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ABSTRACT

An interactional sociolinguistic discourse analysis of adult, low-literate, beginning learners of English as a Second Language is presented. Four pairs of non-native speakers of English worked together on drill and practice software, interacting with each other, teachers, and software. All had zero to 6 years of previous schooling. Each pair was videotaped in interaction at the computer. The discourse analysis used several approaches: interethnic discourse and conversational style; communication accommodation theory; categorization of syntactic forms; politeness in speech; participant role analysis; conversational analysis; and forms and functions of repetition. Analysis found that the discourse was marked by use of directives, repair and correction routines, and various forms of repetition. Major findings include these: that social interaction surrounding use of drill and practice software is similar to task-based talk in other social settings (characterized by economical yet creative speech); face considerations are less important than clarity in issuing directives and correction; and learners employ a wider variety of discourse strategies when working with each other than with teachers. Further research on the interactional requirements of computer-assisted learning for adult literacy is recommended. (MSE) (Adjunct ERIC Clearinghouse on Literacy Education)

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of Low-literate Adult Learners Using Educational
Computer Programs in the Learning of
English as a Second Language

A Dissertation
submitted to the Faculty of the
Graduate School of Georgetown University
in partial fulfillment of the requirements for the
degree of
Doctor of Philosophy in Linguistics

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LEARNER HELPING LEARNER: A SOCIOLINGUISTIC ANALYSIS
OF LOW-LITERATE ADULT LEARNERS USING EDUCATIONAL
COMPUTER PROGRAMS IN THE LEARNING OF
ENGLISH AS A SECOND LANGUAGE

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Abstract

This study presents an interactional sociolinguistic discourse analysis of a previously unstudied group: adult, low-literate, beginning learners of English as a Second Language. Four pairs of non-native speakers work together on drill and practice software. They interact with each other, teachers, and software.

Serving as participant-observer, I videotaped each pair as they interacted at a computer. Learners participating in these interactions have zero to six years of schooling. Participant discourse is marked by use of directives, repair and correction routines, and various forms of repetition.

In discourse analysis, I draw from several research approaches. I rely on methods established in previous sociolinguistic analyses of interethnic discourse and conversational style (e.g., Gumperz 1982, Tannen 1984). This is complemented by Communication Accommodation Theory (Giles, Mulac, Bradac, and Johnson

1987; Giles, Coupland, and Coupland 1991), employed to examine the framework for social interaction.

Following Ervin-Tripp (1976), I categorize syntactic forms of directives. I base analysis on principles of politeness in speech (Brown and Levinson [1978] 1987) and then study the complexity of social interaction, using participant role analysis (Levinson 1988, following Goffman [1979] 1981a, 1981b). Conversational analysis of Schegloff, Jefferson, and Sacks (1977), provides the framework for interpreting the relationship between repair sequences and the negotiation of meaning. Politeness strategies in the management of corrective language is also examined. To explain the many forms and functions of repetition employed in the emergent discourse, I rely upon the analytical approach of Tannen (1987a, 1987b, 1989). I examine the effect of the structure of educational software programs on learner discourse and relate the importance of repetition to findings of second language acquisition and second language pedagogy research.

Major findings of this study indicate that social interaction surrounding use of drill and practice software is similar to task-based talk in other social

settings--characterized by economical yet creative speech. Face considerations are less important than clarity in issuing directives and correction. Furthermore, learners employ a wider variety of discourse strategies when working with each other than with teachers. In recommendations for further study, I suggest use of different software to promote literacy and communicative development.

Acknowledgments

My interest in computers and adult literacy began while I was an M.A. student in Applied Linguistics at Teachers College, Columbia University. Under the encouragement of Jo Anne Kleifgen, I was launched into a sociolinguistic approach to studying how computers could be used to facilitate language learning. At Georgetown University, I have enjoyed especially the guidance of Deborah Tannen and Ralph Fasold in discovering different sociolinguistic approaches to the study of language, from the intimate talk among friends to the language planning policies that affect nations.

Thanks to Jackie Tanner, Director, Georgetown Language Learning Technology, for enabling me to borrow the video camera and tripod from her office and for working through the finer points of clear videotaping. Thanks to friends in the dissertation support group for those Friday meetings in the library. Working together with such a caring group was more help to me than they will ever know. Special words of appreciation go to Barbara Craig for reading the rough draft and to Patricia O'Connor for proofreading the final manuscript.

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Because I had to promise anonymity to the school system that permitted me to videotape learners, I cannot divulge the names of the staff members of the 'Truman Adult Center.' However, during the past five years, these women and men have been an inspiration to me. They know who they are, and they know I appreciate their support and respect their work. Every learner I have met at Truman, too, has taught me something new about the immigrant experience and the power of education. It is to these learners that this work is dedicated.

My entire family has been supportive during this long process. My parents instilled in me a respect for education (gained both in and out of school) and a curiosity about how immigration fits into our family history and the history of this nation. No doubt this has played a role in my interest in immigrants learning English. My deepest thanks go to my husband, Steve, for his help and encouragement.

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Chapter 1: Introduction and Literature Review

You think this machine is coming from Japan?

--Antonio to Minh

INTRODUCTION

Antonio and Minh are adults who are enrolled in an English as a Second Language (ESL) class for beginning speakers with less than six years of schooling.

Antonio utters the discourse excerpt that heads this chapter while sitting with Minh in front of an Apple IIe computer. They are about to begin working together on an educational software program. As part of their course of study, Antonio, Minh, and their classmates use computer programs to learn and practice English.

This study presents an analysis of the discourse of six low-literate adult beginning learners of ESL engaged in pairwork at Apple IIe computers. The discourse of the teachers who work with them, as well as the software program texts that appear on the monitor screen, are also analyzed. Antonio, Minh, and the other learners in this study work on solving language-related problems posed by simple, drill and practice software and engage in focused, goal-directed

interaction centered around working with the computer and the software, which I call task-talk.

If computers are to be used in concert with, or instead of traditional ESL classroom instruction, it is necessary to discover how learners negotiate using a computer program together. To date, no research has been conducted to characterize the discourse of low-literate adult ESL learners either studying English in classroom settings or in using computers in the process of learning English. Furthermore, there is no research available which explains how beginning low-literate learners who speak different native languages negotiate meaning with each other in classroom interaction or when working in dyads in front of the same terminal. The need for understanding becomes acute as increasing amounts of software designed for low-literate native speakers are marketed to adult ESL programs. As Kleifgen states, 'Educators must begin now to decide how to make best use of this technology, or someone less pedagogically prepared will decide for them' (n.d.:1).

My purpose at the time data collection began in spring 1990 was to examine how the use of software

affected the ways in which learners communicated with each other and what aspects of using computers might pose difficulties for them. I discovered that the drill and practice programs they used (and still use four years later) influenced how the learners communicated with each other about keyboarding as well as about the content of the lesson. This interaction occurred only when the learners were challenged by the software. Most learners remained quiet while using the programs. In most cases, these quiet learners had no trouble in selecting a correct answer right away. Therefore, this study reveals how certain drill and practice programs prompt learners to negotiate meaning with each other and with their teachers as they solve language problems aloud. Readers will be introduced to study participants (teachers and learners) and the software they use in Chapter 2, 'Method.'

The present study relies primarily upon interactional sociolinguistic analysis of non-native speaker/non-native speaker (NNS-NNS)¹ interaction in

¹In the literature, the designation NON-NATIVE SPEAKER means that an individual is a non-native speaker of the target language that's/he is learning. In this study, NON-NATIVE SPEAKER/NON-NATIVE SPEAKER dyads, in addition to learning ESL, are always composed of

order to offer insight to understand the emergent discourse of beginning speakers of English in this special educational context. However, as Schifffrin (1994:5) notes in a comprehensive guide to the study of discourse, '[d]iscourse analysis is widely recognized as one of the most vast, but also one of the least defined, areas in linguistics.' In fact, approaches to the study of discourse are found in a number of academic disciplines representative of the humanities and social sciences. The present sociolinguistic study is informed by an interdisciplinary approach to the study of discourse in its emergent social context. The literature review which follows includes detailed background information on the theories of and approaches to the study of discourse I use to interpret the participants' emergent utterances within ongoing, task-focused, interaction.

Findings reported in the present study indicate that social interaction of participants is marked by high frequency of directives. Because the learners are involved in an academic exercise, they correct each other's input to the computer in order to ensure that

speakers of different native languages.

they get the answers right. In addition, participant discourse is replete with repair sequences and forms of repetition, as speakers attempt to accommodate their interlocutors' ability to understand them.

Earlier studies of second language acquisition of ESL learners document the order of acquisition of morphemes and word order that children (Dulay and Burt 1973, 1974) and adults (Bailey, Madden, and Krashen 1974; Larsen-Freeman 1975) learning ESL exhibit. However, it is necessary to examine beginners' discourse not only to capture developmental features of linguistic competence in a target language, but also to capture the communicative dynamics of executing directives, correcting and repairing discourse, and using functions of repetition as they contribute to the management of social interaction. Understanding learners' authentic use of language to communicate in situations requiring negotiation and collaborative decision-making will enable ESL teachers, curriculum developers, textbook writers, and software designers to develop activities that enable learners to practice these skills in meaningful, social contexts.

As stated earlier, the discourse of learners and teachers consists largely of directives. Learners and teachers also read aloud, discuss, and paraphrase the educational program directives that appear on the computer screen. Types of directives participants give to each other are often related to the social identity of the speaker, and to the social stance that learners take up within the interaction. Analyses of directives that learners, teachers, and the software use comprise Chapter 3, 'Directives.'

Each educational software program that the learners use gives immediate feedback after an answer and tallies the number of correct responses answered throughout the drill. Learners express disappointment or frustration whenever they get an answer wrong, and express delight whenever they are rewarded with a computer-issued compliment for having answered a question correctly. Correction and repair feature prominently in learner-learner interaction because they know they are being evaluated. Chapter 4, 'Repair and Correction,' contains discourse analyses and discussion of correction and repair in learner discourse.

Developmental constraints on learners' English affect how they communicate on two counts. First, because all learners are beginning speakers, their speech is marked by repetition. In reporting the results of a study on language learning strategies of high school students learning ESL, Chamot (1987) states that repetition is one of the most frequently used cognitive learner strategy employed by beginning ESL learners. Secondly, even though they are all beginners, some are more adept at speaking English than others, or may be more adept at using the programs than others. Those who are more capable simplify their already simple English to accommodate their less capable interlocutors by recycling the same directives throughout the interaction.

As stated above, learners engage in repetition to facilitate comprehension. Another factor plays a role in repetition: drill and practice educational programs are preformatted and predictable. Each problem in a drill is of the same type and is answered in the same way. It follows, then, that discourse routines around the use of such programs would be influenced by the structure of the program and also be repetitive. This

is the case for the study participants using drill and practice programs. Learners and teachers give the same directives to each other over and over. The software presents the same limited range of preprogrammed directives to users, too. The forms and functions of repetition are examined in Chapter 5.

In Chapter 6, 'Conclusion,' I offer a recapitulation of findings followed by a discussion of this study's implications for future research. Study findings are useful in determining how low-literate adult ESL learners can use computer assisted learning technologies. The study of discourse of second language learners benefits from further explorations of the utility of accommodation theory as well as participant role analysis in accounting for the communication strategies used by second language learners. Preceding the study is the following literature review.

REVIEW OF THE LITERATURE

Introduction

Within the past few years, the personal computer has been taking its place alongside teachers, books,

pens, and paper in traditional educational settings for children and adults. That computers can be successfully integrated into first and second language instruction is the outlook of many researchers and teachers involved in developing computer-assisted instruction (CAI) and computer-assisted language learning (CALL) programs. The social interaction which occurs when two or more learners use the same computer terminal is considered a benefit to the development of language arts skills among children and holds promise for adult learners, as well.

Definitions of literacy affect an adult literacy program's instructional focus. Because the learners participating in this study do not possess advanced literacy skills in their native languages, it is important to discuss the nature and consequences of literacy as they affect these learners in particular, and forecast the best instructional uses for the computer as a tool of developmental literacy as its use becomes increasingly common in adult ESL literacy classrooms. Definitions of literacy and approaches to its study appear first in the literature review.

Because there has been no research conducted on low-literate adults using educational software to learn a second language (CALL software), and consequently no software expressly developed for them, the next part of the literature review focusses on studies of low-literate English-speaking adults using computer-assisted instruction to accelerate reading development. There have been studies on the discourse of English speaking children using computers jointly to write or to work on cooperative learning tasks. These are covered in the literature review, as they offer a picture of shared computer use in which discussion is integral to the learning task.

Since there have been a few studies conducted on the discourse of intermediate adults enrolled in university-run ESL programs using CALL programs, these are discussed. I relate the study results and implications in the literature to the present study. Because there is ample research in the classroom discourse of second language learners, I discuss communicative competence (Hymes 1974 and elsewhere) and the negotiation of meaning, focussing on research into second language teaching methodology designed to

heighten two-way communication. Implications for use of CALL to enhance communicative competence are explained.

Shifting from pedagogical concerns, I report that communication accommodation theory (CAT) (Giles, Mulac, Bradac, and Johnson 1987; Giles, Coupland, and Coupland 1991) offers a rationale for the interaction of the learners and teachers with each other as they attune to each others' needs when communicating. The approach CAT offers to explain interlocutors' strategies to attunement can be further facilitated through application of Goffman's notion of FOOTING (Goffman [1979] 1981a), and Levinson's related participant role analysis framework (Levinson 1988). Asymmetries of knowledge (Linell and Luckmann 1991, Drew 1991) also affect discourse. Asymmetries of knowledge are related to the 'paired relational categories' (Drew 1991:45), such as doctor/patient, parent/child, self/other, cognitive state, mutuality of knowledge. Such asymmetries do not of themselves necessarily cause trouble in interaction (Drew 1991). In this study, there is evidence that asymmetry of knowledge affects

the attuning strategies of interlocutors toward each other, and thereby influences subsequent interaction.

Research on the application of CAT to second language acquisition highlights how this approach accounts for convergence and divergence among participants in cross-cultural communication encounters. Additionally, past application of interactional sociolinguistic analyses conducted in institutional settings yields information concerning changes in stance among participants engaged in discourse. By positing interactional sociolinguistic analysis within the framework offered by participant role analysis, and further positioning such an analysis within a larger social theory which accounts for the complex emergent structure of discourse offered by Accommodation Theory (Giles, Mulac, Bradac, and Johnson 1987; Giles, Coupland, and Coupland 1991), NNS-NNS interaction can be studied as people communicating as people, not simply as learners exhibiting limited ability in speaking and comprehending.

The learners participating in the present study work jointly on completing a task in an educational setting. Their discourse is marked by directives.

Teachers, too, give directives, as they guide the learners in using the software. Most of the on-screen text for software users are directives, as well, and specify rules for software use. For these reasons, this review includes a summary and discussion of past research on directives.

These learners are focused on answering drill and practice items correctly. Consequently, their discourse contains many examples of correction. Learners and teachers focus on making themselves understood to their interlocutors. In forming their utterances, they focus on speaking as clearly as possible. This results in many repair sequences in which participants can repair their own speech and the speech of other interlocutors.

Because the speech of the participants in the present study consists of many repeated utterances, I discuss past research on the functions of repetition in discourse. I relate the research to phenomena analyzed in the current study; that is, that a range of forms of repetition accomplish different functions.

Although the speech uttered by learners is not syntactically complex, the situation in which they are

communicating in a new language is multi-layered. To understand the discourse of new learners of English within the social context in which it emerges better enables researchers and practitioners to design and plan for better instructional technology--both better software and better use of it.

Orality, Literacy, and Second Language Learning

In this section, I introduce definitions of literacy affecting adult ESL learners, primarily those living as immigrants in the United States. This is followed by an interdisciplinary review of literature on orality and literacy. I conclude with a review and discussion of second language literacy research and pedagogical implications.

Politically influenced definitions. Of concern to those within the profession of teaching English as a Second Language is the incorporation of literacy skills development within English language learning. ESL programs funded by the U.S. government are affected by the federal definition of literacy, stated by the U.S. Congress in Section 3 of the National Literacy Act of 1991:

'...an individual's ability to read, write, and speak in English, and compute and solve problems at levels of proficiency necessary to function on the job and in society, to achieve one's goals, and develop one's knowledge and potential' (U.S. Public Law 102-73: 1).²

The definition does not distinguish in any way between native speakers and non-native speakers, a critical distinction in determining which educational materials and approaches are appropriate for instruction.³

Furthermore, this definition reflects the movement toward declaring English the official language of the United States.⁴ An extended discussion of the great debates that surround orality and literacy is included in the literature review. I revisit the topic and examine the implications of this study for better

²The U.S. definition differs slightly from UNESCO's 1962 definition of functional literacy in which there is no mention of speaking skills in a specific language (i.e., official language or linguistic majority language), but attaining functional literacy enables an individual to 'use these skills towards his own and the community's development.' (cited in McKay 1993:4).

³See McKay (1993) for detailed discussion of application of the term literacy to those acquiring a second language in a new culture.

⁴See Madrid (1990:62) for discussion of the official English movement as a 'false policy issue.'

understanding of second language literacy in the conclusion (Chapter 6).

The ability to read, write, and speak English, as well as the ability to solve the problems of daily life comprise a definition of FUNCTIONAL literacy within the dominant language of the country. Definitions of functional literacy generally link reading and writing tasks to contexts in which they are put to use in daily life--at home, in the community, on the job. Oral skills in a specific language usually are not mentioned in definitions of literacy, although, as detailed below, orality and literacy are inextricably linked.

Consider the following use of the term, literacy, appearing in a journal article in which adult ESL literacy teacher qualifications are discussed:

'If a program defines literacy in terms of a set of specific skills, as is frequently the case in workplace literacy programs, then a qualified instructor would be one who could develop those skills, perhaps using a particular curriculum or set of materials. If the program defines literacy in terms of social practice and critical reflection, as is often the case in community-based initial or family literacy programs, then the curriculum would need to be jointly constructed by teachers, learners, and staff, and qualifications would reflect an orientation toward that approach' (Crandall 1993:502).

The statement that the enactment of the literacy process is defined by the educational service provider reflects individual programs' requirements to balance learner/worker needs vary according to the scope of a funder's requirements. The funder may be an employees' union, a company, a foundation, or a government agency. For example, the U.S. Department of Education requires service providers of model (demonstration) workplace literacy projects they fund to develop literacy skills to enable better job performance, but prohibits vocational training. This means that workplace literacy instructors may use authentic texts intrinsic to job performance to help the learners in improving literacy skills, but they may not teach workers how to do a job.⁵ For example, learners in a hotel kitchen may be taught how to read recipes but not how to cook a dish. It is a fuzzy area.

The indefinite use of the term literacy exemplifies that conflicted opinions exist concerning what literacy essentially is. Does it consist of the ability to read and write at an established minimum

⁵Federal Register, June 4, 1991. Vol. 56, No. 107, p. 89.

level? Does it require completion of a certain number of years of schooling? Are listening and speaking skills considered part of general literacy skills? Despite these questions, one point is clear: labeling individuals as literate or illiterate depends on who is defining the terms (McKay 1993:10). I shall return to the discussion of literacy within ESL programs at the end of this section. First, I detail the ongoing scholarly debate surrounding ORALITY and LITERACY. The fields of classical rhetoric, anthropology, psychology, and linguistics inform each other about the similarities and differences of spoken and written texts and the effects that writing and reading have upon cultures. The conflicting arguments for the role that literacy plays in how individuals act upon the world are now being discussed in terms of the education of language-minority and second language learners. The role of computers in education and the design of software should also be included in these discussions.

Orality and literacy. The literature on orality and literacy is immense. Chafe and Tannen (1987) give a comprehensive historical review covering over 250 scholarly works written during the twentieth century.

Most of the work covered in their review is reported in the English language, although the scope of cultures studied within the literature extends beyond English-speaking. Research ranges from historical reflection on 1) the consequences of the introduction of writing into a culture, to 2) the features of orality and literacy that are evident in both speech and writing, to 3) the literacy practices of different cultures. I follow the review of literature on orality and literacy with a discussion of literacy in adult ESL literacy education, with specific reference to the present study.

Walter Ong⁶ is a cultural linguist influenced by Marshall McLuhan's work on media and consciousness. Ong (1977, 1982) examines the psychodynamics of primary oral cultures, those cultures untouched by writing, and compares the features of these cultures to those which have been affected by the introduction of writing. Ong also establishes that the advent of electronic communication has launched cultures into a phase of

⁶See Thomas J. Farrell (1991) for a historical overview of Ong's writing.

secondary orality, in which communication is influenced by print.

Ong (1982) states that cultures marked by primary orality do not codify ideas by sequencing them within subordinate syntactic structures. Rather, ideas are presented in an additive style. Because writing is slow and deliberate, writers can rearrange words on a page and build relationships among ideas. One can analyze what is written in a way spoken texts cannot be analyzed, for spoken texts disappear as they are uttered. Naturally, then, spoken texts are repetitive and 'copious' so that ideas are held in mind and not lost due to the evanescence of the spoken word. Relations are built within parts of a phrase that recall structures of text and story to the mind of the speaker and listener. In speaking, primary or residually oral⁷ cultures maintain relationships between speakers and their audiences. Tellings are participatory events, close to life and the human struggle.

⁷Residually oral cultures are those that maintain many of the qualities of primary oral cultures, even though writing has been introduced into the culture.

Ong contrasts these features of oral cultures to features of chirographic cultures, societies in which writing is prevalent. Writing enables a distance between the word and the writer, as well as between the author and the audience. Writing, argues Ong, enables the author to organize thoughts and to rely less on memory and more on records. Ideas can be written in relationship to each other. In short, writing transforms the consciousness so that contexts must be explicitly defined in print and relationships clearly and explicitly spelled out for the reader. Because of the permanence of the written word, more credibility is given to the written word than to the spoken in chirographic cultures.

The emergence of secondary orality, that is, spoken word through electronic media, or written word that approximates the spoken in that it is immediate and context sensitive (e.g., electronic mail), mirrors primary orality. It draws participants to share in the discourse, yet relies on the knowledge that the world is diverse. Therefore, participants in the secondary orality must be 'socially sensitive' (Ong 1982:136).

Analysis of interaction precedes participation in a way not done within primary oral cultures.

When writing is given more credibility than the spoken word, difficulties arise in cultures affected by colonialism which brought with it influential literacy practices associated with the colonial institutions. As a result, the indigenous languages of a country and their use as media of recording stories diminishes (as discussed in Havelock 1986). A vicious cycle ensues: those who may speak the language may not be able to read it, and those who can read a colonial language and could learn to read an indigenous one, may not be able to speak the indigenous tongue (Owomoyela 1992).

Goody (1977), as well as Goody and Watt (1963), maintain that writing brings with it cognitive changes, in that members of cultures now have control over a technology in which they may deliberately and permanently record information and ideas, and most of all, organize them. This is possible because of the permanence of written records. Because writing enables the conscientious manipulation of thought and idea on the page, Goody maintains that analytical abilities are developed through exercising the ability to write. The

argument that cognitive changes resulting in better developed analytical reasoning skills is disputed by literacy researchers who examine literacy practices in social context.

By emphasizing the permanence of writing, scholars of literacy such as Finnegan (1988) and Havelock (1986), along with Ong, Goody, and Watt, characterize literacy as a tool or technology. On the other hand, pedagogical approaches to adult ESL literacy (discussed later in this literature review), view literacy as an ongoing process embedded within a continuum of different social practices (Wrigley 1993).

The effects of schooling and literacy on cognitive development and problem solving have been examined by Cole, Gay, Glick, and Sharp (1971) and later by Scribner and Cole (1981). In their work, Cole, Gay, Glick, and Sharp (1971) examine literacy and problem-solving practices among the Kpelle of Liberia. They conclude that there are no differences in cognitive processes among cultures that can be attributed to literacy. Differences in cognition are attributable to familiarity and relevance of situation in which cognition is tested. Work conducted by Scribner and

Cole (1981) among the trilliterate Vai of Liberia refutes that literacy skills enable critical thinking skills, but confirms that experience with schooling enables individuals to engage in the expository talk associated with educational institutions.⁸

Ong and Goody (among others) are proponents of what Street (1984, 1986, 1993a) calls the autonomous model of literacy. Within the autonomous model, as characterized by Street, literacy is considered an entity separate from the cultural context in which it emerges. Street rejects this model and argues for an ideational model of literacy in which socio-political contexts and uses of literacy are explained. Research which examines such uses belongs to THE NEW LITERACY STUDIES. Street bases his argument for discussing literacy not as an ability in itself, but as an instrumental component of cultural practices, on field work he conducted in northwestern Iranian villages experiencing cultural change during the 1970s.

⁸In fact, Rubin (1987) argues for an approach to language teaching that enables learners to recognize their strategies for learning to heighten their effectiveness as language learners.

In the Iranian village that Street studied, literacy practiced within the context of commerce (growing and selling fruit) was only advantageous if used in the appropriate cultural context. City folk who owned orchards around the village, but who were not really part of the social network, and who were ostensibly more literate (had more schooling), were not as successful in the local economy as those villagers who had more traditional schooling but were integrated into the social network. In other words, the idea that more education (equivalent to more refined literacy skills) is commensurate with greater economic success is not realized. It is in understanding the role of literacy within the social practices of a culture that its value becomes apparent.

Following Street, Gee (1990:28) discusses the LITERACY MYTH⁹ that is, a certain threshold level of literacy correlates with economic success. In discussing the history of the study of literacy (Gee 1986, 1990), Gee focuses on ethnographic research, such as Heath's (1983) study of literacy practices of home and school among communities sharing a school system in

⁹Gee credits Harvey Graff (1979) with this term.

the Piedmont Carolinas, in which literacy practices of different communities are detailed. Gee (1990) argues for an approach to the understanding of literacy within a study of DISCOURSES. Discourses (with capital 'D') encompass the range of discourse and communication practices necessary to be an insider within a social group. Gee states that to be literate means to be able to engage (be fluent) in secondary Discourses. Furthermore, in order to ensure that our children learn within the schools, we must help them understand and respect the differences among Discourses, so that they are at liberty to choose to participate within the Discourses in which they wish to gain access.

Gee maintains that to extrapolate literacy as a separate entity from the Discourses in which reading and writing occur is to make more of the distinction than actually exists. Reading and writing should not be singled out of the contexts in which they occur. Rather, teaching reading and writing skills, along with other language arts skills, within the socio-political contexts in which they play a part must be brought to children's attention and critically discussed. In

fact, there are many literacies that individuals, participating successfully in many Discourses, use.¹⁰

Gee's views are based partially upon the work of Scollon and Scollon, who have conducted extensive ethnographic studies of Athabaskan communities in northwestern Canada and Alaska. Scollon and Scollon (1984) call for an understanding of the multiple literacies that come into contact when cultures meet. Athabaskan oral narratives are structured traditionally around internal units of two and four. Intonation and phrasing is conducted to invite involvement from the audience. Furthermore, the more information mutually understood by storyteller and audience, the shorter the story may be although still following the internal structure of two and four units. Scollon and Scollon also note that face-to-face interaction is highly important. Athabaskans show great respect for the individuality of others, and do not wish to impose their point of view on another. The sense of the

¹⁰See Hill (1993) for a review of Gee's work, in which he comments that Gee somehow slips between the study of literacy practices as characterized by the new literacy studies and the aspects of literacy discussed in orality/literacy studies.

situation is negotiated. Scollon and Scollon (1984:183) refer to these as nonfocused situations.

School-based literacy practices require Athabaskan children to apply themselves to a focused situation, one in which there is little or no negotiation with their audience, especially in situations involving writing. Scollon and Scollon (1984) maintain that school-based literacy practices run contrary to the cultural practices associated with respecting the individuality of others, including the negotiation of meaning. I include additional discussion of negotiation of meaning in interethnic communication centering around school-based literacy practices in the section on correction and repair toward the end of this chapter.

In a discussion of ESL literacy practices among Black South African children and teenagers, Cazden (1994) discusses the social aspects of literacy by applying three of Vygotsky's (1962) key ideas to school-based literacy practices: 1) inner speech (thought) results from social interaction; 2) a child's development is facilitated through scaffolding; and 3) controversies may arise over social meanings.

Cazden observes that literacy practices based in the discussion of ideas assist students in becoming better writers and in managing situations in which writing in English is necessary. Inner speech works its way back to the interpersonal sphere through writing. Furthermore, to provide the learner assistance in interacting with texts, teachers use techniques which encourage learners to skim and scan throughout the text in order to gain an idea of the work as a whole before reading it. Finally, the socio-political and emotional ramifications of becoming literate in English cannot be ignored. Learners may feel ambivalence, resistance, or acceptance of the language. These critical aspects of literacy within the schools documented by Scollon and Scollon (1984) and Cazden (1994) among school children should be considered when examining literacy practices and schooling for adult immigrants, as well.

As mentioned briefly before, ethnographic research based on the cultural practice of literacy, counts among the new literacy studies (Street 1993a), which follow the ideational model (Street 1984, 1986, 1993a). New literacy studies focus on the process of literacy

as social acts with written texts (Brandt 1990). Alternatively, the view that literacy consists of negotiations between writers, readers, and the texts with which they interact has been termed a PRAGMATIC MODEL OF LITERACY (Hill and Parry 1993). Such a linguistic approach treats literacy as a dynamic process which is inherently social.

The differences between what Street calls the autonomous model of literacy and what Ong and Goody call the polarity of orality and literacy, are often referred to as THE GREAT DIVIDE (Chafe and Tannen 1987, Gee 1990, Olson and Torrance 1991, Street 1984, 1993a). A survey of linguistic literature reveals that there are some researchers who attempt to bridge the chasm through explaining features of orality and literacy exhibited in spoken and written texts.

For example, Chafe (1985) has studied the differences in linguistic features in spoken and written texts. Chafe and Danielwicz (1987) have analyzed similarities and differences in use of linguistic features across casual and formal, spoken and written texts. Tannen (1982, 1983) examines oral and literate strategies in spoken and written

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narratives. In later work, Tannen (1984, 1985) speaks of a 'relative focus on involvement,' (1985:124) in which discourse is constructed in such a way that it either focuses on giving information or eliciting response from the audience. In more recent research, Tannen (1987a, 1987b, 1989) examines the functions of repetition in spoken and literary discourse.

Chafe and Tannen, although not specifically addressing the needs of adult ESL literacy learners in their respective research, are correct when they acknowledge that there are no absolutes in language use. Instead, there are varying degrees of involvement between writer and reader that are typically associated with extremes of the speech-writing continuum.

The linguistic research cited above demonstrates that there are instances in which spoken and written texts are created with similar devices to display or elicit author/audience involvement and occasions in which writing or speaking is at its most formal, in which information is relayed completely by the writer or speaker, with minimal or no involvement from the audience intended. Orality and literacy are dimensions

of discourse that can be placed on a continuum of style.

However, Chafe and Tannen do not escape labeling either, dubbed followers of the autonomous model (Street 1993a) or of the STRONG TEXT (Brandt 1990). That is, that their analytical approach to literacy still characterizes literacy and texts alternatively as tools or ideals that can be analyzed out of social context and practice. The problem with categorizing research in polar extremes, autonomous or ideological, is that any study of aspects of literacy that is not rooted in an ethnographic study is labeled as suspect, lumped together in the autonomous category, and judged as invalid. Clear definitions and calm discussion of what constitutes literacy seem nearly impossible.

Thus far, I have examined the literature on literacy as a general idea, and have dwelled little on how literacy development is considered in ESL instructional practices. At the same time that scholarly discourse on orality and literacy in spoken and written texts appeared throughout the 80s, handbooks and guides to the teaching of adult literacy

within adult education programs also appeared. Review of this literature follows.

Second Language Literacy. The focus of adult ESL programs in the U.S., Canada, and Australia during the 1980s and 1990s has been to afford adult immigrants a chance to meaningfully participate in their new land by making the learning activities practiced in the adult classroom relevant to learner needs outside of the school. In Australia, the National Centre for English Language Teaching and Research (NCELTR) was established in 1988 as part of the Discipline of English and Linguistics at Macquarie University in Sydney. Researchers at NCELTR are responsible for conducting research and disseminating training materials to adult education teachers throughout Australia. According to Hammond, Burns, Joyce, Brosnan, and Gerot (1992), their approach to teaching language and literacy is built upon systemic-functional linguistics, as initially developed by Halliday (1985a, 1985b) and Halliday and Hasan (1976).

According to Halliday (1989) within functional units of language, literacy practices that are part of meaningful communication are discussed within the

contexts in which they occur. Spoken and written language are used in different contexts. Written language is characterized as more lexically dense than spoken, while spoken language is characterized as being more intricate than written. Written language is reflective of a product, while spoken language is part of a process.¹¹

A further refined definition of literacy used by NCELTR is one formulated by Wells (1987). Wells distinguishes four levels of literacy which function in different ways depending upon the social purpose in which they are situated. These levels are:

1. performative, in which words are the same, but the channel changes. A transcription of a speech or a book on tape are examples in which performative literacy plays a role;
2. functional, in which literacy plays a role in interpersonal communication;
3. informational, in which literacy plays a role in the communication of knowledge; and
4. transformational, in which being literate can change the ways in which an individual transforms the world in which s/he

¹¹This differs from notions discussed earlier in this review in which linguists, such as Tannen and Chafe, discuss that there are stylistic differences in spoken and written texts reflective of the context in which they emerge. For example, a lecture may be reflective of an essay, and a letter of a conversation.

participates. (Hammond, Burns, Joyce, Brosnan, and Gerot 1992:9-11)

In this model, spoken and written language are placed on a continuum, but rather than highlighting relative focus on involvement as Tannen (1984, 1985) shows, this model places language accompanying action on the spoken end of the continuum, and language accompanying reflection on the written end. In such an approach any or all levels of literacy may be included in a text that reflects a relative degree of reflection or action.

Related to this is the notion of language focus as TRANSACTIONAL or INTERACTIONAL (Brown and Yule 1983b:23). Brown and Yule assert that written language is primarily centered on the content of the message, or transactional, while spoken language is primarily centered on establishing or maintaining social relationships, or interactional. Of course, spoken and written language overlap in transactional and interactional focus.¹² This is an idea that Tannen

¹²Brown and Yule (1983b) use the analysis of naturally occurring English speech to develop an argument for teaching speaking and listening skills that learners will need in real-life situations outside the classroom. I further discuss Brown and Yule in the subsection of this chapter, 'Repetition.'

(1982, 1985) considers but modifies, demonstrating that features of oral language and written language can be found in both media of communication: it is the relative focus on involvement with the audience that influences the content of the utterance and its manifestation in a discourse style.

Approaches to teaching ESL literacy in the U.S. and Canada are reflected in a special issue of TESOL entitled, *Adult Literacies* (Weinstein-Shr, guest ed. 1993b). Current practices involve participatory approaches, based on the critical examination of the role of the self in transforming his/her life through literacy informed by the work of Freire ([1968] 1970). Participatory approaches to literacy involve learners, teachers, and tutors, who work together to define issues of concern to them. In participatory programs, teachers and tutors offer participants support in collaborating on defining needs and achieving goals (Auerbach 1992). Reflective of this approach, Gillespie (1990), like Scollon and Scollon (1984) and Gee (1990), defines literacy as comprising many literacies, in that literacy is the ability to read and

write used by individuals to impart and exchange information in different social contexts.

Learner textbooks and teacher's guides, such as *In Print* (Long and Spiegel-Podnecky 1988) emphasize that learners and ESL literacy instructors collaborate on determining how literacy skills are part of daily life. The authors take the work of Heath (1983) as their inspiration in helping learners understand the roles that literacy practices play or can play in their lives. The authors acknowledge that although literacy acquisition may not be equated with better jobs (refer to discussion of Gee 1990 above), it does seem to be tied in with an individual's improved self worth.

ESL literacy texts which focus and encourage interaction between readers and authors include Weinstein-Shr's (1992) *Stories to Tell Our Children*. Each chapter features a story written by an adult immigrant learning ESL and begins with a full-page photo of the author and a biographical note. Learners are asked to discuss the author and the author's purpose in terms of the story. Personal relationships between authors, readers, and texts are encouraged

through reading comprehension and writing development exercises.

Finally, Stone (1991) offers an approach to teaching reading and writing skills that incorporates the use of office application software: word processors, databases, and spreadsheets, for the development of literacy skills relevant to learner needs. Known as the KEYSTROKES APPROACH or as the PLAYING TO WIN model, learners gain control of keyboarding and software commands and functions while working on word attack, spelling, writing, and computational literacy skills. The approach can be used by any adult literacy program with access to a computer or word processor and requires no specialized educational software.

In this section, I have reviewed literature on adult literacy policy, orality and literacy as well as the literature on the pedagogy of literacy for second language learners. Let us turn from discussions of literacy in general and adult ESL learners in particular to educational research conducted on adult native speakers who have used computer assisted instruction in the course of literacy development. Because software designed for adult native speakers of

English is used by non-native speakers in ESL programs, it is necessary to understand how the software is intended to be used and the impact of use on target learners, to better inform practitioners who must modify software use with adult learners of ESL.

Research on Adult Native Speakers of English Using CAI

Adult literacy acquisition and development suffers from little qualitative research situated in an ethnographic orientation. Publicly-funded programs require the demonstration of short-term, measurable growth in literacy skills. Federally-funded adult basic education (ABE) and adult English as a second language programs in the United States require standardized assessment as the Business Council for Effective Literacy (1990) reports.¹³ Furthermore,

¹³Within the past three years, however, the tide seems to be turning. The U.S. Department of Education funded an extensive study of promising practices in adult ESL education in order to develop indicators of program quality. This marks a move away from outwardly designed, standardized measures of success to an approach more reflective of individuals accessing literacy services in different settings. Consult Guth and Wrigley (1992) and Wrigley and Guth (1992) for additional information.

little federal research money is available for long-term studies with an ethnographic orientation.

Additionally compounding the difficulty is the fact that adult immigrants without full command of English are considered functionally illiterate in English, according to the United States National Literacy Act of 1991, which includes speaking as a literacy skill. This is a double edged sword, in that these adults can participate in ESL demonstration projects funded by the United States Department of Education, but the standards they must meet are not necessarily based on criteria appropriate to mark progress in second language learning.

This is not the only area in which definitions appear murky. To date there is no qualitative research incorporated into the design of CAI used in ABE or adult ESL literacy efforts. Most CAI available for such adult learners has been developed originally for U.S. armed services basic skills improvement efforts. The impetus behind such research is cost-benefit: Is it more economical to help low-literate recruits improve reading skills through use of CAI, or through stand-up instruction?

As Wisher (1980) has stated, educational software is considered effective if learners post test at the same reading level or higher than a control group which has been taught the same material through traditional human instruction. Duffy (1985), in a review of literacy research in the military, maintains that post test results can be misleading because assessment is conducted too soon after treatment, consequently indicating a higher level of reading proficiency than is actually maintained long after instruction.

Software initially developed for armed forces literacy campaigns in the 1970s has been revived and modified for use in non-military ABE literacy improvement efforts or ABE/ESL programs. Thus the end users are not those targeted by instructional designers, and no research exists which documents appropriateness of use by those other than the originally targeted user. When adult ESL learners are defined as low-literate in the laws that affect their educational programming, meaningful distinctions between those who are illiterate or low-literate in their native languages, versus those who are literate, get washed away, and they are left with learning tools

which may not be best suited for their use. It is necessary, then, to gain an understanding of how adult ESL learners go about using this software and how use affects their communicative skills.

Communicative Competence in Second Language Acquisition

The term COMMUNICATIVE COMPETENCE is used by Hymes (1974 and elsewhere) to define the awareness of language, culture and situation that enables individuals who share norms of speaking to communicate appropriately with each other. Grammatical accuracy of linguistic form is not enough to ensure that understanding is maintained among interlocutors (Canale and Swain 1980). Furthermore, as Gumperz (1982) has stated, it is through implicit understanding of contextualization cues, those features of discourse such as intonation, pausing, and choice of words which indicate to all conversationalists who share an awareness of how these cues work, that communicative competence is put to the test in social interactions.

One focus of second language (L2) instruction is to enable learners to develop communicative competence in the second language. Paulston (1990) states that in

order to do this, it is important to incorporate socially meaningful language in the L2 classroom. Furthermore, it is equally important to discuss the differences in accomplishing the same speech act, such as making a request, in different cultures. She also discusses that part of the hesitancy or propensity to improve communicative competence in the L2 may lie in the relationship of appropriate social behavior in the first language (L1) to that of the culture in which s/he is learning the L2. The social behavior may be part of, easily complement or be in direct opposition to the appropriate social behavior accompanying the learner's L1. Additionally, as McGroarty and Galvan (1985) point out, there are cross-cultural differences regarding the expression of opinions, what constitutes a fact, and the use of facts to support a point in an argument. These differences must also be addressed as a part of the development of L2 communicative competence to ensure better communication by learners within the target culture.

