addition, the use of the item by NNS children in child organized situations was greater than the use by NS children in child organized situations.

Item 23 - "then"

a) varied significantly with situation, $F = 4.31$, $p < .04$. There were more instances of exophoric reference items in child organized situations than there were in teacher organized situations. None of the examples that were recorded for reference item "then" were anaphoric examples.

Item 24 - "the"

a) varied significantly with sex, $F = 4.28$, $p < .04$. This reference item was used most frequently by males across all situations and groups - the item was used more frequently in exophoric reference in child organized situations and in anaphoric reference in teacher organized situations.

The remaining items, not listed above as significant in the proportion of exophoric to anaphoric reference items, are shown on table nine. These items were either used equally in teacher and child organized situations and/or were rarely used in either situation. In some cases, a much larger sample may yield a significant result.

Exophoric Items

Table ten shows the relative proportion of exophoric items (not anaphoric frequencies) for the NS, NNS children's interactions in each of the two situations, teacher and child organized. The significant exophoric reference items are:

Item 1 - "I"

a) varied significantly with sex, $F = 4.06$, $p < .05$. Exophoric "I" was used most frequently by males rather than females in all situations, teacher and child organized and across all groups, NS and NNS.

Item 3 "my"

a) varied significantly with situation x group x sex, and with the foregoing covariates and age, $F = 7.31$, $p < .01$. There were more exophoric instances of "my" in child organized situations, and more frequent use of this pronominal was recorded for the NNS children and not the NS children. The use of "my" by NNS children was more frequently female usage and this frequency of occurrence increased with age.

Item 4 - "we"

a) varied significantly with situation x group x sex, $F = 6.05$, $p < .02$. Exophoric "we" was most frequently used by NS males in child organized situations.

Table X
Profile of NS, NNS Children's Input and Interaction:
Relative Frequencies of Exophoric Items with Situation

Variables:						
Exophoric Items	Sources of variation	SS	df	MS	F	Significance of F
a) Total items 1 through 24 below (See Table IX)						
	situation	2.95	1	2.95	15.68	.001
	group	0.01	1	0.01	0.01	ns
	sex	0.08	1	0.08	0.43	ns
	covariates with age	0.59	1	0.59	3.13	ns
	(situation x group)	0.00	1	0.00	0.01	ns
	(situation x sex)	0.53	1	0.53	2.80	ns
	(group x sex)	0.04	1	0.04	0.23	ns
	(situation x group x sex)	0.24	1	0.24	1.30	ns
b) Summary of significance of exophoric items 1 to 24						
1	sex	0.34	1	0.34	4.06	.05
3	(group x sex)	0.05	1	0.05	3.82	.05
	(situation x group x sex with age)	0.09	1	0.09	7.31	.01
4	sex	0.05	1	0.05	5.28	.02
	(situation x group x sex)	0.06	1	0.06	6.05	.02
5	(situation x group x sex with age)	0.11	1	0.11	5.39	.02
6	situation	0.05	1	0.05	7.98	.005
	group	0.05	1	0.05	7.67	.006
	(situation x group)	0.04	1	0.04	6.91	.009
11	group	0.001	1	0.001	3.79	.05
17	situation	0.16	1	0.16	8.46	.004
	group	0.07	1	0.07	3.94	.05
19	situation	0.01	1	0.01	5.42	.02
22	situation	0.07	1	0.07	9.07	.003
23	situation	0.00	1	0.00	4.31	.04

Item 5 - "you"

a) varied significantly with situation x group x sex and with the foregoing covariates and age, $F = 5.39$, $p < .02$. There were more exophoric instances of "you" in child organized situations, and this use was more frequently made by NS male children. Use of this item also increased for all children, NSs and NNSs, with age.

Item 6 - "your"

a) varied significantly with situation x group, $F = 6.91$, $p < .01$. All examples of this item were used exophorically in child organized situations. And, NS children used this item more frequently than NNS children.

Item 11 - "her"

a) varied significantly with group (NS, NNS), $F = 3.79$, $p < .05$. NS children used more exophoric instances of "her" in all situations.

Item 17 - "this"

a) varied significantly with situation, $F = 8.46$, $p < .004$. "This" was used only exophorically by the children, and more frequently in child organized situations.

b) varied significantly with group, $F = 3.94$, $p < .05$. Although NS and NNS children used "this" equally in teacher organized situations, the use of "this" was far greater for NNS children over NS children in child organized situations.

Item 19 - "now"

a) varied significantly with situation, $F = 5.42$, $p < .02$. Most instances of "now" occurred in child organized situations for all children. In addition, "now" was used substantially more by NNS children but not enough to prove significant (a larger sample may yield a significant finding here).

Item 22 - "that"

a) varied significantly with situation, $F = 9.07$, $p < .003$. There were far more instances of exophoric "that" in child over teacher organized situations.

Other reference items, not reported as significantly exophoric for some specific factor among the foregoing items, were either mainly anaphoric, and/or were too infrequent to yield significant findings, and/or were used similarly for the factors under study in this report, see table ten.

Anaphoric Items

Table eleven shows the relative proportion of anaphoric (not exophoric frequencies) items for the children's interactions in each of the two situations, teacher and child organized, for NS and NNS children's interactions. The significant items are:

Item 10 - "she"

a) varied significantly with situation x group, $F = 3.94$, $p < .05$. Most anaphoric instances of "she" were found in teacher organized situations rather than in child organized situations, and were used by NS children and not by NNS children.

Item 12 - "it"

a) varied significantly with situation, $F = 10.62$, $p < .001$. Although the overall frequency of occurrence of the pronominal "it" was similar in both teacher and child organized situations for both NS and for NNS children, there were more anaphoric instances of the reference item in teacher organized rather than child organized situations.

All other reference items, not discussed above were either mainly exophoric, and/or too infrequent to yield significant findings, and/or used equally across the various factors under study here.

Table XI
Profile of NS, NNS Children's Input and Interaction:
Relative Frequencies of Anaphoric Items with Situation

Variables:						
Anaphoric Items	Sources of variation	SS	df	MS	F	Significance of F
a) Total items 1 through 24 below (See Table IX)						
	situation	1.19	1	1.19	15.68	.001
	group	0.04	1	0.04	0.53	ns
	sex	0.04	1	0.04	0.51	ns
	covariates with age	0.00	1	0.00	0.002	ns
	(situation x group)	0.02	1	0.02	0.20	ns
	(situation x sex)	0.01	1	0.01	0.05	ns
	(group x sex)	0.02	1	0.02	0.26	ns
	(situation x group x sex)	0.09	1	0.09	1.17	ns
b) Summary of significance of anaphoric items 1 to 24						
4	situation	0.003	1	0.003	4.06	.05
	(situation x group)	0.003	1	0.003	3.82	.05
10	(situation x group)	0.006	1	0.006	3.94	.05
12	situation	0.27	1	0.27	10.62	.001

3.3 Discussion

The results presented in the preceding tables and figures offer some preliminary answers to the research questions. These results are discussed in this section in terms of these research questions, for both experiments, I and II.