The learners participating in the present study are immigrants to a new country. They have settled in a community which comprises native-born American

citizens of different ethnicities, as well as other immigrants from all parts of the world. These learners, therefore, do not only use English to communicate with native speakers, but with other non-native speakers of English. English, then, becomes the 'river language' for communication between and among non-native speakers. Daily cross-cultural situations (especially at the workplace) may require learners to give and respond to directives (orders and requests). Issuing orders and requests in this context poses threats to the negative face of the addressees.¹⁴ These issues are examined in the present study.

Long and Porter (1985) have found that one way to address the development of learners' communicative competence in the L2 is to design exercises which encourage learners to risk meaningful communication with others. For as Rubin (1987:26) has noted, the development and implementation of communication

¹⁴Face threatening acts within different cultures are discussed fully by Brown and Levinson (1987). Scollon and Scollon (1981) discuss cross-cultural implications of different politeness strategies within cross-cultural communication between Athabaskans of northwestern Canada and Alaska and English speakers. These works will be discussed more completely under the subsection, 'Directives,' later in this chapter.

strategies allows individuals to maintain participation in a conversation. Classes in which learners work with each other, instead of being fronted (rather than guided) by a teacher, enable students more time to talk and take risks with language--to make false starts, change direction in the middle of an utterance and to think out loud. Teacher-led discussions offer less opportunity for this. Both quantity and quality of talk is found to be greater in small group discussion among L2 learners than in teacher-led discussions.

Two-way tasks are those activities in which two or more individuals have information that other participants do not, and in which all participants must communicate with each other to share information. Long and Porter (1985) have found that when learners are involved in such tasks, interlocutors modify their language to improve communication with other learners. In these activities, the focus of the interlocutors' attention is not on the form of an utterance but on the communication itself. Learners must ask each other questions, listen carefully, and follow up with

clarification requests to make sure that they understand each other.¹⁵

Research conducted to determine the effects of group work on children's learning may offer insight to the social interaction among adults learning ESL in collaborative situations. Understanding group dynamics can help teachers promote situations which foster the development of communicative competence. For example, Webb (1985, 1989) notes that how children are grouped can determine who is asked and who answers questions. For example, if a group consists primarily of boys, girls questions are often ignored.

There are also different types of help that one learner can give to another, ranging from no help to high-level evaluation. Help given must be appropriate to the desired assistance (Webb 1989). In a review of past literature, Webb (1985) reports that the helper may benefit from giving elaborate explanations to another student requesting it, but if the help does not

¹⁵For example, in an information gap activity in which the focus is on asking and/or giving directions, two learners are given maps of town with correspondingly incomplete information. Through asking and answering questions, learners are able to complete their maps. Once learners are finished, they compare their maps. They should be identical.

meet this learner's needs it will be of no value in aiding him/her in understanding the material. Webb (1985, 1989) also comments that learner training in giving explanations, combined with grouping strategies employed by the teacher, may provide superior peer-learning experiences. Such explorations into group dynamics would prove beneficial in the examination of language learning activities designed to assist learners in the negotiation of meaning.

The NEGOTIATION OF MEANING describes the process in which participants in an interaction work together to resolve problems in understanding each other. Researchers studying the negotiation of meaning include Doughty and Pica (1986), Gass and Varonis (1985), Pica (1988, 1993, 1994), and Varonis and Gass (1985a, 1985b). These researchers have studied the negotiation of meaning among native speakers (NSs) and non-native speakers (NNSs) of English, as well as among all non-native speakers conversing in English.

Varonis and Gass (1985b), have conducted a study of the negotiation of meaning between NNSs and NSs. In this study, eight NNSs conducted telephone interviews with NSs. NNSs represented beginner and intermediate

level ESL students, as well as matriculated university students. Two NSs also participated in the study. Each participant made ten telephone calls and used eight prescribed questions. After two of the questions, participants asked for clarification by saying 'pardon me.' Analysis of the interactions reveals that the NSs called asked for clarification three times as often to beginning NNSs as to high-level NNS. Furthermore, less speech was directed toward low-level NNSs than to high level NNSs after the first clarification request. Analysis, based on these and other speech variables, suggests that NSs reassess NNSs' ability to understand them, and adjust their speech accordingly. The primary criteria for this adjustment are pronunciation, fluency, and comprehension.

Pica (1988), in an empirical study of the negotiation of meaning in NS-NNS discourse, sought to determine how NNSs modify their utterances when NSs indicate difficulty in understanding them. Results indicate that NNSs can modify their utterances to be more native-like because in indicating their trouble in understanding, NSs often provided a target model for

NNSs to imitate. As Pica remarks; in effect, NNSs are simplifying their interlanguage in order to make themselves more comprehensible to the NS after s/he indicates trouble in understanding (Pica 1988:69).

Not only do NSs and NNSs indicate lack of understanding and subsequently modify their utterances to accommodate each other, but NNSs interacting with other NNSs do this as well. Varonis and Gass (1985a) note that negotiation of meaning among NNS-NNS pairs occurs more frequently than in NS-NNS discourse. First, Varonis and Gass distinguish between NON-UNDERSTANDINGS and MIS-UNDERSTANDINGS. Non-understandings consist of those interactions in which an utterance triggers clarification, while mis-understandings are those exchanges in which an utterance is misinterpreted, and the mis-understanding goes unrecognized.

Varonis and Gass (1985a) report that sequences of non-understandings PUSH DOWN the discourse until the non-understanding is resolved. At that point the discourse POPS again, and interlocutors may proceed with their conversation (71). During the pushdown, the NNS-NNS resolve the misunderstanding through the

negotiation of meaning. Varonis and Gass claim that, because NNSs are both developing their competence in the target language, their mutual incompetence allows them to briefly leave the main conversation and resolve their differences (84). When speaking with NSs, NNSs recognize that they have less command of the target language than the NS. There is a risk then, that the NNS can possibly lose face by indicating non-understanding (85). This phenomenon differs from what are called SIDE-SEQUENCES (Jefferson 1972), the researchers argue, because pushdowns and pops are not breaks from the main flow of conversation, but are specific attempts by participants in a conversation to negotiate meaning in order to continue a conversation (73).

If NNS-NNS interactions afford learners more opportunities to modify their utterances and improve their strategies for making themselves understood in the target language, it is important to implement language teaching techniques to facilitate these encounters. Doughty and Pica (1986) report on results of an empirical study conducted to examine NNS modification of discourse in teacher-fronted, small

group and dyadic groupings. In examining the discourse of teacher fronted, small group, and dyadic groupings among intermediate level learners, Doughty and Pica find that both small group and dyadic interaction promote modification of discourse if information exchange is required. Furthermore, most modifications occur in discourse in which all members of a grouping are non-native speakers, have varying proficiency levels, and speak different native languages (L1s). Pica (1993) reports that classroom activities designed for two-way information exchange encourage learners to paraphrase and repeat in an authentic, communicative task. Pica's (1993) work is further discussed in the subsection on repetition toward the end of this chapter.

In the present study, although all of the learners in the dyads are beginners, some are slightly more proficient in English than others. They speak different L1s. Although not explicitly engaged in two-way information exchange, aspects of the task that they handle, such as remembering the keystroking to record answers, require them to assist each other. In order to better explain what social discourse at the computer

can sound like, the next section of this literature review highlights research on group work around the computer in educational settings, followed by a discussion of social interaction at the computer among adults learning ESL.

Group Work Around the Computer

Using computers creates a new social environment for language learning and practice. Collins (1983), in an overview of uses of computers for reading and writing in the elementary school classroom, describes a learning context in which youngsters can, among other activities, read an informative text, hear pronunciation of unfamiliar words, write a report and send it to computer pen pals in other schools. Levin and Boruta (1983) have examined the role of the computer in 'writing-as-a-communicative act' (292). When students are engaged in traditional writing practice, pen to page, the mechanics of writing is experienced alone. When students share a computer terminal, the mechanical process and the composing process, are shared activities. Similarly, Daiute (1985) has examined the social components of writing

with word-processing in the elementary school language arts classroom, finding that the computer enables the writing process to become more public as its use allows for collaboration among young learners and with their teachers. As Heap (1986) has found, students working in groups are able to talk to each other about the task at hand, and help each other either to solve a problem or to comment on each other's writing. The reaction by teachers and pupils to CAI group work among children engaged in the writing process is positive.

There are no studies that I am aware of that focus on social interaction of adults at a computer as integrated into instructional objectives of a language learning curriculum. However, in a seminal study of adult ESL learners working in pairs at the computer, Piper (1986) examines the conversational SPIN-OFF among different multi-lingual triads of college students videotaped using three different CALL text-manipulation programs. Spin-off implies that the discourse is not integral to the use of the software program, but is a by-product of program use. This view is incomplete; discourse must be analyzed and interpreted as part of

the context in which it emerges and further shapes subsequent discourse.

In examining five-minute long extracts of discourse from the three groups recorded, Piper finds that most discussion takes place when students work with a text reconstruction program. She qualifies her findings by stating that the discussion consists of short turns, with repetition of screen items and the language of the other participants. Complex language only takes place when students are setting up the computer program and is not included in the extracts of discourse studied.

In her study, Piper codes the interactions for the following basic language activities:

1. repeat: repeat language from the screen,
2. manage: manage the computer and the task, and
3. discuss: discuss the language itself and work toward a solution/completion.

Piper applies these descriptions to LANGUAGE ACTS, which she defines as:

'...the smallest units of the discourse, or conversation, and each of these units is defined or separated from others by a pause or by a new person taking a turn in the conversation. Inevitably, the DISCUSS category includes varying amounts of repetition of the text but it is usually obvious that the focus of the 'act' is discussion' (189).

Piper's findings concerning the language structures students in her study typically use while working on CALL lessons are important, but her system of categorizing discourse may not characterize the interactive process underlying the emergent discourse. For if the discourse of the four pairs of learners in the current study is categorized according to Piper's schema, it immediately would become apparent that repetition not only serves many communicative purposes in discourse, but also constitutes a common, ordinary language learning practice.

Repetition is feature of discourse that functions, among other uses, in both management and discussion. Even if learners are reading aloud from the screen and subsequently repeating what they have read, differences in intonation indicate that the individuals are incorporating the words into their speech for their own reasons. Bakhtin (1986:90) discusses two types of intonation, grammatical and expressive. He states that it is in the whole utterance that a sentence (or by extension, a phrase or word) takes on expressive meaning. By extension, then, when learners are reading from a screen, repeating what they read, thinking aloud

while repeating, they are working with the language. Repeating implies that words or phrases are spoken again, but does not mean that there is no new meaning there. If individuals are merely acting as sounding boxes, that differs from using the words from the screen or from another interlocutor and incorporating these words into a fresh utterance.

Brown and Yule (1983b:19) maintain that higher level learners of English should develop skills at long turns in transactional talk (for example, explaining car troubles to mechanics, describing symptoms to doctors). For beginners, however, interactional short turns are appropriate (Brown and Yule 1983b:32). Brown and Yule note that in participating in short turns, speakers engage in self- and other-repetition. When a second speaker incorporates language from another speaker's previous utterance, interlocutors know that the topic is the same. Furthermore, repetition enables more efficient production (Brown and Yule 1983b:9). Brown and Yule's observations on language are important in light of the current study, where beginning speakers work together to complete a task, an environment rich

in opportunities for repetitive, short turns in transactional talk by beginners.¹⁰

Piper states that the CALL used in her study is not integrated into a lesson, and that outcomes may have been different had this been the case. This is an important consideration as Grabe (1985) points out. CAI is difficult to evaluate when used in conjunction with traditional classroom instruction if it is not integrated into a lesson. As Johnson and Johnson (1986) have demonstrated, whenever CAI is used by children as a cooperative learning activity (where participants in the CAI lesson have both specific individual roles which they must perform and the common goal that the whole group succeeds only if the group members cooperate with each other), verbal interaction is high and all students improve their problem solving skills (see previously cited literature on two-way information exchange promoting communication among second language learners). DeVillar (1991) ratifies this opinion in a discussion of cooperative learning and computer use in K-12 ESL settings.

¹⁰Further discussion of the value of repetition in discourse is discussed in the subsection, 'Repetition,' in this chapter.

In a subsequent empirical study inspired by that of Piper (1986), Abraham and Liou (1991) attempt to make NNS-NNS discussion integral to the use of different software programs by selecting programs that they, as researchers, thought would encourage problem-solving conversation, and by telling study participants that to talk with each other. Results of this study indicate a difference in the quality of talk spoken by participants: there are more long turns in the discourse.

Findings discussed by Kleifgen (1992), in a discourse study of a triad of teachers evaluating instructional software, lead to a different interpretation of the task-focused interaction occurring when individuals collaborate on using instructional software. Study participants, all teachers as well as experienced computer users, have been videotaped while examining software as part of a graduate course in computers and language learning. Subsequently, discourse has been transcribed and coded for the following features:

- text from the screen read aloud
- text from the screen talked about
- text from the manual read aloud
- text from the manual talked about

- keyboard symbols talked about
- other textual sources (labels, written notes, etc.)

(Kleifgen 1992:4)

In evaluating the content of utterances, Kleifgen finds that 97% of all utterances are related to the task, with 32% of utterances incorporating on-screen text in some way. Kleifgen maintains that such talk, embedded in the context of on-going, task-focused, interaction is coherent. Repetition of on-screen items serving cohesive functions in the ever-emergent text of the discourse.

Functions such as repetition, management, and discussion are context-sensitive. As Kleifgen (1992) demonstrates, discourse form and content cannot be isolated from context and still account for the unfolding interaction. Discussed in the next subsection, Communication Accommodation Theory provides a framework for the analysis of interactions in social context. Such a theory is useful in explaining the discourse strategies that second language learners use in cross-cultural communication.

Within Communication Accommodation Theory, there is room to explain how interlocutors attune to each other and assume and modify stance toward each other

and the emergent text. This theory allows for detailing how access to knowledge accounts for learners' motivations and abilities to communicate. For after all, are not learners of a language humans first and foremost, and language learners second? By positing social encounters within a larger context, we can better understand the strategies that adults use to comprehend new situations, in this case, language learning by computer with a partner.

Communication Accommodation Theory

Communication Accommodation Theory (CAT) is a social psychological theory that details individuals' orientations to communicative encounters, as well as their strategies for engaging with other interlocutors in such encounters. In this section, I first describe CAT and then discuss studies in second language acquisition that use CAT as a framework for interpretation and analysis of discourse data.

An Introduction to CAT. Called Speech Accommodation Theory in its early stages of development, initial CAT research explored the nature of convergence and divergence in speech and dialect

(Giles 1973, Giles, Bourhis, and Taylor 1977). The theory accounted for the social and psychological orientations, processes, and perceptions interlocutors brought to communicative encounters as they were reflected in changes in accent and code-switching (Giles, Mulac, Bradac, and Johnson 1987; Giles, Coupland, and Coupland 1991). Sociolinguistic analysis makes it possible to use linguistic evidence to support claims in changes in register and code, as well as in social and psychological orientations.

Speech convergence describes the phenomenon in which an interlocutor or interlocutors alter their accent to sound more like one another. Alternatively, speech divergence describes the opposite phenomenon in which an interlocutor or interlocutors alter their speech to accentuate differences between themselves and their interlocutors. Features of speech examined to determine convergence or divergence include pause rate, accent, and utterance length. SAT also has been used to study the social psychological nature of code-switching among bilinguals. Over time, the theory has developed into a framework for interpreting the sociolinguistic and social psychological processes as

an interwoven network of orientation and attunement of interlocutors to each other in communicative encounters. (See Giles, Mulac, Bradac, and Johnson 1987 and Giles, Coupland, and Coupland 1991 for a complete overview of the development of SAT and CAT.)

The current model of CAT addresses the initial presuppositions, ongoing assessment, and resultant interaction among individuals engaged in a communicative encounter in terms of:

1. individual differences of each interlocutor including each individual's perception of self;
2. interpersonal goals that each individual expects of the encounter, which impact on (3) below;
3. addressee foci in which an interlocutor perceives other interlocutors, and how this impacts upon his/her orientation to other interlocutors;
4. an encoding process in which messages given and given off are formulated within interactional strategies useful for (5) below;
5. facilitating the other's decoding process by using interactional strategies, such as convergence or simplified register;
6. postinteractional consequences which bear upon the various states (cognitive, social psychological) of the individual interlocutors.

(Giles, Coupland, and Coupland 1991)

Assessment of each other's interactive competence is constant throughout an interaction. Points 1, 2, and 6, although non-linguistic, influence the emergent discourse and perhaps affect discourse occurring later.

Interlocutors, through word and action, constantly send out information reflecting their involvement and attitudes within the ongoing social interaction. Interlocutors interpret these messages given and messages given off (Goffman 1959:2) and respond to them as they formulate subsequent text within an interaction. Some of these cues are linguistic. Among participants in the present study, speakers adapt their discourse to meet the needs that others exhibit. The addressee foci, named in Point 3 above, point to both linguistic, para-linguistic, and non-linguistic cues that participants give off and respond to as they interact with each other.

An initial assessment of an interlocutor's competence leads a speaker to use certain attuning strategies (assumed under points 4 and 5 above). Interlocutors attend to each other's interactive competence as assessed through such linguistic cues as accent and lexical diversity, (see Gass and Varonis

1985 who mention pronunciation, fluency and comprehension as factors in NS-NNS accommodation). The cues lead individual interlocutors a set of interpretability strategies that they use whenever speaking to modify their complexity of speech. For example, interlocutors may increase clarity, incorporate repetition and clarification checks, and/or select conversational topics based on their assessment of interlocutors' abilities. By making preliminary and ongoing assessments of their interlocutors' readiness and ability to participate in conversation, speakers adjust how they deliver their message. Finally, as named in Point 6 above, interlocutors' ongoing history of interaction informs them to act certain ways during subsequent encounters.

The analytical framework afforded by CAT offers a comprehensive approach to the study of NNS-NNS interaction and discourse. Learners who must speak the target language with each other must interpret every available cue possible in order to communicate relevantly with other interlocutors. But in addition to the general categories offered by CAT, and explained immediately above, it is important to further flesh out

the roles that interlocutors take on and use throughout an encounter through interactional sociolinguistic analysis.

CAT and Second Language Acquisition. CAT has been used by sociolinguists engaged in second language acquisition (SLA) research to account for linguistic convergence and divergence among interlocutors. For example, when Thai children of Chinese ethnic heritage, bilingual in both Swatow Chinese and Thai, were interviewed by an ethnic Thai and ethnic Chinese Thai, Beebe and Zuengler (1983) found that the children modified their Thai speech with Chinese linguistic characteristics to converge to what they perceived would be desired by the ethnic Chinese interviewer, even though this interviewer exhibited no Chinese phonological characteristics in speaking Thai. This demonstrates, argue Beebe and Zuengler, that the Thai children's linguistic divergence was actually an effort toward social convergence, or what they perceive to be acceptable by the interviewer. In addition, Beebe and Zuengler caution that care must be taken to understand which features of non-native speaker discourse are not

on-target due to developmental reasons and which are not on-target because of social-psychological reasons.

As is demonstrated in the present study, NNSs may simplify their utterances with other NNSs who have less control over the target language. Simplified registers both produced by second language speakers and used by native speakers with non-natives can be discussed in terms of CAT. Beebe and Giles (1984) mention three simplified registers that have received considerable attention in applied linguistics literature: foreigner talk, teacher talk, and interlanguage talk. The first two are used by individuals with native or native-like command of language. Interlanguage describes developmental second language registers of varying proficiency.

FOREIGNER TALK, so named by Ferguson (1981), usually describes the simplified register a fluent or native speaker of a language uses with a less proficient speaker. Similarly, teacher talk describes the register used by language teachers with their students. Both registers share the use of repetition, simplified syntax, and the use of questions to continue interaction. These simplified registers aid learners

acquiring a second language because they render comprehensible the input afforded the learner. The learner can participate in a conversation, confident that s/he can understand and follow what is being said.

Zuengler (1991) acknowledges that use of foreigner talk can also be discussed within CAT. She states that a native speaker may engage in foreigner talk to show empathy with the non-native speaker or to ensure comprehension on the part of the non-native speaker interlocutor. The native speaker also may choose to engage in foreigner talk because it is perceived as the appropriate speech style for his or her social role.

In addition to using a simplified register, those speakers using teacher talk or foreigner talk may make certain allowances for the non-native speaker when having a conversation. For example, the native speaker may wait longer during conversational turn-taking, giving the non-native speaker a little more time to formulate a response. Native speakers may also ask more questions, engaging the non-native speaker in an interaction requiring an answer.

Native speakers may attempt to accommodate non-native speakers with various strategies. For example,

if a non-native speaker makes a contribution not directly related to the topic of conversation, the native speaker may treat this as an intentional change in topic and will adjust his/her focus to the new topic instead of correcting the non-native speaker. The native speaker may also select topics of which the non-native speaker is knowledgeable, thus manipulating the conversation so that the non-native speaker will experience success in the interaction.

In addition to simplified registers directed by those with native-speaker proficiency toward those learning a second language, the speech spoken by those learning a new language is also simple.¹⁷

Interlanguage (Selinker 1972) describes the second language talk used by second language learners, specifically to the 'structured system which the learner constructs at any given stage in his development' (Ellis 1986:47), as well as to the continuum of such systems (Corder 1967). Interlanguage

¹⁷Ferguson (1981) suggests that the term Foreigner Talk is general enough to cover both the simplified register used by proficient speakers of a language with those who are less proficient as well as to label interlanguage spoken by second language learners. The term is almost always used in the former, not the latter, sense.

is a simplified code that increases in complexity as the learner improves in ability. Additionally, speakers are able to reflect changes in register and style within interlanguage (Tarone 1979, 1982).

Beebe and Giles (1984) maintain that there are four linguistic factors that are independent variables affecting linguistic performance: linguistic environment, linguistic input, linguistic repertoire, and linguistic background. The roles these variables play in determining either linguistic or psychological divergence or convergence must be interpreted very carefully due to the variability in proficiency learners can demonstrate under different circumstances.

Both linguistic environment and linguistic background are intrapersonal features affecting speaker's performance in the target language. The linguistic environment consists of the speaker's own linguistic constraints on his/her own speech. Linguistic background consists of all previous linguistic experience that impacts on an individual's language learning. This includes not only first but other second languages the individual may have experience with.

Linguistic input is provided to a language learner by the world around him/her. It includes the previously discussed simplified registers that provide a learner with comprehensible input. Krashen (1982) argues that output (what a learner produces in the target language) serves to encourage more input by other interlocutors. Incidentally, this is one of the reasons that learners have been paired to work at the computer. Teachers hope that natural communicative interaction will take place between the learners.

Within the category linguistic repertoire Tarone (1977) lists five strategies that non-natives use to compensate for limitations in linguistic repertoire.¹⁸ These are: avoidance of topic/message abandonment, paraphrasing, conscious transfer from L2 to L1 (as well as literal translation from L1 to L2), appeal for assistance, and mime. Participants in the present study use these compensation strategies as well as others discussed in the third chapter, 'Directives.'

Within this section, I have discussed Communication Accommodation Theory (CAT) and its relevance to the study of discourse in social context.

¹⁸cited in Beebe and Giles (1984).

I have reviewed second language acquisition studies which present analyses of accommodation strategies and of convergent and divergent linguistic strategies. I have bolstered this discussion with additional background on the registers of foreigner talk and interlanguage. In the following section, I continue the discussion of the relationship between utterance and social context, as I examine social identity and participant role.

Social Identity and Participant Role

Most research on second language acquisition or processes of learning second languages focuses less on the individual as a participant in a social situation in which s/he speaks, and more on either the effect of social interaction on accuracy and fluency in the target language. In the present study, learners are engaged in cross-cultural interactions within a school. Through every action and utterance, they present themselves to the individuals with whom they communicate. In this study, learners interact differently with their peers than they do with their teachers.

The context-sensitive shifting of "...the alignment [that participants] take up to [themselves] and the others present as expressed in the way [they] manage the production or reception of utterance" is called a change in FOOTING by Goffman ([1979] 1981a:128). Rejecting the traditional dichotomies of sender-receiver or speaker-hearer models of communication and discourse, Goffman proposes that there are multiple roles that interlocutors take on or assign to others. Interlocutors shift among these roles as they jointly create discourse.¹⁹

Roles comprising the production format associated with the speaker include ANIMATOR, AUTHOR, and PRINCIPAL (Goffman [1979] 1981a:144). The role of animator is a functional one. The animator is the sounding box through which utterances emerge. The author creates the utterances in which sentiments and expressions are encoded. The principal is the role for whom the words stand to represent. For example, a spokesperson may speak on behalf of a group. The group, perhaps

¹⁹Most recently, Tannen (1993) has edited a volume of sociolinguistic papers which examine frame and footing in social interaction.

including the spokesperson are all members of the principal (144-145).

In addition to the different roles of speakers, Goffman discusses the differences in audiences engaged in an interaction. Addressees may be ratified and non-ratified participants. Ratified participants are those who are selected by a speaker to participate in an interaction, although they may be inattentive. Ratified participants are also addressees, selected by gaze. Remarks are addressed to them, while non-ratified individuals do not maintain this status, although they may eavesdrop on a conversation. There may be overhearers present. Overhearers are bystanders in listening range, who may hear speech but not be paying attention to it (Goffman [1979] 1981a:131-137).

Levinson (1988), in an analysis of Goffman's work on footing, subdivides production and reception formats into participant roles that interlocutors take on or assign during interaction. Unlike institutional roles (e.g., judge, teacher, priest), which are easily labeled, participant roles are specific to the given interlocutor's role within an interaction.

In Levinson's analyses, the traditional categories of speaker and hearer are further subdivided to indicate participant status. The roles of bystanders within an interaction are specified, as well. Levinson notes that role assignment and occupation are active processes within an interaction, and are not merely analytical categories assigned by researchers during analysis.²⁰

Evidence for either taking on or assigning a participant role includes indexical features of spoken grammar, paralinguistic features (e.g. gaze, loudness of voice), and reference to/acknowledgement of a role. For example when Interlocutor A tells Interlocutor B: 'So-and-so wasn't talking to you,' s/he is in effect saying that Interlocutor B is neither the ADDRESSEE nor the TARGET of the utterance. (Quickly defined, an addressee is the individual spoken to directly, while a target is an individual who the message is intended to reach.) An understanding of role assignment is necessary to understand how and why interlocutors say what they do and react to what is said, and how these

²⁰See Rumsey (1989) for criticism of Levinson's system of categorization as applied to analysis of grammatical person and agency in Ku Waru.

reactions subsequently shape discourse and context. Furthermore, the nature of role incumbency and role assignment indicates relative status of interlocutors participating in an interaction (Schwitalla 1993).

As alluded to previously, another factor influencing who speaks is who has information or access to it (Schiffrin 1987). Asymmetries (inequalities) of knowledge affect the emergence of discourse among participants. When such asymmetries become salient and cause a redirection or focus in an interaction they become an object of study for conversation analysts (Linell and Luckmann 1991:5). Drew (1991) discusses asymmetries of knowledge and the difficulties that such inequivalencies may generate, namely, misunderstandings and/or breakdowns in conversation. Exogenous (extra-textual) identity of an interlocutor affects the expectations of rights to a knowledge base and shapes, to some extent, what knowledge interlocutors expect each other to have access to or to know.

In terms of second language acquisition and the development of interlanguage, Zuengler (1993:193) makes the following observation on the relationship between knowledge of topic and performance:

'IL (interlanguage) performance can be a function of the speaker's knowing more or less about the topic than the interlocutor knows, rather than how much ABSOLUTE knowledge of the topic the speaker has, divorced from the interaction' (author's emphasis).

By this, Zuengler means that the more relative knowledge that a second language speaker has, the better s/he will be able to perform when discussing that topic.

In certain instances, if the identity of an individual does not necessarily entitle him/her to knowledge, an authoritative third party may be referenced. For example, in discussing health practices, individuals may refer to their personal physicians or other medical authorities when offering health advice to others. However, Drew (1991:44) finds that asymmetries in conversational talk do not always result in interactional trouble, but if they do, participants orient themselves to the difficulties. He draws a distinction between cognitive state of knowing and asymmetry of knowledge relative to social structural identities exogenous to the conversation (for example, doctor/patient, parent/child). In other words, because knowledge, or access to it, is socially distributed and related to social status, it is not

necessarily related to mutuality of knowledge that interlocutors hold about each other's information state or to the cognitive state of knowing (Drew 1991:45). Heap (1986:9-10) demonstrates that when first graders work on writing at the computer taking on the roles of writer and computer helper that each child tries to abide by the rights and responsibilities according to social identity. In other words, the computer helper is not to help the writer compose even if a better writer, but to limit assistance to technical use of the computer.

In the present study, it is necessary to examine asymmetry of knowledge as a feature that is sometimes appealed to strategically and sometimes employed automatically in interactions focused on correction or repair. The software program on the computer takes on expert status, and is appealed to by teacher and learner alike as an authority on correct language. Teachers also maintain expert status and may choose to override the computer. Learners take on the stance of expert, but may be refuted by their partners. How learners perceive each other's roles determines how they will initiate communication or react to it within

an extended interaction. How participants assess each other's competence in prolonged interaction guides them in their contributions to the discourse.

An additional factor to note, as Heath and Longman (1994) have observed in an analysis of the discourse of coaching, is that even when contexts for interaction change, behaviors associated with other roles from old contexts may still hold. By extension, previous interaction with an individual colors conversationalists expectations of each other in subsequent encounters.

In this section, I have discussed social identity and participant role and how they contribute to the context of social interaction. In the present study, analysis indicates that social identity is related to participant role. The interrelationships of social identity, participant role, and knowledge are discussed in Chapter 3, 'Directives.'

Interactional Sociolinguistic Analyses of Communication in Institutional Settings

Sociolinguistic research relies upon analysis of discourse in context to account for norms of interaction. The ethnographic approach is used to

account for the place of literacy in different cultures. For example, Philips (1972) has used the ethnographic approach to study Warm Springs Indian children in reservation and town schools, in part, to determine what cross-cultural factors contribute to high school drop out rates. Heath (1983) has used the ethnographic approach to study school socialization and literacy acquisition among African-American and Anglo-American working class families in the Piedmont Carolinas as a school system began integration. Her long-term study enlisted the work of school district teachers to both observe and analyze students at school as well as to modify their delivery of instruction to meet the learning strategies of the children. Boggs (1985) has used the ethnographic approach to study the schooling of native Hawaiian children to enable teachers to match the learning styles of their pupils. According to F. Smith (1989), the most beneficial studies of literacy acquisition by children have been those using an ethnographic approach.

In the present study, I conduct a case study relying upon interactional sociolinguistic analysis of NNS-NNS interaction and the learner-computer

interaction, stemming from a data collection and analysis process based upon an ethnographic approach. In past research, such analyses, conducted on videotaped data, have proven beneficial in the understanding of participant roles in interaction taking place in formal settings. For example, Tannen and Wallat (1983, 1986, 1987) analyze interaction during a medical examination, in which a pediatrician juggles talking with a girl (the patient), her mother, and addressing the camera with remarks aimed at medical students during the taping of a training film (Tannen and Wallat 1983, 1987). Sociolinguistic microanalysis reveals the different linguistic cues (pitch, intonation, register, lexical choices) in the pediatrician's speech as she shifts her attention from one audience to another.

These changes in speech also indicate the shift in context of situation in which the pediatrician is participating. This context of situation, or frame, has a dual nature. One component is personal. As Tannen (1979) explains, each participant in an encounter has a set of expectations, based on prior experience in similar situations. At the same time,

participants engaged in an interaction share a mutual set of signals, contextualization cues (Gumperz 1982), which they use to interpret what is going on at any moment of their encounter. Participants also use these signals as cues which indicate their shift in stance among frames operating within an encounter.

Erickson and Schulz (1982) and Erickson (1985), applying sociolinguistic microanalysis to filmed and videotaped data, offer an account of the interrelationships of linguistic and non-linguistic cues in an encounter between a recent college graduate applying for a job with an insurance company and an interviewer from the company. Both men are of different ethnic groups: the applicant is third generation Italian American, and the interviewer, sixth generation German American. Film frame analysis indicates that disfluency in the applicant's speech corresponds with the interviewer's averting of eye-gaze. After engaging in film playback with the applicant, Erickson concludes that the applicant relied upon interpretive schema based upon his cultural norms and expectations. That is to say, the Italian-American interviewee expected culturally familiar signs of

active listening from the German-American interviewer. For the interviewee, the interviewer's averting of eye gaze corresponds to lack of interest.

In classroom-centered research, videotaping has also been used to capture social interaction. Kleifgen (1985) has used periodic videotaping in an ethnographic study of interactions in a kindergarten classroom in which three of the children are non-native speakers of English. In analyzing teacher-child interactions, Kleifgen compares teacher discourse directed to native-speaking children and non-native speaking children. She finds that the kindergarten teacher successfully attends to the needs of all learners in her classroom (including NNSs), and offers the extra attention that shy or quiet children needed. The teacher is able to strategically vary the complexity of language used to enable the children to understand her.

In the present study, videotaped interaction²¹ of participants (teachers, learners, and participant-observer) engaged in interaction at the computer

²¹I videotaped all social interactions analyzed in the present study. Please refer to Chapter 2, 'Method,' for further information concerning setting, participants, data collection, and data analysis.

indicate that salient features of discourse include: the wide syntactic variety of directives uttered, the various functions of repetition, and the enactment of correction and repair. Background research on these three features follow.

Directives

Directives, as defined by Searle, are illocutionary acts in which the 'illocutionary point[s]...are attempts...by the speaker to get the hearer to do something' (Searle 1975:355). Orders and commands imply that the speaker has some authority over the addressee (Searle 1969:66), while requests do not. The illocutionary force of each of these types of directives may differ, but the point behind using them is the same. The party issuing the directive desires that the addressee comply.

Studies of directives generally use such a definition as a starting point, however, not all studies follow the philosophical and introspective approach to inquiry that Searle and other philosophers of language use. For example, conversation analysts examine the utterance of directives within the social

processes surrounding their utterance, while sociolinguistic inquiry includes various approaches in the examination of how social factors influence directives as part of an emergent text. Such studies are discussed below.

Analyses of speech acts and the manifestations of speech acts in different syntactic structural types in speech and writing yield information concerning social and personal factors impacting upon language chosen for use. Unfortunately, many examples in initial speech act analyses are hypothetical and utilize the sender-receiver metaphor for depicting interpersonal communication. The theory deals with possible sentences rather than utterances in social context, as Schiffrin (1994:60) notes. In his discussion of footing, Goffman ([1979] 1981a:129-130) alludes to the inadequacies of analysis this over-simplification yields when he states that the interactions of all participants, not just who is speaking, impact the development of emergent text.

Analyses of speech acts not only should account for syntactic structure at the sentence level and logical structure of the discourse routine, but equally

as important, analyses should account for utterance form within the social context of production. Social factors influencing the interaction do not begin and end with the speaker's wants and needs, but stem from the social relationships shared by all participants. This awareness influences how the speaker chooses to make his or her needs known. Sacks, Schegloff and Jefferson (1974:727) term this quality RECIPIENT DESIGN.

In a critique of past sociolinguistic research on variation and style, Bell (1984) further refines the audience-sensitive aspect of recipient design, calling it AUDIENCE DESIGN. Audience design is the process in which speakers accommodate listeners, based on the relative status of audience (listener) role to the speaker. In other words, speakers shift their style to most closely accommodate addressees (whom they can see or otherwise identify) and pay less attention to overhearers (non-ratified, non-addressees within hearing range, visible to the speaker) (158-159). Bell limits his analysis and discussion primarily to phonetic variables in speech. In the present study, I account for audience design within communication accommodation theory, but draw analytical approaches

from interactional sociolinguistic approaches to discourse analysis as well as from conversation analysis.

Perhaps the most significant study of the relationship involving analysis of social factors and the issuing of speech acts is the investigation of politeness strategies undertaken by Brown and Levinson ([1978] 1987). The researchers claim that the speaker's drive to serve the positive and negative face wants of the hearer influences the ways in which people interact with each other.

POSITIVE FACE describes the desires an individual has for approval, while NEGATIVE FACE describes an individual's wish to go about business unimpeded. Sociological factors affecting individuals' attention to others' face wants consist of relative social distance, power, and the rate of imposition on the hearer that compliance with a speech act would affect.

Brown and Levinson primarily draw their data from language samples taken from Tamil-speaking regions of South India; Quetzal, spoken by Mayans of Chiapas, Mexico; as well as samples from British and American English. They include examples from other languages as

well. Brown and Levinson acknowledge that their study has some limitations, among them the inadequacy of speech act theory (10), which Levinson takes on in other writings (1979, 1983).

Despite the limitations of speech act theory, Brown and Levinson ([1978] 1987) are able to make the general case that positive politeness strategies are those in which the speaker demonstrates his/her affinity to the hearer by identifying with him/her. Negative politeness strategies, on the other hand, include distancing techniques, such as utilizing conventional indirectness and expressing the desire not to impose oneself on the hearer.

Since forms of directives are acquired early on in first and second languages, it is important to explore their spontaneous use in situations where directives occur frequently. However, as Jones (1992:429) notes, although there are studies of how adults use directives with children, there are few studies of adults using directives with each other. This observation is supported by those of Kasper and Blum-Kulka (1993), who report that there is little research on the development of pragmatic competence (including the use of

directives) by adult second language learners, although developmental pragmatic literature seems to give a comprehensive overview of children's first language acquisition (19). The research reviewed below is drawn from studies of child and adult speech. I refer to these studies in order to interpret directives enacted by participants in the current study in the next chapter.

J. Smith (1992) in an examination of politeness strategies of Japanese women in changing social roles, studies spoken directives from different television programs. In an analysis of animated cartoons, Smith finds that female speech is marked by more polite directive forms than male speech. The same holds for her analysis of directives used by educational television programs: a female chef uses more politeness markers in uttering directives to her assistant(s) than does a male carpentry instructor.

J. Smith (1992) also examines Japanese women occupying nontraditional roles on television detective/police dramas. (Both domains are traditionally masculine.) Although Smith notes that women in nontraditional roles still use more polite

language than their male counterparts, a few utterances in her data do consist of more imposing directive forms. This, argues Smith, might mark the beginning of emergent linguistic conflict in politeness forms reflective of the shift in women's traditional social roles.

Jones (1992), in a study of directives given by men and women at a morris dance team meeting, notes that social role, rather than gender of the speaker, seems to affect the number of directives given as well as the form that directives take. In her analysis, Jones (1992) examines only procedural directives, those reflecting what individuals or the group of dancers should do in the meeting, and not suggestions for future action by the group (433). Jones finds that little more than half of the directives are either imperatives/prohibitions or indirect directives (434).

In analyzing directives related to gender in the context of the team meeting, Jones notes no significant differences in the types or forms of directives used by team members. She does find differences when comparing use of directives by long-time team members to use by individuals who are newer members of the dance team.

In addition, she finds that the meeting facilitator, a woman, gives and receives more directives than anyone else at the meeting. Jones concludes that status variation is more important than gender in determining use of directives in this context (441-442).

Similar in some regards to Jones's (1992) findings, results of the present study indicate that social identity is strongly linked to the syntactic forms and functions of directives. Since development of communicative competence is determined by the ability that interlocutors have in using language properly with regard to social situation and social role, it is essential to include social context of utterance in the analysis of directives. In the present study, directives arise around what Ervin-Tripp (1976:27) describes as 'task-oriented talk around action.'

Some studies have been conducted in which syntactic variation of speech acts have been considered in terms of the social relationships between the speaker and the addressee. In an analysis of spoken American English directives, Ervin-Tripp (1976) draws examples from many different speech settings. She

determines that, because the syntactic forms of directives are so varied, it is important to analyze the distribution of social factors in interpreting utterances as directives. Such factors include social distance in hierarchical relationships, emotional distance, age difference, and institutional relationships. Her findings demonstrate that there is a relationship between social factors and syntactic form used to issue directives.

In Pufahl Bax's (1986) study of the use of both spoken and written directives in an office, administrators issue directives to office support staff. In this institutional setting, either the boss or a third party benefits from the compliance with a directive. Pufahl Bax explains that although a hierarchical relationship exists between administrator and office support staff, negotiation still takes place when administrator's issue directives face-to-face. Regardless of rank, interlocutors in the office setting negotiate in face-to-face interaction because they place equal value on building rapport.²²

²²Linell and Luckmann (1991:11), in a discussion of asymmetries of dialogue, review studies of institutional discourse in which variation exists in

This negotiation is absent in written directives. Pufahl Bax attributes this, in part to the differences between spoken and written language. Because spoken language can be characterized by high interpersonal involvement, negotiation occurs in spoken interaction. On the other hand, she argues, writing is focused on content, and therefore more explicit (690).

Studies of directives used by children also yield information concerning the relationship between syntactic form of directive and social relationships, as captured in register. Andersen (1990), in a study of knowledge of register among American children aged 4 through 7, has found that the order for encoding register differences is: 1) phonological marking, 2) lexical marking, 3) morphosyntactic marking. Andersen focuses much of her analysis on the use of directives, and finds that the syntactic types range from the simple imperative, to requests for permission, to hints. In addition, children as young as four years

hierarchical institutional settings in which interaction is thought to be ritualized and routine. Parties to dialogue work together to accommodate to each other. The degree of power or control cannot be directly linked to form of utterance.

old exhibited an awareness of social role and status enacted in role play.

Goodwin (1980) in an ethnographic study of urban African-American children at play, analyzes the use of directives in interactions among boys and girls in same-sex groups as they work on tasks integral to play. Boys are observed making sling shots from hangers and rubber bands, while girls are observed making rings from the necks of glass bottles. Boys and girls differ in the ways in which they give directives to their peers.

Goodwin (1980) observes that the boys who occupy leadership positions in the group use 'non-mitigated' or 'aggravated' forms of directives (159). Addressees can challenge the right of the boy giving the directive by refusing to carry it out or may insult and/or criticize the speaker's right to deliver such directives. When a boy complies with a directive given by another boy, he confirms their asymmetrical, hierarchical relationship. The same pattern is observed in the present study when two males work together at the keyboard.

Girls, on the other hand, usually phrase their directives as suggestions or proposals for future action. They mitigate their directives with hedges. If an addressee disagrees with a proposal that another girl makes, she does not usually engage in one-upping her, rather she gives a reason why the proposed action might not be a good idea. In sum, girls' interactions generally reflect symmetrical, social relationships, while boys' antagonistic interactional style ratifies asymmetrical, hierarchical relationships.²³

In the case of adults learning second languages, research indicates that directives are among the first speech acts to be acquired. Scarcella (1983), employs ethnomethodology's conversation analysis in an experimental study of conversational competence among 63 adult ESL learners. She hypothesizes that there is a developmental order of certain discourse routines by second language learners. Although cautioning that the study results are preliminary and should not be generalized, Scarcella finds that the following developmental order obtains: 1) greetings and

²³See Tannen (1990) for a comprehensive examination of gender differences in social interaction.

closings, 2) introductions, and 3) pre-closings and clarification requests. Clarification requests are a special type of directive in which interlocutors signal that they do not understand what a speaker has just said, and ask for assistance. Scarcella notes that such conversational devices should be examined in natural as well as in experimental settings.

In the present study, spoken directives are issued by teachers and learners. Spoken directives vary in syntactic form. Both social and linguistic factors affect variation. Such factors include the function of the directive, social relationship among participants, subject knowledge, proficiency in speaking English, and speaker's perception of the addressee's ability to understand English. In addition, perceived urgency in communicating a directive also influences the syntactic form.

Learners and teachers respond not only to spoken but also to written directives. The educational software programs utilize on-screen directives in the form of text or icon. Both indicate how the learner is to proceed with the language problems presented. The texts that appear on the screen are explicit,

prescribed, and unchanging. Error analysis and response is not customized to assist learners in figuring out the correct answer on a second try. At most, learners guess again, although responding correctly to the pre-programmed message from the drill and practice program to try again does not ensure that the learners are, in fact, learning²⁴ (Garrett 1987:190). Chapter 4, 'Repair and Correction,' treats this aspect of responding to on-screen directives in further detail.

This section has highlighted past studies of spoken and written directives. Speech act theory, although providing the operational definition of the directive (Searle 1969, 1975), is but a starting point for the analysis of directives emerging within actual (rather than imagined) social context. The present study undertakes an analysis of the spoken directives that learners and teachers employ while engaged in a task. Lack of negotiation between learner and computer (or teacher and computer) characterizes response to

²⁴However, it should be noted that if the software program is of topical interest to the learners and if the teacher arranges for use within the appropriate instructional sequence, then use can be effective (Madsen and Bowen [1978:30], cited in Hubbard [1987]).

directives generated by the software program, but this is not so between partners at work at the computer. Turning from our focus on directives, the next section provides background information on a set of features of the discourse analyzed in this study, repair and correction.

Repair and Correction in Discourse

When I think about my early experiences learning my second language, German, I recall how the teacher called on students to read a passage aloud, or to demonstrate knowledge of a grammar paradigm by conjugating verbs or declining nouns. We were commended for correct pronunciation and grammar, and quickly corrected for any errors committed. No thought was given to closing textbooks and engaging learners in collaborative activities conducted in the target language. And since, for the most part, we were all native speakers of English who only used German in the classroom (excluding a few students who actually came from German-speaking homes), there was little to motivate us to speak the language. Since the 1970s, a

revolution has taken place in second language instruction.

Now, learners are given opportunities to engage in face-to-face interaction. They are obligated to work interactively toward mutual understanding in order to improve communicative competence in the target language. Adult immigrants and refugees who have chosen to live in the United States and who have decided to learn English as a second language²⁵ have instrumental reasons (Gardner and Lambert 1972) to learn English. They may need to speak English on the job and in the community. They equate better command of English with better job opportunities. Learners participating in this study use English as a lingua franca with other foreign-born people in the community. Therefore, it is important that they be given every opportunity to negotiate meaning.

In this section of the literature review, I introduce different approaches to the study and analysis of repair and correction, viewing such routines as opportunities for the negotiation of

²⁵Refugees are required to attend English classes if they are receiving cash assistance from the state (welfare) and are not employed.

meaning. Approaches to analysis of conversational discourse covered include: conversation analysis of repair, correction and face, and interethnic misunderstandings. I then shift the focus to review how error correction has been studied in second language acquisition research, notably studies of the negotiation of meaning as well as repair within the context of second language instruction. Next, I discuss pedagogical techniques for addressing errors in spoken discourse. I conclude by presenting information explaining how CALL software tests and responds to learner errors.

The notions of discourse REPAIR and CORRECTION are related, yet they differ in meaning. Schegloff, Jefferson, and Sacks (1977) use the term repair to refer to sequences in conversation in which speakers alter their own or others' utterances. The term is favored over correction because correction implies that the repair will leave the changed utterance correct. Repair simply refers to the routine of self- or other-alteration of an utterance, one outcome of which might be correction. There are four repair routine types, each differing in where the repair sequences typically

occur. These repair routine types are: 1) self-initiation, self-repair, 2) self-initiation, other repair, 3) other-initiation, self-repair, and 4) other-initiation, other-repair. Other-initiated repairs take more turns than self-initiated repairs do. Schegloff, Jefferson, and Sacks (1977) maintain that there is an organizational preference for self-initiation and self-correction in repair routines.

Repairing or correcting someone else's words results in a threat to negative face. In their study of politeness, Brown and Levinson ([1978] 1987) use speech act theory to analyze strategies interlocutors use to maintain polite speech. Part of acting politely requires speakers to balance positive and negative face wants of the addressee. NEGATIVE FACE is the desire to go about unimpeded, while POSITIVE FACE is the desire for approval (13). Individuals demonstrate mutual awareness of face wants as they interact with each other. For example, in getting someone to offer rather than to impose upon them by issuing a request, an individual is attending to the other's negative face.

Leech ([1977] 1980:107), in a study of indirect speech acts, discusses negative politeness in terms of

tact, that is, not imposing upon others, or 'avoiding conflict.' Both Brown and Levinson ([1978] 1987) and Leech ([1977] 1980) use social distance and power to account for the strategies used to convey politeness. A third principle is also factored in. Called RATE OF IMPOSITION by Brown and Levinson and COST by Leech, this feature measures the degree to which the hearer would be inconvenienced by following the speaker's intention.

Attempting correction is face-threatening to the individual being corrected. The language of correction, therefore, may be oblique in order to appear non-threatening and non-invasive. Evidence for this lies in conversation analysis of repair in conversational discourse. As Schegloff, Jefferson, and Sacks (1977) point out, the least preferred repair sequence is other-initiated, other-repair, in which the hearer corrects the speaker's utterance. In fact, the correction may be delivered with language of uncertainty (making a correction appear like a suggestion or a clarification request), or in a joking manner (378). It is important to note, however, that in order to convey urgency, attention is not paid to face needs, and the speaker goes 'bald on record'

(Brown and Levinson [1978] 1987:95) by being as explicit and direct as possible. In the present study, learners often use bald-on-record strategies with each other when they are giving directives. There may be two reasons for this. First, speaking clearly and directly makes the directive more understandable, in a situation in which precise answers are required for a correct answer. Secondly, in institutional settings in which interaction is task-centered, explicitness is valued (Ervin-Tripp 1976:44).

One study has been conducted on face-to-face repair sequences in a second-language learning classroom in a country where the target language is spoken. Juvonen (1989) claims that the classroom is a special type of institutional setting, distinctly different from non-educational institutional as well as foreign-language-teaching settings. The classroom is not a setting for the 'ideal dialogue,' in which interlocutors have 'equal rights and duties' (Juvonen 1989:184). It is characterized by the asymmetrical relationship between teacher and student. In this asymmetrical arrangement, the teacher has the most control over interactional constraints.

The participants in Juvonen's study include the Finnish girl, her teacher, and Juvonen himself. Juvonen tapes the interactions that take place during the following: read-aloud activity in which the girl reads to the teacher, other focus on language in which the teacher and student focus on grammar, vocabulary, pronunciation and spelling, and a non-teaching activity in which the girl, at the suggestion of Juvonen, tells a story about forgetting her apartment keys.

Juvonen notes that the more controlled the interaction (in this case, the read-aloud activity) the more occurrences of teacher-initiated repair of the student there are. The least amount of repairables is uttered by the girl in the conversation activity. Although the girl engages in self-repair, the more the teacher is in the position of expert, the more face-threatening are her corrections of the student's speech. It should be noted that both of the activities dedicated to language learning focus on developing accuracy in the target language. In the non-teaching activity, the discussion, the girl's focus is on telling a story. Not only is the girl the sole expert on her own experience (losing an apartment key), but

she is encouraged to tell the story. In this case, fluency is the focus. This situation seems to be conducive to less repair.

Juvonen's research is an example of interethnic communication between a teacher and a child. Participants in the present study are adult immigrants representing five different cultures (El Salvador, Guatemala, Cambodia, Vietnam, and Afghanistan) studying ESL taught by instructors who, although all American, have different cultural backgrounds. It is necessary to examine features of discourse that help frame such interethnic encounters. Gumperz (1982) introduces CONTEXTUALIZATION CUES as being, '...any feature of linguistic form that contributes to the signalling of contextual presuppositions' (131). Such cues are reflective of the culture, and include code switching, register, pitch, stress, and conventional discourse routines such as openings and closings.

Misinterpretation of these cues can lead to communication breakdown in institutional interaction as well as in other settings (Gumperz 1982). If interlocutors do not share contextualization cues, speakers may react by assuming that their audience is

not able to understand them. This may result in hyperexplanation (Erickson and Schultz 1982), or the other extreme: underaccommodation of interlocutors in recipient design (Hamilton 1991).

Gumperz (1982) cites several examples in which cross-cultural communication is less than successful because contextualization cues are misinterpreted. For example, Pakistani women working in a cafeteria at a British airport were regarded as rude when serving airport workers. When offering gravy, instead of using rising intonation, 'Gravy?' the women used falling intonation, 'Gravy.' Gumperz explains that the British workers perceived 'Gravy.' as a rude utterance. The intonation pattern does not conform to the British expectations for an offer, because the use of falling statement, rather than rising, yes/no question intonation, does not convey the message, 'Would you like some?' (173).

Watanabe (1993), in an analysis of classroom discussion among American students of Japanese and then among Japanese students studying in the U.S., observes that Japanese and American students approach classroom discussion differently. Among other differences,

Japanese students carefully talk about the procedure for handling discussion, while American students do not. American students report and summarize information in the discussion, while Japanese students frame their contributions as stories. Watanabe is right to be concerned with the implications of such differences in the framing²⁶ of academic discussions, as more and more Japanese and Americans encounter each other first in university classes and later in the world of international business.

Learners participating in the present study are able to negotiate some mutually recognized cues to enable smoother interactions. I am hesitant to call them contextualization cues because the conventions are deliberately, not automatically, used. There is mutual knowledge among the learners that none of them is proficient in the target language that they are enrolled in school to learn. Because of this, they have an 'out,' an excuse for ironing out some procedures for interaction. This is a luxury that may not be available in non-educational institutional

²⁶FRAMING is defined and discussed in relation to repetition in the subsection of the literature review entitled, 'Repetition.'

settings, where, for instance, one is interacting with others in a service encounter, or to complete a task in a work environment.

Thus far, I have discussed repair and correction within conversation analysis and speech act theory. I have also related how misapprehension of contextualization cues leads to misunderstandings. Next, I explore how errors and error correction are handled in first and second language acquisition. I relate negotiation of meaning in the second language classroom to repair strategies. Finally, I turn to the literature on error analysis and correction in CALL drill and practice software, with special regard to politeness strategies.

Children go through a developmental order in acquiring a first language. The point children occupy on the continuum of acquisition determines the types of structures that they can use with proficiency. Overt correction of form by the caretaker does not result in correct use by the child. Children speak correctly when they are ready (Moskowitz [1978] 1985). Likewise, second language learners (adults and children) progress through stages of development, able to express

themselves more competently, the more exposure to and practice with the target language (Krashen 1982:24).

How teachers are to treat errors committed by second language learners has undergone change in the past 25 years. In a critique of contrastive analysis, the systematic study of similarities and differences between the source and target languages in order to better treat possible learner errors and error analysis, the prediction of probable sources of learner errors based on analysis, Corder ([1967] 1974) demonstrates that there is a process of learning that second language learners experience, and 'errors' are not always attributable to differences between the source and target languages. On the contrary, errors are useful indicators of second language development. That there is a natural order to the acquisition of second language morphemes has been demonstrated in studies carried out throughout the 1970s on children and adults learning English as a Second Language.²⁷

²⁷See Ellis (1986, Chapter 3) for a summary of the morpheme studies. See Celce-Murcia and Hawkins (1985) for an overview and critique of error analysis, contrastive analysis, and interlanguage analysis.

Correction of second language learner errors, it is argued, does not result in better acquisition of the target language. Terrell (1977, 1983), in discussing the Natural Approach to teaching language, recommends that when the focus of an activity is on communication, errors should not be directly corrected. Instead, they should be corrected indirectly, when teachers rephrase learner utterances.²⁸

Indirect correction of learner errors provides a foundation for further interaction, similar to the vertical scaffolding afforded children learning to interact with adults in discourse (Scollon and Scollon 1984). Indirect correction also serves positive face wants by affirming the discourse contributions of the learner.

As discussed earlier, negotiation of meaning is important for learners to develop their abilities to interactively manage discourse with native speakers of the target language as well as with other non-native speakers. Repair sequences that follow the other-initiated, self-repair pattern (generally requests for

²⁸Further discussion of indirect correction is taken up in the next subsection on repetition.

clarification) afford learners this opportunity. As Pica (1988) has noted, activities structured for specific, mutually interdependent, two-way communication exchange among learners result in the most opportunities for varied techniques for clarification. Likewise, Varonis and Gass (1985a) demonstrate that negotiation of meaning in order to continue to right misunderstandings enriches discourse. Error recognition and subsequent correction, then, can be a process through which learners engage in authentic communication.

If rephrasing inaccurate utterances and negotiation of meaning are important interactional tools for learners to develop fluency in their second language, how does a computer program typically handle error detection and correction? Wyatt (1987) categorizes drill and practice programs as instructive programs in which students learn or receive information from the computer (87-88). Drill and practice programs instantly mark an answer right or wrong. Learners are either rewarded with a positive response, or told to try again. If learners enter a wrong answer, after a few chances the correct answer is displayed. In a

discussion of feedback in CALL programs, Robinson (1991) states that corrective feedback which encourages the learner to be reflective and make a reasoned second choice is preferable to overt correction. Another effective feedback mechanism is indirect feedback, in which the program displays the target response in such a way that it rephrases the learner answer. This appears similar to Terrell's (1977, 1983) suggestion for indirect correction in the classroom. Although there are many CALL ESL programs on the market that incorporate corrective feedback strategies into courseware design, drill and practice normally do not.

So far, I have reviewed the literature on two common features of participant discourse recurring in this study--directives and repair and correction. In the final section I cover a third topic, repetition, which overlaps with the other two features. Repetition of different directives is found throughout the data, and participants use repetition in repair and correction sequences.

Repetition

Repetition, as discussed by Tannen (1987a, 1989) serves as an umbrella term for a continuum of fixity and novelty, ranging from verbatim lexical repetition to paraphrase. Tannen (1989) discusses the forms of repetition that form this continuum. These include: repetition of self, repetition of others, exact repetition (both word and intonation), and paraphrase. Midway between identical repetition and paraphrase are variations of form (e.g., statement turned into a question), partial repetition of a word or part of a phrase, and changes in patterned rhythm (Tannen 1989:54). Tannen goes on to say that a temporal scale also exists, so that repetition may take place either immediately or over longer stretches of time (Tannen 1989:54). Examples from different points along this temporal scale exist within the present study.

In this section, I review literature that focuses on the functions of repetition within discourse texts, as well as literature that exemplifies how repetition over time influences the ways in which interlocutors interact in new situations. The role of repetition in second language learning is also discussed. Arguments

for the value of lexical repetition for beginning second language learners is examined in detail in Chapter 5, 'Repetition.'

Repetition: Making the old new. G. Lakoff and M. Johnson (1980) note that language is essentially metaphorical. Individuals relate new experiences to old. They understand and experience '...one kind of thing in terms of another' (5). In order to understand the situations that we encounter, in order to describe an experience to others, we rely on past experiences or knowledge of similar concepts to share and convey expression. Repetition, as it shall be seen, assists in this process.

In an analysis of interaction during a medical interview, Tannen and Wallat (1987) discuss two concepts that describe how individuals make sense of events that they observe or participate in: FRAME and SCHEMA. The term frame is used in the fields of anthropology and sociology to describe the ever-shifting interactive frameworks that individuals use to define social interaction as it develops. For example, we may speak of a joking frame in which utterances are intended to be humorous but if understood differently,

may be considered an insult (Tannen and Wallat 1987:206-207). Frames are culturally defined. If interlocutors do not share the same underlying, tacit assumptions of frame in interaction, miscommunication arises.

The term schema originates in cognitive psychology and artificial intelligence research and refers to the structure of expectations that individuals use to interpret events occurring about them (Tannen and Wallat 1987:207). It is through past experiences that individuals are able to make sense of the new. This framework guides individuals not only in the interpretation of the actions of others, but also in how they, themselves, participate within an interaction.

By extension, the concepts of frame and schema are related to the phenomenon of repetition, in which previously uttered discourse is called forth into new contexts. Indeed, appropriate use of language in a new context is based on successful or even unsuccessful use in a previous situation. Becker (1984, 1994) maintains that individuals' knowledge of prior texts enables them to develop a history of use within a language. Bakhtin

(1986) further discusses the social implications of repetition by stating that our words are taken from other utterances (87). Repetition echoes past experience.

Complications arise in the study of repetition. What is meant by an utterance that echoes a previous one, initially uttered by the self or other? Tannen (1987b) reviews a number of scholarly arguments for the relationship between prepatterning of language and novelty in the meaning of utterance. As mentioned earlier, Becker (1984, 1994) maintains that all utterances echo prior text.

American sociolinguists have been exploring the application of recently translated Russian Marxist²⁹ semiotic and literary theory to spoken and written discourse. Titunik (1986a:196-197) in a historical overview of the work of the Bakhtin group of semiologists and literary critics active in Moscow during the 1930s, explains that for Bakhtin, reported speech (in the novel) has a double focus: it represents the voice of the hero (character), as well

²⁹Titunik ([1973] 1986:176) notes that the term MARXISM as used by the Bakhtin circle was at odds with the Soviet government's use of the term.

as the author. Vološinov ([1929, 1973] 1986:115)³⁰ characterizes reported speech as 'speech within speech, utterance within utterance, and at the same time speech about speech, utterance about utterance.' This idea of double-voicedness (Bakhtin 1986:110) means that an emergent utterance reflects a whole world of discourse, even as it takes on its own new meaning from context.

Similarly, Hymes (1974), in one of his many works on the nature of communicative competence, acknowledges the importance of describing and explaining grammatical systems, but questions an approach to linguistics that focuses more on the generation of grammatically correct sentences that may possibly be uttered and less on language that is commonly uttered in social context. He remarks, '...[C]reativity may consist in the use of an old sentence in a new setting just as much as in the use of a new sentence in an old setting' (132). In this vein, Tannen (1989) states that it 'is the play between fixity and novelty that makes possible the creation of meaning' (37). Interlocutors rely on their

³⁰The work discussed, *Marxism and the Philosophy of Language*, may have been written by Bakhtin. For discussion of this issue, see Holquist's introduction (1981:xxvi) to Bakhtin (1981) and Titunik's (1986b:ix) introduction to Vološinov ([1929, 1973], 1981).

experience as creative users of language to recognize how an event is framed relative to the structure of expectations influencing how they participate within new encounters, a concept further explored below.

Repetition and communicative competence.

Individuals expect certain phrases to accompany certain situations. For example, Tannen and Öztekin (1981) in an analysis of fixed expressions in modern Greek and Turkish, explain how phrases are part of the context of their utterance to such a degree, that to fail to say them would be rude.

In a similar vein, Paulston (1990) reports on her experience in speaking her native language, Swedish, while visiting relatives in Sweden. (Paulston states that she left Sweden at age eighteen.) Paulston notes that although she could speak the language with fluency (grammatically correctly), she has lost much of her Swedish communicative competence: being admonished when asking questions which to Swedes seemed inappropriate but to Americans would appear polite or socially appropriate. An individual's communicative

competence is marked by his/her ability to say the right word at the right time.³¹

Formulaic phrases can be so ingrained in social context of utterance that even if a formulaic phrase is not spoken accurately, listeners still understand it and may not even notice a mistake. Tannen (1987b) examines the idiomaticity of language of conversational discourse. In an analysis of slips of the tongue, Tannen notes that such idiomatic expressions as 'I could care' less for 'I couldn't care less' are equivalent in meaning. On a propositional level, however, they are opposites. Not only does the speaker

³¹Clifford Hill, professor of linguistics at New York City's Teachers College-Columbia University, once related a story that demonstrates how important the knowledge of proverbs can be. One of Hill's passions is Hausa, a widely spoken West African language. The Hausa people have a high regard for verbal art. Once, Hill was in a cab en route to La Guardia Airport, his mind focused on his final destination: an African linguistics conference. When the cab driver began to make conversation with him in English, Hill had the impression that he must be Hausa. On the Tri-Boro Bridge, Hill decided to see if his hunch was correct. He leaned over the front seat and said, 'Duniya maja da cike ce,' a well known Hausa proverb. Literally translated as, 'The world is like a pregnant woman,' this proverb means that life is full of unpredictable situations (like having a lanky man from West Virginia uttering a Hausa proverb in the back of your taxi on the Tri-Boro). Hill laughed as he described the driver's response. He slammed on the brakes, turned to look at Hill, and exclaimed, 'You speak deep Hausa!'

mean the same thing when saying either version of this phrase, but listeners understand them to mean the same as well. Mutual familiarity with the situations in which an idiom such as 'I couldn't care less/I could care less' is used (expressing such disdain a topic that it is not worth devoting more thought to it) is more important for interpretation than literal word-by-word interpretation (Tannen 1987b:41).

Perhaps the phrase is altered because to contain two negative elements within a sentence is considered nonstandard, and therefore incorrect. Thus, a speaker may automatically hypercorrect to say, 'I could care less.' In nonstandard varieties of English, however, grammar may necessitate multiple negative markers which intensify the negativity of a phrase. 'You never hit nobody?' in BVE, is rendered, 'You never hit anybody?' in Standard English. Spanish grammar also requires multiple negative markers, as in: '¡No dio nada a nadie, nunca!' (translation: 'He never gave anything to anyone, ever!') The multiple negative markers seem to intensify the negativity. Notice that in both examples, the alliteration of 'n' adds a lyrical quality to each phrase.

In addition to these Indo-European languages, there are non-Indo-European languages that mark the negative with a repetitive device. For example, in Hausa, an Afro-Asiatic tone language spoken primarily in Nigeria and Niger, phrases uttered in the negative completive aspect are marked at the beginning and the end with the particle 'ba,' as in: 'Mota ba ta ba ka wahala ba?' (translation: 'Didn't your car give you any trouble?') In this example, the negative particles are underlined. The first utterance of 'ba' in the construction is uttered with a short low tone, while the last is uttered with a short high tone. Spoken Hausa is marked by a punctuating rhythm, enhanced by grammatical particles that bracket certain constructions. Hausa employs variations of 'ba ... ba' in other syntactic environments, as well. Thus it is that repetition is readily used to mark and intensify the negative.³²

For many languages, forms of repetition are integral rhetorical devices. In Apache, self-

³²The BVE example is taken from Labov (1970), as reprinted in Giglioli (1972:187). The Spanish example appears in Allen, Sandstedt, Wegmann, Méndez-Faith (1976). The Hausa example is from Cowan and Schuh (1976:134).

repetition of words and phrases signals emotional involvement and emphasis (Bartelt 1992). Johnstone (1991) reports that parallelism is an important feature of Arabic persuasive discourse. In the Mayan language Tojolab'al, other-repetition serves as a back-channel in conversation, while self-repetition signals boundaries of episodes in the formulation of conversational narratives (Brody 1994).

Tannen (1987a, 1989), as well as Norrick (1987), lists several functions of self- and other-repetition in conversational discourse. These include: efficiency of production, ease of comprehensibility, connection of parts of text to whole as well as authors and auditors to emergent text, interactional functions, and involvement. The learners and teachers participating in the present study demonstrate use of each of these functions of repetition when interacting with each other.

Once speakers set up a pattern of talk, it is easy for them to substitute new information within the established structure, as when individuals list information (Tannen 1989:48). Likewise, a recognized pattern lessens discourse density, and listeners can

understand utterances more easily (Tannen 1989:49). In the present study, learners are engaged in a cognitively demanding academic activity. Repetition abounds in the directives learners give to each other. In Chapter 5, I demonstrate how repetition facilitates learner-learner, as well as learner-teacher, communication.

Repetition is a cohesive device in text, linking referring expressions to the same concept (Halliday and Hasan 1976). But use of repetition means even more than this. Repetition signals the link between interlocutors and text. Interlocutors may repeat in order to emphasize an important idea. They may repeat after another individual to show support for that person. As Tannen states:

'...Congruence of [production, comprehension, cohesion, and interaction in] discourse creates coherence: of message and metamessage, of form and meaning, of the informational and relational units of language.' (1987a:576)

In turn, the cognitive effect of repetition affects the emotional experience of interlocutors, as they feel a sense of involvement with each other through the emergent text (Tannen 1987a, 1989).

Other-repetition may be used to signal appreciation for something said that is humorous or funny, called savoring by Tannen (1989:64). Furthermore, interlocutors may play with an initial speaker's repetition to make jokes based on irony or puns (Norrick 1994). Hopper and Glenn (1994) note that repetition is a discourse device figuring prominently in playfully correcting oneself or another. Often, such situations result in laughter and increased repetition of the error. In the present study, too, humor is marked by the use of repetition.

Finally, individuals may repeat in order to facilitate interaction. This includes use of repetition as a stalling device to keep the floor, and repeating to gain the floor (Tannen 1989:51). ESL teachers using the Natural Approach (Terrell 1977, 1982) employ repetition in facilitating conversation. Repetition is used to ratify learner discourse and to build upon contributions to conversations made by learners (Terrell 1982). In effect, by rephrasing learner utterances teachers are simultaneously offering correct grammatical forms through learner-selected content.

In the preceding discussion, I have related functions and forms of repetition in conversational discourse in general. I have related them to the discourse encountered in classroom-based second language learning situations. In the following paragraphs, I highlight additional research on first and second language acquisition, focusing on the effects of repetition on cognition in first and second language acquisition and learning.

Repetition in first and second language acquisition. Aitchison (1987) explains that when children first begin to utter words (between the ages of one and two), they go through three stages in learning how to label. In the first stage, children associate a word or phrase within a recurring context. In the second stage, children allow for variation within a similar context. (For example, a child will respond bye-bye not just to his or her mother, but to anybody who is leaving.) In the third stage, children use a word or phrase as a referring expression in different, expanded contexts (Aitchison 1987:88-89). Here, we see from the beginning how fixity of form enables creation of meaning. Over time, similar and

then different expressions are used in similar contexts.

In an article comparing findings of several studies of child and adult second language acquisition, Hatch, Gough, and Peck (1985) state that learners go through stages of interlanguage development in which they may consistently use syntactic forms that do not reflect the source or target language. Even if the proper form has been presented to the child, he/she continues to use his/her interlanguage grammar. Furthermore, those features of grammar that are low frequency, have low semantic power, have a variety of forms (e.g. different pronunciations for -ed and plural -s), or require syntactic changes, will be learned later than forms that occur often and have a stable form (Hatch, Gough, and Peck 1985:47-48). In other words, those expressions with the most resonance, with the most associations for the learner are the ones learned most easily.

Researchers in language learning and learner strategies maintain that repetition is an important tool when used purposefully. For example, Oxford (1990) reports that repetition is an important

cognitive language learning strategy, which facilitates language practice. Although 'mindless and meaningless' repetition is not considered worthwhile (71), engaging learners in rereading, revising writing, modeling to practice intonation and pronunciation is helpful in developing communication skills within a second language.

Furthermore, Rubin and Thompson (1994) inform second language learners that if they are striving for accuracy with high-frequency vocabulary items used in day-to-day encounters, that one strategy is to "[s]ay the words aloud or write them over and over again as you study" (80). Keeping in mind not only individual words but appropriate social contexts for use is considered essential (Rubin and Thompson 1994:64) to help learners heighten their comprehension as well as their sociolinguistic competence.

Repetition plays a role in teaching second languages. Pedagogical practices that follow Terrell's Natural Approach, teachers are encouraged to use 'fixed conversational patterns' once learners have reached the early production stage (beginning speaking stage) of language acquisition (Richards and Rodgers 1986:136).

Recall that Brown and Yule (1983b) discuss the values of repetition in teaching natural sounding speech to beginning ESL learners because repetition is the hallmark of transactional speech marked by short turns.

Pica (1993) reports on the role of repetition in negotiation of meaning. Results of Pica's study of the effect of different classroom activities on negotiation of meaning among second language learners indicate that communication activities requiring mutual interdependence of learners present the best opportunities for learners to modify their utterances in order to negotiate breakdowns in communication. Features of negotiation include '...repeating, reformulating, and segmenting both their own and each other's utterances,' conducive to cognitive aspects of second language learning (Pica 1993:435). In such activities the drive to repeat and paraphrase oneself and others facilitates both understanding and conversation management skills in the second language.

Exercises enabling meaningful, natural use of forms of repetition help learners to develop communicative competence. Canale and Swain (1980) assert that communicative competence comprises

grammatical competence as well as sociolinguistic competence (5). Two points of discussion are directly related to repetition. The first is that teachers present learners with context for language learning that are similar to those of their native cultures, with more of a focus on general and less on the arbitrary aspects of culturally appropriate language use (28). In other words, learning contexts should facilitate learners' ability to analogize and extend their experiences to new contexts.

Canale and Swain maintain that second language curricula are best designed when communicative competence is integrated into a functionally driven, rather than a grammatically driven framework. One way they suggest incorporation of grammar into a functional syllabus is to make '...use of repetitions of grammatical forms in different functions throughout the syllabus...' (32). In other words, by using patterns in different contexts, learners are able to rely upon past experiences within the target language to build a repertoire of texts.

In this section, I have presented evidence supporting the role of repetition in language learning.

Individuals communicating in either a first or second language rely upon their own past experiences to interpret new situations. Repetition is part of this process, both making the new familiar and making the familiar new. By varying fixity with novelty, individuals draw from the common experience to express what is unique. Repetition also plays a role in second language acquisition and second language pedagogy. Repetition is a cognitive language learning strategy. Teachers repeat and rephrase learner utterances as an indication of support for them. The grammatical competence necessary for linguistic competence in a second language is best handled through a syllabus that recycles grammatical patterns throughout different language functions.

CONCLUSION

The present study primarily relies upon interactional sociolinguistic analysis of discourse to account for interaction among low-literate beginning learners of ESL and teachers as they work with educational software in a drill and practice format. Because the participants work on an academic task,

their interaction is focused on correctly answering questions. The interaction is replete with examples of directives, repetition, as well as correction and repair sequences.

Because there is no research on low-literate adult ESL learners using educational software, in this literature review I have provided background information on studies of software designed to help low-literate native speakers of English improve their reading proficiency. In addition, I have included research on social interaction at the computer, primarily conducted on children. The little research there is on the discourse of literate university ESL learners using educational programs together has also been discussed.

The current study examines the discourse of participants from different ethnic and language backgrounds communicating with each other. Communication Accommodation Theory offers a framework for understanding institutional discourse in context. Furthermore, examination of participant role and social identity in discourse augments the use of this theory

to account for the attuning of interlocutors to each other and to the ever-emergent text.

I videotaped the participants in this study as they engaged in interaction at one computer. I then transcribed and analyzed their interaction using an interactional sociolinguistic approach. Therefore, I include information of past research in the use of discourse analysis in ethnographic studies of institutional interaction, language and culture, and studies of schooling and literacy. As stated before, analysis of interactions indicate that discourse is marked by use of directives, repetition, correction and repair. Past research examining these phenomena is discussed as well.

Let us now turn to the present study. In the following chapter, 'Method,' readers will meet the participants, get acquainted with the setting in which data was gathered, and gain an understanding of methods used to collect, transcribe, and analyze data.

Chapter 2: Method

*They call them an alligator clip,
because it looks like an alligator's mouth.
And I'm gonna clip it.
Right on your collar,
Here.*

*--Susan to Juan
(as he is prepared for videotaping)*

INTRODUCTION

No published research reports exist on the use of computer-assisted language learning programs by low-literate adults who are in the beginning stages of learning a second language.¹ Learners falling into this category rarely have access to computers; consequently, the software that they use if they do have access to them has not been developed expressly for these users. In fact, although computers comprise the most widely used technology in adult literacy programs in the U.S., not more than 15% of all literacy providers use this technology in instruction on a regular basis (U.S. Congress, Office of Technology Assessment 1993:15). As the use of computer-assisted instruction grows, it is important that the field gain

¹See Huss, Lane, and Willetts (1990) for a brief summary of pedagogical uses of computer-assisted instruction with low-literate adult ESL learners.

an understanding of the characteristics of these learners so that appropriate software can be developed for them. This sociolinguistic study is my contribution to the field.

In this chapter, I describe the adult school where I gathered data ('Setting'). Next I characterize the learners and teachers participating in the study, as well as the educational software they use ('Participants'). I follow this with an explanation of the method used to gather and transcribe data ('Data Collection Methods'). I also include information on approaches used in data analysis ('Analytical Methods').

SETTING

Within a small brick schoolhouse next to a fire station and across the street from a small strip mall of ethnic stores, restaurants, beauty salon, and barber shop, adults from Mexico to Mongolia spend 8 to 15+ hours per week learning English as a Second Language (ESL) at the Truman Adult School. In the basement of Truman, down a back hallway and on the left is the Adult Learning Lab (ALL).

The ALL is set up for computer-assisted language learning with five Apple IIe computer stations, two Apple IIe clones, seven DOS-based stations and one Mac SE. Most of the grammar software packages in use have been expressly designed for ESL learners, while survival and lifeskills software programs have been targeted at native speakers who are to develop their reading, writing, and functional literacy skills. Six study carrels, outfitted with tape recorders and language master card readers,² provide quiet spaces for learners to independently practice listening and pronunciation. Tapes and language master cards also provide learners with assisted reading support. There is space for small group work at tables. A simple diagram of the ALL appears in Figure 2.1 below.

²Language master card readers are a type of tape player/tape recorder. The reader is used to play language master cards. The cards look like elongated index cards (approximately 9 inches long) with a length of audiotape running along the bottom. A sentence, picture, vocabulary word, etc. is either drawn onto or affixed to the card, and the corresponding text is recorded onto the card. Users run the card through the reader and listen to the text. Users can record themselves and, using playback, compare their voice to that of the original.

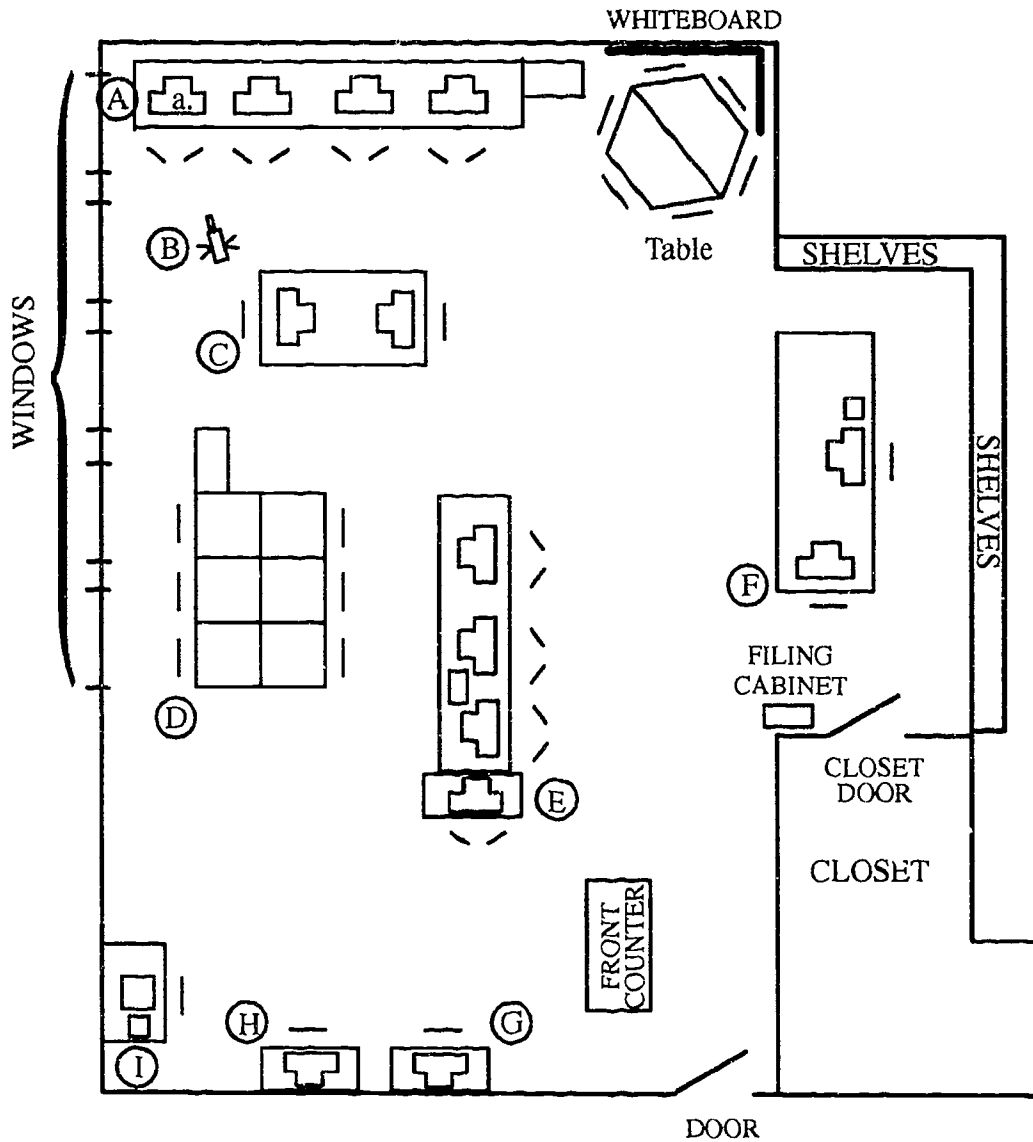


Figure 2.1: Diagram of ALL. (A) = Apple IIe terminals, a. = focal computer, (B) = video camera, (C) = DOS-based stations, (D) = study carrels, (E) = DOS-based stations, (F) = Apple IIe clones, (G) = Apple DOS-based stations, (H) = Apple IIe, (I) = Mac SE.