A. Output or Verbal Participation

Experiment I sought an answer to the question: To what extent, if any, does NS teacher output or verbal participation vary with the situational structure (teacher, organized, child organized) of interactions? The data from this study shows that NS teacher output/verbal participation in this classroom with this teacher is influenced by the situational structure of interactions, verbal participation (utterances, words) varies with situation.

In terms of utterances, or the total turns per speaker, this teacher dominated the talk in teacher organized situations, yet spoke far less when spontaneously interacting in situations organized by the NS/NNS children. In terms of the number of words used by the teacher, she used far more words in teacher organized situations than she did in child organized situations; however, the proportionate use of words to utterances did not vary significantly whether this teacher was interacting in situations she organized, or in situations the children themselves organized.

The results indicate a quantitative difference in the verbal participation of this teacher that is consistent with generally held notions about teachers: teachers talk too much in teacher organized situations, dominating the conversation rather than getting the children to talk. The latter, encouraging the children to talk, is particularly important for children learning a second language, and/or for building skills in using a first language.

The difference in the verbal participation of the teacher in the two situations (teacher organized, child organized) suggests that grouping may be an important factor to consider. This teacher generally organized and taught in large groups (whole class), while the children organized their groups spontaneously, hence groups were smaller. Also, the teacher as well as the NS/NNS children entered and left child organized groups at will. It was probably more difficult for the teacher to dominate the conversation in the child organized situations.

In addition to the quantitative differences found in the verbal participation of this teacher in the two situations (teacher organized, child organized), there is also a qualitative difference indicated by the results. The fact that the proportion of words to utterances did not vary significantly for this teacher in teacher organized and in child organized situations suggests that: 1) either

this teacher was not adjusting the utterance length to accommodate interactions with NS/NNS children in different situations, and/or 2) teacher talk during informal interaction is associated with longer utterances.

Though these suggestions are tentative, further research on the number and length of utterances in different situations may prove valuable. For instance, if the former is true, in this study this teacher was not adjusting the length of her utterances to accommodate interactions with NS/NS children in different situations, then teacher training may need improving (i.e., Do teachers accommodate L2 learners by adjusting the length of their utterances as L1 mothers do to accommodate children learning their native languages?) In fact, this teacher had some, but limited L2 training. In the case of the latter possibility, if teacher talk is associated with longer utterances during informal interaction, then there may be a need to alter teaching methodology to give teachers the skills needed to stimulate informal, small group interaction - again, teacher training may be influenced by research of this sort (i.e., Is the quality of teacher conversation better in informal interactions with children than in formally organized teaching sessions?). In fact, this teacher did appear to have better quality conversations during interactions in the NS/NNS child organized situations than in

teacher organized situations. It may have been more natural for the teacher to speak in spontaneous situations organized by the children themselves, hence teacher utterances were longer in these situations.

Experiment II sought an answer to the same question, but here the emphasis was on NS, NNS child interaction: To what extent, if any, does NS, NNS children's output/verbal participation vary with the situational structure (teacher organized, child organized) of interactions?

The data from this study suggests that NS, NNS children's output does vary with the situational structure of interactions. The NS, NNS children were far more verbal, both in the quantity of utterances used and in the proportion of words to utterances in the child organized situations, than they were in teacher organized situations. Whereas in the preceding discussion of experiment I, the teacher dominated the conversation in teacher organized situations, the children dominated the conversation in child organized situations. The NS, NNS children not only used more utterances in child organized situations, they also used utterances that were much longer while spontaneously interacting in situations they themselves created and organized.

Although the participation of both NS and NNS children increased substantially in child organized situations, a significant relationship between the verbal participation of

NS versus NNS children did not emerge: the proportion of NS utterances and NNS utterances, and the proportion of words to utterances for both NS and NNS children was not significantly different in teacher organized versus child organized situations. At first glance, this may appear surprising (i.e., the NS children should talk more), however, in this classroom the children appeared fairly well balanced in terms of language ability. The English L1 learners appeared to range greatly in proficiency as did the English L2 children. It must be remembered with children of this age that L1 learners are also learning language and may range greatly in proficiency in the early years.

The data was analyzed for age differences and for sex differences in both teacher and in child organized situations. Age proved significant in both utterances and words used by the children. It appeared that the quantity of utterances as well as the proportion of words to utterances increased with age for both NS and for NNS children. This suggests that development and/or practice may be important - although NNS children may be beginners at any age and NS children may vary greatly in their linguistic abilities, all children become better conversationalists with age.

Sex differences were also found for both utterances and for the proportion of words to utterances. In general, NS and NNS males in this classroom were more verbal than NS/NNS girls.

In the case of utterances, sex was significant as a main effect, indicating males were more verbal than females. In addition, there was a three way interaction among situation (teacher organized, child organized), group (NS, NNS) and sex, indicating further that in this classroom the English speaking (L1) males were more verbal than the English speaking females in child organized situations. These sex differences may be due to personality and/or motivational factors, and may prove a useful pursuit for further research (i.e., Are males more active language users than females are?). In this situation, it appeared that the male children, both NS and NNS males, were more gregarious and outgoing than the female children. This may be an indication of social and cultural values (parental): Are males expected to be more outgoing than girls?

In terms of the proportion of words to utterances, sex was also a main effect due to the increased participation of the boys. Here, however, there was no significant two or three way interaction. This suggests that in this classroom the proportion of words to utterances (utterance length) was greater for males in all situations (teacher organized, child organized) for both groups (NS, NNS) than for females - NS males did not dominate discussion in any situation with NS females as in the case of utterances mentioned above. Again, this may with additional research prove to be a cultural (i.e., Are males reared differently from females across cultures?)

and/or a social (i.e. sexism - are girls generally expected to be more shy and quiet?) factor. Additional research on sex differences within and across cultures is recommended in terms of the children's verbal participation or output in various situations.

In summary, verbal participation or output varies with situation and it appears to be the structure of the situation that is related to output. This teacher was more verbal in situations she organized and led than she was when spontaneously interacting with the children in situations that they organized and led. The children on the other hand were more verbally active in child organized situations than they were in teacher organized situations. This was true for both native and non-native speakers of English. It appears that the structure of child organized situations fostered the verbal participation of the child learners while the structure of teacher organized situations inhibited the childrens' verbal participation, for both first and second language learners. The results indicate that greater attention should be given to situational structure in examining classroom interactions. For example, in Saville-Troike's (1984:217) study the children who were unsuccessful academically were those most successful at interpersonal communication. In this study all children were more successful at interpersonal communication in child organized situations.