The mission of the Truman Adult School is to provide ESL services to immigrants living and working in a county located next to a major city on the east coast of the U.S. During the 1980s, this county experienced an increase in the number of foreign-born residents, so that by 1990, 21% of the county population was foreign born. Of those persons reporting that they were foreign born (36,516), two-thirds (24,178) settled in the county between 1980 and 1990. Of the 161,696 residents aged 5 years or older, one-quarter (40,780) speak a language other than English at home, with approximately 50% (20,512) of this number reporting that they do not speak English well.³

The ESL program at Truman has been in existence since 1976, and is part of the county school system. As the population of foreign-born residents of the county has grown, so has Truman. At the time data was gathered (spring 1990), Truman offered morning classes at the Truman School site, as well as evening classes at Truman and three other sites within the county. Classes were intensive, meeting 15 hours a week in the

³Results based on 1990 U.S. Census data.

morning, and between 8 and 10 hours per week in the two evening sessions. A non-intensive U.S. history and civics class met at another location on Saturday mornings.

The ALL, at the time data for this study was collected, had been open for eight months as part of Truman's efforts to offer ESL study opportunities. Originally open during the afternoon, funding grew and hours of operation were expanded to evenings and Saturdays to accommodate the personal schedules of adult learners. The first learners to use the ALL were undocumented aliens applying for residency through provisions specified in the Immigration Reform and Control Act of 1986 (IRCA),⁴ as well as foreign-born entry level employees of local hotels. Later, use was made available to refugees and other immigrants. Learners were placed into the ALL curriculum based on intake test performance. Once registered, learners could access the ALL any time convenient for them. This independent study, walk-in program was funded through state, federal, local and private monies.

⁴See Huss (1990) for additional information on the effect of IRCA's language education requirement on adult ESL programs.

In addition to the walk-in program, morning classes spent one seven-day period (21 hours) in the ALL. During this time, learners worked on competencies and functions specified in the general ESL curriculum. With the ALL manager,⁵ teachers planned for their classes to participate in independent, pair, and small-group work.

According to the Truman Center director, the intent behind opening the ALL for morning class use was two-pronged. First, the United States is a society that makes abundant use of technology. To present a learning situation in which immigrants could use technology to learn a second language was thought to be empowering. Secondly, such an electronic learning lab was established to help teachers gain skill in using different and evolving learning technologies in planning and delivering instruction.

The Truman Center is more than a building with a learning lab. The community of teachers and learners is multi-national and multi-ethnic. I introduce the focal participants in this study in the next section.

⁵The ALL manager is a lead teacher with specialized knowledge about computer assisted learning.

PARTICIPANTS

Participants in this project who appear on analyzed videotape include the six focal learners, two classroom teachers, one ALL instructor, the ALL manager, and me. I will explain my role first, followed by a brief description of the teachers and their responsibilities. Next, I introduce each of the learners, explaining individual differences among them. Finally, I discuss the software they use while being videotaped.

Participant Observer

At the time I videotaped these learners, I had been a staff member at Truman for about a year, teaching classes of low-literate beginning speakers. My previous adult education teaching experience consisted of working as a volunteer ESL teacher in a community center program sponsored by the local extension service, tutoring a college-level first year English class in a cell block of a nearby maximum security prison, and working as a summer teaching

assistant in a job training/GED⁶ program for out of school youth in New York City.

In addition to teaching ESL at Truman, I also coordinated the community volunteer program, training Truman's corps of about 40 volunteers to assist teachers in classrooms. As a teacher I used the ALL with two of my beginner classes. Because of the limited amount of software available for their use, I requested permission from the director of Truman to videotape learners in the ALL during the spring term. I wanted to gain an understanding of how learners interacted with the software that the center DID have for them, so that I could better select or perhaps design appropriate literacy software for new learners of English.

The director was supportive of my research idea. After earning her approval, I submitted a mandatory research proposal to the 'Division of Instruction' of the local school system. My proposal was approved, and required me to assure total anonymity to participants,

⁶The GED (General Education Development diploma) is earned by those who have not graduated from high school. The GED is considered the equivalent of a U.S. high school diploma.

the school where research was conducted, and the school system as a whole, and to secure signed permission from learners participating in the study. Names, including that of the program, are pseudonyms, for these reasons. I was instructed to conduct research during non-contact hours, which I did. Furthermore, I am required to furnish the school system with a copy of the final research report.

As a staff member at Truman, I was fortunate to have a good working relationship with the teachers and learners who voluntarily participated in the study. I was familiar with the general ESL curriculum in use as well as with all of the software learners used. The six focal learners whose interaction I transcribed had been learners in a class for low-literate beginners that I had taught. Several of them had participated in a previous study I had conducted on teacher strategies for eliciting learner contributions for language experience stories. Our past association and ongoing interactions within the school helped inform my understanding of their interaction. Furthermore, the learners were able to view me as a teacher, rather than

as an outsider, important in ensuring their initial comfort level when being videotaped.

Teachers

Classroom teachers assist the learners enrolled in their classes while they are using the ALL. In addition, an ALL teacher and the ALL manager are on hand to assist learners and classroom teachers. Two classroom teachers, Joan and Liz, appear on the videotapes analyzed for this study. Joan taught Level 1. After teaching the highest proficiency level in the program for over a year (Academic 4), Joan was experiencing her first term working with the beginners. Liz had been teaching Level 2 for several cycles. Both Joan and Liz had taught in refugee camps in Thailand before joining the Truman staff. Liz was about to finish graduate studies in teaching ESL at a local university. Joan was slated to begin graduate studies at a different university the following fall, with a focus on educational technology as well as teaching ESL.

Penny, the ALL teacher, was one of the first teachers hired to work in the ALL. She, too, was

preparing to pursue a master's in teaching ESL at a local university. She had spent time teaching English in Italy prior to working at Truman.

ALL Manager

Robin, the manager of the ALL, had taught ESL in Los Angeles high schools for several years before working at Truman. Robin had previous experience using educational software with ESL learners, and assumed lead teacher responsibilities in the ALL. Robin was responsible for daily maintenance of the ALL, selecting and evaluating software appropriate for use, and for training teachers in using educational software with their learners. Whenever morning classes used the ALL, Robin was on hand to assist teachers and learners with the software.

Learners

Most learners in Joan's Level 1 class entered the program speaking no English or very little. At most they could respond to requests for basic personal information, such as their names and where they came from. Their formal educational experiences in their

native countries ranged from zero to 6 years. Some learners were placed or retained in Level 1 because their literacy skills were not strong enough to participate in reading and writing activities in a higher level class, even though their oral and aural skills would have been strong enough for them to participate in speaking and listening activities in a slightly more advanced class. None of the focal learners had attended school as children.

Learners in Level 2 could all write in the Roman alphabet. They were able to read simple texts on familiar topics. Like those learners in Level 1, they have had six years or less of formal schooling as children in their native countries. The oral proficiency of learners at this level were generally a bit higher than those in the Level 1 class. Learners meeting exit level criteria at Level 1 would be promoted to Level 2 at the beginning of the next 12 week term. The Level 2 learners used the ALL for seven school days before the Level 1 learners did.

The focal learners enrolled in Level 2 had been promoted from Level 1. I had been their Level 1

teacher. Antonio, Minh, and Maria had known each other for five months.

Antonio is a 29-year-old man from rural El Salvador. Although he never went to school in El Salvador, his brother taught him to read and write in Spanish.⁷ When enrolled in my literacy class, Antonio had perfect attendance. I noticed that he had since bought a large, illustrated, hardback children's dictionary, which he had with him the entire time he used the ALL. Antonio is a cook at a family-style Italian restaurant in an upscale suburb. When he was a student in my literacy class, he treated the class like a small community, taking keen interest in learners from other countries, often asking about learners who were absent.

Minh is the youngest of three children who, along with their mother, came to the U.S. from Vietnam as

⁷Antonio told me that he never liked school as a child. As an adult, he exhibits a broad knowledge of current events. He seems to have oriented himself toward the format of different printed texts. For example he knows that reference sources, such as dictionaries, encyclopedias, and captions accompanying museum displays, show information in a structured way. Even though he knows this, he may not be able to find the point in the text that contains the information he wants to know. If the information is in English, he is not able to read it on his own.

refugees. Minh's older brother is the son of an American serviceman. Minh is 21, and standing at about 5 feet tall, appears and acts childlike. Minh was quite sickly as a child. To this day, his family treats him like a little boy, even though he is an adult. When he was a student in my literacy class, his brother and sister (also his classmates) could reduce him to tears. Minh self-reports three years of schooling as a child in Vietnam.

Maria, with six years of schooling, is from Guatemala City, Guatemala. She reports that she has divorced the father of her oldest two children, a daughter, Reina, and son, Marvin, in their early twenties and late teens. She now lives with Tomas and their five-year-old daughter, Daysi, and Marvin. They share their apartment with a roommate.

Maria's family situation is an international one. Her daughter, Reina, has been married for two years to Phu. Phu is Vietnamese with an ethnically Chinese mother. He left Vietnam as a refugee in the mid '70s, after serving in the Vietnamese army. Reina and Phu have a one-year-old son, Juan Francisco. They say that they communicate in English with each other and to Juan

Francisco, even though neither one of them speaks English very well. They share their apartment with an African-American male roommate, James, who speaks Spanish and loves Juan Francisco like a nephew. James often accompanies the young couple and their son on visits to Maria's apartment for family get-togethers.

Kim, Juan, and Mariam are learners from the Level 1 class. They are repeating the level, because they did not meet the criteria to be promoted to Level 2. I taught their initial Level 1 class. In fact, Kim and Juan were enrolled in the same Level 1 class as Antonio, Minh, and Maria.

Kim is Cambodian. She spent several years in a refugee camp with her husband and four young children. She is now separated from her husband. At the time of this taping, her mother had recently died in the hospital. Kim is 32, and reports that she never attended school in Cambodia, yet she appears to be able to write a little in Khmer. She recognizes letters in English, but has some difficulty reading others' printing. For example, she, like many literacy learners, mistakes lower-case 'y' for lower-case 'r.' She understands much of what is said to her, but

experiences difficulties in expressing herself. This visibly frustrates her. Once, one of her little daughters pointed out that when her mother says 'she,' she actually means 'I.' I had already figured this out: 'she' is Kim's multi-purpose personal pronoun.

Juan is 29 and from rural El Salvador. He and his wife have a baby boy. He sends money back to El Salvador to help his wife's parents with the expenses of raising her young son by another man. Juan juggles three part-time jobs. He works in the produce department of a grocery store, cleans in a condominium complex, and cleans up at a commercial print shop. Unlike many individuals in his situation, Juan's work settings require that he interact primarily in English, not in Spanish. Juan has never attended school before, suffers from frequent eye infections, and wears glasses. He exhibits behavior that suggests learning disabilities affecting reading. He can copy letters and recognizes them, but cannot relate sounds to letters when simple words are spoken. His difficulties frustrate him.

Mariam is the widowed mother of seven (five sons and two daughters) from Kabul, Afghanistan. She speaks

Farsi. She has high blood pressure and poor circulation, and when enrolled in my class, was hospitalized for heart problems. Her poor health caused her to miss school often. Even though she never attended school herself, all of her children have completed high school in Afghanistan, except for her youngest son, who is enrolled in one of the local high schools. One of her sons attends community college. Two drive taxis to support the family. They rent a town house and all live together. Mariam has one married son, and he and his wife live in the town house, too. All of the working sons are saving their money so that they can buy a house for the family and stop renting. Mariam also has a married daughter who lives with her husband and children in Queens, New York.

At 59, Mariam's story is the raw material of epic movies. Two of her sons were freedom fighters and spent some time in political prison for protesting the Soviet-backed Afghan government. Her husband and oldest son left Afghanistan for Pakistan, and eventually arrived in the U.S. They sent money back to Kabul to arrange for family members to leave. Once

Mariam's two sons were released from prison, the family arranged to secret them out of Afghanistan. One of the boys dressed as a woman in chador and escaped with a friend's young son across the border in a motor-taxi, passing as the child's mother. Once the family was out of Afghanistan, the father and oldest brother sponsored them to the U.S. Six months after the family was reunited, Mariam's husband died here.

These biographical sketches represent but a few of the many cultures and nationalities of learners who study ESL at Truman. Their personal histories are singular and compelling, yet reflective of the life stories that other immigrants and refugees, who have come to this country for better opportunities, tell. And now, here they are, in a unique, intensely cross-cultural, learning situation.

SOFTWARE

As stated in Chapter 1, 'Introduction and Literature Review,' and at the beginning of this chapter, there is very little software available for beginning ESL learners with low oral proficiency. There is even less for those who are low-literate. At

Truman most of the software used with learners was not designed expressly for ESL, but either for children or for adult native speakers of English developing basic literacy skills. Almost all available software was in drill and practice format,⁸ with the exception of large-type word processors and a program combining the manipulation of graphics and words to create a picture learners could then write about. Because of this, teachers at Truman had to focus on integrating technology into instruction when appropriate, compensating for mismatches between software intended for native speakers and the non-native speakers using it.

It almost goes without saying that the less experience or knowledge of context learners have, the more difficult it is for them to understand the software. The learners who have the most difficulties are low-literate beginning learners of English, for whom formal schooling is a relatively new personal experience. As Weinstein-Shr (1993b) points out,

⁸This is not surprising. Much of the software available for adult literacy is drill and practice and may not be targeted for use by a specific group of learners (U.S. Congress, Office of Technology Assessment 1993:194).

learners bring concepts and knowledge acquired throughout their lives to each new learning situation. It follows, then, that if software is neither designed nor used to take advantage of knowledge derived from non-schooling experiences, learners may have trouble using it.⁹ Neither the text appearing on the screen nor the use of a computer resonates within the context of the participating learners' past experiences. For example, learners must realize that as they press keys, the computer program responds. Although most learners figure this out after a few minutes, Mariam, the learner with the least amount of understanding, does not appear to make the connection at any point during the session.

Analysis of discourse reveals how the learners interact with each other and the computer as they work with the software. In the process of using CALL programs, the learners, teachers, and even software primarily issue directives. Participants engage in various forms of repetition, as well as repair and correction sequences, as they negotiate meaning with

⁹This reference is cited in U.S. Congress, Office of Technology Assessment (1993:76).

each other. As mentioned previously, the educational software that these learners use are all drill and practice programs. Two have been designed for young children, and one has been designed for ESL learners of any age.

The software program titles are: *Basic Vocabulary Builder on Computer* (National Textbook 1984), *Words at Work: Contraction Action* (MECC 1986)¹⁰, and *Fun from A to Z* (MECC 1986). *Basic Vocabulary Builder* is an ESL program, while *Contraction Action* and *Fun from A to Z* target children as their users. *Basic Vocabulary Builder* presents learners with lists of semantically related vocabulary items. Once learners select a list, they are prompted by a graphic to spell the target vocabulary item. *Contraction Action* has two drill types. In one, the program presents learners with a contraction and three full forms. Learners must select the correct full form. In the other, learners are presented with a full form, and must type the corresponding contraction. In *Fun from A to Z*,

¹⁰This is referred to simply as *Contraction Action*.

learners can select from one of three programs that reinforces alphabet sequencing and letter matching.

Learners participating in this study exhibit a range of competence in the language skills they practice. Therefore, in some cases, teachers have modified how the learners use the software to accommodate their abilities. For example, Joan has paired Kim with Mariam so that she can help Mariam with an alphabet recognition program she could otherwise not use. Liz has instructed Minh and Maria to go through the *Basic Vocabulary Builder* word list on occupations once and to write the words down in their notebooks, before practicing their spelling. Without these adjustments, learners would not be able to use the programs for non-teacher fronted practice. All of the focal learners require the extra practice (save Kim on the alphabet) in the subject matter.

In this study, both Antonio and Maria are paired with Minh during the videotaping. The two pairs from the Level 2 class are Antonio-Minh and Maria-Minh. Both pairs work on different software. Mariam is paired with Kim. Kim is also paired with Juan. The two pairs from the level 1 class are Kim-Mariam and

Kim-Juan. The Antonio-Minh dyad uses *Contraction Action*, while the Maria-Minh and Kim-Juan dyads use *Basic Vocabulary Builder*. Kim and Maria use *Fun from A to Z* together. This information is summarized in Table 2.1 below.

TABLE 2.1 LEARNER DYADS AND SOFTWARE USED BY LEVEL			
Level	Learners	Software	Software for
Level 2	Minh, Vietnamese Blanca, Guatemalan	Basic Vocabulary Builder	ESL/EFL, ¹¹ any age
	Minh, Vietnamese Antonio, Salvadoran	Contraction Action	primary school
Level 1	Mariam, Afghani Kim, Cambodian	Fun from A to Z	pre-school & kindergarten
	Juan, Salvadoran Kim, Cambodian	Basic Vocabulary Builder	ESL/EFL any age

Additional information on the pairing of learners is included in the following section.

METHOD: DATA COLLECTION AND ANALYSIS

In this section, methods for data collection and analysis are discussed.

¹¹EFL, or English as a Foreign Language, usually refers to the teaching of English in a country where the language is not spoken as a native language, such as Germany.

Data Collection Method

During May and June of 1990, I videotaped the interactions of 17 NNS-NNS dyads using different drill and practice and tutorial software programs in the ALL. Four of the dyads were taped during a trial period in which I worked out any perceived difficulties in videotaping. These four videotapes were later excluded from consideration in analysis, because most of the learners in the trial class had more than six years of schooling in their native country.

At the time learners were taped, it was customary to mix pairs whenever possible so that individuals working together were not native speakers of the same native language. Learners were not put into this situation just because I was taping them. The teachers paired learners in this way in order to foster communication in English naturally.

The video camera was mounted on a tripod and placed behind the focal pair of learners working at an Apple IIe terminal. Each learner wore a uni-directional lavalier microphone pinned to his/her collar that fed back into the video camera. Audio quality was crystal clear. Working as participant-

observer/teacher, I initially explained how the software worked to the learners, made sure that the learners were able to use it, and then walked away from the video camera to observe from a distance. Once learners were absorbed in their task, I would return to the camera. Learners acted naturally, despite being videotaped. In fact, because all learners including the focal pair were working with computers, tapes, and language master card readers, the video camera probably seemed like another piece of electronic equipment within a room already full of equipment.

Because the learners responded to me as a teacher, they asked me for assistance. I, too, played the role of teacher, interacting with the learners if they encountered difficulty. The interaction among the learners and me was natural. In fact, it would have been marked as unusual if I had observed learners experiencing difficulties, and had chosen not to step in and assist them.

In order to select videotaped interactions for analysis, I excluded those dyads in which learners had more than 6 years of education in their native countries. I further limited the pool by eliminating

non-drill and practice software programs, because most of the software being used was drill and practice. I then screened for oral proficiency, and selected four dyads in which low-literate learners, who were also beginning speakers of English, would be represented. All had studied in the Adult Learning Lab at once before, and had been introduced to using CALL. Many pairs of learners, whose discourse was not transcribed for analysis, did not engage in speaking with each other. Those learners who were quiet were those who found the tasks to be easy; therefore, talk was not integral to completing the task. By viewing the videotapes and listening to audiotapes¹² of the discourse of learners who spoke with each other, I created transcripts of the interactions. The four videotaped interactions total 187 minutes.

While transcribing the data, I noticed that the interactions were characterized by a high frequency of directives, and that a broader syntactic range existed when learners were directing each other than when learners spoke with the teachers. Furthermore, all

¹²I copied the audio from the videotapes onto audiotape and used the audiotape in conjunction with the videotapes to facilitate transcription.

interlocutors' speech was replete with different forms of repetition. Learners and teachers also repaired their own and each other's utterances, and corrected each other, too.

Past research conducted to analyze social interaction at the computer indicates that discourse among participants is not complex (Piper 1986, Abraham and Liou 1991). I suggest that this may be natural to task-oriented interaction. In the next three chapters I demonstrate that beginners who are working within shifting social identities and participant roles, communicate a great deal in minimally worded utterances while jointly completing a task. For their level of production, even the most elemental software can provide them the opportunity to communicate with each other without a lot of assistance from a teacher. Furthermore, to tax the economy of speech would be counterproductive to their goal of completing drill items accurately.

Analytical Methods

The participants are acting within a cross-cultural situation. Although the setting is a school,

and therefore, an institution, the learners and their teachers are engaged in an uncommon activity. Rather than treat the social context and discourse which emerges within it as classroom discourse within an educational institution, I consider the discourse strategies that interlocutors use in order to complete the tasks they are working on. The question is then, not only how does the discourse of second language learners differ from that of native speakers, but also how is it similar to that of any interlocutors working together on a task.

Face-to-face interaction is complex. There is no one linguistic approach or method to the analysis of interaction or discourse that can account for all of its aspects. This state of affairs is noted by Gumperz (1982), who remarks:

'...[W]e are still far from a general theory of verbal communication which integrates what we know about grammar, culture and interactive conventions into a single overall framework of concepts and analytical procedures.' (4)

Tannen (1984), as if replying to Gumperz, suggests, 'The solution lies in some combination of interpretation...and quantification, plus a method for developing and correcting interpretations' (7).

Sociolinguistic analysis of discourse often draws from related subfields in anthropology, sociology, psychology, the philosophy of language, as well as other areas of linguistics to account for the emergence of language in social context.

In this study, I primarily examine the interaction between the adult learners. However, because the learners interact with teachers, the discourse among learners and teachers is also analyzed. Finally, learners and teachers work with educational software programs. The software programs issue directives to users and respond to input from the keyboard. As a sociolinguist, I draw from several approaches to examine and interpret the functions of discourse comprising the present study's data.

I turn to Communication Accommodation Theory (CAT) (Giles, Mulac, Bradac, and Johnson 1987; Giles, Coupland, and Coupland 1991), to explain how the interlocutors are able to mutually orient themselves to their task and to each other although their ability to communicate in English varies from not at all (Mariam) to native speaker (the teachers). Learners say very little, yet they accomplish a great deal of

communication as they work through exercises on the computer.

Communication Accommodation Theory offers a social psychological framework for the analysis of interaction. Degrees of accommodation by individuals are marked by CONVERGENCE and DIVERGENCE, communication strategies that individuals use either to adapt to or to accentuate differences from others (Giles, Coupland, and Coupland 1991). Aspects of this theory are complemented by sociolinguistic studies of contextualization cues (Gumperz 1982) and conversational style (Tannen 1984) in cross-cultural discourse. Furthermore, the notion of frame used in anthropology and sociology as well as the cognitive psychological notion of schema are helpful in interpreting how interlocutors' prior experiences influence interpretation and participation in subsequent social interactions (Goffman 1974, Tannen and Wallat 1987, Tannen 1979, 1993).

Finally, I refer to shifts in FOOTING, the interactive process in which interlocutors change their alignment to both context and emergent text, as initially described by sociologist Erving Goffman

([1979] 1981a, 1981b) and further developed by anthropologist Steven Levinson (1988). Both Goffman and Levinson detail the multiple participant roles that interlocutors enact as they engage in communicating with each other.

The common thread that weaves together the notions described above is ORIENTATION. Interlocutors orient themselves toward each other and the text that emerges among them. They can be influenced in their interaction by their perception of behavior appropriate for the social setting. Such responses to social context are again reflected in the emergent discourse.

As discussed throughout Chapter 1 and earlier in this chapter (under the subsection 'Software'), discourse created by participants in the current study is marked by a large number of directives, different forms of repetition, and repair and correction sequences. For each of these features, I analyze discourse according to approaches already established and used within sociolinguistics, although they may be based in a different, related social science. Key concepts are described below; fuller explanations are found within chapters 3, 4, and 5.

In Chapter 3, I initially look to speech act theory for a definition of directives (Searle 1969, 1975). I base categorization of syntactic forms of directives following Ervin-Tripp (1976). I first discuss the distribution of syntactic forms in terms of politeness (Brown and Levinson [1978] 1987). Because many of the directives incorporate on-screen text and repetition of directives spoken earlier in the current session, I undertake an analysis of participant role (both production and reception) based on the work of Goffman ([1979] 1981a, 1981b) and Levinson (1988) in order to account for the complexity of interaction underlying what appears to be a superficial and brief interaction.

Many directives are uttered in learner and teacher attempts to correct learner errors. In addition to correction, learners and teachers engage in repair sequences. In Chapter 4, I identify repairs in interaction according to procedures used in conversation analysis, notably that of Schegloff, Jefferson, and Sacks (1977), as well as that of Juvonen (1989). In addition to this, I draw a relationship between repair sequences and the negotiation of

meaning, as studied in second language acquisition (e.g. Pica 1988, 1993, Varonis and Gass 1987a, 1987b). I discuss correction not only as an outcome of certain repair sequences, but also within the context of second language pedagogy, notably the Natural Approach (Terrell 1977, 1983).

In Chapter 5, I examine forms and functions of repetition within interaction, and base most of my approach to analysis on that implemented by Tannen (1987a, 1987b, 1989). In addition to analyzing repetition within the discourse texts studied, I discuss the role of repetition in first and second language acquisition. By delineating the relationship between functions of repetition in discourse and repetition as a tool for language acquisition, I argue that repetition is not equivalent to non-thoughtful parroting, but is essential for developing communicative competence (Hymes 1974 and elsewhere) within the target language, English.

A Note on Transcription Conventions

In chapters 3 through 5, I present analyses of discourse excerpts; therefore, transcripts of spoken

text are given. Transcripts are the best vehicle available to display spoken data for interactional sociolinguistic analysis. It is up to me, as the analyst, to recreate as accurately as possible the utterances of the participants in this study. The learners participating in this are non-native speakers. Their English speech is colored with foreign accents: these sounds are lost upon the page.¹³ As Brown and Yule (1983a:10-12) comment, standard orthography merely suggests what an interaction sounds like. In effect, the transcript itself becomes an artifact (Tannen 1984:36). Discourse analysts explicate the emergent

¹³Once I gave an academic paper on the discourse of adult ESL learners making oral contributions to language experience approach stories over the course of three months. Because of the number of discourse examples and the time limitation for my presentation, I enacted the parts of the learners as I read the paper aloud. I imitated the pronunciation and intonation of the learners in order that the audience could gain an appreciation for what the situation sounded like. A few years after hearing me give this paper, a fellow linguistics student asked me if I was ever criticized for 'making fun' of the way the learners spoke when I imitated them. I was not making fun of the learners in my class. I had made a decision between playing audiotapes of beginning speakers (which are often difficult for an audience to follow, even with a transcript) and giving a clear presentation. In reflecting upon this experience, I doubt I would ever do it again, lest my intentions be misunderstood. Such situations typify the problem of accuracy in representing spoken discourse.

spoken text, not a script that is pre-written for readers or actors; nonetheless, readers must rely on written representation of the spoken word in reading the analyses.

Transcription conventions are based on those of Tannen (1984:xix), except for silences between speakers and description of gesture, and are listed below.

- ' marks primary stress
 - ' marks secondary stress
 - ' marks high pitch on word
 - ' marks high pitch on phrase, continuing until punctuation
 - . marks low pitch on word
 - . marks low pitch on phrase, continuing until punctuation
 - . marks utterance-final intonation (non-question)
 - ? marks yes/no question rising intonation
 - marks glottal stop, or abrupt cutting off of sound, as in 'uh-oh'
 - : indicates lengthened vowel sound (extra colons indicate greater lengthening)
 - at left of line highlights select point of analysis
 - at right of line indicates that the utterance continues without break in rhythm (look for next line), and it is also used to indicate latching when space on the page prohibits the brackets commonly used to mark latches described below
 - , marks phrase final intonation (more to come)
- musical notation is used for amplitude and appears as a subscript to the left of the line:
- p** piano (spoken softly)
 - pp** pianissimo (spoken very softly)
 - f** forte (spoken loudly)
 - acc** spoken quickly
- The above notations continue until punctuation.
- /?/ indicates transcription impossible

/words/ within slashes indicate uncertain transcription

[SMALL CAPS IN BRACKETS] are used for brief description of gesture and context

[Brackets] between lines indicate overlap
 [when two] individuals speak at the same time

Brackets on two lines] indicate that the second utterance is latched immediately onto the first, with no perceptible pause (see note on → above)

When necessary, IPA transcription conventions have been used to provide phonetic representation of certain learner utterances. When limited by the character set of the word processor I use, I have substituted modifications of the IPA system, such as [š] for the first sound in 'shut' and [ʔ] for glottal stops.¹⁴

CONCLUSION

In this chapter, I have given background information on the educational setting where data was gathered. I have described all participants, both teachers and learners, as well as the educational software that they use. I have detailed my process for data collection and transcription, including the reasons for selecting four videotapes for analysis.

¹⁴Readers may refer to Wolfram and Johnson (1982:9-11) for further discussion of alternative representation of IPA symbols.

Finally, I have laid out an overview of analytical approaches I use in examining directives, repair and correction, and repetition. Analysis of these three aspects of participant discourse is contained in the next three chapters.

Chapter 3: Directives

Okay. Press. Over here.

--Antonio to Minh

INTRODUCTION

The learners and teachers participating in this study are engaged in task-centered talk. The social interaction that emerges when learners and teachers work with educational software consists largely of directives. Most are as simple as the ones Antonio gives to Minh above ('Okay. Press. Over here.'). In this chapter, I present a study of directives uttered by learners and teachers as they work with the educational software. The directives represent a range of syntactic forms and communicative functions. Analysis of directives indicates that there is a relationship between social identity and utterance form and function. Furthermore, form is negotiated as the participants manage educational tasks through cooperative talk.

In contrast to the negotiated meaning arising between learners, as well as among learners and teachers, on-screen text directives generated by the educational software are not sensitive to social context. The complexity of syntactic structures of

directives generated by the software are compared to those used by teachers and learners. Through this comparison, I argue that social context, influenced by participants and the text they jointly create enrich the language learning environment for beginning learners of ESL.

First I examine the social identities of the participants, for much of the form and function within the task-oriented discourse is related to social identity. Then, following Ervin-Tripp (1976), I categorize directives according to syntactic form and communicative function. In the ensuing discussion, I present an analysis of directives according to Levinson's (1988) refinement of Goffman's ([1979] 1981a, 1981b) participation framework. In addition, I apply politeness theory, developed by Brown and Levinson ([1978] 1987) to account for the range of syntactic forms.

Participants restate certain directives throughout the interactions. They incorporate on-screen text into directives they utter. I maintain that such strategies are important in developing efficient, task-centered talk in a cognitively challenging situation. As Jones

(1992) points out, how individuals issue directives is reflective of the social situation in which they participate. This argument is developed further in Chapter 5, 'Repetition.'

There is a fundamental difference between directing someone to do some task and requesting assistance because of perceived inability to perform on one's own. Learners employ both other-directed and indirect communication strategies in managing these contexts. Such strategies are defined and discussed in this chapter, with reference not only to social context of utterance, but also to constraints due to limited linguistic repertoire in the target language (Tarone 1977).

Participants in any social encounter negotiate meaning through interaction. In the analysis, I demonstrate how the participants jointly establish communicative signals, similar to contextualization cues (Gumperz 1982), that function as directives.

Furthermore, through interaction, learners and teachers use communication strategies such as asking questions and paraphrasing, as well as gesture, to facilitate their interlocutors' understanding. In this

portion of the analysis, I draw upon Communication Accommodation Theory (Giles, Mulac, Bradac, and Johnson 1987; Giles, Coupland, and Coupland 1991, Zuengler 1991), discussed at length in Chapter 1.

SOCIAL IDENTITY

The participants in this study interact within an institution, a school. Within the institution, they maintain social identities, in this case, teacher and student. According to Drew (1991), social identities carry with them rights and responsibilities to action, as well as access to knowledge.¹ For example, it is expected that ESL teachers have knowledge that enables them to teach English. Beginning learners of ESL are not expected to perform like native speakers. Teachers are expected to draw upon specialized knowledge to assist learners. Students expect that what the teachers tell them is correct.

In this vein, Heap (1986) draws from ethnomethodology as he studies first graders writing together at Apple II+ computers. He notes that in the class he observed the teacher assigned one child the

¹See Chapter 1:75-78 for additional information.

position of writer. This child chose a partner who acted as the helper. The two positions, writer and helper, carry with them certain rights and responsibilities for action. Similarly, in this study, learners are considered student keyboarders or student coaches. Although these terms are never employed by the participants, the differences between keyboarders and coaches are referred to indirectly, as I demonstrate below.

In the videotaped interaction, the teachers maintain their institutional roles without any further refinement based on distribution of duties. However, as stated in Chapter 2, 'Method,' there are different types of teachers involved with learners using the Adult Language Laboratory (ALL): the manager, the ALL teacher, the classroom teacher, and me, the participant observer. The computer also occupies an identity tacitly assigned by the teachers and learners, who treat it as if it were a communicating participant. The following examples highlight how social identities are recognized or established within discourse.

Teachers receive respect from learners, apparent in address patterns. Some of the learners, in keeping

with their native culture politeness norms, use TEACHER as an address form or title. In fact, I have a discussion with Juan about this before his class takes a coffee break. Part of the exchange is included in the following example.²

Example 3.1: Teacher's Social Identity

1 Juan: Okay.
 2 Good.
 → 3 Teacher, [Yeah?
 4 Susan: I gotta [go to] break.
 5 Juan: [Break?]
 6 Susan: Wanna take a break?
 7 Okay.
 → 8 Come on.
 → 9 You can just call me Susan.
 → 10 You know.
 → 11 You don't have to call me
 → 12 teacher.
 → 13 Just call me Susan.
 → 14 Please. [No::..]
 → 15 Juan: [Why?
 16 Susan: Heh-heh-heh.
 17 Kim: That makes me feel old.
 → 18 Susan: If you call me teacher.
 → 19 It makes me feel like
 → 20 I'm nine:ty five. [a:la:]
 21 Juan: Come o:n.
 22

The exchange continues for a few moments more; Juan remaining unconvinced that using my first name is

²See Chapter 2:167-168 for a description of transcription conventions.

culturally appropriate, and with me remaining just as firm about not being addressed as 'teacher.'³

The computer, regardless of the software loaded onto it, is referred to as the 'computer.' This exogenous social identity (Drew 1991) influences how its presence impacts social interaction. Because each software program has a scoring mechanism and presents learners with results at the end of a drill, it is appealed to as a technical authority in a similar manner that learners would rely on the word of a teacher or would refer to a textbook as a correct model of language use. The computer is the ultimate authority on how users should be directed to interact with it. In fact, the evaluative messages that the computer displays, and the noises that the computer makes when an error is committed, are referred to and rephrased by the learners. In the following example, Antonio interprets a software-generated directive for Minh.

³The educational setting at Truman is informal. Staff and learners are generally on a first name basis. However, in keeping with their native culture norms for respectful behavior, learners often treat teachers as individuals with higher institutional status. Use of titles reflects this.

Example 3.2: Learner rephrasing on-screen software directions

	1	Antonio:	Wait wait wait wait.
	2	Minh:	Yes no?
	3		Again?
	4		Again,
	5		Yes no?
	6		Yes.
	7	Antonio:	Yes.
	8		/ ? /
→	9		One moment please.
→	10		You have to wait.
→	11		Okay?
→	12		Wait.

In this example, Antonio and Minh have just finished the first drill and are ready to continue to another set of exercises. After Minh presses enter, the computer flashes the message, 'ONE MOMENT PLEASE,' on the screen while the drive with the program disk is busy. Antonio reads the message aloud to Minh (line 9) and then interprets it for him by telling Minh that he has to wait (lines 10 through 12). Antonio does this with firmness in his voice--a tone he uses with Minh throughout their interaction.⁴

STUDENT COACH and STUDENT KEYBOARDER are analytical terms. They are distinctly different identities. The

⁴This is not to say that Minh does not understand the meaning of 'One moment please.' Antonio is the member of this pair who engages in the most direction giving based on what the computer expresses.

student keyboarder is usually the person who sits down first and is at the best angle to access the keyboard. The keyboarder is generally responsible for inputting answers. In the following example, Liz, the classroom teacher for Minh and Antonio, wants to impose an order for taking turns keyboarding on the pair. Up to this point, Minh has been doing most of the keyboarding.⁵

Example 3.3: Assigning Keyboarding

	1	Minh:	Try again.
	2		Heh-heh.
	3		Heh-heh.
	4	Antonio:	Okay.
	5		Press.
	6		Over here.
	7		Right?
	8		Yeah.
	9		Here.]
	10	Minh:	Again.]
	11		Heh-heh.
→	12	Liz:	Okay.
→	13		This is Antonio
→	14		now.]
→	15	Antonio:	Okay.]
→	16	Liz:	Antonio.]
→	17		You first.]
→	18	Minh:	You.]
	19	Liz:	Yeah.
	20		Okay.
	21		And then you press,
	22		Return.]
	23	Minh:	Yea:h.]
	24	Antonio:	Heh.]

⁵In this excerpt, participants mention the return key. This key is used in the same way as the enter key on other personal computers.

25 Yeh. ↴
 26 Liz: ↴ Yes.

In this example, Liz has decided that Antonio should take a turn at keyboarding, identifying him as the one who is 'on' by saying, 'Okay, this is Antonio, now.' (lines 12-14). Antonio acknowledges that he has been mentioned (line 15), and Liz paraphrases herself, saying 'You first.' (line 16). This is seconded by the former keyboarder, Minh, in line 17, as he echoes Liz by saying, 'You,' to Antonio. This directive influences further interaction rights to turns.

The keyboarder inputs the answers, but the coach helps guide the answer selection, monitors keyboarding accuracy, and explains the mechanical aspects of using the software. In the next example, the role of student coach is assigned to Kim by Joan, her classroom teacher.

Example 3.4: Assignment of Student Coach

→ 1 Joan: Kim you be the teacher,
 → 2 and show Mariam.
 3 Kim: Yes.
 4 Yes.
 → 5 Joan: Let Mariam try,
 → 6 Yes.
 7 Kim: Yes.
 8 Joan: Okay.
 9 Thanks.
 10 Mariam: Thank you.

The student coach position can also arise by default, since the software programs are not designed for more than one learner to use at a time. Joan gives definition to the role by directing Kim to be teacher to Mariam. The interaction resulting from the identity assignment is important, for Kim never keyboards for Mariam. Instead, she points to keys as she gives Mariam directions. She listens closely to Mariam's requests for confirmation and clarification. She models good coaching (teaching) behavior. In fact, later on in the interaction, Joan compliments Kim on being a good teacher.

Social identities equip individuals with rights to certain actions, including the authority to issue directives within a range of syntactic structures that reflect status and power (Drew 1991, Heap 1986). Rights and responsibilities appear in Table 3.1 below.

TABLE 3.1 RIGHTS AND RESPONSIBILITIES RELATED TO SOCIAL IDENTITY			
Student Keyboarder	Student Coach	Teacher	Computer
1. usually first student to sit down or assigned to sit in front of keyboard	1. usually second student to sit down or assigned to sit in front of keyboard	1. decides what students will study	1. may ask users to identify themselves
2. sits directly in front of keyboard	2. monitors keyboarding from the side	2. decides which students will work together	2. may present users with operating instructions
3. by default, controls keyboarding unless another encroaches	3. may opt to keyboard	3. may assign social identity roles to learners, or influence turn-taking among them	3. presents users with problems to solve
4. listens, and sometimes relies on peer coaching for input	4. suggest or supplies answers to keyboarder	4. explains mechanics of program	4. evaluates answers as they are input by learners
5. can check for accuracy before pressing 'return' for computer feedback	5. may echo computer evaluation of answers	5. monitors student progress	5. allows learners a given amount of chances at correcting wrong answers
6. may rely on teacher for assistance	6. may rely on teacher for assistance	6. makes students demonstrate what they understand	6. displays correct answers
7. may ask teacher for assistance	7. may ask teacher for assistance	7. decides when students should stop using a program	7. displays drill results

In these interactions, the learners' oral and literacy skills in English are in early stages of development. They are engaged in a learning task in which the computer and the computerized drill and practice lessons provide the focus for their interactions. Because, in general, the context for their interactions is concrete and in their immediate view, and their task is mutually understood (namely, to work through a computer lesson), the field for their interaction is

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spelled out and remains constant. The software program and the computer comprise the frame of reference for all interactions. The tenor, or relational aspect of the interaction changes as teachers involve themselves as interlocutors with the students, and as students take on roles characteristic of pair members jointly using a computer.

Now that the social identities of learners, teachers, and the computer have been established, let us examine the syntactic forms and the communicative functions of directives that emerge within interactions. After identifying syntactic forms and functions, I shall discuss their relationship to social identity within this educational context.

DIRECTIVES AND SYNTACTIC FORM

In Chapter 1, I have discussed various studies of directives in discourse. Recall that Ervin-Tripp (1976) determined that because syntactic forms of directives vary, it is important to analyze the distribution of social factors in interpreting utterances as directives. Such factors include social distance in hierarchical relationships, emotional

distance, age difference, and institutional relationships. Her findings demonstrate that there is a relationship between social factors and syntactic form used to issue directives.⁶ In order to determine the range of syntactic form of the directives issued by participants in the current study, the following categories are used. They are based on those of Ervin-Tripp (1976).

In addition to categories she uses, I add the functional categories of CLARIFICATION REQUEST and CONFIRMATION REQUEST. Although these two categories are functional, they should be treated separately for two reasons. First, they are generally formed by repeating another person's preceding utterance with rising intonation, as if asking a yes/no question or by saying 'yes,' 'no,' or 'good' with yes/no question intonation. Secondly, this form is always related to the functions of asking for clarification or confirmation by the learners.

⁶Goodwin (1980) incorporates gender differences into analysis of directives. Goodwin's findings are applied to data from the current study in Chapter 5, 'Repetition.'

Each type of directive is accompanied by an example drawn from the transcribed discourse of study participants. After giving examples from each category, I present summary charts which show the distribution of syntactic and functional forms according to social identity.

Imperative Forms

Learners generally use imperatives when directing each other to perform an action. Likewise, teachers use imperatives when directing the learners. Examples of different types of imperatives follow. I begin with the BASIC IMPERATIVE, the most commonly used form.

Basic imperative. The basic imperative directive is formulated by uttering a verb in the imperative form, usually with falling intonation. Examples drawn from learners' utterances appear below.

(a) Wait. Wait. Wait.

(b) Don't touch it.

(c) Try again.

In these three examples, notice that the speaker is managing turn-taking procedure. In (a), the speaker tells his partner not to make a move. Example (b) is

even more explicit as the speaker tells his partner not to touch the keyboard. In (c), the learner states the message that appears on the monitor after an incorrect answer has been corrected as he tells his partner, 'Try again.' Basic imperatives are used the most by learners, teachers, and software programs. They tend to focus on the mechanical procedure for inputting answers, and not on lesson content. They can be used to prohibit action as well as to direct another to perform some action.

Basic imperatives uttered by teachers are represented by the following examples. Notice that the directives do not exclusively focus on keyboarding and turn-taking. Teachers often present a comment after uttering the basic imperative. Not only does this soften the baldness of the directive, but it also links the mechanics of keyboarding to the content of the lesson.

- (d) Press this one.
- (e) Press space bar to continue.
And you can try something different.
- (f) Look at your paper.
What's wrong.

In (d) Joan utters a basic imperative, telling Mariam to press the key that she is pointing to. In (e), I tell Minh and Antonio to press the space bar, which I know will lead them to the main menu where they can either select a new vocabulary list or a new drill type. I have given them a reason for performing this keyboarding task in the second part of my utterance. In (f), Joan notices that Kim has made a typographical error on-screen. Instead of directing Kim to backspace and retype the word, she directs Kim to refer to the correct spelling of the words on the handout that she has been completing while working with the computer program. Participant teachers may use imperatives in combination with instructive phrases to the learners, while the participant learners do not use such formulations with each other.

The basic imperative forms appearing on the screen within the software drills are never accompanied by instructional text. Almost without exception, learners are told to try again, or to press certain keys. Little or no content-based text appears within the directives generated by the educational software.

So far, I have examined the basic imperative. This form varies. Sometimes the pronoun 'you' or another attention getting expression precedes the verb, and sometimes words other than a verb are uttered with the intonation contour of imperatives. Examples of such formations follow.

You + imperative. The YOU + IMPERATIVE form is used primarily by Kim as she directs her partner, Mariam, in keyboarding. In (g) below, Kim instructs Mariam to press the key with the numeral 1 on it, in order to select a drill type.

(g) You put number one.

Use of 'you' selects Mariam as the addressee of the utterance. Because Mariam's comprehension of English is so limited and because she does not make eye contact with the person speaking, it is necessary to command her attention and to indicate to her that she is being addressed. Joan, her teacher often precedes utterances directed toward her by saying, 'Mariam,' for precisely this reason.

If 'you' were to be deleted from the beginning of the utterance, we would be left with the basic imperative, in which 'you' is understood. It should be

noted that unlike any other learner, Kim uses the you + imperative form more often than the basic imperative, which may indicate 1) that she is experimenting with more complicated language as she develops her ability to communicate in English, or 2) that this form is her preferred form of the basic imperative, while for others the null-subject imperative is preferred. However, such conclusions may only be drawn from analysis of data gathered over time.

Minh also uses 'you' as an attention getting device with the imperative. In example (h), Minh utters the following to Antonio, as he simultaneously points to an area on the monitor screen:

(h) You.
You write.
Your name.
You.

In this example, Minh directs Antonio to log onto the software program by typing in his name. At the beginning and end of his utterance, he brackets the directive with 'you,' singling out Antonio as his addressee. He utters, 'You write your name,' emphasizing that it is Antonio who is to perform an action. Again, this could be a variation of the simple imperative that Minh, like Kim, uses as a transitional

form in the acquisition of English; however, there is insufficient data to confirm this.

Other attention-getting devices. Besides 'you,' other ATTENTION-GETTING devices often appear with, or instead of imperative verbs. For example, in (i) below, Kim uses the expression, 'one more time,' in conjunction with the preposition 'down' when telling Mariam to press the down cursor key.

(i) Down one-more-time.

Kim utters this expression with the same rhythm and intonation often with the word 'down.' Mariam's comprehension is facilitated by the recurrence of this phrase. Other phrases that draw attention to a directive include 'alright' and 'okay,' which the student coach uses to indicate that the keyboarder should make a keystroke within a problem or make the keystroke that will advance the program to the next problem. In the following example, Maria tells Minh to press the space bar to advance to the next problem.

(j) Alright. Press.

Words such as 'alright' and 'okay'⁷ can function with

⁷Schiffrin (1987:102) cites Schegloff and Sacks (1973) in stating that 'okay' is used to initiate pre-closing sequences. 'Okay' and 'alright' function

other phrases or on their own to signal that the keyboarder should go on to the next problem.

Elliptical phrases. ELLIPTICAL PHRASES also may function as imperative directives. Such phrases consist of utterances or fragments that do not contain verbs, but nonetheless have the force of a verb uttered with imperative intonation. Elliptical phrases are used by both teachers and learners in this data. In the following three examples, the elided utterance appears first, followed by an expanded imperative in parentheses.

(k) Return. (= Press return.)

(l) Again. (= Do it again.)

(m) Space. (= Press the space bar.)

In these examples, addressees share enough background information with the speakers to interpret the utterances correctly. However, as shall be seen later, elliptical utterances may be initially misunderstood, requiring participants to negotiate a standard interpretation.

similarly in the present study in that they are uttered to finish current business. In addition, 'okay' and 'alright' signal that the keyboarder may press a key to bring on new business (the next language problem).

Expressing Need

Self-need. The next type of directive type to be discussed is SELF-NEED. Consider the following example, in which Antonio calls me, his teacher, to his side for assistance:

(n) I need help.

In uttering this directive, Antonio, the speaker, imposes himself on me, the hearer. Antonio is the beneficiary of my subsequent act of compliance with his directive. As a teacher, helping students is my responsibility in line with my social identity. When students need assistance, I am expected to give it.

As the teacher, I occupy higher institutional status than Antonio, the student. Through making a statement that highlights his need, Antonio not only defers to my institutional role as a teacher (one who can help), but also does not impose on me directly by uttering an imperative, as in 'Help me.' Self-need utterances resemble hints (explained below) in that they are indirect and rely on shared knowledge of procedure. They differ from hints in that they would be recognizable as requests even by an outsider. The self-need utterances are used by learners exclusively.

Other-need. Compare self-need directives above with the following examples of OTHER-NEED directives, which teachers use with learners.

(o) You want to move the ma..

(p) You need a vowel first.

In other-need directives, one interlocutor makes a statement of need on behalf of another, while in self-need utterances, a speaker states that s/he requires assistance. Other-need statements are always uttered by teachers in the data.

Although uttered by teachers, whom the learners hold in high status, the other-need directives are mitigated by two devices. First, they are offered as statements, not as imperatives. Secondly, the statements are made in a keenly other-centered fashion. By placing the directive within an other-centered, needs-based context, the teacher voices that it is the learner's needs that are at the center of attention. In other words, the focus is less on the unequal power and hierarchical dynamics and more on the individual learning the language. Teachers show support for the learners with such a strategy. Of course, status and

native speaker ability in English equip the teacher with the ability to perform in such a way.

Intonation. Intonation plays a role in how speakers convey an utterance, and consequently, how addressees interpret and respond to them. When learners serving as student coaches assist by spelling aloud words so the keyboarder can enter them, they state the spelling, letter by letter, as if listing them. RISING INTONATION indicates that more information will follow. The last information has statement intonation, as seen in example (q) below. In the example, Kim is spelling the word 'bus' to Juan.

(q) U, S.

In this example, Kim utters 'U' with rising intonation, but 'S' is uttered with statement intonation, indicating that the series of two has come to an end.

Other Categories for Directives

Thus far, all of the syntactic categories have been readily identifiable as directives from either the form or the content. The remaining categories are more indirect, and rely upon inferencing to be understood as directives.

Exam questions. EXAM QUESTIONS are questions in which the speaker knows the answer, but wants to make sure that the interlocutor does, as well (Searle 1969). Examples include the following, uttered by teachers:

(r) What's this.

(s) Who works in an office here.

Teachers use these exam questions as comprehension checks. They function as directives because they are tantamount to stating, 'Tell me...' If the learner answers incorrectly, the teacher may prolong the interaction, asking questions that ultimately guide learners to give the correct answer themselves.⁸

Embedded imperatives. EMBEDDED IMPERATIVES exist in teacher utterances only. It is not surprising, since fluency in the target language must be fairly high in order to use an embedded structure. Some examples of directives imbedded within utterances follow:

(t) Why don't you try Group Two?

(u) You can just call me Susan.

(v) The important thing is, when you see this little bird, press return.

⁸This type of sequence is addressed in more detail in Chapter 4, 'Repair and Correction.'

In (t), the teacher is helping the learners select a new list of verbs to practice making contractions. The indirectness of an embedding has the effect of sounding more like a suggestion and less like an order. The same is true of (u). In (u), I ask a learner to call me by my first name, instead of 'teacher.' By embedding the directive into a structure in which I give him permission, and mentioning his ability to perform an action (CAN), I am lessening the force of a command. This is further accomplished by using the adverb 'just' to soften the directive.

In examples (t) and (u), the indirectness resulting from embedding the directive within suggestions (t: 'Why don't you try Group Two?') or positive statements (u: 'You can just call me Susan.') downplays the institutional hierarchy existing between adult teacher and adult student. In my attempt to make our social relationship equivalent, I promote the addressees positive face (Brown and Levinson [1978] 1987) by using language that appears less like downward address and more like suggestions among equals (not unlike what Goodwin 1980 has noticed among girl peers at play). I shall return to this theme later.

Finally in (v) the directive is embedded in a long statement that describes when an action should be performed. (The important thing is, when you see this little bird, press return.) Although the directive is in the imperative, it is given as part of a lengthy explanation of the keystrokes required to successfully execute the program. Within the explanation, I repeat and paraphrase this initial directive. In this data, learners who give directives related to procedure give them one at a time and do not embed them in longer utterances as their teachers do.

Hints. HINTS are indirect. They are used by both teachers and learners in situations in which participants share a great deal of mutual knowledge of a social situation (Ervin-Tripp 1976, and Mitchell-Kernan and Kernan 1977). Hence, learners use the following hint to get teachers to perform an act:

(w) Finished.

In this case, both the learners and the teachers know that when a learner completes a task, work must be checked and evaluated, and a new task must begin.

Similarly, learners use hints when communicating with each other, as in the following example:

(x) Minh: Finish?
 [*dialogue continues*]
 Maria: Finish.

Minh has used the word 'finish' several times before this utterance in an attempt to get Maria to hurry up so that he may continue with the lesson. Maria then recycles Minh's vocabulary to signal to him that she is ready to move on, and that he, as keyboarder, should press the appropriate key to advance. The use of 'finish' by both speakers instead of 'hurry up' or 'continue,' shows that both learners understand the social routine for using the software program together, namely, that both learners must be ready to advance to the next screen before the keyboarder presses the key to advance.⁹

Likewise, teachers use hints when interacting with the learners, as in example (y):

(y) This is Antonio now.

In this example, the teacher is informing both Minh and Antonio that it is Antonio's turn. She does not say, 'Minh, don't press the keyboard, let Antonio try,' nor does she say, 'Antonio, you try.' She is able to rely

⁹How individuals negotiate these signals is taken up later in this chapter.

upon participants' mutual understanding that Antonio is to have a go at the exercise.

Clarification and confirmation requests.

CLARIFICATION AND CONFIRMATION REQUESTS are often used between learners and their teachers as well as between learners and their partners. Typical examples follow.

(z) Susan: No, just Cah-,
You will learn Cambodian.
Juan: Who me?
Kim: Cambodian?
Susan: No,
You'll learn English.

(aa) Kim: F.
Mariam: F?
Enneh? (**Gloss:** Is this F?)
Kim: Yes,
F.

In (z), I have made a joke about using the computer to learn Cambodian, Kim's language. Juan and Kim do not understand that I am joking. Both indicate that they need clarification of my comment ('You will learn Cambodian.'). I clarify by telling them that they will actually learn English ('No, you'll learn English.').

In (aa), Mariam asks for confirmation of the name of a letter of the alphabet by pointing to the letter and questioning Kim by repeating Kim's original utterance plus a demonstrative phrase in Farsi ('F? Enneh?'). Kim then confirms, by using an affirmative

phrase which again incorporates repetition of the letter 'F.'

Likewise, teachers make clarification and confirmation requests of learners. They may also consist of rising intonation and repetition as do the learner examples above. This is seen in the following example:

(bb) Maria: Oh,
 Oh,
 Oh.
 Office?
 Susan: Office?

When Maria offers 'office' as a possible answer, I ask for clarification by repeating her utterance. This is part of a larger routine in which I am trying to get Maria and her partner, Minh, to state the word 'police officer' when a graphic representing one appears on the screen.

The participant with the least knowledge of how to proceed makes the request for confirmation. The participant with access to the knowledge can confirm. Clarification requests can be met with paraphrasing of an original utterance or by repetition of the utterance.

Post-posed tags. In addition to the categories above, there is another syntactic structure for directives used almost exclusively by teachers--**post-posed tags**. An example follows:

(cc) Try spell one more time.
Okay?

In this example, I use a tag question to secure agreement from the learners, Kim and Juan, that they will follow my order and try to spell a word again. In addition, I use the verb 'try,' instead of just uttering 'spell' in the imperative, to encourage them to take a risk with the software.

Analysis of Syntactic Forms of Directives

As stated previously, all participants use directives when interacting with each other. The following subsections detail the differences which emerge when incumbents of social identities interact with one another.

Learner-learner. In Table 3.2 below, the distribution of syntactic forms of directives uttered by learners to each other and to their teachers are listed.

TABLE 3.2
LEARNER-ISSUED DIRECTIVES

Dyad					
Utterance Form	Mariam & <i>Kim</i>	<i>Maria</i> & Minh	Antonio & Minh	Kim & Juan	Total
Basic Imp.	10=Kim	21=Mar. 7=Minh	62=Ant. 5=Minh	4=Kim 21=Juan	130
You+Imp.	41=Kim		11=Ant. 9=Minh	4=Kim 1=Juan	66
Attention Imp.	15=Kim	27=Mar. 2=Minh	13=Ant. 4=Minh	11=Kim 7=Juan	79
Rising Intonation		58=Mar. 4=Minh	1=Ant.		63
Post-Posed Tags			1=Ant.		1
Elliptical Phrase	1=Kim	11=Mar. 4=Minh	6=Ant. 3=Minh	1=Juan	26
Self Need			2=Ant.	1=Kim	3
Hints	1=Kim	10=Minh		2=Kim 5=Juan	18
Clarif. Request	4=Mar.	2=Mar. 2=Minh	2=Ant. 4=Minh	2=Kim 9=Juan	25
Conf. Request	22=Mar.	7=Mar. 7=Minh	8=Ant. 20=Minh	13=Kim 16=Juan	93
Total	68=Kim 26=Mar.	126=Mar. 36=Minh	106=Ant. 45=Minh	37=Kim 60=Juan	504

Names of learners who consistently play the role of student coach appear in *italics*.

In the learner data, the most common type of directive is the basic imperative (n=130), followed by confirmation requests (n=93), and imperative + attention getting device (n=79).

Of all learners in the present study, Mariam is the least proficient in English; therefore, when Kim

interacts with Mariam she engages in little variation in form of directives, when compared to the other learner pairs. Kim has better command of English than Mariam. Although unable to read English, Kim does recognize all letters of the alphabet. Mariam does not. Their classroom teacher, Joan, has paired them together so that Kim can 'help' Mariam learn the alphabet by using the MECC children's software, *Fun from A to Z*.

When Kim and Mariam first sit down to use the program, Kim spontaneously reads aloud the alphabet letters that appear on the screen and Mariam repeats after her. Kim also controls the keyboard, even though she is sitting in the coach's seat. When Joan comes over to check on Kim and Mariam, she tells Kim to be Mariam's teacher. As soon as Joan leaves, Kim begins to actively involve Mariam in the procedure of selecting answers.

Kim reads the alphabet letters in the multiple choice selection and makes sure that Mariam repeats them correctly. She also issues many directives, in repetitive style, to instruct Kim to keyboard for the

correct answers. Kim generally uses one of the following commands to get Mariam to keyboard properly:

1. Kim: You put down.

or

2a. Kim: You put¹⁰ again.

2b. Kim: One more time.

Kim confirms Mariam's correct keyboarding with, 'Yes.' Kim's directives almost exclusively concern proper keyboarding, as opposed to selecting the correct answer based on an analysis of the problem. This differs from the content of directives issued by more competent speakers to more competent interlocutors.

Aside from repeating letters of the alphabet after Kim, Mariam's utterances consist largely of confirmation requests. She either repeats the name of a letter with question intonation while pointing to it, uses a Farsi phrase ('Yana T?' = Is this T?) to request confirmation that she has selected the correct answer, or uses a qualifying phrase, 'Is good?' to get Kim to confirm her answer. Kim does not always supply confirmation. This may be because Mariam speaks quietly. In fact, some of what appears to be

¹⁰Kim probably means 'push,' and not 'put.' She pronounces word-final [š] as [t'].

confirmation requests may actually be private musings aloud.

When Kim is paired with Juan, an individual with strong speaking skills but weak literacy skills, to complete *Basic Vocabulary Builder* less directives are issued by these learners than by any others. They are unable to go through the software program unassisted. Neither one of them can spell or sound out new words well. The teacher issues more directives than for any other pair because of this. Teachers are required to explain more thoroughly and to check comprehension frequently. Analysis of directive use between learners and teachers follows.

Learner-teacher interaction. Table 3.3 below displays a summary of the directives that learners address to teachers. Because teachers are circulating among many learners, and not just working with the focal learners, their appearance on the video camera is intermittent. The learners are filmed continuously; therefore, there are more examples of them interacting with each other than of teachers interacting with them.

TABLE 3.3 LEARNER DIRECTIVES TO TEACHERS					
Dyad					
Utterance Form	Mariam & Kim	Maria & Minh	Antonio & Minh	Kim & Juan	Total
Self-Need			2		2
Hint	1	1		2	4
Clarif. Request	2			5	7
Conf. Request	2	3	12	15	32
Total	5	4	14	22	45

There are but 45 examples of learners using directives to address their teachers. Most of these consist of confirmation requests (n=32).

Differences exist between the directives learners use with each other and those that they use with their teachers. It is significant that learners use a wider range of syntactic forms when addressing each other than when they address their teachers. Reasons for this can be explained first by social identity, and further by politeness factors.

Perhaps the most significant finding is that learners produce a wider variety of directives when addressing each other than when addressing their teachers. Furthermore, it is when learners act in the

social identity of student coach that they use the most directives. As shown in Table 3.2, Kim serves as student coach when paired with Mariam, and Maria plays the role when with Minh. When paired with Minh, Antonio usually plays the role of coach although their teacher encourages them to take turns keyboarding. Antonio utters more directives and more of a variety of them than Minh does. The same goes for Kim and Juan. Juan generally plays coach, although he also keyboards. He utters more directives than Kim does.

Learners who coach primarily use a form of the imperative when using directives with the keyboarder. Why is this so? The learners focus all of their attention on the task at hand. Brown and Levinson ([1978] 1987) state that interlocutors may opt for the imperative, going 'bald on-record' with a directive in urgent situations. I suggest that when learners, who are of equal status, collaborate on solving language problems posed by the software, this approximates an urgent situation. They know the software program evaluates their progress. They know that if they answer a program correctly they will be rewarded with positive feedback, which many of them enjoy. Since the

focus is on the task, not on creating rapport, using the imperative with each other does not seem to be out of line.

Learners find themselves in a bind when requiring assistance. To ask a teacher for help is to admit inability to understand in front of peers. This affects learners' own negative and positive face, in that they are requesting that someone interact with them in a situation that highlights their ignorance. Mindful of the difference in hierarchical status, learners indicate that they need help without using the basic imperative to demand it.

Of course, it is the responsibility of the teachers to assist learners. This is, after all, their job. However, despite teachers' higher institutional status and the imposition placed upon them to help learners, they are sensitive to the needs of positive and negative face of the learners. Teachers circulate throughout the ALL, checking to see if learners need assistance. They may ask learners if they need help, step in when they think it is needed, or respond to learner requests for it.

These actions are in line with the rights and responsibilities inherent in their social identity as teachers, summarized previously in Table 3.1. The range of syntactic forms for the directives teachers use is displayed in Table 3.4 below.

Dyads					
Utterance Form	Mariam & Kim	Maria & Minh	Antonio & Minh	Kim & Juan	Total
Basic Imp.	3	8	22	25	58
You Imp.		2	10	8	20
Attention Imp.	2	2	9	12	25
Self Need				1	1
Other Need			8	3	11
Rising Intonation		7	2	1	10
Elliptical Phrase	1	4		17	22
Exan Question		4		17	12
Embedded Imperative	1	1	1	9	13
Hint	1	1	4	5	11
Post-posed Tag				6	6
Clarif. Request			1		1
Total	8	29	57	104	198

Although teachers use the basic imperative form the most, they use a number of other syntactic forms to soften the delivery of a directive. In fact, teachers use 11 different types of directives with Kim and Juan, the learners encountering the most difficulty with the educational computer program they use. Additionally, Juan is the learner with the strongest oral communication skills in English and therefore able to understand directives in a greater variety of structures. Teachers respond to the troubles that he and Kim have with *Basic Vocabulary Builder* by mitigating the impact of basic imperatives.

On the opposite end of the scale, Mariam and Kim require very little assistance from teachers, mostly because Kim can use the program *Fun from A to Z* with ease, and, as mentioned earlier, she is able to direct Mariam in using it with no assistance from a teacher.

Computer-Issued Directives. It goes without saying that human participants initiate interaction with the computer. The computer can only interact when someone 'starts' with it first. The computer's interaction is static and limited. It is reduced to displaying electronic text within the following three

functions: directions, lesson content, or evaluative comments. Even though the computer is never addressed directly even in a playful way, it is the focus and stimulus for the task-focussed interaction.

A summary of syntactic forms of directives given by the three software programs used by participants in this study appears in Table 3.5 below. *Fun from A to Z* uses but one directive throughout the program. It is the easiest program to use and is listed on the left. The most difficult program, *Basic Vocabulary Builder*, employs 25 directives of different types and is listed on the right. *Contraction Action*, taking the center position, uses a total of 19 directives, and is less difficult than *Basic Vocabulary Builder*.¹¹ I have added the category, 'Directions,' to this table. This covers directions that indicate what a user must do in the future, such as, 'You will use the Arrow Keys to choose the contraction that means the same as the words on the sign.'

¹¹*Basic Vocabulary Builder* is the only program of the three that has been designed for beginner ESL learners. *Contraction Action* and *Fun from A to Z* are designed for children in primary grades.

TABLE 3.5 COMPUTER-ISSUED DIRECTIVES				
Educational Software Programs				
Directive Types	Fun from A to Z	Contraction Action	Basic Vocabulary Builder	Total
Attention Imperative		1		1
Basic Imperative	1	15	19	35
Elliptical Phrases		2	2	4
Embedded Imperative			2	2
Hint ¹²			2	2
Directions		2	1	3
TOTALS	1	20	26	47

The directive used by *Fun from A to Z* is simply, 'Press space bar to continue.' Since this program has been designed for young children who are just beginning to learn the alphabet, the command serves more as a guide to use to a reader (parent, aide, or teacher) supervising young children, than to nonreaders.

It is interesting to note, then, the variety of introductory directions in a program designed as a vocabulary spelling drill for beginning learners of English as a Second Language. *Basic Vocabulary Builder*

¹²Both hints are immediately followed by basic imperatives.

contains the widest variety of syntactic types of often complex directives. Surely, beginning learners cannot be expected to comprehend such directions if they do not have basic command of English.

In using *Basic Vocabulary Builder*, the first four sets of introductory directives consist of compound directives, such as, 'Enter choice and press return.' In this basic imperative sentence, two directives are given. Furthermore, the beginning learner must be familiar with the peculiar uses of the verb 'enter' and the noun 'return,' meaning to input some information to a computer by pressing a special key. The learners must also understand the meaning of 'choices.' On one screen where this directive appears, learners must choose a word list from a master list of twenty. On another screen, the learner must choose a drill type. For the word lists that Kim and Juan and Maria and Minh work on, the drills include: identification of singular nouns, pluralization of nouns, or noun agreement with demonstrative adjective. Although basic imperative directives seem easy to follow, the background knowledge they assume is complicated.

The following two embedded imperatives also appear on one of the introductory screens of *Basic Vocabulary Builder*: 'If you don't know the answer, press 'RETURN' to get help. When you see this symbol (an eagle--the publisher's logo) press the 'RETURN' key.' These directions are complicated for beginners to understand. They contain difficult, specialized vocabulary encased in complex syntactic structures. There is no option to turn them off so that teachers can explain or demonstrate how the program works. It is puzzling that a program targeted for use by beginners would start out in such a complicated fashion.

Contraction Action, a multiple choice program that tests children's knowledge of contractions, usually uses the basic imperative form in giving directions. Basic imperatives in the introduction are compound or given in two simple sentences, as in *Basic Vocabulary Builder*. Elliptical phrases that are used include, 'One moment please,' and 'Did you spell your name right? Yes No.' The first elliptical phrase implies 'wait,' while the second elliptical phrase 'Yes No' requires users to know that they must press either 'Y or N.' Once the learner is logged on, the only

directives to routinely appear are, 'Press SPACE BAR to continue,' and 'Try again.'

Learners require a teacher's assistance in understanding how to use *Basic Vocabulary Builder*. In fact, teachers pass quickly through the introductory screen because of the complicated text. *Contraction Action* is confusing initially, when a dyad is using a program that assumes a single user. Therefore, Antonio and Minh are puzzled once Minh enters his name and there is no corresponding set of directions for Antonio. These learners also require assistance in understanding how to use the cursor to select an answer.

Kim and Mariam require no operating instructions to use *Fun from A to Z*, mostly because Kim has used the program before. In addition, although there are three different alphabet-skill drills, they all operate identically. This frees the learner to concentrate on content, not on the technical aspects of program use, which is really not integral to the language concepts focussed on in the drill.

It is natural that learners and teachers adjust the way in which they address each other depending upon

the ever-emergent context of interaction. This is evident in that they phrase directives differently. The computer programs that the learners use act independent of context. The directives they offer are preprogrammed and nonadjustable.

Discussion of Syntactic Forms of Directives

In this section, I have discussed a number of factors that influence the syntactic forms directives take. I have shown that most directives are uttered in the basic imperative or a variation thereof. I have attributed the range of form to the following: 1) function of the directive (oriented toward obtaining help, oriented toward telling someone else how to act), 2) orientation of participants toward task or toward social relationship, and 3) social identity.

Furthermore, in examination of social identity, I have demonstrated that learners use a broader range of syntactic types when interacting with each other than when they interact with the teacher. Learners appeal to the teacher for personal assistance. In these situations, they do not use the basic imperative. Teachers, however, do use forms of the imperative with

the learners, because they are giving the learners instructions. Similarly, this is mirrored in the relationship between student coach and student keyboarder. The student coaches use more imperative forms than do the keyboarders because they are telling the keyboarders how to proceed. Just as learners ask teachers for confirmation and clarification, student keyboarders ask the same of the coaches.

When learners have the opportunity to interact with other learners as well as teachers, they are able to use directives for different communicative purposes. Without the benefit of interacting with their peers, learners would have little opportunity to practice the variety of directive types they are able to in the circumstances of this study.

Participant Role Analysis

No matter how simple the utterance, social interaction is a complex phenomenon. In the preceding section, I have examined the forms of directives that participants use with each other. I have shown that there is a relationship between social context and directive form. In this section, I continue the

analysis by examining the relationship between participation status¹³ (Goffman [1979] 1981a:137), or a conversation participant's relationship to a particular utterance. In the analysis, I apply Levinson's (1988) refined taxonomy of Goffman's original categories for participation status.

In the case of the data presently under study, Levinson's taxonomy proves useful in determining the participant status of interlocutors as they give and respond to directives, as well as in explaining the role that the educational software plays within the interaction. Learners and teachers often incorporate on-screen text into the directives they utter. They may also paraphrase on-screen directives in order to explain them to other participants. Participant role analysis sheds light on the complexity of managing many roles within an interaction. First, let us examine the categories for the roles of speakers. Table 3.6 contains a simplified comparison of Goffman's original terms to those modified by Levinson.

¹³See Chapter 1:72-75 of this study for further information on participation status.

TABLE 3.6 A SIMPLIFIED COMPARISON OF PRODUCER ROLE TAXONOMIES AFTER LEVINSON (1988:172)	
Levinson (1988) Production Roles	Goffman ([1979] 1981a) Production Format
Participant Producer Roles	
author	animator author principal
ghostee	animator principal
spokesman ¹⁴	animator author
relayer	animator
deviser	principal author
sponsor	principal
ghostor	author
Non-Participant Producer Roles	
ultimate source	author principal
principal	principal
formulator	author

In Table 3.6, categories of Levinson's modified taxonomy for producer participant roles appear on the left, while the original categories used by Goffman appear on the right. Levinson's taxonomy consists of categories resulting from various combinations of

¹⁴Because this is Levinson's term, I use it. Apologies to those who would prefer the gender-neutral SPEAKER.

Goffman's original terms, AUTHOR, ANIMATOR, and PRINCIPAL. Furthermore, Levinson specifies participant and non-participant roles, clarifying the functions of the non-participant that Goffman mentions. Goffman and Levinson both acknowledge that it is possible to author text, but not animate it. In this case, Levinson may call the writer an ultimate source and the person who reads the text a relayer.

TABLE 3.7 A SIMPLIFIED COMPARISON OF RECEPTION ROLE TAXONOMIES AFTER LEVINSON (1988:173)	
Levinson (1988) Reception Roles	Goffman (1981b) Participation Framework
Participant Reception Roles	
interlocutor	addressed recipient
indirect target	∅
intermediary	∅
audience	audience
Non-Participant Reception Roles	
overhearer	eavesdropper overhearer bystander
targeted overhearer	∅
ultimate destination	∅

In Table 3.7, it can be seen that Levinson provides for some reception roles not included in Goffman's categories. For instance, Levinson (1988:196) gives

examples from Barbadian culture in which TARGETED OVERHEARERS are shot insulting remarks made by a speaker to an addressee within earshot of the overhearers. Levinson goes on to explain that targeted overhearers may or may not realize that the remark has been intended for them.

The social identities of participants in the present study are teacher, student coach, student keyboarder, and computer. In applying participant role analysis to gain a better understanding of participant interaction, trends emerge within the enactment of production roles. In interactions teachers and student coaches are in the best position to initiate discussion. In so doing they can act simultaneously as authors, spokesmen, and animators.

When the student keyboarders speak, they act primarily as authors only. As seen earlier, most of their directives consist of confirmation and clarification checks uttered by repeating with rising intonation the words first spoken by the coach. Although an expression uttered in a confirmation request may have originated with the student coach (who, actually, may have been reading words or letters

from either the computer monitor or a notebook), the keyboarder is using the expression to convey his/her own meaning. S/he calls upon a 'prior text' (Becker 1984, 1994) or as Bakhtin phrases it, engages in 'double-voicedness' (1986:110)--making language his/her own by using it meaningfully, intentionally, and creatively. In the case of reception roles, both student keyboarders and coaches serve as interlocutors for each other.

Let us analyze a typical interaction between learners to determine participant status. In the example, Kim and Mariam are using *Fun from A to Z*. They are both looking at the main menu. From this menu, they may select one of three alphabet drills. Kim directs Mariam to press the '1' key, in order to select an alphabet drill. Mariam makes a confirmation request.

Example 3.5: Participant Status in a Confirmation Request

	1	Kim:	Yes.
→	2		You put number one.
→	3	Mariam:	One?
	4	Kim:	Good.

Here, Kim gives the directive to press the '1' key in line two. Mariam, too, utters a directive when she requests confirmation by repeating 'one' in line three.

In the example, Kim refers to the program's main menu on the monitor screen while she authors her directive. With 'you' she sustains the ratified status of her partner, Mariam, as interlocutor. Before pressing the '1' key, Mariam requests confirmation from Kim, who now functions as interlocutor. Mariam's rising intonation (in line 3) signals that she is asking a question. Kim responds to the confirmation request by authoring the response, 'Good' in line four.

Kim, in authoring the phrase, 'You put number one,' certainly states her own intention that she wants Mariam to press a certain key, but there is even more standing behind this utterance. Remember, Kim acts as the student coach because Joan, her teacher, has assigned her that role. In a sense, when she directs Mariam, Kim also acts on behalf of Joan as a spokesman. Furthermore, the software designers who have created *Fun from A to Z* have designed the menu so that users will select a number to begin an alphabet drill. When Kim tells Mariam to press the key to start the drill,

she acts as animator for the ultimate source of the text of the exercise.

When Mariam requests confirmation by saying, 'One?' she uses a word to express herself, but in so doing, echoes the chain of contexts that this word belongs to. Concerning participant roles, this is the fundamental difference between student coach and student keyboarder. The student coach's directives have layer upon layer of significance behind them, that s/he as primary speaker, introduces into the current discourse. The keyboarder responds to the introduction of the new spoken text, questions it when unsure, and then responds once confirmation is received.

Throughout the interaction, the computer serves as relay of lessons ultimately designed by authors working for the software publisher. Table 3.8 summarizes the interaction captured in example 3.5 above.

TABLE 3.8 RANGE OF PARTICIPANT ROLES WHEN LEARNER GIVES DIRECTIVES			
Lines	Student Coach Kim	Student Keyboarder Mariam	Computer
2. <i>You put number one.</i>	author spokesman animator	interlocutor	relayer
3. <i>One?</i>	interlocutor	author	relayer
4. <i>Good</i>	author spokesman	interlocutor	relayer

It is the student coach, then, who has the greatest opportunity to introduce new text into the discourse, because she is directing action. The keyboarder, as interlocutor, has the opportunity to confirm understanding by repeating part of the previously spoken directive.

Recall that all students participating in the study are beginners. However, it so happens that the learners who primarily serve as coaches, Kim, Maria, and Antonio, have stronger speaking skills than their partners do. Acting as coaches gives them opportunities to author utterances in new contexts, while keyboarders use their utterances to request clarification or confirmation before demonstrating comprehension by keying in answers.

In example 3.5, I have examined the participant status assumed by a student keyboarder and student coach. The student coach's participant status was marked by incumbency of multiple roles while giving directives. In example 3.6 below, I examine the array of participant roles assumed by learners when I, a teacher, tell them how to manipulate the cursor to select a new group of vocabulary from one of the *Contraction Action* menus.

Example 3.3: Participant status among teachers and learners

→	1	Susan:	Why don't you try,
→	2		Group two.
→	3	Antonio:	Group two? ↵
			(MINH POINTS TO GROUP 2 ON THE SCREEN AND LOOKS TO ME.)
	4	Susan:	↳ Yeah.
	5		You can move, ↳
	6	Minh:	↳ Group two. →
	7	Susan:	Right.
→	8		Move the mark down.
	9		Right, with this,
	10		You could go to group two,
	11		Group three,
	12		Right.
	13		See how this works? ↵
			(I PRESS THE SPACE BAR TO MODEL FOR THEM.)
	14	Antonio:	↳ Yeah.

In this example, I give two directives, and the students collaborate to give one. In lines 1 and 2, I

tell them to try Group 2. Antonio asks for confirmation by repeating, 'Group two?' while Minh points to the text, 'Group 2,' appearing on the screen. I confirm that they have understood. I then demonstrate how to move the cursor, while telling them how to use it (lines 8-13).

As shown in Table 3.9 below, I assume the greatest number of participant roles when telling learners how to manipulate keys to select an item from the menu.

TABLE 3.9 RANGE OF PARTICIPANT ROLES WHEN TEACHER GIVES DIRECTIVES				
Lines	Teacher Susan	Student Antonio	Student Minh	Computer
1-2 <i>Why don't you try, Group two.</i>	author	interl.	interl.	relayer
3 <i>Group two?</i>	interl.	author	author aud.	relayer
4-5 <i>Yeah. You can move,</i>	author spokes.	interl.	interl.	relayer
6 <i>Group two.</i>	interl.	interl.	author? relay.?	relayer
7-13 <i>Right. Move the mark down. Right, with this, You could go to group two, Group three, Right. See how this works?</i>	author spokes.	interl.	interl.	relayer
14 <i>Yeah.</i>	interl.	author	aud.	relayer

When I initially give them the embedded directive, 'Why don't you try group two?' I serve as author. I express myself through the utterance, and do not represent another. However, when I explain how to move the cursor to select an item from the menu, I speak not only for myself, but also for the software designers who have programmed the software to work in a particular way, and rely on classroom teachers to explain its use to learners. Therefore, I function not only as author of my own ideas, but also as spokesman for the software designers.

Minh and Antonio, currently both functioning as students, not as keyboarder and coach, listen to me as interlocutors, ratified participants. At the onset of my explanation, they ask for confirmation (line 3), acting as authors. I respond to their request and continue my explanation.

In line 6, notice that Minh repeats my utterance of 'Group two.' It could be that he is repeating to demonstrate that he either understands what I have said or perhaps to identify with me as someone in authority. It is also possible that he is engaging in repetition of the teacher because in the classroom beginning

learners often chant back what the teacher says, even when the teacher does not require them to do so. It could be for all of these reasons. I am unsure of the stance Minh is taking here.

Notice, then, that whoever is responsible for giving directives that guide others in their actions, manages the most participant roles. Learners gain this opportunity when able to act as student coaches. They relinquish this opportunity when deferring to a teacher. Opportunities for learners to coach each other are unique to situations where the teacher is not present as an authority.

This is not to say that the teacher is an unwelcome intruder, interfering with learner autonomy. On the contrary, learners benefit from explanations, directions, and other assistance that teachers give them. Once learners demonstrate that they can work on their own, however, they should be left to try to communicate with each other, independent of teacher mediation. In this, they are able to test not only new language, but also to engage in new relationships with each other and the language as they use it within new social contexts.

In the following subsection, I further discuss participation in these interactions, specifically dealing with the computer as relayer.

Computer as relayer. In the previous section, I have analyzed the participant roles of learners and teachers as they work together on computer programs. I have mentioned that the computer serves as Levinson's (1988:170, 172) relayer. Recall that 'relayer' is Levinson's term for Goffman's 'animator.' The relayer participates in the interaction by transmitting a type of communication (verbal or nonverbal), yet has no motive for doing so. In addition, neither the content nor the format of the communication is authored by the relayer, but by some other, ultimate source (the author). Interactions with the computer as relayer can lead to problems which most likely would be addressed interactively, were the computer a person.

Such problems are taken up by Kleifgen (1992), who discusses the special qualities of interactions between a trio of experienced computer users and a computer loaded with an educational software program. She notes that while turn-taking routines appear to approximate those of conversational interaction, there are some

differences. Essentially, people must accommodate the computer's inability to accommodate them. The computer, Kleifgen reports, merely simulates conversational interaction: a machine, it is unable to participate fully in the same capacity as a person.

For example, according to Kleifgen, if users misinterpret on-screen text, the computer can do little to assist them. Instead, the users shoulder the burden of discovering and amending the problem. With some computer programs, once text disappears from the screen, it is impossible to go back and review it. Finally, computers cannot synchronize their speed to the rhythm of the ongoing interaction between users. As Kleifgen (1992) notes, users 'have...to adapt to the constraints of the program design' (14).