B. Input and Interaction: Discourse Features

The results of the data analysis for experiment I, teacher input and interaction: discourse features, give some preliminary answers to the second research question concerning the teacher: To what extent, if any, does the NS teacher's use of discourse features vary with the situation?

This teacher's use of discourse features in this classroom does in fact vary with situation: the overall use of features (total items) was far greater in teacher organized situations than in child organized situations. The frequency of occurrence for discourse items may increase with verbal participation - this teacher was also far more verbal in teacher organized situations than in child organized situations. The fact that this teacher's use of individual discourse items appears to increase with verbal participation suggests that the use of discourse features may be related to the amount of verbal participation. Further research might address the question: To what extent does the teachers' use of discourse features increase with teachers' verbal participation?

In addition, it might be that the increased frequency of occurrence for some items may indicate that they are more important in some situations/activities than in others. For instance, in this classroom the teacher's overall use (percentage of grand total) of items was greater in teacher organized situations. This suggests that: 1) this teacher may

use more items in "teaching" situations than she uses in non-teaching situations, and/or 2) informal interaction such as this teacher's interaction in child organized situations is associated with the use of fewer items. Future studies might specifically deal with these issues.

Although the teacher's use of items was greater in teacher organized situations, the proportionate use of specific features did not vary with situation. This teacher used specific discourse features as frequently in teacher and in child organized situations (see, figure three, tables three and four). This is somewhat substantiated by the fact that the rank order for the use of specific discourse features is similar in each of the two situations, teacher and child organized (see, table three). This suggests that for this teacher the same discourse features were important no matter what the situation she was interacting in, teacher or child organized. There are two possible explanations for this behaviour: 1) these discourse features are characteristic of adult speech in general, and/or 2) these discourse features are generally characteristic of teachers' speech. Additional research in other classrooms will help to clarify this teacher's behaviour.

Observations in this classroom suggest that the latter may be a possibility. For example, the ranked means for the various features (see, table three) lists features "yes/no" questions and "wh" questions as most important to this

teacher in both situations, teacher and child organized. Long (1981), Brulhart (1985), Peck (1985) and others, list "yes/no" and "wh" questions as means of seeking prespecified answers and/or as insincere requests for information in light of the fact that the answers are already known to the teacher. This teacher's use of these questions in all situations seemed to do one or more of the following: a) initiate/continue discussion (e.g. "Who's this, do you think?" or "Are there nurses in the hospital?"), b) signal a speaking turn for the NS, NNS children (e.g. "What does your mom do, Gerry?" or "Who do you want to be?"), c) make an insincere request for information (e.g. "Today is Monday. What day is it today?" or "It's clean up time. Are you cleaning up?"), and d) acquire/maintain the children's attention (e.g. What are you doing now? or Are you looking up here, Stefanie?). In this classroom the teacher's use of "yes/no" and "wh" questions appears to be a teaching technique, these discourse features seemed to be characteristic of this teacher's speech (though the usefulness of these features for teaching is questionable, see, Long 1981).

Also, as noted previously in the discussion of verbal participation, this teacher does not appear to adjust the length of utterances to accommodate the situation. In like manner, this teacher appears to use the same discourse features in all situations, indicating that adjustments to accommodate the situation are probably not being made.

Both these findings may indicate insufficient teacher training and/or experience in the classroom with L2 learners. The increased (proportionately) use of "other repetitions" (see, table four, p. 62) in teacher organized situations somewhat substantiates this - this teacher often repeated what the NS/NNS children said, not as a means of reinforcing the word in English to facilitate the children's understanding, rather to help clarify the teacher's own understanding of what it was that the children said. Perhaps teachers need to be made more aware of what it is that they are doing in planning and implementing classroom activities.

The data for experiment II was analyzed in answer to the same research question for the NS, NNS children: To what extent, if any, does NS, NNS children's use of discourse features vary with the situation (teacher, child organized)? The results of the data analysis offer some preliminary responses to this question.

The children's overall use of discourse features was significantly greater for both NS English and NNS children in child organized situations than in teacher organized situations. This indicates that the use of discourse features by all children (NS, NNS) does indeed vary with situation, one or more items may be of greater/lesser importance in some situations and not in others. The more frequent use of discourse features in child organized situations over teacher organized situations may be a result of the increased verbal

participation of both NS and NNS English children in child organized situations - there may have been more opportunities for the children to produce these items. Or, the actual interaction situation, the spontaneity and informality in child organized situations may prove more conducive to the use of these features than formally organized "teaching" situations. Though these findings are tentative, this writer suspects it is a combination of both of the foregoing: a) the use of a greater frequency of discourse items will appear in child organized situations because the children feel more comfortable speaking in their peer group, and because they have more frequent opportunities to learn about conversations than they do in teacher organized situations where teachers tend to dominate the conversation, and b) it is the spontaneity of child organized situations and the flexibility of the grouping (children move in and out of groups at will) that lend themselves to the children's increased use of interactional features.

Age and sex did not prove significant factors in the children's overall use of discourse features; however, further scrutiny of the data revealed a three way interaction amongst situation, sex and group. In general, males produced more discourse features than females in teacher organized situations while females produced significantly more features in child organized situations. This may be

attributed to personality factors (e.g. Are boys more aggressive and/or gregarious than girls, therefore, more comfortable in formally organized teaching situations than girls?), motivation (e.g. Are boys more motivated to learn than girls?), and/or sex differences (e.g. Are girls socially and/or culturally encouraged to speak forcefully in formal groups?). Although no firm conclusions are offered here because this was not the focus of this study, additional research on sex differences across cultures may yield significant findings for L2 researchers.

As far as the individual discourse features (one through twelve, see measures, chapter two) were concerned a few emerged as significant and varied in their use by NS and NNS children in the two situations.

Clarification checks, confirmation checks, self-repetitions, "you" in directives and "wh" questions were more prevalent in child organized situations than they were in teacher organized situations. This is probably due to the increased participation verbally of the children in child organized situations.

Self-repetitions were by far the most frequently used discourse feature for NS and NNS children's interactions in all situations, teacher and/or child organized. In addition, NNS children used twice as many self-repetitions as NS children did, therefore, group proved significant. The

great use of self-repetitions by all children is probably related to a practice (including play with language) effect which would prove most important to NNS children learning a second language but nonetheless important to first language learners because they are still learning and developing their knowledge and understanding of their native language. It is apparent from this result that oral opportunities for using language are important as indicated by the children themselves, both NS and NNS of English.

The use of comprehension checks which proved most important for NNS children interacting in child organized situations are probably also related to L2 learning: NNS children were informally checking their own comprehension of the L2 while interacting with their age peers.

As noted previously in the results, only one feature was related to age, "yes/no" questions. NS children generally used more "yes/no" questions than NNS children. At first glance this appears to be a NS adjustment while interacting with NNS children (e.g. it is easier to ask questions that require one word answers), however, the frequency of use of "yes/no" questions by both NS and NNS children increases with age. This indicates that these questions may be more important to older children, perhaps because of increased practice at socializing (e.g. taking into consideration another's feelings, wishes) and/or because these questions are used

frequently by the teacher, therefore learned by the children. The latter possibility may be substantiated by the increased use of "yes/no" questions with age - older learners are more concerned with adult behaviours and adopt the rules and behaviours important to the adults with whom they interact (see, Garvey, 1977).

The increased use of "you" in directives in child organized situations by both NS and NNS children suggests that the children find it easier to use this feature during spontaneous interactions, perhaps due to the greater amount of action that is associated with children's activity but not necessarily with the teacher's activities. It is probably much easier to direct your age peers if there is continuous action taking place to facilitate this direction.

The increased use of "confirmation checks" in child organized situations suggests that the children may be checking one another's responses to confirm that they are both heard and understood. This may or may not be related to the language differences in this classroom, NS versus NNS, and/or it may be an adjustment characteristic of children's speech in general (see, Clark, 1977). Additional research will clarify this finding.

In sum, the use of discourse features, frequently used as an assessment of input and interaction, is influenced by the situations taking place during this interaction. Before

the results of studies of discourse features can come to any firm conclusions, they must compare/contrast the use of these features across many different situations with different groups.

For instance, Long (1981:150) found questions were more widely used in FTD than in NS-NS interaction. In this study, questions were: 1) more widely used by the teacher than the children, 2) more widely used by NNS children in the child organized situations than in teacher organized situations, 3) used with some frequency by the NS children in both teacher and in child organized situations, and 4) used slightly more by all children in child organized situations. Self-repetitions were more important to and more widely used by the NNS children than were questions, on the other hand, questions were far more widely used by the teacher than were repetitions, and, the NS children used more questions than repetitions in all situations.

Like Long and Sato (1983:208) who found out that questions differed in function in and out of the classroom, questions seemed to serve different functions within this classroom. The teacher's questions were aimed at having learners give prespecified answers - bits of information (e.g. What colour is this?, What's the weather like today?) while the learners (NS and NNS) used questions to understand each others' actions (e.g. Why are you doing that?, What are we gonna do with it?).

Like Peck (1985,) in this study questions and repetitions are the two most widely used features, in this case by all groups, teacher, NS, NNS children. This is consistent with L1 studies that suggest that an early developmental trend is for child learners to practice and repair their own speech while learning language (see, Clark, 1978). Self-repetitions likely functioned for practice for the children in this study; however, the teacher used self-repetitions in a different way. Self-repetitions were often used as a result of a child's non-response to the teacher's questions (e.g. What's today? What's today?, Look outside. Look outside.).

In addition to the foregoing differences with situation, some items analyzed as discourse features may : 1) not be worth studying because they are not important in any situation, 2) important only at certain times in development, and/or 3) not useful for teaching, therefore, questionable sources of research study. For instance, in this study corrections were not widely used in any situation and were not important in any group. Some support for the lack of significance of corrections in other situations is found in Peck's work (1985) - corrections ranked near the bottom of the thirteen features that she studied. The use of "yes/no" questions may indicate a developmental trend in that they increased in use with age for all children. And, the use of discourse features by children because they hear their teacher

using them, although consistent with other work (see, Gaies, 1983:207/208) and/or the use of specific features that require the learner to give prespecified answers to questions are poor teaching techniques, particularly in L2 classroom situations where it is important that children talk as they are learning and developing skills in conversing in the new language.

Finally, this study indicates that greater attention must be given to the situational structure of interactions in considering the use of discourse features by various participants in these interactions. The great variation in the use of specific discourse features within and across studies depending upon the specific interactants and situations involved suggests that: 1) perhaps larger samples are required to determine to what extent any of these features is really important, 2) perhaps more extensive studies comparing and contrasting numerous different interactants' use of discourse features in a variety of situations are needed to clarify existing research, and 3) perhaps it is time to pay attention to other aspects of interactions in examining the input available to L2 learners. In this study the structure of teacher and child organized situations influenced not only the production of various discourse forms and their functions by all interactants (teacher, NS, NNS children) but also the input available for comprehension and the nature of the interactions through which L2 learning occurred.

C. Input and Interaction: Situational Structure -
Exophoric/Anaphoric (Spatial/Temporal) Reference

The data in this study helped arrive at some preliminary answers to the following research questions concerning exophoric/anaphoric (spatial/temporal) reference.

Experiment I sought an answer to the question: To what extent, if any, does the teacher's exophoric/anaphoric (spatial/temporal) reference vary with the situational structure (teacher organized, child organized) of interactions?

The data from this study shows that exophoric/anaphoric (spatial/temporal) reference is indeed influenced by situation for this teacher in this classroom. Much of the teacher's input during interaction with the children in teacher organized situations was anaphoric - removed from the children's immediate experience in space and time. Though this teacher used more exophoric items overall, the relative frequency of anaphoric items was far greater in teacher organized situations. In situations that the children organized themselves, however, this teacher's use of anaphoric items was greatly reduced and the input provided during interaction was more immediate and concrete. In addition, the frequency of occurrence of all items was greater in the teacher organized situations. And, proportionately, the use of exophoric to anaphoric items (ratio) did not vary significantly with the situation.

These findings suggest a number of things. First, there may be a difference, in general, in the situational structure of teacher organized and of child organized activities. This teacher organized activities that were generally more distant from the children in time and space. Although she used some concrete materials during her interactions with the children in situations she organized, this teacher often made reference to things, people and events associated with the materials but removed from the immediate experiences of the children. The input provided for the children by the teacher in these situations was as exophoric as anaphoric. On the other hand, the children themselves organized situations in such a way that the teacher's interactions in these situations was more immediate and concrete - the teacher's input in child organized situations contained a far greater percentage of exophoric items. It appears that the spontaneous nature of children's interactions, the small group interaction, the flexibility of movement of the participants in and out of the groups and the activities, the concreteness of the materials (things and people), the closeness of the language used to interact and the action taking place - and the dynamic nature of the events that occur, demands and encourages the use of more exophoric reference items by the teacher.

Next, the use of both exophoric and anaphoric reference

items seemed to increase with verbal participation. The teacher was more verbal (see figure one, p. 56) in teacher organized situations than she was in child organized situations. Although the increased use of anaphoric items in teacher organized situations may be related to increased verbal participation of the teacher in these situations (e.g. Does anaphoric reference increase proportionately with verbal participation?), additional results suggest that this is not the case.