In Kleifgen's (1992) research and in the present study, educational software shows itself to be of limited use as a participant in a social encounter, although it serves as a stimulus to interaction among small groups of users. It should be noted that such interaction might be very different were individuals using a word processor to collaborate on a writing project or engaged with others in real-time,

interactive chat via electronic mail. In such situations, although the computer remains a machine, the SOFTWARE serves as a vehicle for interpersonal communication, not for limited, one-way instruction. There is still much to be learned from studying how computer programs and the tasks users work on affect their interaction.

In this section, I have demonstrated that analysis of even the simplest of directives yields information concerning the complexity of face-to-face interaction between learners as well as between learners and teachers. Speakers of a new language manage discourse by balancing layers of participation within the social identities they assume. The learners in this study engage in socially complicated interaction in a second language while working through a computer-based task. The situation makes great cognitive demands on them and is complicated by the special status of the computer as a relay within their interaction. That the learners are able to work through such a challenging situation through minimal talk is a marvel.

STRATEGIES FOR COMMUNICATION

How do they do it? What are the learners' strategies for giving directions and acknowledging that they understand the other? How do they ask each other and teachers for help when needed? How do the teachers interpret and respond to learner needs? There are a number of ways that learners and teachers are able to foster communication with their interlocutors despite the limitations learners have in the target language they learn. In this section, strategies used by learners and teachers to interact with each other are discussed. How these interlocutors adjust to each others' abilities to communicate about the computer lessons they are using provides them with the ongoing interactive dynamic they need in order to understand others and to make themselves understood by others.

The learners participating in this study employ various compensation strategies in order to communicate their need for assistance to others, and to respond to the needs of others. Learners use these strategies to request and give assistance. The strategy chosen reflects the degree of language development in the target language, English, by one or both interlocutors.

Learners may use OTHER-DIRECTED STRATEGIES to request assistance, while learners and teachers may both use other-directed strategies to get others to act or refrain from action. The category, other-directed strategies, comprises direct and indirect uses of language in order to request assistance and give direction in a conventional manner. Other-directed strategies are addressee-oriented and facilitate ongoing communication by either demonstrating active interest in the topic of conversation or by requiring communication continue through use of the first section of an adjacency pair.

Recipient design (Sacks, Schegloff, and Jefferson 1974:727) is built in by including the recipient's role in the makeup of the discourse routine (e.g., when a speaker asks a question, the recipient is obligated to answer or when help is requested, s/he who is asked is under obligation to assist). In addition, the speaker formulates utterances for maximum comprehension by the interlocutor. In formulating an utterance for maximum comprehensibility, a speaker is guided by interactional goals and perception of the interlocutor's ability to understand (Zuengler 1991:237). A speaker with a

limited repertoire may rely on non-verbal communication (gesture) to facilitate communication, and likewise, a speaker with a superior linguistic repertoire may use gesture in order that a listener with a limited repertoire may understand more. In the present study, other-directed strategies are communicated in English, the target language.

Because other-directed strategies are focused on actively engaging another individual within a discourse, they result in opportunities to negotiate meaning. For example, when learners ask for confirmation or clarification from each other, they receive more input to listen to and interpret. The social context for ongoing communication is richer.

Learners may also use INDIRECT STRATEGIES to communicate a need for assistance. Indirect strategies demand more from the hearer for interpretation and subsequent action. Speakers using indirect strategies to request assistance switch to their native language or may appeal for assistance through deferential behavior, including silence. Finally, if not understood, or not responded to, these speakers may

abandon messages. Other-directed and indirect strategies are displayed in Table 3.10 below.

TABLE 3.10 OTHER-DIRECTED AND INDIRECT COMMUNICATION STRATEGIES	
Other-Directed Strategies	Indirect Strategies
<p>Requesting Assistance</p> <ol style="list-style-type: none"> 1. using yes/no question intonation to indicate a confirmation and clarification requests 2. using post-posed tags 3. asking for help or stating that help is needed <p>Directing Others</p> <ol style="list-style-type: none"> 4. paraphrasing 5. using descriptive gestures (gestures that amplify words) 6. repeating for clarification or emphasis 7. conventionalizing communicative signals 8. using directive forms summarized in tables 3.2 and 3.4. 	<p>Requesting Assistance</p> <ol style="list-style-type: none"> 1. switching to native language 2. appealing for assistance through deferential behavior 3. message abandonment

An explanation of each strategy, complete with examples from the discourse, follows.

Learner Use of Strategies

Other-Directed Strategies--Requesting Assistance.

Other-directed strategies 1 through 3 are used often by beginning learners of English who are intent on engaging in a two way interactive encounter to obtain assistance. Consider the following example in which

Mariam issues a confirmation request to Kim. Recall that the pair is using an alphabet letter recognition program, *Fun from A to Z*. Earlier in the lesson, their teacher had asked Kim to act as Mariam's teacher. Kim complies with this request by giving Mariam instructions.

Example 3.7: Yes/No Question Intonation Confirmation Request

	1	Mariam:	U.
	2		Z.
→	3		N?
	4	Kim:	No.
	5		One more time.
→	6	Mariam:	Down?
	7	Kim:	Yes.

In this excerpt, Mariam asks twice for confirmation by using yes/no question intonation to request confirmation. Kim understands this strategy for indicating a desire for confirmation, and responds appropriately.

More proficient beginners are able to use sentential questions (sometimes imperfectly formed) and tags to request clarification or confirmation. This happens but one time in the data. In the following example, Antonio double-checks that he has understood how contractions and their non-contracted counterparts

are related, as he talks with Susan about *Contraction Action*.

Example 3.8: Using tag questions
Confirmation Request

	1	Susan:	And he makes the short way.
	2		Here is,
	3		Here's.
	4		It's the same.] Short→
	5	Antonio:	
	6		way.] The short way.
	7	Susan:	
	8		Uh-huh.
→	9	Antonio:	This is short.
→	10		Right?] Short.] This→
	11	Susan:	
	12	Antonio:	
	13		is long.

In this example, Antonio requests confirmation to ensure that he has understood correctly. He uses the tag, 'right,' in line 9 to indicate that he would like me to respond. I do so by selecting the word I think will best confirm his understanding, the content-word, 'short' for 'contraction.'

Learners may state that they need help after an indirect approach for assistance fails. Consider the following example in which Antonio tells me that he needs help. Immediately prior to this, he had initiated eye contact with me and smiled. Because of

this, I went over to him and Minh to see if they needed help.

Example 3.9: Stating help is needed

	1	Susan:	Do you know what to do?→
	2	Minh:	Yeah. ↴
	3	Antonio:	No. ↴
	4		I. ↴
	5	Susan:	What do you do. ↴
→	6	Antonio:	I need help. ↴
	7	Susan:	Show me.→
→	8	Antonio:	I need help.

In this example, Antonio states twice that he needs help, after telling me that he doesn't know what to do (line 3).¹⁵ After he tells me this, I proceed to explain how the program works. After this explanation, Antonio takes on the role of coach throughout the interaction, explaining how to proceed to Minh at later points. His strategy of calling me over by making eye contact, combined with telling me that he needs assistance, has worked.

Other-directed Strategies--Giving Direction. One of the other-directed strategies that requires the most facility in the second language is paraphrasing. Individuals with limited proficiency use paraphrasing

¹⁵Although Minh answers with 'Yeah,' in line 2, he doesn't know what to do either

to describe a situation or entity when exact words fail. Words and phrases used in paraphrasing can be selected to accommodate the listener's understanding of the speaker. A speaker may intentionally select descriptive phrasing that s/he has determined will be most accessible to other interlocutors. Simplified paraphrasing is also used by stronger interlocutors to communicate on a level that a weaker interlocutor can understand. Zuengler (1991) notes that this may be considered a mild form of convergence, in which a speaker attempts to accommodate interlocutors by attempting to sound more like them, or may be a form of complementarity, if the driving force behind the simplification is to emphasize differences in role and status. For example, when Antonio and Minh communicate with each other, it is clear that Antonio has superior communication skills, whether or not Antonio's awareness of his superior ability or his desire to communicate effectively with Minh causes him to simplify his utterances is not clear.

In the following example, Antonio uses this strategy with Minh, as he paraphrases the on-screen text.

Example 3.10: Paraphrasing

	1	Antonio:	Wait wait→
	2		Wait wait.
	3	Minh:	Yes no?
	4		Again?
	5		Again,
	6		Yes no?
	7		Yes.
	8	Antonio:	Yes.
	9		/ ? /
→	10		One moment please.
→	11		You have to wait.
→	12		Okay?
→	13		Wait.

Here, in line 10, Antonio reads the on-screen text to Minh. He then paraphrases it, making a directive ('You have to wait. Okay?') Furthermore, he simplifies the directive in line 13 by boiling it down to, 'Wait.' By paraphrasing, Antonio attempts to compensate for what appears to be Minh's limited ability to understand English. He is also able to emphasize the message appearing on the screen by reading it aloud, paraphrasing it once, and then repeating the key word from his paraphrased utterance ('wait'). Finally, through constantly telling Minh he has to wait in so many different ways, Antonio is, in fact, prolonging the time that Minh has to wait.

There are several ways to use gestures to accompany speech. One is to use gestures as physical

descriptions of what is spoken, amplifying what a speaker is saying or going through. In addition, gesturing can be used as a linguistic compensation device--either compensating for the recipient's inability to understand the speaker or compensating for the speaker's inability to make himself/herself understood without them.

In the following example, gesture is used to compensate for the recipient's limited repertoire. Here, Kim directs Mariam to the correct key to press while correcting Mariam's identification of the letter.

Example 3.11: Using gestures as a physical description

	1	Kim:	Q:.
→	2		You put.
→	3		One more time.
	4		You put.
	5		Yeh.
→	6		You put again.
→	7		No.
→	8		P. (KIM POINTS TO KEY.)
	9	Mariam:	└ P:.

In lines 2 and 3, and again in line 6, Kim issues oral directives for Mariam to press the down cursor key. When a problem arises with this, reflected in Kim's 'No,' in line 7, she points to the cursor key she wants Mariam to continue pressing, while correcting Mariam's

confusion of the letter Q with the letter P. By pointing to the key, Kim indicates that she wants Mariam to press it.

In effect, gestures function as both indexical expressions (e.g. 'Here.') and as non-verbal paraphrases. The uses of gesture serve as physical compensation devices, facilitating better communication hampered by limitations some or all interlocutors may have in communicating in the target language. Of course, not all non-verbal communication shares the same meanings across cultures,¹⁶ but in the confines of the task, pointing to keys is commonly understood as, 'Press this one.'

Another other-directed strategy used in giving directions is repetition for clarity or emphasis. Repetition for emphasis has been seen in example 3.10 where Antonio tells Minh to 'Wait wait wait wait.' It is clear that Antonio wants to prevent Minh from keyboarding. Here, Antonio rushes the words together, repeating them in the same utterance. In example 3.12, Kim states the same directive over three subsequent

¹⁶See Henley (1977, chapter 1) for a general review and discussion of cross-cultural differences in non-verbal communication.

turns while directing Mariam to press keys. Recall that Mariam has very limited comprehension. Mariam understands the phrase that Kim repeats and is able to follow her directions.

Example 3.12: Repetition for clarity and emphasis

1 Kim: H.
 2 Mariam: H.
 (MARIAM PRESSES THE WRONG KEY.)
 3 Kim: H: .] H.
 4 Mariam:] H.
 5 Kim: Here.
 (KIM POINTS TO THE CORRECT CURSOR KEY.)
 → 6 One more time.
 → 7 One more time.
 → 8 One more time.
 9 Yes.

Kim and Mariam create a pattern of interaction together. Mariam rarely uses the keyboard without Kim's direction. Kim keeps her directions simple and accompanies them with gesture. It is interesting to note that Kim's ability in English is limited, yet she is able to create directive phrases that Mariam can understand and respond to. Kim does not let her own limitations prevent her from working with Mariam. The routine they work out throughout their interaction consists of Kim using a simple directive with a gesture (pointing to a specific key), and Mariam following. Directives are given and followed, one action at a

time. In this way, the two compensate for each other's ability to communicate and demonstrate understanding.

This leads me to my final observation on other-directed strategies: individuals working together sometimes must establish signals that carry a standard interpretation. Those that are internalized within a culture comprise the contextualization cues that Gumperz (1982) has introduced. The participants in this study do not come from the same culture. However, the learners do share a goal--to learn a new language. Part of this experience includes setting up communicative signals interactively.

In the following example, Minh and Maria set up a way to signal when they are finished copying a word from the computer screen while using *Basic Vocabulary Builder*. This exchange happens within the first few minutes that Minh and Maria work together. They are still jointly establishing a procedure for working through the program. They have been instructed to go through the entire program to copy down the answers first into notebooks, and then to run the program again to practice spelling the vocabulary words.

Maria copies every word on the screen, including phrases like 'Ø points' and 'try again,' while Minh only copies the target vocabulary word. Maria takes longer than Minh, and this frustrates him. Furthermore, Maria has previously uttered words like 'alright' and 'okay' to herself while she copies, and Minh has misinterpreted this to mean that she is ready to go on. Finally, they have the exchange recounted below. Once the word 'finish' is uttered, the keyboarder, Minh, knows that he may press the key that advanced the program to the next word problem.

Example 3.13: Establishing signals

→ 1 Minh: You finished? }
 2 Maria: } No.
 3 ata:ry.
 4 Secretary.
 → 5 Minh: Finished?
 6 Maria: No.
 7 Minh: Oh, you:
 8 Long time.
 9 Maria: Why?
 10 Minh: You write.
 (MINH GESTURES TOWARD MARIA'S NOTEBOOK.)
 11 Maria: Mechanic,
 12 Eh.
 13 Oh.
 14 You no no?
 15 Minh: No.
 16 No write here.
 (MINH POINTS TO TEXT ON THE SCREEN THAT HE DOES NOT COPY INTO HIS NOTEBOOK.)
 17 Write here.
 (MINH POINTS TO TEXT ON THE SCREEN THAT HE COPIES INTO HIS NOTEBOOK.)

18 No.
 19 No write.
 (MINH POINTS TO TEXT ON THE SCREEN THAT HE DOES
 NOT COPY INTO HIS NOTEBOOK.)
 20 Maria: Nonono.
 21 For me,
 22 No problem.
 23 My like.
 24 I like it.
 25 Me,
 26 You / ? / .
 27 Yeah.
 (MARIA PUTS HER LEFT HAND TOWARD THE KEYBOARD
 TO GESTURE THAT MINH MAY PRESS THE KEY TO
 ADVANCE TO THE NEXT PROBLEM.)
 28 Yeah.
 29 Kay.
 30 (MARIA REPEATS THE HAND GESTURE.)
 → 31 Finish.

In lines 1 and 5, Minh asks Maria if she is finished copying. When he realizes that she is copying everything on the screen, he complains with, 'Oh, you: long time.' Maria follows this remark by asking him why he is complaining. When Minh explains that she should only write the target vocabulary word and not copy every word that appears on the screen, Maria responds that she wants to copy all of the words--a practice she abandons on her own soon after this interaction.

Once Maria has completed writing everything she wishes to copy, she repeats Minh's 'Finish.' What he has begun with this word, Maria has completed. Maria's

use of Minh's word is an unambiguous way of letting him know that they can continue to the next problem. It is the response to his call. By using the same word, Maria simply acknowledges that she works together with Minh, despite their disagreement over what should be copied from the computer. Later on in their interaction, they use 'finish,' as well as 'okay,' 'kay,' and 'alright' to signal when they are ready to move on.

In this subsection, I have examined how learners use other-directed strategies to issue directives to request assistance and to give direction to others. In enacting these strategies, participants in interaction are aware of the constraints of their ability to communicate as well as the limitations that their interlocutors may have. They attune their utterances for maximum comprehensibility based on assumptions they make about their interlocutors. I have drawn examples primarily from discourse in which learners interact together. Accommodation strategies used by teachers will be discussed in Chapter 4, 'Repair and Correction' and Chapter 5, 'Repetition.'

Indirect strategies. Learners have several ways to request assistance. Requesting assistance threatens speakers' negative face because it involves incurring a debt (Brown and Levinson [1978] 1987:67), let alone admitting that they are ignorant. In a discussion of hinting, Brown and Levinson ([1978] 1987:213-215) note that in violating the maxim of relevance, speakers may unburden themselves from threatening the hearer's positive face, thrusting the responsibility on the hearer to make an offer. For example, the speaker can say that it is chilly, and the hearer can then offer to close the window. In this way, the hearer takes on the burden of committing a face-threatening act.

Non-native speakers with minimal proficiency in English may not be able to utter phrases to either appeal directly (commit an act which threatens the hearer's negative face, as well as their own) or indirectly for assistance. The strategies they do employ require the hearer or responder (in case there is nothing said which can be heard) to come to their aid, based on interpretation of an indirect appeal for assistance.

However, learners may start with an indirect strategy and follow up with an other-directed one. For example, a learner may attempt to gain a teacher's attention by making eye contact and smiling. This is not the most successful approach, when used on its own. However, orally asking for help is face threatening, both to the asker, who is admitting s/he cannot perform a task, and to his/her partner, who is then also judged as being unable to perform. Teachers circulate throughout the room working with the learners and seeing whether or not they need assistance. When teachers recognize an indirect strategy as an indication that help is needed, they attend to the situation. This has been shown in example 3.9, in which Minh and Antonio get assistance by making eye contact with me.

The three indirect strategies for compensating for a limited linguistic repertoire given in Table 3.10 (switching to native language, appealing for assistance through deferential behavior, message abandonment) above are not effective in continuing communication in the target language when they are used alone. In fact, in certain circumstances they serve as signals to

terminate the interaction. However, in other cases the first language may be used to indicate that an interlocutor has been understood.¹⁷ In this study, there is very little switching to native language. It happens only in four situations: compensating for a limited linguistic repertoire, engaging in verbal play, issuing outlouds (talking aloud to oneself), and talking with non-partner fellow learners who share the same native language. Examples and explanations of the first two uses follow.

Use of native language. Mariam, the learner most limited in linguistic and literacy ability, occasionally uses her native language, Farsi, when communicating with her partner, Kim, from Cambodia. She also makes comments to herself in Farsi. In the following example, Mariam asks Kim for confirmation on the identification of the letter, 'T.'

¹⁷For example, whenever teaching literacy ESL classes, I had at least one male learner from El Salvador in class who would take on the role of 'Spanish Announcer,' translating all instructions from me into Spanish. This role had nothing to do with literacy ability or fluency in English, but with having a strong voice. Perhaps these learners also felt obliged to help their teacher and to help their classmates by performing this service.

Example 3.14: Using native language to compensate for limited linguistic repertoire

1 Kim: One more time.
 2 Mariam: Down?
 3 Kim: Yes. (KIM GESTURES
 4 TOWARD THE TOP LETTER ON
 5 THE SCREEN.)
 → 6 Mariam: Ne, ne. (**GLOSS:** NO, NO.)
 → 8 Kim: Yes.
 → 9 Here. (Kim points to one
 10 of the cursor keys.)
 11 You put.
 → 12 Mariam: Yana T? (**GLOSS:** IS THIS T?)
 → 14 Kim: No.
 → 15 J:.
 → 16 K:.
 → 17 J:.

In this interaction, Kim is instructing Mariam in keyboarding. By moving the cursor key, Mariam is moving through four choices to select a letter of the alphabet that falls into a sequence. In line 6, Mariam utters resistance to Kim's assurance that she should continue to press the cursor key. Kim insists in lines 8 and 9 that Mariam should. In line 10, Mariam questions whether or not a letter is the letter 'T.' In lines 14 through 17, Kim answers that the letter in question is not 'T,' but 'J.'

Here, the ongoing context of interaction provided both by the computer software drill (They have been using the program for little more than seven minutes.)

and by the roles that Kim and Mariam play (Kim as tutor and Mariam as pupil) enable Kim to interpret Mariam's native language utterances. Kim is helped to understand Mariam's hesitancy to move the cursor by the similarity in sound of 'ne' to 'no' (line 6). Mariam's use of question intonation in line 12 helps Kim understand that she is asking a question. And overall, Kim's knowledge that Mariam does not know the alphabet, learned through this seven minute experience of working with her, informs her interpretation of Mariam's native language utterances.

Maria engages in native language verbal play when working with Minh. Maria is from Guatemala and Minh is from Vietnam. Maria's son-in-law, Phu, is a Vietnamese refugee who speaks Vietnamese, a Chinese language, and some English. He speaks no Spanish. Part of Maria's warm relationship with her son-in-law revolves around their linguistic differences. I suspect that this influences Maria's use of verbal play to build rapport with Minh. This is exemplified in the following discourse excerpt.

Example 3.15: Using native language verbal play

→ 1 Maria: Heh-heh.
 → 2 Qual es?
 (GLOSS: WHAT IS IT?)
 3 Why?]
 4 Minh:] What.
 → 5 Maria: Pilot.
 → 6 Es is piloto.
 7 Pilot.
 8 Yeah.
 9 Es pilot.
 10 Minh: Why.
 11 Maria: Heh-heh.
 → 12 Es is piloto.
 → 13 Piloto.
 14 Minh: Where.
 → 15 Maria: Piloto. (MARIA POINTS TO
 THE GRAPHIC OF THE PILOT ON THE
 SCREEN.)
 16 Minh: Where. (MINH LOOKS AT
 THE LIST OF VOCABULARY IN
 MARIA'S NOTEBOOK.)
 → 17 Maria: Pilot.]
 18 Minh:] Where.
 19 Maria: / ? /
 → 20 Ah, ay-yai-yai-yai-yai→
 → 21 ya-ya-ya-ya:::

Maria knows and uses the English word 'pilot,' yet she periodically uses the Spanish equivalent, 'piloto,' when talking with Minh. At least for Maria, 'piloto' is an easily understood cognate of 'pilot.' Therefore, it lends itself well to this type of playful use by her, as she indicates that 'pilot' is the word that Minh should type. Within this interaction, Maria laughs (lines 1 and 11) and shows exaggerated mock

frustration with Minh's difficulty in locating the word on her word list in her own notebook (lines 20-21).

In this example, Maria chooses to diverge linguistically from English, the language that she shares with Minh. But in so doing, she attempts to playfully build rapport, to converge psychologically with him. Minh and Maria have shared a lot of laughter while using this software program, so it seems natural for Maria to experiment with this type of humor. This verbal play, in effect says, 'We are different, and there is a lot about each other that we don't understand, but we both share an interest in learning English.'

There is a fundamental difference between engaging in native-language verbal play as Maria does, and using native language in an attempt to communicate as Mariam does. Maria's verbal play requires at least a limited understanding of the target language (in a similar way as creating a pun requires more sophisticated knowledge), whereas Mariam's interaction requires her interlocutor to attempt to understand what she needs. Maria engages in a rapport-building exercise, and Mariam is admitting defeat.

Appealing for assistance through deferential behavior. Learners may also appeal for assistance by acting as if they need help, even if they do not require it. For example, Liz, one of the classroom teachers, stops to observe Minh and Antonio after they have been using *Contraction Action* for at least 20 minutes. Both learners understand how to operate the keyboard in order to select answers. Minh begins to read the introductory screen, containing the how-to directions aloud to Liz. Liz uses this as an opportunity to check reading comprehension. In the following excerpt, Antonio reads aloud from the screen and acts as if he doesn't know what a 'return key' is, even though he has told Minh to press it several times prior to this interaction.

Example 3.16: Using deferential behavior to obtain assistance

1	Antonio:	Press the return.	
2		Return.] The return key.
3	Liz:		
4	Antonio:	Ah.	
5		[Return?]	
6	Liz:	[Return.]	
7	Antonio:	Oh,	
8		[Return.]	
9	Liz:	[Return.]	

Antonio and his partner have been engaged in using the program successfully for quite a long time before Liz

appears to check on them. Antonio seems to appreciate the attention Liz gives them when she assists their effort in reading the screen. That Antonio acts as if he doesn't understand what he is reading, when he has read this screen before and has been directing Minh is interesting. It results in attention from the teacher--and an opportunity for the three of them, Minh, Antonio, and Liz to exercise traditional institutional roles.

Message abandonment. If a speaker does not receive a response to a request, s/he may abandon the message altogether. In the following example, Mariam requests confirmation and clarification from Kim, who does not respond.

Example 3.17: Message abandonment

→	1	Mariam:	Is good?
	2		/ ? /
→	3		Is good?
			(MARIAM LOOKS AT KIM AND HOLDS UP FOUR FINGERS.)
	4	Kim:	/ ? /
			(KIM SMILES.)
→	5	Mariam:	Huh?
→	6		Huh?
	7		Bird.
			(THEY ARE REPEATING A DRILL IN WHICH BIRDS AND A TREE APPEAR ON THE SCREEN.)
→	8		Is good?
	9	Kim:	[L:.
	10	Mariam:	[L:.

In this example, Mariam makes several attempts at confirmation that something 'is good.' What she refers to is unclear. Is it her keystroking, the results on the previous drill, that she has understood Kim? In lines 5 and 6, Mariam repeats, 'Huh?,' yet Kim neither clarifies nor repeats what she has said in the fourth line. The drill appears on the screen, and in lines 9 and 10, Kim and Mariam begin to work on the exercise. Mariam has abandoned her attempts at getting confirmation and clarification. It is unfortunate, because Mariam rarely initiates any type of interaction. The one time she tries, she is unsuccessful.

In this section, I have shown that learners employ both other-directed and indirect strategies when interacting with each other and with teachers. The same learner may use both types of strategies in one interaction. Other-directed strategies are other-oriented and encourage interaction. Indirect strategies are less direct and less assertive. In order for such strategies to work, interlocutors must take initiative to offer assistance.

CONCLUSION

Directives comprise the bulk of interaction in this study. Learners and teachers use them to instruct, to request clarification and confirmation, and to ask for assistance. Participants use a range of forms to express directives, the most common being the basic imperative and its derivatives. Learners acting as student coaches use the broadest range of forms in forming directives. Learners use the least number of directive forms when addressing their teachers. Therefore, if one of the goals of instruction is to afford learners the opportunity to explore different language forms, learner-learner interaction may afford more opportunities than teacher-learner.

In examining participant status, I have shown that student coaches and teachers balance the greatest amount of participant roles as they give directives. The computer, due to its static nature, serves merely as a relay of information. Learners and teachers who listen serve as interlocutors. This suggests that learners who are able to direct, and therefore to serve as student coaches are able to not only use more varied forms in issuing directives to each other, but also to

gain more practice in, and control over, the target language. Of course, a learner may have to be ready to assume the coach's role. Mariam, the least proficient, is just beginning to issue confirmation requests; she is a long way from being able to give verbal directions within this particular social context.¹⁸

Learners and teachers use both other-directed and indirect strategies to communicate directives. In this chapter learners' uses of these strategies have been discussed. Other-directed strategies are other-oriented, and encourage interaction. Indirect strategies, on the other hand, have been shown to require effort from the hearer to interpret and act upon. Other-directed strategies offer more opportunities for interaction. Other-directed strategies can be used to give direction to others as well as to request assistance, while indirect strategies are used to request assistance only.

In the next chapter, 'Repair and Correction,' I continue to examine directives used by participants to

¹⁸One issue that has not been discussed here is relevance of instructional content to learner goals. Perhaps neither the content nor the method of instruction used here is in line with her goals.

correct each other. I will also demonstrate how teachers engage in self-repair as they modify utterances to maximize comprehensibility when helping learners. In chapter 5, 'Repetition,' directives will be discussed, too. Learners and teachers rely on repetition to ensure comprehensibility; thus, many directives are repeated and paraphrased throughout interactions.

Chapter 4: Repair and Correction

*Wait wait wait. Okay.
You have to read first.
First you look here, here,
And, You think.
What's. What's.*

--Antonio to Minh

INTRODUCTION

Antonio and Minh, like the other learners participating in this study, collaborate on using educational software in learning their target language, English. In effect, they are solving problems with and about the target language while learning to speak it. As discussed in detail in Chapter 1, methods and practices that assist language learners in actively developing communicative competence engage them in the negotiation of meaning (Canale and Swain 1980, Doughty and Pica 1985, Gass and Varonis 1985, Long and Porter 1985, Pica 1988, 1993, 1994, Varonis and Gass 1985a), as well as problem solving and critical thinking skills development (Oxford 1990, Rubin 1987).

In this chapter, first I examine repair sequence patterns that arise when learners interact with each other as well as when learners interact with their teachers. Findings that learners tend to repair their

own utterances when interacting together are compared to findings that teachers tend to use other-initiation of repair sequences when they interact with the learners.

Correction is face threatening (Brown and Levinson [1978] 1987); therefore, I discuss the politeness strategies that study participants use when engaged in correction discourse. I suggest that because correction occurs primarily in task-centered talk, that face is generally not an issue and most corrective language is bald-on-record. However, when face factors are considered, seminal aspects of negative politeness feature in the discourse. In terms of the learners, this is usually accomplished through choosing milder phrasing and polite tone of voice. When participants speak in their native language (for teachers, this is English), they demonstrate a greater facility in using negative politeness strategies.

From this, I conclude that an aspect of communicative competence, for speakers in this educational setting, is the ability to engage in negative politeness strategies. This requires knowledge of sophisticated grammatical structures. To

go off record and use conventionally indirect language also requires participants in an encounter to be mutually adept at recognizing the possible meanings of intentionally ambiguous remarks.

Finally, I return to a discussion of communication strategies that learners use to compensate for a limited linguistic repertoire. This discussion begins in Chapter 3, 'Directives.' In the current chapter, I demonstrate how such strategies are enacted in the language of correction.

Most research on second language acquisition or processes of learning second languages focus less on the individual as a participant in a social situation in which s/he interacts, and more on the effect of social interaction on accuracy and fluency in the target language and target culture. The learners participating in this study work and learn English in multi-cultural situations. Of the population ages 5 and over surveyed in the municipality in which they live, 13% indicated that they do not speak English well. The number of categories of languages spoken at

home in the municipality number 25¹ (United States Census: 1990). Therefore, the job of the ESL program where they study is not only to help learners communicate in English to conduct affairs with native speakers, but also to interact with others for whom English is a Second Language.

The learners participating in this study communicate in a second language of which they have limited command. They interact with individuals from other cultures on a daily basis. They have little or no experience with the institution of schooling in their native languages. They are practicing language skills using computer programs. All of these factors color each utterance and gesture.

Because their discourse focuses on completing an academic task (solving language-related problems) that is scored by the computer program, there is pressure to

¹The census generalizes the self-reported data on languages spoken in the home. There are certainly more than 25 languages spoken within the municipality. For example, with regard to residents of African heritage, no indigenous African languages appear on the census at all (although French and Spanish Creole languages are indicated as being subsumed under French and Spanish, and Arabic appears). Languages of the Horn of Africa, such as Amharic, Tigrinya, Oromo, and Somali are not included in the census data at all, although there are families who surely speak these languages at home.

answer questions correctly and obtain a good score. Therefore, correction is an important feature of their task-focused, educational discourse, because the learners generally want the input to the computer to be accurate and correct. Thus, how learners manage error correction reveals their strategies for negotiation of meaning while assuming a stance to correct themselves or others, offer answers, and/or check their answers.

REPAIR AND CORRECTION IN DISCOURSE

Recall from Chapter 1, 'Introduction and Literature Review,' that Schegloff, Jefferson, and Sacks (1977) distinguish between two processes that constitute repair sequences. Interlocutors initiate a repair first by locating the source of the trouble, and secondly by repairing it. Both processes are distinct, and may stem from either the self (speaker) or the other (hearer). There is an ordered preference both for self-initiation over other-initiation as well as for self-repair over other-repair in conversational discourse. Self-initiated self-repair is preferred over other-initiated self repair, with most other-initiated repairs taking place in the turn next to the

trouble-source turn requiring multiple turns to get accomplished (Schegloff, Jefferson, and Sacks 1977:369).

This final observation, that repairs initiated by an addressee in the turn adjacent to the trouble-source turn corresponds to observations made by Varonis and Gass (1985a) among non-native speakers: when an addressee cues that s/he does not understand the speaker, a sequence in which meaning is negotiated transpires (pushdown). Once the addressee indicates that s/he understands the speaker, the conversation pops back into a continued flow in which information is exchanged. Although rarely transpiring over more than three or four turns, this phenomenon occurs among learners participating in the present study as other-initiated self-repair, the second-most performed repair routine (as seen in Table 4.1).

Learner-Learner Discourse

Examples of each repair sequence discussed by Schegloff, Jefferson, and Sacks (1977) appear below. First, sequences beginning with self-initiation are considered. This is followed by analysis of other-

initiated sequences. In this section, I discuss the structure of repair sequences. I return to some of these examples later in the subsection, 'Face: A comparison of learner-learner and teacher-learner language.'

Self-initiated self-repair. SELF-INITIATED SELF-REPAIR routines are the most preferred sequences. In such sequences, speakers repair their own utterances. The preferred position for the repair is within the trouble-source turn. In the following example, Maria conducts a word search as she and Minh try to identify a graphic appearing on the monitor screen as they work through the occupations word list of *Basic Vocabulary Builder*.

Example 4.1: Self-initiated self-repair

	1	Maria:	Alright.
	2		Oh,
→	3		That's nu-nu-nursey.
	4	Minh:	Oh yeah.

In line, three Maria stumbles over her speech as she searches for the target word, 'nurse.' The word search takes place within the trouble-source turn.

This example also demonstrates that a repair does not necessarily result in a correction, a point made by

Schegloff, Jefferson and Sacks (1977:363). The pronunciation of the target word is 'nurse,' not 'nursey.' Maria's partner, Minh, actually supports her answer by agreeing with her in line 4 ('Oh yeah.').

Self-initiated other-repair. SELF-INITIATED OTHER-REPAIR routines occur frequently as learners indicate that they need assistance. In the following example, Mariam is attempting to identify letters that appear on the monitor screen in *Fun from A to Z*. She uses rising intonation on the tag, ''kay,' to request confirmation from Kim.

Example 4.2: Self-initiated other repair

	1	Mariam:	A B:,
→	2		'kay?
→	3	Kim:	Yes.
→	4		A:,
	5	Mariam:	uh-A:,
	6		A:,
	7		B:.

Mariam initiates the repair sequence in the transition space after the trouble source (line 2). She uses a tag question to begin the repair. Kim confirms that Mariam has correctly identified the letter 'A' (lines 3 and 4).

Other-initiated other-repair. OTHER-INITIATED OTHER-REPAIR mainly occurs in the turn following the trouble-

source turn (Schegloff, Jefferson and Sacks 1977:367). In the following example, Kim has incorrectly identified a graphic in the transportation word list of *Basic Vocabulary Builder*, as the pair rapidly checks the pictures on their handout against the graphics on the monitor.

Example 4.3: Other-initiated other-repair

→ 1 Kim: Bi:cycle. ┌
 2 Juan: Motorcy:cle. └

Without missing a beat, Juan corrects her by supplying the correct word. He supplies the correction in the turn subsequent to the trouble-source turn (line 2).⁴

Other-initiated self-repair. OTHER-INITIATED SELF-REPAIR takes place when the interlocutor locates trouble, but the speaker corrects it him- or herself. In the following example, Antonio compliments Minh on selecting the correct answer in a matching exercise in *Contraction Action*. Minh does not understand Antonio's compliment. To encourage Antonio to clarify, Minh offers a partial repeat and interpretation of Antonio's

⁴There are additional interesting features of this particular excerpt which are discussed in Chapter 5, 'Repetition.'

utterance. His intonation rises as if he is asking a yes/no question. Antonio then reformulates and simplifies his compliment.

Example 4.4: Other-initiated self-repair

	1	Antonio:	Yes.
	2		Bravo.
	3		You're the boss.
→	4	Minh:	Yes?
→	5		Good?
→	6	Antonio:	Good.
→	7		Job.

In lines 1 through 3, Antonio confirms Minh's correct answer with 'Yes.' He then offers congratulatory compliments in lines 2 and 3. Minh doesn't understand them. In order to get clarification, he partially repeats Antonio's utterance with question intonation ('Yes?') and supplies an interpretation in the turn subsequent to the trouble source turn (lines 4 and 5). Antonio modifies his original utterance by simplifying it to one that Minh will be most likely to understand, 'Good job.' To ensure that Minh will be able to understand him, Antonio repeats Minh's, 'Good,' in his clarification.

This sequence demonstrates the relationship between other-initiated self-repair and negotiation of

meaning. Antonio exposes Minh to language that he doesn't understand. Minh can rely on the immediate context to guess what Antonio means. He has just responded correctly to a problem presented by the computer program, and Antonio compliments him while a congratulatory remark appears on the screen. The situation is ripe for his partner to congratulate him, and Antonio sounds happy when he speaks to Minh. Nonetheless, Minh still seems to need further clarification and offers a complimentary phrase ('Good?') as an interpretation of what Antonio has just told him. Antonio confirms by complimenting Minh with Minh's own language of congratulation. Questioning Antonio results in an exchange in which meaning is negotiated. In this case, Antonio simplifies his response in order to accommodate Minh's comprehension.

When interacting together without a teacher present during the interaction, learners demonstrate a preference for self-repair. The totals of occurrences of self-initiation and other-initiation of sequences (SISR and OISR) in which learners ultimately engage in self-repair comprise 58.2% of the total number of learner-learner repair sequences in this study. (SISR

constitutes 32.0%, and OISR another 26.2 percent.) Next in preference is self-initiated other-repair, (SIOR) at 21.5 percent. Finally, other-initiated other-repair (OIOR) is the least preferred repair type, comprising 20.4% of repair sequences among learners. A summary of repair routine types that learners use among each other appears in Table 4.1 below.

TABLE 4.1 LEARNER-LEARNER REPAIR INITIATION AND OUTCOME						
L E A R N E R	Repair Routine Types					
	repairable produced by:	SISR	SIOR	OIOR	OISR	TOTAL
Kim		5	0	1	9	15
Mariam		8	22	25	4	59
Maria		15	0	2	8	25
Minh		8	1	4	5	18
Antonio		9	2	2	7	20
Minh		1	8	0	4	13
Kim		6	4	1	4	15
Juan		3	0	0	4	7
TOTAL		55 32.0%	37 21.5%	35 20.4%	45 26.2%	172

SISR=self-initiated self-repair, SIOR=self-initiated other-repair, OIOR=other-initiated other-repair, OISR=other-initiated self-repair (percentages rounded to the nearest 10th).

Notice in Table 4.1 that Mariam triggers the greatest number of other-repairs, both self- and other-initiated, causing the number to be disproportionately large (greater than 50% of all instances) compared to

the instances enacted by the other pairs of learners. Mariam is the least proficient in English of all the focal learners. Furthermore, she is unable to work unassisted on the computer program she uses. Her limited ability to communicate in English as well as to perform the task leave her in a situation where she must receive a lot of assistance.

Mariam's self-initiated other-repairs are generally confirmation requests that she utters to make sure that she is pressing the right keys or identifying alphabet letters correctly. This was seen in example 4.2 above. Kim often initiates other-initiated other-repair sequences when working with Mariam in order to correct Mariam's identification of letters, as in the following example.

Example 4.5: Other-initiated other-repair to correct identification of letters

	1	Mariam:	Thank you.
→	2		One.
→	3	Kim:	No one.
→	4		I.
→	5		I.
	6	Mariam:	I.

In this example, Mariam confuses the number one with the capital letter 'I.' This is a common error for those just beginning to work on letter and number

recognition.³ Kim points out the error at the turn adjacent to the trouble-source turn by negating Mariam's 'One,' and twice stating the correct name for the letter in lines 4 and 5 ('I. I.'). Mariam confirms her understanding by repeating 'I' in line 6.

The learner who engages in self-initiated self-repair the most is Maria, as she works with Minh on *Basic Vocabulary Builder*. Maria is, in general, the more vocal of the two which could account for her tendency to initiate and repair faulty utterances herself. Maria's primary focus is in being able to pronounce the words that are represented by the graphics. It is in attempting to correct her own pronunciation that she uses self-initiated self-repair routines, as in the following example.

Example 4.6: Self-initiated self-repair in attempting to pronounce a new word

→	1	Maria:	(p) Polisay. (pron: [po: lí: se])
→	2		(p) Police.
→	3		(p) Polisay. (pron: [po: lí: se])
	4		(p) O.
	5		(p) Officer.
	6		(p) O,

³Recall, too, that Mariam is Afghani, and although not literate, has been exposed to Arabic and Farsi script and numerals. I am unsure whether or not Mariam recognizes Arabic numerals, but assume that she does.