The relative proportion of exophoric to anaphoric items in teacher and child organized situations does not vary with situation, indicating that although this teacher uses more exophoric items in child organized situations and more anaphoric items in teacher organized situations, and although the teacher is more verbal in teacher organized situations, the proportion of exophoric to anaphoric items does not vary in the two situations. There are two possible explanations for this: 1) the teacher was not adjusting the distance of her speech from the interactants to accommodate interaction with the learner in various situations, and/or 2) "teacher talk" is characteristically the same in all situations. Further research across classrooms may help to clarify this finding. The fact that this teacher did not make adjustments in the length of her utterances to accommodate difference interaction situations suggests that the former is a possibility.

Many preliminary answers to the same research question were arrived at in addressing it to the children's interactions: to what extent, if any, does the NS, NNS children's exophoric/anaphoric (spatial/temporal) reference vary with situation (teacher, child organized)?

NS and NNS English children's exophoric/anaphoric (spatial/temporal) reference does indeed vary with situation in this study, indicating that L2 researchers should consider aspects of the interaction situation as important research factors that play a role in L2 teaching and learning. The relative proportion of exophoric to anaphoric items (pronominals and demonstratives) varies significantly with situation - NS and NNS children produce more items (both exophoric and anaphoric) in child organized situations than in teacher organized situations. This is consistent with the previously mentioned finding on verbal participation - both NS and NNS children were more verbal in child organized situations, there was, therefore, more opportunity to produce items. In addition, the spontaneous and dynamic nature of child organized situations appears to encourage the children's verbal participation and the production of reference items in general.

In general the children's interactions (both NS and NNS) were consistently more exophoric than anaphoric across all situations (teacher, child organized), in all groups (NS,NNS)

for all ages and sexes. Spatial/temporal reference was concrete, the children's input to one another during their interaction(s) in child organized situations was close to the actual interaction situation(s). Like the interactions of NS mothers and their children (see, for example, Cross, 1977), peer group interactions in this classroom between native and non-native English speaking children was dynamic - created, modified, replayed and recreated as the action of the group progressed - and the verbal interaction was language-in-action, language and content were closely tied to the interaction contexts the learner's organized. Neither group (NS, NNS), nor age, nor sex proved a factor for the overall use of the exophoric reference items by the children.

The children also used more anaphoric items in child organized situations than they did in teacher organized situations (however, verbal participation was generally exophoric) probably due to the increased verbal participation of all children in child organized situations. Neither age, nor sex, nor group was a factor in the overall use of the anaphoric reference items by the children.

There were individual variations in the use of some of the reference items for the exophoric to anaphoric ratio, and for both the individual use of exophoric and of anaphoric demonstratives and pronominals. These are briefly discussed in the paragraphs that follow under the headings: exophoric to anaphoric ratio, exophoric items, anaphoric items.

Exophoric to Anaphoric Ratio (Proportion)

Individual variations in the results of the data analysis for the exophoric to anaphoric ratio involved significant findings for the following seven items:

"my, we, you, your, she, this, and the". The results for each item are briefly discussed as follows.

a) "my"

Males used "my" more frequently in teacher organized situations and females in child organized situations. In addition, the ratio was greater for NS children than it was for NNS children and greater for males than for females. The use of "my" also seemed to increase with age for both males and females across all groups (NS, NNS) and situations (teacher, child organized). This result is either due to motivation and personality (e.g. the boys were more motivated to learn and/or more outgoing) and/or due to socio-cultural factors (e.g. the rearing of boys versus girls across cultures). Though no conclusions are offered here concerning these sex differences, additional research is recommended. For example, it may be that girls are encouraged to be shy/quiet, therefore, participate less in teacher organized situations. Boys, however, may be encouraged to be gregarious and outgoing, therefore, find teacher organized situations non-threatening.

There is also some evidence that the use of the pronominal "my" increases with age, perhaps indicating a developmental/growth factor which is likely due to practice in using "my" over time.

b) "we"

The use of "we" was greater overall for NS children than for NNS children. In addition, this use by NSs increased with age. There were no instances of anaphoric items for the children. The results for this pronominal may indicate that "we" is more difficult for NNS children to use, considering the fact that in this study the use of "we" increases for NSs with age. Also, the use of "we" requires experience in socializing which may be more familiar for NS children who are older than for NNS children new to the classroom situation.

c) "you"

Item "you" was used more frequently in child organized situations than in teacher organized situations probably because it is often used in directives and there was more action in child organized situations, therefore, more opportunity to use "you" as a directive. There were no anaphoric instances of "you", but here also NS usage was greater than NNS usage, and the frequency of occurrence of "you" greater for males than for females. However, with "you" the use by all children increased with age. And, in

fact, older NNS children used more items than older NS children. Socio-cultural factors (child rearing practices for boys versus girls) and/or growth in using the item (practice, play with language) may be factors to be considered in this case. Also, the fact that older NNS children used more items than older NS children may indicate a developmental trend, perhaps NSs' skills at socializing facilitated the use of "you" at an earlier point in time than NNS children who are new to the language, the culture and the classroom situation.

d) "your"

"Your" was not used in teacher organized situations - there were probably no opportunities to use it. This is somewhat supported by the data in that the use of "your" by NNS children was greater in child organized situations than in teacher organized situations. This suggests that the children are capable of using "your" given opportunities to do so.

e) "she"

All instances of the pronominal "she" were anaphoric and were used by NS children in teacher organized situations. The use of "she" in this classroom appears to be more related to teaching situations than to non-teaching situations - the children used "she" when the teacher taught lessons using the word "she".

f) "this"

The overall use of "this" was exophoric, there were no anaphoric instances. "This" occurred most frequently in child organized situations for all children, and was used far more often by NNS children than by NS children. This result is probably because child organized situations are concrete, therefore, there are more opportunities to use "this". "This" is also easier for NNS children to comprehend in child organized situations because the things, people and events are immediately taking place or close in time and space.

g) "the"

Use of "the" varied with situation, it was used more exophorically in child organized situations which are generally concrete, and more anaphorically in teacher organized situations which, in this classroom, were more distant from the children in time and space. "The" was also used more frequently by males than by females in all situations and for all groups (NS, NNS). Again, personality, and/or motivation and/or sex differences may be factors here. Further research is needed on sex differences and the children's use of exophoric and anaphoric items in different situations in the classroom.

Additional variations were found in analyzing only the individual exophoric as well as the anaphoric items. A brief discussion of these findings follows.

Exophoric Items

The data for the following exophoric items was significant for a variety of factors: "I, my, we, you, your, her, this, now, and that".

The following items were used most often exophorically and in child organized situations: "we, you, your, this, now and that". These items are all related to nearness in time and space, therefore, more likely to be used in child organized situations which are more concrete, language is used in action and not in a manner distant from the immediate interaction.

NS children used "your" and "her" more often than NNS children because these pronominals are more difficult to use, therefore, easier for NS to grasp than for NNS of English. The NNS children may use these pronominals as frequently as NS in their L1 - there is no way of knowing in this study, however, future L2 studies of young children's interactions might compare and contrast children's use of exophoric and anaphoric items in their L1 with use in the L2.

NNS children used "my", "this" and "now" more often than NS children. This is probably because these pronominals and demonstratives are easier for NNS children to use, they usually indicate immediate interaction, they do not refer to past or future events, or to things that may be unfamiliar to the children because the things are not present - input is directly related to the here and now interaction.

A few sex differences were found with the exophoric items. "I" was used more by males than females in all situations for all groups. And, "we" and "you" were used more by NS males than by NNS males. The use of "I", "we" and "you" seemed to be related to the interactions of males in this classroom. The male children in this classroom seemed generally more outgoing than the female children (though there were also shy male children). The NS males used "we" and "you" to include and direct male NNS interactions with them. Oddly enough "my" was used more frequently by all females in all situations. This may be a developmental factor (e.g. a practice effect - play with language) and/or it may be related to sex differences (e.g. females mature more/less quickly than male children do). "You" was used more frequently by all children with age, indicating perhaps that older children use "you" more often because they are more capable of directing their interactions than are younger children (see, Garvey, 1977). No firm explanations or conclusions can be reached in this study concerning sex differences because these were not the focus of this study.

Anaphoric Items

Two anaphoric items proved significant factors for reasons discussed below: "she" and "it". Both items were more frequently used as anaphoric items in teacher organized situations than they were in child organized situations.

This is not surprising in that both items are used in situations removed from immediate interaction and teacher organized situations proved to be more anaphoric. "She" was also used more by NS children probably because they were more experienced conversationalists in the English language.

In conclusion, the use of various exophoric/anaphoric reference items by the teacher and by NS and NNS children is influenced by the situational structure of interactions. The teacher's conversation was more anaphoric in situations she organized, but more exophoric in situations the children organized. Overall the teacher used more items in teacher organized situations (recall that she also used more discourse features and was more verbal in these situations). The children's interactions were mainly exophoric across all groups (NS/NNS), in all situations (teacher/child organized). And, the children's use of both exophoric and anaphoric items was greater in child organized situations over teacher organized situations (as was the use of discourse features and verbal participation, mentioned previously). Some variations with group, situation, sex and age were found for the use of specific exophoric and anaphoric items.

Finally, the fact that (1) the children's interactions were mainly context dependent, and (2) the teacher's interactions were mainly context reduced but became more context bound in spontaneous interactions in child organized situations, has clear implications for research and for education (discussed in parts 4.1 and 4.2, this report).

3.4 Summary and Conclusions

The present study examined output (verbal participation), and input and interaction (discourse features, situational structure) in different situations in the classroom. In Experiment I, the NS teacher's output, input and interaction was examined in teacher organized and in child organized situations in the classroom. In Experiment II, output, input and interaction were investigated in English NS, NNS children's interactions both in teacher and in child organized situations.

The data on which the study is based consisted of video taped classroom interactions. Measures of verbal participation, discourse features and exophoric/anaphoric reference were used to analyze the data for output, input and interaction in both teacher organized and in child organized classroom situations.

The results of this study revealed that both (NS) teacher and learner (NS, NNS) output or verbal participation may vary with situation. In this classroom the teacher was far more verbal in situations she organized and the children were more verbal in situations they themselves organized. From these results it became apparent that it was necessary for L2 researchers to relate output to input in various situations. Just as the teacher was more verbal in teacher

organized situations, she also used more discourse items and more reference items in these situations than she did while spontaneously interacting in situations that the children themselves organized. The children on the other hand used more discourse items and more reference items in child organized situations when they were more verbal. To examine output, input and interaction individually without considering their interaction in the various situations that arise in classrooms could yield misleading results. For instance, to examine the non-native English speaking children in this study only in teacher organized situations to assess their verbal participation would show that they were not speaking as successfully in English as their interactions in the peer group suggest. To consider the children's use of discourse and reference items only in teacher organized situations ignoring child organized situations would reveal that the children were using substantially fewer items than is indicated by examining the children's own spontaneous interactions with each other.

Input and interaction, the use of discourse features also varied with situation. The teacher used more items in teacher organized situations; however, the same features were used no matter what the situation she was interacting in (teacher or child organized activities). This suggests that certain interactional features of conversation may be characteristic of either teacher or adult talk in general.

It suggests that the number of discourse items used may increase with verbal participation, therefore, there may be a need for L2 researchers to investigate discourse features in L2 learner's and teacher's interactions with larger samples. In addition, there may be a need for researchers to stop studying some discourse features as it becomes increasingly obvious that they are rarely used in any situation. Some features in this study were not important to the teacher and/or to the learners. Others were more important to the teacher than the learners.

The use of discourse features by the NS and NNS children too varied with situation. The children used more items in situations they themselves organized than they used in situations the teacher organized, and in contrast with the teacher the children also used more features in child organized situations. With the children there was a similar increase in the use of discourse items with verbal participation. And, some items were more important to either NS and/or NNS children, indicating that native and non-native speakers of English vary in the importance that they place on various features due to language and other differences beyond the scope of this study. Some indication that sex differences may be an important factor to consider in conducting L2 research in classrooms was also indicated by variations in the use of

features by male and female children across groups (NS and NNS), as well as within groups (NS, NNS). In addition, the teacher's frequent use of features that required of the learners prespecified answers to questions, and/or insincere requests for information may have limited both the NS and NNS children's use of features in teacher organized situations.

The examination of input and interaction in terms of the situational structure of interactions for exophoric/anaphoric (spatial/temporal) reference items also varied with situation. Both NS and NNS children were far more concrete in their use of reference items, whereas the teacher's interactions with them often assumed that the children had background knowledge of the information that was conveyed and/or that the children were familiar enough with the information and ideas presented that they could refer to linguistic items in the preceding or following text of a conversation. In general, most children's interactions were extremely active, consisted of flexible small groups, and were dynamic in that the action changed as the activity progressed or regressed. The language used by the children, both NS and NNS was language-in-action, linguistic items were used to refer to things, people and events taking place or very close in time and space to the immediate action. The teacher generally organized more sedentary activities with few opportunities for action and

presented the children with linguistic items in absence of the socio-cultural contexts in which they are used, assuming that the children would comprehend these items and be able to refer to them. The teacher often used visual aids, such as, pictures, charts and realia; however, even when these materials were present, the conversation with the children was often removed from the immediate experience of these aids and was more distant in time and space than the children's own spontaneous interactions with materials.