In this example, notice how Maria repeats part of the target word, 'police officer' while she is spelling it. She is repeating it to remember the word, and also to be able to pronounce it. In line 2, she changes her pronunciation of the word to the standard, and then reverts to her original pronunciation in which the final 'e' is not silent-- ([po: lí: se]). It is possible that she pronounces the silent 'e,' as she would in Spanish, in order to help her remember to include it while she spells. In this example, the trouble source appears in the first line of the discourse when Maria says, 'Polisay.' Maria repairs her pronunciation within the same turn.

It should be noted that this attempt at accurate pronunciation is not communicative. She is not trying to modify her pronunciation so that Minh will better understand her. Maria is not expressing herself to Minh although he can certainly hear her. Therefore, unless Minh were moved to help Maria perfect her pronunciation, or unless this segment occurred in the midst of conversation, it is doubtful that she would receive repair assistance from him. Minh does not

interfere with Maria's pronunciation practice. He attunes to her need for practice by not interfering.⁴

In this section, I have examined repair routines occurring between learners. Learners generally exhibit a tendency for self-repair of their own utterances. Other-initiated self-repair enables the negotiation of meaning as learners work to explain themselves more clearly.

Repair Routines Among Teachers and Learners

In the previous examples I have examined repair sequences in which learners interact with each other. Learners generally demonstrate a preference for self-repair, whether self- or other-initiated. An important finding of this study is that this changes when learners interact with teachers. In interactions between teachers and learners, the most frequently employed routine upon a learner's utterance of a repairable is other-initiated other-repair.

This was also Juvonen's (1989) finding in his analysis of teacher-learner interaction. Recall from

⁴Such behavior is discussed further in the section, 'Accommodation and corrective language.'

Chapter 1 that Juvonen studied the interaction between an eleven-year-old Finnish immigrant and her Swedish as a second language teacher. Juvonen, as participant observer, occasionally participated in the interaction as well. The present study differs from that conducted by Juvonen in that learner-learner interactions are also analyzed. Therefore, it is possible to analyze differences between learner-learner and learner-teacher repair routines.

In Table 4.2 below, I examine the repairables generated by learners when teachers are present. The category designated as L(T) indicates that although the teacher is present as a participant in the interaction, the learner generating the repairable is addressing the other learner, or being repaired by the other learner. The category labeled T indicates that the learner is directly interacting with the teacher.

TABLE 4.2
LEARNER-LEARNER-TEACHER REPAIR INITIATION AND OUTCOME
(LEARNER-PRODUCED ERRORS)

L E A R N E R		Repair Routine Types										
		repair- able produced by:	SISR		SIOR		OIOR		OISR		TOTAL	
			L(T)	<i>T</i>	L(T)	<i>T</i>	L(T)	<i>T</i>	L(T)	<i>T</i>	L(T)	<i>T</i>
Kim	0	<i>0</i>	0	<i>0</i>	0	<i>1</i>	0	<i>1</i>	0	<i>2</i>		
Mariam	0	<i>1</i>	1	<i>0</i>	3	<i>2</i>	0	<i>0</i>	4	<i>3</i>		
Maria	0	<i>8</i>	0	<i>1</i>	0	<i>1</i>	0	<i>6</i>	0	<i>16</i>		
Minh	1	<i>0</i>	0	<i>0</i>	0	<i>0</i>	0	<i>0</i>	1	<i>0</i>		
Antonio	1	<i>0</i>	0	<i>2</i>	2	<i>3</i>	0	<i>0</i>	3	<i>5</i>		
Minh	0	<i>0</i>	0	<i>2</i>	2	<i>6</i>	1	<i>3</i>	3	<i>11</i>		
Kim	6	<i>1</i>	0	<i>3</i>	1	<i>4</i>	2	<i>4</i>	9	<i>12</i>		
Juan	3	<i>2</i>	1	<i>8</i>	2	<i>7</i>	2	<i>5</i>	8	<i>22</i>		
TOTAL	11	<i>12</i>	2	<i>16</i>	10	<i>24</i>	5	<i>19</i>	28	<i>71</i>		
		99										
TOTAL (in %)	11.1	<i>12.1</i>	2.0	<i>16.2</i>	10.1	<i>24.2</i>	5.1	<i>19.2</i>	100%			

SISR=self-initiated self-repair, SIOR=self-initiated other-repair, OIOR=other-initiated other-repair, OISR=other-initiated self-repair. Learner-teacher interactions appear in ***boldface italics***. N=99.

In Table 4.2 above, the most frequently occurring repair sequence in which teachers are directly involved is other-initiated other-repair (OIOR), at 24.2 percent. This reflects the asymmetrical relationship existing between the social identities of teacher and learner. The ramifications of this asymmetry are discussed in subsection, 'Face: A comparison of

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learner-learner and teacher-learner corrective language.'

Observe that when interacting with the teachers, Kim and Juan generate the most repairables. As discussed in the previous chapter on directives, this pair of learners is unable to engage competently in the computer exercise. Neither one can read or spell. Teachers work with Kim and Juan more often than with any other learner pair. This may account for the high number of repair sequences. Let us now examine discourse excerpts in which teachers are involved with learners in repair sequences:

Self-initiated self-repair. In the following example, Juan engages in self-initiated self-repair as he reacts to my suggestion that he and Kim combine their first and last names at the login prompts of the program they use.

Example 4.7: Self-initiated self-repair with teacher present

	1	Susan:	Juan?
	2		Why don't you type,
	3		Your last name.
	4		It can be,
	5		Kim,
	6		Kim Gomez.
	7	Kim:	Kim Gomez?
→	8	Juan:	My-my last name?

9
10 Susan: Oh! That's right.

Juan stumbles in saying, 'My last name?' in line 8. He repairs himself within the trouble source turn in which he asks for confirmation.

Self-initiated other-repair. The following example of self-initiated other-repair occurs while Juan and Kim are signing the permission forms, allowing me to videotape them. In this excerpt, Juan attempts to ask me the year.

Example 4.8: Self-initiated other-repair with teacher

1 Kim: June,
2 Today,
3 Teacher.
→ 4 Juan: Nineteen eighty seventy,
→ 5 Susan: Nineteen-ninety.
6 Juan: Nineteen-ninety.
7 Susan: Yu:p,

In line 4, Juan gives a nonsensical date ('Nineteen eighty seventy,'). He ends with phrase final, rising intonation, signalling that more should follow (Tannen 1984:xix). I suggest that with this strategy Juan is requesting assistance from me. In line 5, the turn adjacent to the trouble-source turn, I supply the 'more to follow' by telling Juan the correct year. He

confirms that he has understood by repeating it in line 6. Finally, I also confirm that he has now said the year correctly in line 7.

Other-initiated other-repair. As stated earlier, other-initiated other-repair is the most common repair routine enacted when teachers and learners work together. In the following example, Antonio and Minh are being helped by Penny, an Adult Learning Laboratory (ALL) teacher who has noticed that they are having difficulty selecting the contraction that matches 'will not.' Immediately preceding the discourse comprising example 4.9, through the process of elimination, Antonio has realized what the correct answer must have been. Penny walks over to Antonio and Minh as they are laughing and lamenting their mistake.

Example 4.9: Other-initiated other-repair with teacher

	1	Penny:	Whuh-will not,
	2		Is the same as,
	3		Wor't.] Yeah.
	4	Antonio:	This is H,] No,
→	5	Penny:	Th-that's a W.
→	6	Minh:	Oh.
	7		W.] W.
	8	Antonio:	
	9		
	10		

In example 4.9, Antonio points to the correct answer (won't), but instead of 'W,' he identifies the first letter as 'H.' In examining the on-screen text, it is easy to see how Antonio could confuse capital 'W' with capital 'H' when examining each choice very closely. The letters differ but slightly when the horizontal bar crosses the vertical lines of the 'H' is compared to the placement of the middle angle of the 'W.'⁵

The teacher, Penny, places the other-initiated other-repair in the turn after the trouble-source turn, neither moderating it in any way nor giving Antonio a chance to self-repair, either by waiting for him to recognize his mistake on his own or by fostering self-repair by asking him a question. As soon as Antonio incorrectly identifies this letter, Penny immediately provides the correction without any hesitation. Subsequently, both Minh and Antonio confirm the correction through repetition of 'W.'

Other-initiated self-repair. The last category, other-initiated self-repair, is a routine that teachers

⁵I was initially surprised by this letter recognition mistake, because Antonio does not generally make such errors; therefore, it is worth examining in such detail.

often use to help learners answer a question on their own. An extended example follows. Maria and Minh have just gone through the occupation word list *Basic Vocabulary Builder* once. They have copied down all of the vocabulary and are now about to run through the program again, typing the vocabulary item after identifying the graphic. Because I have helped get them started on repeating the program, I remain with them a few minutes to see if they understand what to do. Notice how I initiate several repair routines in which I am hoping that the learners will engage in self-repair. Even though they try several times to come up with the correct answer, in the end I reluctantly supply it to them.

Example 4.10: Other-initiated self-repair with teacher

	1	Susan:	Okay.
	2		so.
	3		Do you remember his job?
	4		The job for that guy?
	5		Don't press return,
	6		You can spell it now.
	7		Who is this.
	8	Maria:	Student? ↙
	9	Minh:	Student. →
→	10	Susan:	Student? ↙
	11	Maria:	No? ↙
→	12	Susan:	Look →
	13		on your list.

- 14 Minh: [No.]
 → 15 Susan: What is it.
 16 / ? /
 17 Minh: No student.
 18 (2 second silence)
 19 No.
 (2 second silence)
 20 Maria: Mechanic.
 (pron. [me tšæ: nik])
 21 I don't know.
 → 22 Susan: Mechanic?
 → 23 He's typing?
 → 24 In an office?
 25 Maria: [/?/]
 26 Oh,
 27 oh.
 28 Office?
 → 29 Susan: Office?
 → 30 Works in an office?→
 31 Minh: No.]
 → 32 Susan:] Who works in an office→
 → 33 here.
 → 34 Look on your list.
 35 Maria: Police. (pron. [pó lis])
 36 Police de office?]
 → 37 Susan:] Is-is he→
 → 38 a police o-
 39 Oh.]
 40 Maria:] Police.]
 41 Susan:] I see→
 42 Minh: Police,
 43 Police.
 → 44 Susan: Is he a policeman?
 (1 second pause)
 → 45 I think ma-maybe a secretary.
 46 Maria: Secretary.
 (pron. [se kre tá: ri])
 47 Ohh,
 48 Secretary.

In this example, Maria and Minh are to come up with the target vocabulary item, 'secretary.' In line 9, Maria

suggests that the graphic represents a student, and Minh repeats after her. I question her response by repeating, 'Student?' in line 11. After being prompted by me again to come up with another word, Maria suggests 'mechanic' in line 20. I start to give them hints about the occupation in lines 23 and 24 ('He's typing? In an office?'). At this point, the word 'office' triggers 'police officer' for Maria. I again pose a question based on Maria's answer in lines 37 and 42, culminating in the question, 'Is he a policeman?' After waiting a mere second, I supply the answer myself, thus ultimately engaging in other-repair when I hesitate in saying, 'I think ma-maybe a secretary.'

This exchange is typical of teacher talk and exemplifies the asymmetry characteristic of institutional discourse among those of unequal status. I know the answer; however, it is my job to help learners develop and practice their skills in the target language. Therefore, this exchange is an attempt by me to get them to recognize the graphic and remember their vocabulary. In the process I provide them with prolonged comprehensible input, important in

facilitating learners increased understanding of the target language (Krashen 1982).

Notice that when I finally tell them the answer through ultimately engaging in other-repair, that I mediate the repair by hesitating on the word 'maybe.' By uttering the adverb 'maybe' in such a fashion, I attempt to identify with the learners' own uncertainty. My behavior falls within the types of other-repair discussed by Schegloff, Jefferson and Sacks (1977).⁶

Are Repair Routines Predictable?

This study presents an analysis of interactions transpiring among four different pairs of learners and their teachers. Some learner pairs, such as Juan and Kim, receive more attention from teachers than others, such as Kim and Mariam. In order to answer the question: 'What effect does the presence of a teacher as a participant in an interaction have upon repair?' data must be normalized if it is to be compared. That is, the raw number of occurrences of learner-learner and teacher-learner-learner interaction must be

⁶An analysis of the politeness strategies used in this discourse excerpt appears later in this chapter.

adjusted to reflect how probable a type of initiation or repair will be when learners work alone or when a teacher joins them. I would expect the following:

1. self-initiation will decrease once teachers interact with the learners, and correspondingly, other-initiation will increase; and
2. self-repair will decrease once teachers interact with the learners, and correspondingly, other-repair will increase.

In Table 4.3 below, I offer a comparison of learner-learner to teacher-learner-learner initiation and repair.

TABLE 4.3
 PERCENTAGE COMPARISON OF INITIATION AND REPAIR
 OF LEARNER UTTERANCES (LEARNER-PRODUCED ERRORS),
 COMPARED WHEN LEARNERS INTERACT WITH LEARNERS,
 AND WHEN LEARNERS AND TEACHERS INTERACT

L E A R N E R	Initiation and Repair Normalized (in percentage)								
	repairable produced by:	SI		OI		SR		OR	
		L	T-L(T)	L	T-L(T)	L	T-L(T)	L	T-L(T)
Kim	3.4	Ø	6.8	11.1	9.5	5.6	0.7	5.6	
Mariam	20.3	11.1	19.6	27.8	8.1	5.6	31.8	33.3	
Maria	17.4	26.5	11.6	20.6	26.7	41.2	2.3	5.9	
Minh	10.5	2.9	10.5	Ø	15.1	2.9	5.8	Ø	
Antonio	16.7	6.5	13.6	10.9	24.2	2.8	6.1	15.2	
Minh	13.6	4.4	6.1	28.3	7.6	8.7	12.1	23.9	
Kim	22.7	9.8	11.4	10.8	22.7	12.8	11.4	7.8	
Juan	6.8	13.7	9.1	15.7	15.9	11.8	Ø	17.6	

L indicates learner-learner interactions, and T-L(T) indicates that teachers are present during the interaction and may participate in the repair routine. SI=self-initiation, OI=other-initiation, SR=self-repair, OR=other repair.

Hypotheses are partially borne out. Kim and Mariam follow the expected outcome. That is, self-initiation and self-repair decrease, while other-initiation and other-repair increase, whenever teachers are present. None of the other pairs follow through as predicted.

In the real-time interactions, learners show a preference for SR in general with SISR being the most common repair routine, as has been demonstrated in Table 4.1. Teachers show a preference for OI, and OIOR is the most common repair routine, as demonstrated in

Table 4.2. In comparing normalized data (Table 4.3), it is possible to make some generalities about the data and the conditions in which they were gathered; however, no sweeping claims about learner-learner or learner-learner-teacher interaction can be made based on four discourse samples.

For example, it seems that the rate of self-initiation and self-repair usually decreases when teachers are involved in the interaction. The exception to the rule is Maria, who increases from 17.4% to 26.5% in SI and from 26.7% to 41.2% in SR when interacting with a teacher. As noted previously, Maria treats the learning activity as a chance to practice pronouncing new vocabulary. When teachers interact with her, they help her pronounce words. In this situation, Maria generates more utterances than her partner, Minh. Producing more utterances when a teacher is present to assist with pronunciation means that she has more opportunities for self-repair and self-initiation when a teacher is present.

The last two categories, other-initiation and other-repair, seem to show no strong pattern in increasing or decreasing whether a teacher is present

or not. Perhaps this would be different if the discourse of additional learners and teachers had been studied. As stated before, no generalization can be made based on such a small sample.

In this section, I have examined repair routines of learners interacting both with other learners and with their teachers. When real-time learner-learner interactions are analyzed, preferences demonstrated for executing repair mirror those discussed by Schegloff, Jefferson, and Sacks (1977). That is, there is generally a preference for self- over other-repair. When real-time interactions among teachers and learners are examined, however, findings follow those of Juvonen (1989) in that teachers show a preference for engaging in other-initiated other-repair. Juvonen states that this is characteristic of the asymmetrical interaction of the classroom. However, when learner-learner and teacher-learner-learner repair sequences are normalized and analyzed to exclude length of time as a variable, no consistent preference for other-initiation and other-repair in learner-teacher interaction is shown.

In the following section, 'Politeness,' I demonstrate that social factors as well as facility

within the language being spoken influence how learners and teachers express themselves within corrective sequences. In the final section of data analysis, 'Accommodation,' I detail how the alignment that participants take toward each other manifest themselves in the discourse of correction.

POLITENESS

The language that learners use to interact with each other differs from that which they use with their teachers. I have shown this in Chapter 3, 'Directives,' noting that learners use a wider variety of syntactic forms of directives with each other than when addressing their teachers. Likewise, in the first part of this chapter, I have explained differences in the repair routines occurring between learners and those occurring between learners and teachers.

In this section, I continue to examine the social features within language use, applying analysis to the language of correction. To this end, I examine the politeness strategies learners use with each other as well as those that learners and teachers use when communicating together. I rely upon certain concepts

established by Brown and Levinson ([1978] 1987) in their cross-cultural study of politeness strategies.

Central to Brown and Levinson's ([1978] 1987) analysis are the concepts of positive and negative face. Recall from Chapter 1 that POSITIVE FACE is the desire of individuals that their wants be desirable to others, while NEGATIVE FACE is the desire of individuals that their actions be unimpeded by others (62). Consequently, positive politeness strategies are those that speakers use to promote their interlocutor's positive face, and negative politeness strategies are those that convey the speaker's desire not to intrude upon the addressee's negative face.

In their analysis, Brown and Levinson examine the relationship of the following social factors on face: degree of power held by the speaker or the addressee over the other, social distance between speaker and addressee, and the ranking of imposition on the agent's face wants (77). It is their contention that this complex of factors manifests itself in how speakers express themselves to others.

Relative degree of power is related to social roles of participants; however, situational factors may

override them (79). In the case of the present data, a learner with relatively better reading and spelling skills than another learner may be in a position of authority when working with the weaker learner; however, when a teacher enters the interaction, both learners act with deference toward the teacher.

In the following analysis, I demonstrate that participants' communicative ability also influences strategies chosen and their enactment. (i.e., In selecting positive or negative politeness as a strategy, how is the strategy also encoded in language?) The interactions comprising the data almost exclusively are centered around the completion of an ongoing task. Speakers correcting others generally use imperatives, characteristic of the bald-on-record strategy.

Face: A Comparison of Learner-Learner and Teacher-Learner Corrective Language

The five examples in this section demonstrate a range of politeness strategies that interlocutors use when correcting each other. Four examples are drawn from discourse transpiring between learners, and one from the interaction of learners and a teacher.

Analysis shows that in this particular institutional setting, strategy is related to:

- task
- language proficiency
- social identity

within each context for interaction. These factors either affect or are subsumed by the three variables identified by Brown and Levinson ([1978] 1987): social distance, power, and rating of imposition of a given face-threatening act.

As seen in Chapter 3, 'Directives,' most of the directives uttered by learners and teachers are in forms of the basic imperative. Task-centered interaction is typically accompanied by use of the imperative (Ervin-Tripp 1976). Use of the imperative constitutes a bald-on-record strategy, which speakers may employ when it is more important to communicate efficiently than to pay attention to the addressee's face needs (Brown and Levinson [1978] 1987:95). When communication is centered on a task, Brown and Levinson note, redressing face also may be irrelevant (97).

As explained in Chapter 2, 'Method,' the focal learners in this study are beginning speakers of English who speak different native languages. Varonis

and Gass (1985a) suggest that NNS/NNS communication may not inherently offer face risks to participants. They share the excuse that they are learning the language and may make mistakes. Therefore, factors which might normally inhibit someone from intruding upon the negative face of the other have no effect.

Furthermore, the imperative is an easily learned syntactic form. Not only is it easily produced, but it is simple to understand, precisely because it is direct. The better developed a learner's ability to communicate in English, the more options s/he has in encoding utterances. To demonstrate this within this section, I compare the correction strategies Kim uses with her partners to those that Antonio uses with Minh.

Social identity within this educational setting also plays a role in which correction strategies are enacted. A comparison of learner correction strategies to those employed by a teacher correcting learners makes this clear. Teachers may invest a great deal of effort into coaching learners into a situation in which they can correct themselves. In such a situation, the teacher purposefully prolongs interaction--a situation

that would be considered uncooperative in other settings.

Learner-learner interaction. When learners correct each other in other-initiated other-repair sequences, they almost exclusively use bald-on-record utterances to do so. This is true regardless of the difference in ability between learners. In the following three examples, beginning speakers demonstrate a range of politeness strategies within limitations imposed by their stage of language acquisition. The learners' corrective language ranges from direct, bald-on-record to directives accompanied by softened tone of voice and praise, which reduce the force of the corrective.

In examples 4.11 and 4.12, Kim enacts other-initiated other-repair routines with partners of two different ability levels, Mariam and Juan. Recall that Mariam is weaker than Kim in both literacy and communication skills. Juan and Kim are evenly matched in literacy skills, but Juan is able to communicate more easily in English than Kim. The other-initiated other-repair technique that Kim uses with each partner

is also a marker of her stage of development in English.

The following example occurs within the interaction between Mariam and Kim. As mentioned earlier in this chapter, Mariam provides the highest amount of repairable utterances of all focal learners. The following excerpt has been analyzed above as example 4.5 in the discussion of other-initiated other-repair routines. Here, I examine the excerpt as a typical example of bald-on-record interaction. Mariam has been pointing to letters on the monitor screen and identifying them. In the excerpt, Kim corrects Mariam as she mistakenly identifies the capital letter 'I' as the number 'one.'

**Example 4.11: Bald-on-record correction:
learner/learner**

	1	Mariam:	Thank you.
	2		One.
→	3	Kim:	No one.
→	4		I.
→	5		I.
→	6	Mariam:	I.

In this example, Kim, baldly and without redress, tells Mariam that she is wrong ('No one.') and tells her the correct identification ('I. I.'). Kim is not making suggestions, but is clearly telling Mariam the correct

answer. This is evident from her falling, sentence-final intonation. Mariam follows this with a confirming repetition in line 6.⁷

When engaging in other-initiated other-repair with Juan, Kim uses the same technique in bald-on-record utterances. Recall that Juan is a better speaker than Kim, but the two are evenly matched in literacy skills. In example 4.12, Kim corrects Juan as he misreports the name of a graphic appearing on the monitor.

**Example 4.12: Bald-on-record correction:
learner/learner**

	1	Kim:	Airport,	
	2		Highway,	
→	3	Juan:	Ah-uh aeroplane.	
→	4	Kim:	No airplane,	
→	5		Airport.	
→	6	Juan:	Airport.	└ Airport.
→	7	Robin:		
→	8	Kim:	Yes.	

In this example, Juan identifies the graphic as an 'aeroplane' instead of as an 'airport.' As she did with Mariam in example 4.12, Kim corrects Juan by first marking his repairable with 'no' and then supplying her correction. In this case, her correction is the word,

⁷Juvonen (1989) codes such repair routines as OIOR + SISR, and states that it is typical of teacher-learner repair sequences.

'airport' (line 5). Juan gives a confirming repeat (line 6), as does Robin, the ALL manager who assists them (line 7). Kim shows her agreement with Robin, when she utters 'yes' (line 8).

Comparison of the interaction between Kim and Mariam with that of Kim and Juan demonstrates that in task-centered talk, other-initiated other-repair among peers does not necessarily encourage extended interaction or complex negotiation of meaning, regardless of the communication skills of the participants. For in these two examples, Kim is communicating with Mariam, a learner with weak oral communication skills, and Juan, a learner with better developed communication skills, in precisely the same way. This points, too, to Kim's developmental stage of language acquisition. Kim is a beginning speaker. She is using language to the best of her ability to express herself as clearly as possible. In example 4.14, later in this chapter, I shall demonstrate how Kim compensates for her limitations when required to express more complex ideas.

In both cases, face concerns appear to be irrelevant. Recall that the pairs of learners are non-

native speakers. Face threats are minimized in such a situation. Furthermore, the learners work on completing a task. Task-centered talk is marked by imperative, direct utterances. Politeness and respecting face are not primary considerations in utterance design.

Analysis of the following example shows how a beginning learner with stronger speaking skills can diffuse the intensity of a bald-on-record directive. In example 4.13, Antonio acts as coach and Minh, as keyboarder. Antonio corrects Minh neither by telling him the right answer nor by pointing to a key. Instead, he halts their action and recounts rules for determining the correct answer. This technique allows Minh more time to come up with the correct answer on his own.

Example 4.13: Allowing for self-correction

- | | | | |
|---|---|----------|--|
| | 1 | Antonio: | You're right. |
| | 2 | | You're right.
(ANTONIO READS FROM SCREEN.) |
| | 3 | | Huh?
(A NEW PROBLEM HAS APPEARED ON THE
SCREEN.) |
| → | 4 | | What do you think.
(4 SECOND SILENCE.) |
| | 5 | Minh: | Was not, 7
(MINH POINTS TO MULTIPLE
CHOICE ANSWERS.) |

6 Antonio: ┌ okay. ─┐
 7 Minh: └ Was not.
 → 8 Antonio: Wait wait wait.
 → 9 Okay.
 → 10 You have to read first.
 → 11 First you look 'hé:re,
 (ANTONIO POINTS TO PROBLEM ON
 SCREEN.)
 → 12 Hé:re,
 (ANTONIO POINTS TO MULTIPLE-
 CHOICE ANSWERS.)
 → 13 A:nd,
 → 14 you think.
 (ANTONIO POINTS TO HIS HEAD.)
 15 What's.
 16 What's. ┌
 17 Minh: └ Here? ─┐
 (MINH POINTS TO AN ANSWER.)
 18 Antonio: ┌ /Here./
 19 Was.
 20 Was not.
 21 Was not.
 22 Mean.
 23 Same.
 24 Something short.
 25 Very short.
 (ANTONIO MOVES HIS HAND AND
 SHAPES HIS POINTER AND THUMB
 TO INDICATE A SMALL SIZE.)
 26 Not,
 27 Not was.
 (ANTONIO READS ALOUD.)
 28 Like yeah.
 (MINH MAKES HIS CHOICE.)
 29 Right.
 (THE COMPUTER MARKS THE ANSWER
 AS CORRECT.)
 → 30 Minh: Yeah?
 → 31 That's good? ┌
 → 32 Antonio: └ Yeah.

At the beginning of the excerpt, Antonio reads the on-screen evaluation of their last response (lines 1-2,

'You're right. You're right.'). They have answered correctly on the second try; Minh had responded with an incorrect answer first. He then registers that a new problem has appeared on the screen (line 3, 'Huh?'). At this point, Antonio begins to engage in corrective behavior with Minh, in order to prevent another incorrect response.

Antonio's first approach is to ask Minh what he thinks the correct answer could be (line 4). In this invitation to participation, Antonio flatters Minh's positive face. He is acknowledging that a contribution by Minh is welcome. However, when Minh points directly to an answer, Antonio stops the action by saying, 'Wait wait wait.' Minh listens.

This is a direct, bald-on-record strategy. Antonio uses the imperative and repeats his command rapidly, which signifies importance and urgency. Notice, however, that Antonio does not say, 'No,' which sounds more negative than, 'Wait.' 'Wait' calls for a momentary pause in action, while 'no' in this situation would also call for a pause in action as well as point out a possible error. While it would be possible for Antonio to halt ongoing interaction with 'no,' he

chooses 'wait,' which although bald-on-record, is arguably more polite than alternatives.

Antonio creates a window in the discourse by uttering, 'Wait wait wait.' He tells Minh to wait so that he, himself, can take some time to read the text on the screen before either one of them selects an answer. He also gives some general guidelines for selecting an answer in lines 9 through 16: 1) read the problem, 2) examine answer choices, 3) think about the best answer. Antonio does not tell Minh directly that in his opinion how he goes about solving a problem is faulty. Instead, Antonio states his formula for selecting the best answer, assuming that this is the best way to go about it. Although he still goes baldly on record by telling Minh to wait, he expresses himself without directly accusing Minh of faulty behavior. Finally and happily, the exchange ends with Antonio responding to Minh's request for a positive stroke ('Yeah? That's good?') with a confirming remark ('Yeah.').

In addition to the wording he uses to express himself, Antonio's delivery is marked by a quiet, friendly tone of voice, softening the corrective

element within the message. This stands in contrast to remarks Antonio makes later in the interaction. There, Antonio uses language which marks negativity by use of the word 'no.' He issues reprimands. His tone of voice conveys annoyance.

The previous three examples demonstrate that there are different ways in which correction can be accomplished with the bald-on-record strategy. In the two examples in which Kim goes baldly on record, first with Mariam and then with Juan, correction is initiated with the word 'no' followed by the correct answer. To a less direct degree, we have the example in which Antonio slows Minh down before he can select an answer. In this case, Antonio goes baldly on record, but he softens his direct remarks with a pleasant tone of voice and compliments.

Let us discuss these examples, too, in terms of social distance, power, and degree of imposition of the face-threatening act. In the examples so far discussed, interactions have been among social equals. Degree of power of one learner over the other is minimal. Within the institution of the school, learners are equal with regard to rights. However,

within their interactions, differential knowledge plays a role. Differences in understanding how to work the educational software program, degree of English-language reading, spelling, and/or oral skills may result in asymmetry of power. In this sense, the person with superior ability in the important skill of the moment is entitled to correct the other, as I have shown is the case with Kim and Antonio.

As stated previously, learners may go baldly on record with their corrective language precisely because they are second language learners. They have nothing to lose by trying to improve their abilities with each other in the second language. Secondly, degree of development in their second language limits how they may express themselves. Directives are just that, direct. They are simple for the speaker to state and easy for the interlocutor to understand. Finally, the learner/learner talk comprising the data is primarily focused on an ongoing task. Such situations may override the face-threatening aspects of such an act in other contexts.

Approaches learners can use to exhibit respect for the other's face are evident, however. For instance,

in example 4.13 above, notice that Minh asks Antonio for confirmation that an answer is right even though there is a computerized animation performing on-screen antics at the same time, marking the answer as correct. With this type of action, Minh shows deference to Antonio, here and repeatedly throughout the interaction, acknowledging that he is an individual proficient enough in English to evaluate answers. As Brown and Levinson ([1978] 1987:230-231) note, positive politeness strategies may employ features of negative politeness strategies (such as hedging), but they still remain more-or-less positive politeness strategies.

In the previous three examples, I have dealt with relatively straightforward examples of bald-on-record utterances in NNS/NNS repair sequences. In these examples, learners refer to on-screen text throughout their interactions. Now, let's take a view of the concept 'correction' beyond that of ethnomethodology, the repair of utterances that are somehow marked as flawed and subsequently repaired, to that of simply righting a wrong. In the following example, Juan and Kim engage in an interaction requiring more complex

strategies to correct a situation by working together to obtain a 'cheat sheet.'

In this excerpt, Juan chides Kim for forgetting a completed handout. If Kim and Juan had the handout, they would be able to refer surreptitiously to it to type the vocabulary words in the *Basic Vocabulary Builder* drill correctly. Ostensibly, getting the answers right would please the teacher. In addition, they would save face by appearing to be able to spell.⁸ Now, the two conspire to correct the situation, as seen in example 4.14.

Example 4.14: Communicating complex information

1	Juan:	You forgot the paper.	└─	Me::.
2	Kim:			
3	Juan:	You wanna go the outside?		
4		Take.	└─	You,
5	Kim:			
6		Outside?		
7	Juan:	You.		
8	Kim:	No,		
9	Juan:	At my home.		
10		My car.		
11		You have key?		
12		For your car?		

⁸This is not mere speculation on my part, but actually transpires later in Kim and Juan's interaction. During the class break they obtain a completed handout, use it to type in vocabulary items, and receive praise from their classroom instructor, Joan.

The subject of controversy, which Juan identifies in line 1 as 'the paper,' is a handout with 16 pictures on it. The pictures correspond to the on-screen graphics of *Basic Vocabulary Builder*. Evidently, the entire class had participated in an activity a few days earlier in which they had learned occupation vocabulary words and labeled the pictures on the handout. Now in the ALL, the class is practicing spelling the vocabulary items with the computer program. Once they type a word correctly, they are to copy it under the picture on the fresh, unlabeled handout.⁹

Notice that Kim asks for confirmation in lines 5 and 6. She is not sure who Juan is suggesting go outside. In line 7, he clarifies that he wants Kim to go to her car and get her completed handout. They are in a bind. The class has begun, they have realized that the exercise requires them to spell (nearly impossible for them), and it is now difficult for them to quietly get papers to use as cheat sheets. Kim

⁹I am not sure why Juan accuses Kim of forgetting the handout as if she is solely responsible for having one ('the paper' he refers to in line 1). He should have one, too.

comes up with a creative solution, as seen in the continued excerpt below.

[KIM LIGHTLY TAPS JUAN ON THE BACK.]

13 Kim: You you.
14 Talk.

[KIM POINTS TO CARMEN, A SPANISH-SPEAKING STUDENT.]

15 He,
16 Paper,
17 Yeh.
18 You talk.] / ? /→

19 Juan: los papeles.]
20 **Gloss:** the papers.

21 Kim:] You→
22 speak Spanish?
23 You talk [here.]

→ 24 Juan: [Ca:r] men.
→ 25 Carmen.
→ 26 Carmen.
→ 27 Tiene usted este papel?
Gloss: Do you (polite) have this paper?

[JUAN & KIM HOLD UP THEIR INCOMPLETE HANDOUTS.]

→ 28 Tiene?] **Gloss:** Do you?
→ 29 Kim:] Yes.
→ 30 You write?

Kim's solution is to get Juan to take advantage of his native language skills: in Spanish, he is to ask another Spanish-speaking student in the class for her handout. Carmen, too, is quite limited in English, so it facilitates Kim's motive to have Juan make the request in Spanish.

This situation is far more complex than ones in which learners correct each other's keystrokes or answers. In this situation, two learners must work together in order to quickly get assistance from another student. Not only that, but the request they are making is unofficial: they are looking for a device to help them pull one over on the teacher.

Examination of example 4.14 reveals the shifts in politeness evident in the exchanges between Kim and Juan, and those between Kim, Juan and Carmen. Kim and Juan mark their interaction with features of familiarity, while he argues with her in English. When making his request to Carmen, he politely addresses her in Spanish, their common language.

In line 1 ('You forgot the paper. '), Juan goes on record, threatening Kim's positive face by criticizing her. Kim registers her surprise at his criticism in line 2 ('Me:::'). Juan continues to directly impose upon Kim, veiling his insistence that she go the parking lot to see if she has a handout in her car as yes/no questions ('You wanna go the outside? You have key? For your car?'). This implies that Kim has a

choice, and is slightly more polite than ordering Kim to go to her car and search for the handout.

Kim's positive face has been pushed upon. She has been accused of forgetting something important. Her negative face is threatened when she is pressed to go to her car. In an attempt to save her own face, she goes on record, tapping Juan on the back and telling him to ask for the paper in Spanish from another student in the class.

Of the two options that Juan and Kim have come up with: 1) Kim searches her car, or 2) Juan asks a classmate for assistance, the latter is the most convenient. Of course, Juan must now bear the burden of making a request from another individual, imposing upon Carmen's negative face while making himself appear needy.

Juan uses several strategies in order to soften his request. First, he switches from English to Spanish. Carmen is about twice Juan's age, old enough to be his mother. When he switches to Spanish in order to get her attention and make his request, he shifts his voice to a higher pitch. He also uses the formal second person subject pronoun, USTED. Both devices mark

his question as a request made politely. There is a tension here, then, of marking familiarity by using Spanish (paying attention to positive face), and making a request (intruding on negative face).

Despite the fact that Juan is speaking with Carmen in Spanish, Kim shows her support for Juan by enhancing his request in English ('Yes. You write?') and helping to expedite the request by holding up her blank handout. In holding up the handout Kim facilitates her own ability to contribute to the discourse, because it is easier to communicate visually than to describe what she needs. She also facilitates Carmen's understanding of the topic by holding up the paper. Unfortunately for Kim and Juan, Carmen does not have a completed handout with her to lend to them.

Teacher-learner interaction. The final example has appeared earlier in the chapter as example 4.10. In this example, Maria and Minh are to type the word 'secretary,' after being prompted by a graphic representing one. They experience difficulty identifying the graphic. I coach Maria and Minh, hoping that my attempts at other-initiation will enable

one of them to self-repair. To facilitate explication the excerpt is reproduced here.

Example 4.15: Politeness strategies: teacher to learner

1 Susan: Okay.
 2 so.
 3 Do you remember his job?
 4 The job for that guy?
 5 Don't press return,
 6 You can spell it now.
 7 Who is this.
 8 Maria: Student? [Student.→
 9 Minh: [Student.→
 → 10 Susan: Student? [No? [Look→
 → 11 Maria: [No? [Look→
 → 12 Susan: [Look→
 13 on your list.
 14 Minh: [No.]
 → 15 Susan: What is it.
 16 / ? /
 17 Minh: No student.
 18 (2 second silence)
 19 No.
 (2 second silence)
 20 Maria: Mechanic.
 (pron. [me tʃæ: nik])
 21 I don't know.
 → 22 Susan: Mechanic?
 → 23 He's typing?
 → 24 In an office?
 25 Maria: [/?/]
 26 Oh,
 27 oh.
 28 Office?
 → 29 Susan: Office?
 → 30 Works in an office?→
 31 Minh: No. [Who works in an office→
 → 32 Susan: [Who works in an office→
 → 33 here.
 → 34 Look on your list.

- 35 Maria: Police. (pron. [pó lis])
 36 Police de office? ↗ Is-is he→
 → 37 Susan: ↗
 → 38 a police o-
 39 Oh. ↗
 40 Maria: ↗ Police. ↗
 41 Susan: ↗ I see→
 42 Minh: Police,
 43 Police.
 → 44 Susan: Is he a policeman?
 (1 second pause)
 → 45 I think ma-maybe a secretary.
 46 Maria: Secretary.
 (pron. [se kre tá: ri])
 47 Ohh,
 48 Secretary.

When working with Maria and Minh, my goal was to enable them to arrive at the correct answer by themselves. Not only that, but I wanted to instill in them a confidence that they could answer on their own. To this end, as an instructor, I operate between the tension between complimenting their positive face and letting them go about unimpeded by me.

In lines 3 and 4, I ask Maria and Minh if they remember the word for the picture. ('Do you remember his job? The job for that guy?') Instead of telling them to identify the graphic, I ask them a question. I also use the word 'guy' instead of 'person' or 'man,' in an attempt to be less threatening. Even though 'guy' is not slang speech for Minh or Maria, it marks an informal register for me and is one device I use in

an attempt to make this educational exercise less threatening. Thus, negative (the question) and positive (slang) work together in my attempt to treat Maria and Minh with kind politeness.

In lines 4 and 5, I tell Maria and Minh not to press return to find the spelling (the activity they had engaged in but a few minutes before, the first time they used the program), instead I try to encourage them by saying, 'You can spell it now.' By uttering 'can' spell, I am complimenting them on an ability rather than just directing them to spell.

The identification routines then begin. Notice that throughout the interaction, I never tell Maria and Minh that they are wrong. I never say 'no.' Instead, I acknowledge their response by repeating the word, but use rising, question intonation. By so doing, I indicate to them, without explicit mention, that they must guess again. I engage in this behavior three times, hinting them through their suggestions of 'student' (lines 10, 13, and 14), 'mechanic' (lines 21 through 23, and 23 through 28), and 'police officer' (lines 36-38, 40, and 42).

When I finally tell them the answer, I stumble on the phrase I use to hedge when I say, 'I think ma-maybe a secretary.' By so doing, I play down my correction, acting as if I am unsure. By this I give the impression of giving negative politeness while correcting the learners.

In this section, I have discussed five different examples of interaction during correction. In the first two, Kim goes baldly on record to correct her partners. In the third, Antonio goes baldly on record when he corrects Minh, but he tones down the impact of the correction by maintaining a friendly tone of voice and complimenting him for getting an answer right.

In the fourth example, Kim gets Juan to issue a request to another student in his native language, Spanish. He does so, engaging in negative politeness. He goes on record with his request, but uses the formal second person pronoun, 'usted,' along with higher voice pitch to soften the imposition.

Finally, as a teacher, the individual with institutional authority, I attempt to downplay the power that comes with my institutional status by attempting to help Minh and Maria come up with the

correct answer to their problem without telling them myself. To this end, I engage in positive politeness strategies (complimenting them on their ability, using slang) and negative strategies. I phrase each of their wrong answers as questions, rather than tell them that they are wrong. When I finally tell them the right answer, I hedge, actually stumbling over the hedging word 'maybe.'

Examples of negative politeness strategies seem to occur primarily when speakers are using their native language. The exception here is Minh, when he shows deference to Antonio in asking for confirmation. To use negative politeness strategies well in English requires a working knowledge of grammatical structures more advanced than those these learners can currently produce. Negative acts must also be mutually understood in order to work.