Differences in the situational structure of this teacher's interactions and the interactions of the children themselves affected the nature of the input provided for L2 learners and must be considered an important research variable in studying L2 input and interaction in classrooms. These children chose to interact in concrete, action oriented contexts which provided them with meaningful and comprehensible input (as indicated by the learners themselves through their increased verbal participation in the L2 in the peer group and increased use of discourse and reference items). Meaningful and comprehensible input for the children was; however, not the same as the input provided by their teacher. For the teacher meaningful input was often distant from the learners and required of them an understanding of people, things and events that were often only present in the language of the teacher. Whether or not the NNS children understood them is unknown, as is their value for helping young children (whose interactions are mainly exophoric) learn a second language.

Some variations were found in the use of individual exophoric and anaphoric reference items both across and within groups (NS, NNS) for age and sex. Some items were used more frequently by males than females, and/or by females than by males. Some items were used more frequently with age within one sex, or across the sexes. These variations suggest that the use of some items may follow trends in development usually associated with children of this age (e.g. physical, social development, etc.). For instance, if female children mature more quickly than male children do, as is generally accepted, some sex differences in the use of features, such as, the inclusive "we" may be the result of this earlier maturity. L2 research needs to give greater attention to sex and age variations in studying output, input and interaction.

The results and discussion of this study need to be interpreted with some caution; there are a number of limitations to their interpretation. First, classroom interaction is highly variable and the participants in the interaction(s) may vary greatly from one situation to another, producing considerable differences in the data obtained. For example, the training/experience of teachers varies, the number of L1 and L2 learners in classes varies, the background knowledge and experience of the language learners in using a second language varies, as does their social and cultural background life experience(s). The results obtained here should be viewed as exploratory and need to be validated by additional studies.

Second, each sample in this study was limited to the first consecutive one hundred utterances of each taped session. The data may change in other situations if shorter/longer segments are used for each sample. For example, Long (1981:154) limited his sample to five minutes and reports that most interactions between NSS and students of limited English proficiency were shorter than five minutes. This was not the case in the present study. Although many of the students were limited speakers of English, many NS, NNS interactions lasted a considerable length of time (much longer than five minutes) particularly in child organized situations. The spontaneous, dynamic nature of young children's interactions may account for this difference (i.e. Is it easier to carry on a conversation if the interaction is concrete and the context for using language is created, and/or altered as the talk progresses?).

Although this study is exploratory in nature, there is evidence to suggest that NS teacher and NNS children's output, input and interaction varies with the structure of the situation under study and differences in the data may exist if situations are organized by the teacher and/or the children. The situational structure of NS/NNS child organized interactions, its spontaneity and concreteness may naturally lend itself to conversation, whereas teacher organized interaction may indirectly discourage conversation

due to the teacher's domination of the conversation, and because of her inflexibility and failure to adjust what she is doing to accommodate the learners.

Furthermore, certain discourse features important to the teacher in that they are used regularly and consistently across situations are not important to the children in NS, NNS child interaction - some discourse features used by teachers may not assist the L2 learner. There is also some reason to believe that the rank order of use of some discourse features may be similar across L2 studies. The order of importance of various discourse features in this classroom, for instance, closely resembled that reported by Long (1981) and Peck (1985).

As far as exophoric and anaphoric reference is concerned, the NS and NNS children in this study used more exophoric items in all situations - language was used in action. For children of this age, small group, dynamic, concrete interaction is necessary for learning and using a second language as indicated by the children themselves. Even the conversations between the NS, NNS children and the teacher when organized by the children were nearer to the action in time and space.

The dynamic, small group nature of child organized interaction also encourages conversation. Both the NS and the NNS children in this study were far more verbal in the situations they themselves organized, they also produced

more reference and discourse items. Many L2 researchers (see, Long, 1981 or Krashen and Terrell, 1983) have suggested that L2 learners learn best in small groups and in situations where language is closely tied to action, therefore easy to comprehend. The best situations for learning an L2 are said to mirror NS mother/NS child interaction. Although researchers often suggest that this is the case, few studies have been conducted with L2 learners to validate this claim. The interactions of the children in this study offer some validity to this claim - children's interactions were very much like those of native speaking mothers and children interacting with the child's first language.

The two different situations studied here (teacher versus child organized) provided two very different experiences for the child L2 learner. The child organized situations in this classroom certainly appeared to be more useful experiences for aiding L2 learners to learn English as their second language, than were those second language learning opportunities provided by the teacher in this classroom - given the recommendation of L2 researchers for small group, concrete and dynamic classroom interaction.

It is hoped that greater attention will be given to analysis of the interaction experiences provided for L2 learners in various teaching and non-teaching situations before arriving at conclusions about L2 learner proficiency in the L2 and before arriving at conclusions concerning output, input and interaction in the classroom.

CHAPTER FOUR

IMPLICATIONS

The present study suggests a number of implications for improving classroom practice with young second language learners and for conducting research in the field of second language acquisition. These implications are presented in the parts that follow with particular emphasis on young children's (NS, NNS) interactions in classrooms.

4.1 Implications for Education

The main goal for ESL teachers is to get NNS children to use the second language so that the children will develop competence in communicating in a variety of different situations, ranging from informal interaction to academic and/or other pursuits. With young children this is particularly important because verbal experiences with language (thinking, doing, talking communicating) form the foundation for later literacy. As indicated by the results and discussion in this study there is a gap between what is taking place in situations organized by the teacher and in those situations organized by the children themselves. To narrow this gap and make the learning of a second language an easier task for young children, the following suggestions for improving classroom practice are offered:

- 1) Teacher output or verbal participation should be reduced in teacher organized situations so that the children are

encouraged to participate verbally. In this study the teacher totally dominated the conversation in teacher organized situations leaving little opportunity for the children to participate verbally.

2) The length and number of teacher utterances should be adjusted to accommodate: a) a range of situations ranging from informal, interpersonal interaction through to group interaction in more formally organized situations, and b) a range of learner abilities in the second language from beginners, through intermediate, to more advanced second language learners. In this study, few adjustments were made to accommodate ESL children either in controlling length of teacher utterances, or in recognition that learners have different abilities and that some situations require more/less formal conversations. This teacher's intentions may have been sound, but analysis of the data in this study revealed that adjustments were not being made to accommodate either learner or situation.

3) The use of discourse features by teachers should be altered: a) so that display questions, questions requiring learners to give prespecified answers and/or insincere requests for information are reduced and replaced with questions in situations that encourage problem solving and hypothesizing (e.g. rather than: What colour is this?, questions such as What is the best way to . . . ?, or How would you . . . ?, or Can anyone guess?, etc.) b) so that

features such as corrections that are not important to teachers or learners in any situations are not emphasized, and c) so that the use of features to acquire and hold attention, and/or to maintain interaction are reduced and/or replaced by non-linguistic devices that reduce the need for these features, namely ACTION.

In this study the teacher used few questions that required the learners to provide their own ideas and information about the content of the activities she had organized. Often much of the teaching time was spent trying to maintain and control the learners' attention, or trying to involve the learners in the material she had scheduled to be taught within a specific period, rather than picking up on learner interests and using a problem solving approach to activities.

4) Teachers should control their talk to make the contexts of various situations clear to young second language learners by: a) using mainly exophoric reference items, items close to the action taking place in time and space, concrete and immediate, b) reducing the quantity of anaphoric items used in teacher organized situations, and using anaphoric reference only when it is very obvious that all children have the background knowledge and experience needed to grasp the information. The children's interactions in this study were mainly exophoric indicating

the children themselves prefer to interact in here and now contexts, communicating with each other while they are involved in action. A large part of the teacher's interactions with the children were anaphoric indicating that they were more distant from the immediate action in time and space and it was difficult to know how much or how little content the L2 learners were able to grasp as a result.

5) Teachers should encourage pupil involvement and participation by planning activities in teacher organized situations that involve the teacher and the learners in flexible, small group interaction as well as whole class interaction. One of the unique aspects of the child organized situations observed in this study is the nature of group interaction. The children's groups were small, however, individuals moved in and out of these small groups at will contributing to the activity as the action progressed. Teacher organized groups in this classroom were mainly whole class situations in which the children sat, listened and participated when convenient to the teacher. When the occasional small group situation was planned in this classroom the whole class was placed in small groups giving the teacher little opportunity to participate in the activity with the children. The classroom interaction patterns in this class, (particularly for ESL children) needed to be reorganized so that there was time to focus on one small group.

6) Teachers should provide children with opportunities to participate in creating, modifying and recreating their own contexts for learning as activities progress and develop in teacher organized situations. Many "teachable moments" came and went in the classroom under study here in favour of preplanned lessons.

7) Teachers can improve the quality of the learning opportunities provided for young children by keeping the language and communication surrounding key visuals and/or realia close to the immediate interactions taking place with the children and the materials. In the classroom studied in this report visual aids and concrete materials were often used, however, the teacher's discussion around these materials often ranged far afield. As a result the usefulness of the materials for bridging the gap between life experiences and the present classroom situation was limited.

4.2 Implications for Research

In addition to the foregoing implications for improving the quality of educational practice for L2 learners, this study also has a number of implications for improving the quality of the research in the field of second language acquisition. Some suggestions arising out of this research for improving second language research with young children and in general are:

- 1) the study of input and interaction involves factors other than the analysis of negotiating devices and other features of conversational interaction. Measures of conversational interaction are presently restricted to the study of discourse features, yet, there are other aspects of the situation that are important. For example, measures of language-in-action, such as those used in this study also contribute to the study of input. And the use of specific discourse features by either the teacher or learners may vary from one situation to another as was the case in this study.
- 2) there may be differences in the structure of the situation which takes place during conversational interaction that influence the nature of the input provided during this interaction. Researchers must move beyond the study of discourse features to start examining the activities and tasks in which L2 learners are engaged during conversation. In the present study, the information conveyed through language and communication varied considerably in how it was transmitted as input in various situations . There is also some evidence to suggest that the older children's use of some items may mirror those of the teacher, for social reasons and/or perhaps because children learn what they are taught.
- 3) studies of input and interaction may be more meaningful if they are related to output or verbal participation. In this study the verbal participation of the teacher and the

learners was closely related to this output (they increased/decreased with verbal participation).

- 4) Tests of learner proficiency in English should be conducted across a range of situations before arriving at assessments of learner's abilities and skills in the second language. The ESL children's proficiency in English in this study (as well as NS English) varied with situation. If ESL children were assessed for their level of proficiency in English within teacher organized situations and not within child organized situations, for example, the results obtained would inaccurately represent the proficiency of these learners in English.
- 5) The use of some reference items and discourse features in this study varied with age and closely followed the developmental trends generally accepted as characteristic of young children's growth. Studies with young children should consider age as a factor in assessing the use of specific features and reference items. For example, the increased use of directives and inclusives with age for young children may be related to the fact that the children are developing skills in socializing.
- 6) Socio-cultural factors (such as sex differences, child rearing practices) may influence the output or verbal participation as well as the input and interaction of males and/or females in various situations. Greater attention

should be given to these factors in conducting research in L2 classrooms. In this study a number of sex differences were observed that could have been related to the rearing of males versus females in various cultures, however, investigation of this factor was beyond the scope of the study. L2 researchers who report on sex differences should be careful in making comparisons between males and females without considering their native cultural experiences.

7) Given the increased verbal participation of L2 learners (and L1 learners) in child organized situations in this study, and given that an increase in the use of discourse features and reference items was also recorded in child organized situations over teacher organized situations, the following questions need to be asked of ESL classrooms and research programs for young children:

a) Does L2 instruction make a difference in assisting L2 learners to learn the second language or is it peer group interaction in and around the classroom/school that makes the difference?, b) How does the curriculum make a difference if the children are participating more verbally in their peer group, therefore, acquiring the verbal experiences they need with language (prerequisites for later literacy) from their peers and not from interactions in teacher organized situations?, and c) Do teachers, the main input providers in the classroom, modify and adjust

their use of language, their communicative strategies, and the range/type of activities offered to NNS children to accommodate the learners, or are the children making the adjustments to accommodate the teacher?

The results of this study reveal that this teacher made few adjustments to accommodate the children in this classroom. The teaching techniques, activities and grouping strategies employed seemed less than satisfactory because the NNS children received more opportunity to participate verbally and non-verbally in their peer group (also the NS children) and in a way best facilitates learning for young children (e.g. experiential/concrete/small flexible group activity/oral language practice, etc.). Did the instruction in this classroom make a difference in helping young NNS children learn a second language? It is difficult to identify how language teaching in this classroom made a difference, beyond teaching the children to exercise patience, to sit inactively for extended periods of time, to forego changing the subject by providing input of interest to oneself, to give prespecified answers to questions when they are asked of you, and to either work alone or to learn to socialize in a large group (whole class) situation.

In conclusion, the writer does not intend to state that teachers are unnecessary in classrooms where children are learning an L2 because the NNS children in this study were more verbal, received more input and used more discourse and reference items in their peer group. Rather it is hoped that the understanding(s) developed will help to improve the quality of L2 research and the effectiveness of teacher training.

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