Scollon and Scollon (1981) discuss interethnic communication problems among Athabaskans and non-Athabaskan, English-speaking North Americans. Applying the politeness theory developed by Brown and Levinson ([1978] 1987) in their analysis, the Scollons reveal that different social uses of politeness strategies

result in severe miscommunication of message and misunderstanding of cultural norms of politeness. The Scollons discuss the clash of a primarily positive-politeness culture (non-Athabaskan, English-speaking) with a primarily negative-politeness culture (Athabaskan) who conduct interactions in English. The Scollons modify the terms positive and negative politeness, talking instead of solidarity and deference politeness systems (1981:175). They argue that deference systems, in which participants show their respect, are better suited to participation by outsiders than solidarity systems, which stress commonalities.

Their discussion of clashes causes me to wonder what the ramifications are for NNS/NNS encounters taking place in a third, target language. In the case of the learners in the current study, English. Perhaps because their interactions are primarily centered on short, repetitive tasks that are new to both participants, face threat is even less possible than it would be in other settings. Perhaps, too, because learners are seeking to communicate as clearly as possible, the tendency to engage in bald-on-record

language is not as potentially detrimental for some as it would be in other settings. Nevertheless, this is something that language educators in multi-ethnic settings need to understand as they foster the development of communicative competence of learners of second languages that are used in culturally diverse societies.

A Note about the Corrective Language of the Computer

Learners correct each other. Teachers correct learners. In addition to interacting with people, learners interact with computers, too. The educational software programs evaluate learner responses, indicating when answers are incorrect, and displaying a summary of incorrect and correct responses when the drill is completed. Although each program has a slightly different way to indicate incorrect responses, most use bald-on-record wording.

Brown and Levinson ([1978] 1987:97) note that the task orientation of the language of recipes and instructions account for the use of bald-on-record language, as face redress is generally irrelevant when the focus is on completing work. Perhaps this, too, accounts for the straightforward language used in

evaluating incorrect learner responses. For example, when learners misspell a vocabulary item when using *Basic Vocabulary Builder*, the software prints the following message to the screen:

'That's not it. Try again.'

Recall that *Basic Vocabulary Builder* has been designed for ESL/EFL learners. This may account for the direct language, too. Unambiguous, direct language is the easiest to understand.

The two children's programs, *Contraction Action* and *Fun from A to Z* each have three different drills for learners to use. While *Contraction Action* tells explains that an answer is incorrect and that the user should try again, *Fun from A to Z* uses no print message to tell learners that they are wrong. In the drill in which learners match upper and lower case letters together, the computer buzzes if an incorrect answer is selected. Then, all multiple choice items except for the correct answer disappear from the screen. In the two sequencing exercises, if a learner presses the wrong key, the entire alphabet appears at the top of the screen, so that the learner may find the letter in

the sequence of the whole alphabet before typing the letter that is missing in the sequence.

The evaluation of learner responses is termed FEEDBACK in literature on CAI and CALL. The feedback afforded the learners who use any of the three drill and practice programs varies slightly in the help offered to the learner. At the bottom of the list is *Basic Vocabulary Builder*. Should a learner misspell a word, no hints, choices, or suggestions are given. Learners only know that they have answered incorrectly. In *Contraction Action*, when learners use the multiple choice program, they can use the process of elimination to select the correct answer, but this does not guarantee that they understand why their second answer is correct. In *Fun from A to Z*, learners are given a hint in the sequencing activities. When the entire alphabet appears on top of the screen, learners are forced to scan for the letter they need in order to correctly type their sequence.

Debates continue on the best approach for conducting feedback. Garrett (1987) in an article treating psycholinguistic perspectives of computers used in grammar instruction and learning, states that

no matter how explicit an explanation is given, there is no evidence that the learner is able to analyze the answer and become a better user of the grammar. She notes that some learners may become annoyed if given an explicit grammatical rule in response to an answer that is incorrect because of a typographical error (175). Certainly, Juan and Kim are frustrated by their inability to spell vocabulary words as they use *Basic Vocabulary Builder*, but whether or not these particular learners would be helped by feedback that gave hints or filled in certain letters is unclear.

In this section, I have examined the politeness strategies that learners and teachers use while correcting each other. I have shown that most interaction built around solving problems on the computer screen involve use of bald-on-record language. Juan and I, when speaking in our native languages, engage in negative politeness strategies. Minh, in deferring to Antonio, also engages in negative politeness. Finally, I have examined the corrective language of the computer, noting that each program has its own way of plainly indicating errors whenever the learners ultimately fail to answer a question

correctly. The following section is the final section of analysis of corrective language. Here I discuss corrective language and accommodation strategies used by teachers and learners.

ACCOMMODATION AND CORRECTIVE LANGUAGE

As detailed in Chapter 3, 'Directives,' in order to communicate their intentions (to direct others or to request assistance for themselves) effectively, participants assess each other's competence and use accommodation strategies when speaking to afford their fellow interlocutors the best chance of understanding them. Because learners are beginning speakers, they use these strategies to compensate for their own limited abilities in English, as well as to accommodate less able learners' understanding. I classify the compensation strategies as being either other-directed or indirect, stating that other-directed strategies are oriented toward communication with an interlocutor, while indirect strategies rely on another's desire to understand that a person needs assistance. Other-directed strategies help learners develop their

communicative competence as they strategize to negotiate meaning, while indirect strategies do not.

In repair and correction, participants generally are engaged in seeking clarification (be it in terms of obtaining a correct answer, or a model of correct pronunciation), or giving clarification (giving the correct answer, helping the other person come up with the correct answer by him- or herself). In this section, I examine the discourse of learners and teachers, explaining the ways in which participants accommodate each other throughout self- and other-correction routines, as they attempt to negotiate meaning.

Speakers may repair their own utterances, taking the initiative on their own or at the prompting of a listener (self-initiated or other-initiated self-repair). Likewise, listeners may respond to a speaker's indication that s/he wants to be corrected or may correct a speaker outright (self-initiated or other-initiated other-repair).

If listeners indicate that they don't understand, speakers may then act to modify utterances. Encounters ripest for negotiation of meaning are other-initiated

self-repair, for in such encounters, a speaker is prompted by a listener to modify utterances to be better understood. I have examined this in instances in which learners have asked for clarification requests. A learner indicates that s/he does not understand, and the speaker, whether learner or teacher, responds with a modification of an earlier utterance.

In addition to encounters in which a listener has orally signalled trouble in understanding, speakers draw up a communication strategy based on their preconceptions of an interlocutor's ability to understand them. Accommodation techniques such as linguistic convergence or simplified register may facilitate the interlocutor's understanding (Giles, Coupland and Coupland 1991).

In like vein, Goffman ([1979] 1981a) details that such behaviors indicate shifts in footing, or the stance that interlocutors take toward themselves and each other during sustained discourse. He states that '[a] continuum must be considered, from gross changes in stance to the most subtle shifts in tone that can be perceived' (128). When individuals engage in

interaction geared around correcting each other, or amending a bad situation, they convey their orientation toward interlocutors and toward the task itself by changes in diction, tone of voice, descriptive gesture and pointing, as well as rephrasing for explicitness.

The following examples are representative of other-directed accommodation strategies learners and teachers use when engaged in correction of others or in self-repair of their utterances as they attempt to accommodate their interlocutors. They include use of gestures, prosodic cues, and explicitness. Each technique is oriented toward improving communication with the interlocutor. Through enhancing interaction with these features, speakers engage interlocutors in meaningful one-on-one interaction.

Gesture

The following examples indicate how gesture, physical cuing, helps facilitate communication, both for the speaker and the addressee. In this section, I cover the use of pointing and mime in discourse.

Pointing. The first non-verbal accommodation strategy I discuss is pointing. In the following two

discourse excerpts, I study an example of a more capable interlocutor (Kim) pointing in order to accommodate her interlocutor's (Mariam) weak comprehension, as she corrects her identification of a letter on the screen. In the second example, the learners (Minh and Maria) are fairly evenly matched in oral English abilities. They use pointing and similar gestures in order to accommodate the difficulties they have in expressing themselves.

Example 4.16 occurs about 30 minutes into Kim and Mariam's interaction. In this segment, the learners are using the drill 'Runners,' part of *Fun from A to Z*. With this software drill, five animated animals in colorful athletic shorts and t-shirts appear to run to a starting line, as if they are preparing to sprint. Each animal has a letter of the alphabet on the front of its t-shirt. The animals stand alphabetically in the starting line. One little runner lags behind.

Given four options from a multiple choice bar, the learner must select the letter that completes the sequence. If the learners select the correct answer, the last runner joins the other at the starting line, and the five animals do a little dance. To clarify,

learners may be presented with **G H I _ K**. In order to get the problem right, they must select **J** as the answer.

Example 4.16: Gesture to accommodate the interlocutor

			(ANIMATED RABBITS RUN UP ON SCREEN.)
	1	Mariam:	G:.
	2		One.
→	3	Kim:	No one. (KIM POINTS WITH PENCIL TO RABBIT WITH AN I ON IT'S T-SHIRT.)
→	4		I:.
	5	Mariam:	I:.
→	6		I [:.]
→	7	Kim:	[J:.] (KIM POINTS TO THE SPACE WHERE THE MISSING RABBIT SHOULD RUN.)
	8	Mariam:	J:.
	9		K:.
→	10	Kim:	Here. (KIM POINTS TO THE J ON THE MULTIPLE CHOICE ANSWER LIST.)

In this example, Mariam is supposed to select **J** from the multiple choice options. Before selecting an answer, Mariam reads off all of the letters that she can. As she is prone to do, Mariam mistakes the letter **I** for the number **1**.

In correcting Mariam, Kim points to the rabbit with the **I** on its t-shirt, telling Mariam the correct name of the letter (lines 3 through 4). Next, in Line 7, Kim points to the space where the rabbit missing

from the start-up should run and states, 'J.' Mariam repeats after Kim. Kim points to the letter *J* on the multiple choice list, and indicates that this is the answer (Line 10, 'Here.').

Kim speaks sparingly. Her simple gestures focus Mariam on important areas of the screen. By keeping her words and gestures simple, she enables Mariam to follow her. Even though using this program probably does not help Mariam improve her alphabet skills to a great degree, the sustained interaction in which she follows directions may help her develop her listening comprehension.

The next example takes place when Minh and Maria have been using *Basic Vocabulary Builder* for a few minutes. The first time they go through the drill they are supposed to copy the target vocabulary words into their notebooks. Then, in subsequent use, they are to practice spelling the words, referring to their lists if necessary.

Minh and Maria are evenly matched in oral communication skills. In the following example, notice how Minh uses gesture to facilitate his argument that Maria should not copy down every word and number on the

screen, but just the target vocabulary item ('secretary,' which appears in the center of the screen, directly below a graphic). Likewise, Maria uses gesture as she interacts with Minh, both confirming that she has understood him, and in signalling that she is ready to move to the next problem.

Example 4.17: Facilitating oral communication with gesture

- 1 Minh: You finished? ↴
 (MINH IS ABOUT TO PRESS THE KEY TO GO ON, BUT HE PAUSES TO ASK MARIA IF SHE IS DONE.)
- 2 Maria: ↴ (f)No.
 3 ata:ry.
 4 Secretary. ↴
- 5 Minh: ↴ Finished?
 6 Maria: No.,
 7 Minh: Oh,
 8 you:,
 9 Long time.
- 10 Maria: Why?
 11 Minh: You write.
 (MINH GESTURES TOWARD MARIA'S NOTEBOOK.)
- 12 Maria: Mechanic,
 13 Eh.
 (MARIA LOOKS AT MINH'S NOTEBOOK.)
- 14 Oh.
 15 You ↴ no no? ↴
 (MARIA SWEEPS HER HAND TOWARD TEXT ON SCREEN.)
- 16 Minh: ↴ No. ↴
 17 No write here.
 (MINH POINTS TO THE SCREEN, INDICATING WHAT HE COPIES AND WHAT HE DOES NOT COPY.)

- 18 Write here.
 → 19 No.
 → 20 No write.
 21 Maria: No no no.
 22 Por por por me,
 23 No problem.
 → 24 My like.
 (MARIA POINTS TO HERSELF AND THEN TO THE SCREEN.)
 25 I like it.
 (MARIA LOOKS AT MINH.)
 26 Me,
 → 27 Yeah.
 (MARIA PUTS HER LEFT HAND TOWARD THE KEYBOARD TO GESTURE THAT MINH MAY PROCEED TO THE NEXT SCREEN. SHE THEN PUTS HER HEAD DOWN AS SHE WRITES IN HER NOTEBOOK.)
 → 28 Yeah. ㄣ
 (MARIA REPEATS HER HAND GESTURE.)
 → 29 Minh: L Finish?
 (MINH LOOKS AT MARIA'S NOTEBOOK.)
 30 Maria: Yeah.
 → 31 Finish.
 (MARIA LOOKS AT MINH AND NODS.)
 → 32 Minh: Yes.
 (MINH NODS HIS HEAD AND GOES TO NEXT PROBLEM.)

Imagine how difficult this exchange would be to understand without gesture!¹⁰ Minh and Maria are expressing complicated ideas with very limited grammatical competence. By accompanying his speech with gesture, Minh is able to tell Maria that he only copies the target vocabulary item. He then points out

¹⁰The examples in this section confirm why videotaping was essential to gather data in this study. Transcription without referral to videotape would have been impossible.

where the item appears on the screen (lines 17 through 20). In line 24, Maria points to herself as she states that she likes to copy everything. Then, in the gesture accompanying lines 27 and 28, Maria indicates that Minh can advance to the next problem. Based on the gesture, Minh asks Maria for confirmation that she is finished (line 29). He checks her notebook to make sure that she has finished writing. They acknowledge to each other that they are both ready to continue by each nodding their heads.

Naturally, it is not only gesture that enables the learners to make themselves understood to each other. They are both talking about something concrete, the computer program they are using. They know from earlier interaction that Maria copies everything, but Minh only copies the vocabulary word. But through gesture, as part of a complex interaction, Maria and Minh are able to visually highlight what they are talking about. By pointing to themselves, areas of the screen, and their notebooks, they indicate to each other that they are both concerned about specific features of their task.

Mime. The following example is a portion of interaction that takes place when I am placing a microphone on Juan's collar. It is an awkward moment because it involves close contact between me (a woman) touching a man near the face. In an effort to detract from the discomfort that Juan might feel and I do feel, I engage in some instructional chatter about the alligator clip. Kim interjects briefly to hand me a paper. (This has been omitted from the following transcript so that readers may focus on my interaction with Juan.)

In the example, both Juan and I mime an alligator's actions. Once Juan indicates that he does not know what an alligator is (line 7), I attempt to elaborate so that he will understand. I try to use simple language (such as the adjective, 'big') until I come up with the idea to compare an alligator to an iguana, a lizard that lives in El Salvador (Juan's homeland). I include this example because it demonstrates how teachers repair their own utterances in attempts to modify input for language learners. Here, as shall be seen, I engage in a type of overaccommodation that Erickson and Schultz (1982) call

hyperexplanation. I keep redefining my explanation of 'alligator' until Juan is forced to stop me by insisting that he understands.

Example 4.18: Mime

	1	Susan:	This is-you know,
	2		This little clip is called→
	3		an alligator clip.
	4	Juan:	Alligator clip.
→	5	Susan:	Do you know the animal→
→	6		alligator?
	7	Juan:	<i>Juan shakes his head no.</i>
	8	Susan:	They live in Florida,
	9		In the water,
→	10		And they go like this,
			(I MAKE A SNAPPING MOVEMENT WITH THE CLIP.)
	11		They're like big lizards,
	12	Juan:	Oh,
	13		Yeah,
→	14		They going up.
			(JUAN PUSHES HIS HANDS UP AS IF TO IMITATE AN ALLIGATOR SURFACING.)
→	15	Susan:	They're big,
→	16		They look like,
→	17		They look like an iguana,
→	18		Only they're big.
→	19		They're-they're big lizards,
	20		Yeah,

In line 5, I ask Juan if he knows what an alligator is. When he responds that he does not (line 6), I begin to describe what an alligator looks like. Even though Juan has indicated that he now knows what the word 'alligator' means by both describing its movement (line 14, 'They going up.') and accompanying his description with gesture, I continue. Because he does not change

the pitch or loudness of his voice in line 14, I am not cued to recognize that he has understood. Furthermore, I am preoccupied with my description. During the whole sequence, I have been rephrasing myself, fishing for the name of a lizard that Juan will recognize: 'iguana' (lines 15 through 19). At this point, I ask Juan if I may borrow his pen, and I draw a picture of an alligator.

	21	Susan:	Here.
	22		May I?
	23		Your pen?
	24	Juan:	Yes.
	25	Susan:	Yeah.
	26		The alligator looks like this.
	27		Has a lo:ng tail,
	28		And big teeth.
	29		And they live in the water.
→	30	Juan:	Oh _(acc) yeah yeah yeah yeah→
→	31		yeah. } Okay. }
	32	Susan:	
→	33	Juan:	} Yeah yeah→
→	34		yeah yeah.
	35		I know.
	36	Susan:	They call them an alligator→
	37		clip,
	38		Because it looks like an→
	39		alligator's mouth.
	40		And I'm going to clip it.
	41		Right on your collar,
	42		Here.

When Juan addresses me with a quick string of 'yeahs' (lines 33 and 34), he signals that he knows what an alligator is. Still, I press on by summarizing that an

alligator clip looks like an alligator's mouth, and I will clip his collar with it.

In continuing to modify my explanation of 'alligator' I surpass Juan's need for the explanation. I have imitated one, modified a description of one, even drawn a picture of one. I have given him every possible cue. Perhaps I am so focused on conveying the message that I do not concentrate on the interaction as it unfolds. Clearly, early on in my explanation (lines 12 through 14), Juan indicates understanding. I overaccommodate his NNS status to such an extreme that I cause him to indicate my overaccommodating behavior. By summarizing my explanation, I indulge my need to create a complete explanation for him, over his previously registered understanding.

In the past three examples, I have examined the use of gesture as pointing and mime. Gesture serves an important role in each of these interethnic encounters. Pointing and mime ensure that participants are focused on the same topic. Pointing is a physically active signal that individuals are involved in an interaction. Pointing to on-screen text or graphics or to each other ensures that participants clearly understand points of

reference. Mime fills in where words are inadequate-- either because a speaker cannot express himself with words alone, or because a speaker perceives that gesture will help the audience understand better.

Despite differences in speaking abilities, pointing and mime facilitate communication. Especially in the case of Mariam and Kim, where Mariam speaks and understands hardly any English at all, Kim's routine way of pointing to keys or to pictures as she discusses them facilitates Mariam's ability to participate one-on-one.

Prosody. In order to facilitate comprehension, speakers use prosodic cues to signal changes in ongoing interaction to interlocutors (Goffman [1979] 1981a:128, Gumperz 1982). For example, rising intonation at the end of an American English utterance probably signals that the speaker is either asking a yes/no question, or is uncertain about what s/he has just said. Likewise, second language learners use prosodic cues as signals to their interlocutors. In the following example, Antonio changes his pitch on the word 'here,' as he points to specific areas on the screen. By so doing, he is both verbally and physically highlighting the

crux of his argument: Don't hurry in selecting an answer--read the question and the answer options first.

Example 4.19: Prosody

	1	What do you think.
		(4 SECOND SILENCE.)
	2	Minh: Was not, []
		(MINH POINTS TO MULTIPLE CHOICE ANSWERS.)
	3	Antonio: [okay.] []
	4	Minh: [] Was not.
	5	Antonio: Wait wait wait.
	6	Okay.
→	7	You have to read first.
→	8	First you look 'hé:re,
		(ANTONIO POINTS TO PROBLEM ON SCREEN.)
→	9	Hé:re,
		(ANTONIO POINTS TO MULTIPLE-CHOICE ANSWERS.)
	10	And,
	11	you think.
		(ANTONIO POINTS TO HIS HEAD.)
	12	What's.
	13	What's.

Antonio, in an attempt to prevent Minh from answering a question incorrectly, slows him down by asking him to wait. In line 7, he instructs Minh to read first. Then, in order to emphasize how Minh is to read the screen, he contrasts high pitch to low on the word 'here' in lines 8 and 9. He prolongs the vowel. In addition to using prosody for emphasis, he points, first to the on-screen question and then to the multiple-choice answers.

Explicitness. As discussed in example 4.16, beginning learners can facilitate the comprehension of their less-capable partners. Kim uses sparing, simple gesture when communicating with Mariam. In example 4.4 (p. 269) I examined how rephrasing an utterance in order to simplify helped Minh understand Antonio. In the following example, I demonstrate how explicitness in explanation facilitates communication. In example 4.20, Antonio tells Minh that it is his turn to answer a multiple choice question.

Example 4.20: Explicitness

	1	Minh:	Hee-hee-hee.
	2		See dog. ʘ
			[HE CONTINUES TO GIGGLE. A NEW PROBLEM APPEARS ON THE SCREEN.]
	3	Antonio:	↳ Huh.
→	4		Again.
→	5		You.
			[ONE SECOND SILENCE]
	6	Minh:	Yeah.
	7		[ONE SECOND SILENCE]
	8		Who is. ʘ
			[MINH READS THIS ALOUD FROM SCREEN.]
→	9	Antonio:	↳ Who is.
→	10		Okay.
→	11		Go 'head.
			[THREE SECOND SILENCE]
	12	Minh:	Yes.
→	13	Antonio:	Go ahead.
→	14		How are you,
→	15		'Thinking.
	16		/ ? /

[MINH SELECTS AN ANSWER AND IT IS
EVALUATED AS BEING CORRECT.]

17 Minh: Oy:.
18 Antonio: You're right.
19 Minh: Yea:h.
20 Good.

In this example, Antonio encourages Minh to take a turn at answering. He accomplishes this initially in lines 4 and 5, when he selects Minh to go next by saying, 'Again. You.' When Minh does not type his answer, but instead reads the question prompt from the screen ('Who is. '), Antonio acknowledges Minh's utterance by repeating (line 9) and modifies his previously uttered directive by saying, 'Okay. Go 'head.' (lines 10-11). After three seconds, Minh responds with 'Yes.' (line 12). Unsatisfied that Minh has still not solved the on-screen problem, Antonio repeats the directive 'Go ahead,' and further modifies it by asking Minh, 'How are you thinking?' in lines 14-15. Minh finally keys in an answer and gets the problem right.

Each time that Antonio modifies his utterance, he uses more explicit language to encourage Minh to solve the on-screen problem. His initial directive serves to select Minh as the keyboarder and problem solver. The next directive is more forceful ('Go 'head.'). The final directive consists of an imperative ('Go ahead.')

and a wh- question ('How are you thinking?'), aimed to get Minh to answer the question and say what he thinks. Rather than abandon attempts to get Minh to understand him, Antonio persists in speaking more and more explicitly until Minh carries through with his directive.

When learners and teachers interact with each other, either in repairing their own speech, suggesting repair in others, or correcting others' actions, communication can be complicated. In order to ensure maximum comprehensibility, participants strive to assist their interlocutors' understandings. In so doing they may either compensate for their limitations in the target language, or accommodate their weaker interlocutors. Here, I have examined gesture, prosody, simplification, and explicitness.

CONCLUSION

In this chapter, I have examined repair routines enacted by participants as they work together. Learners, I have shown, prefer self-repair to other-repair when working together. Teachers tend to other-initiate repair with learners. For the negotiation of meaning, other-initiated self-repair is ideal, because speakers are prompted to rephrase themselves. From analysis of the data, it seems that there are many opportunities for learners to engage in other-initiated self-repair when interacting with other learners or with teachers. The more opportunities for extended practice of negotiation of meaning the more learners are able to modify their interlanguage and strengthen their knowledge of the target language (Pica 1993).

In examining corrective utterances for politeness, I have shown that most corrective utterances issued by learners to each other are bald on record. This occurs for many reasons. Imperatives, by definition bald on record, are the hallmarks of task-oriented discourse (Ervin-Tripp 1976). Bald on record is generally accompanied by utterances marked for positive politeness. However, when speakers use their native

language (English for the teacher, and Spanish for the one learner whose discourse was analyzed), there are examples of negative politeness strategies.

Use of negative politeness strategies requires knowledge of culture and command of more complex grammar than do bald-on-record utterances. I suggest that it is necessary, as part of grammatical competence, to understand the social contexts in which phrases indicating negative politeness are best used.

Positive politeness is often more direct than negative politeness. Beginning speakers engaged in a task need to communicate clearly, efficiently, and directly. Bald-on-record and positive politeness strategies enable such communication to occur.

Finally, the language of repair and correction can be complex. In order to best convey ideas to interlocutors, speakers may engage in accommodative strategies. Strategies such as gesture, using prosodic cues, and simplification can facilitate communication. Learners may need to compensate for limited abilities in the target language. Likewise, learners and teachers may attempt to accommodate perceived inadequacies in their interlocutors' ability to

understand either by simplifying language, being more explicit, or by supplementing speech physically, through gesture.

The last section of this chapter hints at the importance of involvement among participants in a discourse. The desire to accommodate interlocutors is apparent in the creative accommodation strategies that speakers use. In the next chapter, I examine how repetition facilitates learner and teacher involvement in creating meaning in English.

Chapter 5: Repetition

(acc) Oh boy. Oh boy. Oh boy.
Oh.
Oh wow. Oh wow. Oh wow. Oh wow.
--Minh reacts to an
on-screen image

INTRODUCTION

Repetition is a necessary and ordinary feature of spoken discourse. In analyzing repetition in conversation, Tannen (1987b:215) defines the term as 'a pervasive type of spontaneous pre-patterning.' As such, repetition encompasses a range of discourse practices, from exact reiteration to paraphrasing. Repetition may occur at times along a temporal continuum from the moment immediately following an utterance to a point in the distant future.

Not surprisingly, repetition is abundant in the speech of new learners of English. It is a way to commit a new language to memory, to create a history of use within a new language. Repeating, paraphrasing, and shifting the syntactic position of words and phrases within the course of an interaction aid learners in improving fluency in a second language (Pica 1993). Phrases recycled in different communicative contexts over time aid the language

learner in becoming at-home in a new language (Becker, 1984, 1994). I propose that learners and their teachers exploit forms of repetition in their discourse because such strategies (among others) facilitate communication and language learning (Oxford 1990).

At the same time individuals engage in forms of repetition they use the language in a singular, unique way. Double-voicedness (Bakhtin 1986) describes the quality that makes all utterances unique. Each utterance reflects connectedness of expression to a sign system as well as to prior utterance. Likewise, each utterance expresses the author's relationship to the emergent text and previous utterances.¹ For when individuals speak, they color each utterance with prosodic features to convey meaning (Gumperz 1982:100). Changes in intonation, prolonging of vowel sounds, and changes in loudness are expressive, both conveying meaning as well as influencing the listeners' interpretations of an utterance, even if it appears to

¹See Chapter 1, 'Introduction and Literature Review' (pp. 115-116) for background on this term, as used by Bakhtin's circle.

be as simple as the repetition of their own or another's words.²

Individuals rely on past experience to interpret the new. The language of previous experience resurfaces in the emergent. Not only is this the case in conversational, literary, and narrative discourse, but it is the case in institutional discourse as well. In the current study, learners and teachers use forms of repetition to varying degrees. They may phrase certain types of utterances similarly in recurrent, similar contexts. This does not mean that study participants are speaking as if preprogrammed. As Tannen (1987b:218) observes, use of repetition does not make individuals less autonomous. Likewise, Linell and Luckmann (1991:12) report that within institutional discourse 'interactants regularly collaborate on the reconstitution of roles and positions.' This harkens back to Gumperz's (1982:1) observation that '[c]ommunication is a social activity requiring the coordinated efforts of two or more individuals,' regardless of where it takes place.

²See Gumperz (1982: Chapter 5) for the analysis of problems in interethnic communication resulting from misinterpretation of prosody.

All participants in the present study are involved in complex interethnic communication. For the learners, this involves communicating in a second language, both with each other and with their teachers. Studies of interethnic communication generally examine communication between members of a minority and a majority or native speakers of a language with non-native speakers. This situation is somewhat different. Here, the majority of the communication emerges between pairs of learners speaking a second language of which they have little command. Therefore, it is important to note the features of successful interaction (such as those discussed in example 5.1 below).³ When teachers

³ Use of contrastive rhetorical models (e.g., Kaplan 1966) to explain problems in writing in a second language and contrastive analysis to explain typical errors in second language grammar and pronunciation have been criticized as misleading. Therefore, I am hesitant to make culturally based claims regarding the use of repetition in discourse based solely on six people engaged in communicating in a second language.

One must be cautious in making generalizations, attributing all strategies used in the development of competence in a target language to differences between source and target cultures or source and target languages. See Swales (1990: Chapter 3) for detailed treatment of discourse genre and a critique of contrastive rhetoric, especially with regard to individuals' native language literacy. See Celce-Murcia and Hawkins (1985) for thoughtful criticism of use of contrastive analysis in teaching grammar and pronunciation.

work with the learners, they must modify how they address them in English. Similarly, learners who are more competent speakers simplify their utterances when interacting with less competent speakers. (This has been discussed at length in Chapter 4, 'Repair and Correction,' in an explanation of self-repair teachers apply to their utterances).

As discussed in Chapter 1, 'Introduction and Literature Review,' repetition (in terms of pre-patterning) is related to the concepts of frame and schema. For example, phrasing of a previously related personal narrative often remains similar or the same in a new telling because that which is being repeated is emotionally salient or the major point of the narrative (Tannen 1987b:228, 1989:56). Similarly, primary oral cultures throughout history have depended on mnemonic organizational strategies (among these formulaic expressions, rhyme scheme, and rhythm) to recall tales, epic poetry, genealogies, etc. (Ong 1982). Although the participants (myself included) in this study are not relaying epics or recounting personal narratives that we have told often in the past, I demonstrate how pre-patterning works to frame familiar contexts, and

how learners create patterns to facilitate their interaction within new routines. I rely upon research in second language acquisition and language learning strategies to demonstrate the value that repetition has in enabling adult learners of ESL to make meaning in their target language.

Following Tannen's (1987a, 1987b, 1989) and Norrick's (1987) observations regarding forms and functions of repetition, I examine how study participants use forms of repetition in the discourse they create. The learners and teachers, while working with drill and practice educational software, demonstrate that repetition is an important and necessary discursive device on many levels. Repetition of words and phrases provides for economical lexical reference to previous discourse (Brown and Yule 1983b, Tannen 1987a, 1989). Economy of speech is at a premium when participants are talking during the completion of a challenging intellectual task, which is comprised largely of transactional short turns. On an emotional level, learners may repeat to emphasize or evaluate the importance of an issue. Learners also use repetition in order to accommodate each other's perceived

understanding when working toward completion of a task. Learners may also repeat to themselves or repeat after a teacher in order to practice pronunciation and to commit a phrase to memory.

The learners participating in the present study use drill and practice programs. Such programs usually are not used to teach new concepts. In general, teachers have learners use these programs either to afford them practice or to test them on previously studied material. Such programs require users to select the correct answer from a multiple choice series, to match similar terms, or to type correct responses. For adult, low literate, new learners of English, drill and practice is the only type of content-specific educational software available.⁴

Drill and practice formats are prefabricated in the way that they present language problems. Learners rely upon a given, familiar presentation format in order to understand how they are to respond. The pattern of their interaction while on task is related to the structure of the educational program they use.

⁴This does not preclude the use of word processing, graphics, and simple desktop publishing software, an idea I explore in Chapter 6, 'Conclusion.'

For example, when learners use such drill and practice software together, there are many instances in which they repeat answers as they input information or as they select the proper multiple choice answer.

After working through a few problems, most learners quickly understand that there is a procedure for using the educational programs.⁵ In Chapter 4, 'Repair and Correction,' I have analyzed discourse excerpts demonstrating that learners understand that a procedure must be followed. For example, Antonio tells Minh that he must first look at the problem and next at the multiple choice answers before making a selection. Minh instructs Maria that she should only copy the target vocabulary items because these are the words they will need to draw from when they later engage in spelling. In this chapter, I examine how the repetitive drill and practice format affects how the

⁵That there is a procedure to using programs may seem obvious to the reader, but is not to the learner. The screen presents at least two types of information to the learner: lesson content and program commands (e.g. 'Press space bar to continue.'). Even with learners more advanced in literacy skills than these, I often have to point out where certain information is located on the screen, and where they should look first.

learners establish and carry out their interaction routine.

FORMS AND FUNCTIONS OF REPETITION

As discussed in Chapter 1, 'Introduction and Literature Review,' Tannen (1987a, 1989) names several forms of repetition which form a continuum ranging from verbatim repetition to paraphrase, or from fixity to novelty. One may repeat oneself or another. Repetition may occur immediately after an initial utterance or years later. In this section, I present analyses of the functions of different forms of repetition. Examples are drawn from both learner-learner and teacher-learner interaction.

Tannen details five functions of repetition in conversational discourse. These are:

- to facilitate production
 - to aid comprehension
 - to strengthen discourse connection (cohesion)
 - to accomplish interactional goals
 - previous four functions when taken together provide a fifth function: to maintain conversational coherence
- (1987a:581, 1989:3)

Analysis of discourse data from the current study indicates that repetition accomplishes the same

functions in the task-talk of institutional (in the case of this study, educational) as well as of conversational discourse.

For example, repetition of words and phrases provides for economical lexical reference to previous discourse when uttered during the completion of a challenging intellectual task. On an emotional level, learners and teachers may repeat to emphasize the importance of an issue. Learners also use repetition in order to establish interactional cues (which I term communicative signals), framing stages of their pair work (e.g. signalling when to continue with a task, and when to stop). Recognizing such cues is an important feature of sociolinguistic competence. Examples from the continuum of form are explained below.

Intonation and Repetition

Fixity: Same words, different intonation. The following excerpt provides a clear example of how shifts in intonation convey meaning. Mariam, an illiterate Afghani woman with little communicative skill in English, is not sure if the letter she is pointing to in *Fun from A to Z* is correct. She relies

on the assistance of Kim, her Cambodian partner. Phonetic transcription of utterances appears on the right.⁶

Example 5.1: Repetition with change in intonation

1	Kim:	R.	1	[a::].
2	Mariam:	R:?	2	[ʔʔʔ ^h :]?
3	Kim:	Yes.	3	[jɛ?].
4		R.	4	[a:].
5	Mariam:	R,	5	[ʔʔʔ ^h :],
		(KIM PRESSES RETURN.)		

In this example, Mariam uses repetition and intonation to convey a confirmation request. She also repeats to confirm that she has understood. Kim understands and responds to these repetitive utterances.

Notice that Kim and Mariam each pronounce 'R' differently. Kim does not sound out the retroflex consonant; rather, she sustains the vowel: [a::] (lines 1 and 4, although not sustained as long in line 4). On the other hand, Mariam pronounces 'R' with a glottal stop and ends with the trilled sound: [ʔ]. Even though each learner pronounces the name of this letter differently, they both know that they are talking about

⁶Refer to Chapter 2, 'Method,' for information on transcription conventions.

the same referent from the context. Their eyes are on the screen in front of them. The only letters on the screen are the 'R' on the breast of a bird on the limb of a tree with an 'R' on its trunk.

Likewise, from context Kim knows that Mariam is asking for confirmation or clarification from the intonation she uses when uttering, 'R:?' in line 2 and not confirming what Kim has said. Were this the case, Mariam probably would have said, 'R.' When Mariam does this, she speaks topically (Brown and Yule 1983a:84). She links her discourse contribution to that of Kim. Likewise, Kim does this for Mariam. When saying, 'Yes. R.' in lines 3 and 4, Kim accomplishes many discourse functions.

1. She acknowledges that Mariam has asked her a question.
2. She signals her confirmation both with the word 'yes' and by using utterance final intonation.
3. She links her contribution topically to that of Mariam, in part by repeating the focus of their interaction, 'R.'

In this successful interaction, Mariam and Kim not only share topic and context, but they also share the intonational contextualization cues of their target language which frame the sequence as a question-answer-

confirmation set within this setting. This much accomplished, Kim presses the return key to continue the lesson.

Fixity: different words, same intonation. The previous example shows how changes in intonation alter meaning, even if words remain the same. The converse is also true. Intonation may remain the same, while words change. Consider the following example, in which Juan follows Kim to the beat in identifying a vocabulary item.

Example 5.2: Change in lexical items, same intonation

	1	Juan:	Twenty fi:ve.	} Bicycle.→
→	2	Kim:		
→	3	Juan:	Motorcycle.	

In this example, Juan corrects Kim as she attempts to identify a graphic on the screen. Kim incorrectly identifies the graphic as being a bicycle (line 2), when it is actually a motorcycle, as Juan points out (line 3). Juan latches immediately onto Kim's utterance, and parrots her intonation contour in the process.

Intonation contours accompanied by phonetic transcription of the utterances comprising lines 2 and

3 follow. **Boldface** indicates an increase in loudness.

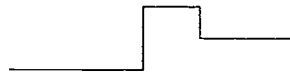
Italics indicates rapid speech.

i>

bí: cý **cle:** [bái: sí **kθ:l**]



mò *tor* cý: **cle:** [mò *řor* sái: kθ:l]



Notice that the intonation contours are nearly identical. Juan quickly pronounces the first two syllables of 'motorcycle' and stresses the third syllable, causing it to match the stress that Kim gives the first syllable of 'bicycle.' Juan also emphasizes the assonance of [ai] shared between the first syllable of 'bicycle' and the third syllable of 'motorcycle.' Additionally, he prolongs the vowel in the last syllable of 'motorcycle,' matching the prolongation of the last vowel sound in Kim's pronunciation of 'bicycle.' By fitting his utterance to the rhythm, rhyme, and intonation of Kim's, Juan slips a correction into the discourse without disrupting the flow of the interaction.

Fixity of form: adding new information to old.

Brown and Yule (1983b:7-9) note that speakers demonstrate a preference for adding one bit of new information at a time when composing a descriptive utterance, as in example 5.3 below. Antonio is telling Minh that he must move 'the man' (an animated sign painter) with the curser to the correct answer.

Example 5.3: Self-repetition with elaboration

- | | | | |
|---|---|----------|---------------------|
| | 1 | Antonio: | What are you doing. |
| | 2 | | See? |
| → | 3 | | Movin' this.] |
| | 4 | Minh: | No? |
| → | 5 | Antonio: | Movin' the man. |

In this case, Antonio substitutes a general term, 'this,' (line 3) with a specific noun, 'the man' (line 5). He anchors both utterances with the verb, 'movin'.'

Recall that Terrell (1977, 1982) states that repetition is one way in which teachers may acknowledge learner contribution to discourse and build upon it. Teachers and learners talk together to employ repetition in order to facilitate group interaction around a topic. Example 5.4 below highlights this feature. In this example, Minh, Antonio and Liz express their enjoyment of the animated graphic of a

sign painter and his little dog. The learners have finished the first program drill, and the painter and his dog appear to be walking off the screen. The dog wags its little tail as it follows the painter.

Example 5.4: Allo-repetition in showing rapport

	1	Liz:	Look at the dog.	└	
	2	Minh:		└	Heh.
	3		Heh-heh.		
→	4	Antonio:	See he goes.		
→	5		There he goes.		
→	6	Liz:	He's going home.	└	
	7	Minh:		└	Yeah.
→	8	Antonio:	Take a break.	└	
→	9	Liz:		└	Take a break.→
→	10	Antonio:	Take a break.		

In this example, Liz points out the animated dog to Antonio and Minh (line 1). Antonio describes the dog's movement with, 'See he goes. There he goes.' (lines 4 and 5). Liz contributes to the theme of 'going' by saying, 'He's going home.' (line 6). In line 8, Antonio utters an often-heard phrase that Truman teachers use to call students to a scheduled fifteen minute time-out. Antonio utters, 'Take a break.' Liz latches onto Antonio's utterance, repeating (line 9). Likewise, Antonio latches onto Liz's utterance (line 10). This cascade of repetition, along with Minh's laughter (lines 2 and 3) signals the trio's enjoyment of the little dog's antics.

Expressing Humor: Jokes and Playful Code Switching

In the following examples, different degrees of fixity and novelty are incorporated in the utterances of speakers. In these examples we shall observe how new learners of English may use repetition to make jokes and engage in playful code switching. Tannen (1987b:233, 1989:64) discusses repetition for the sake of *SAVORING*--in which an interlocutor demonstrates appreciation for a previous utterance by repeating it. Additionally, interlocutors may pick up on rhyme schemes, transpose words, or otherwise engage in clever variation of another's utterance to humorous effect. (See Norrick 1987, 1994, Tannen 1989.) Learners and teachers in this study also exploit forms of repetition to create jokes and express delight in a humorous situation. The following excerpts demonstrate uses of repetition in playful code switching, savoring, and absurd description.

Code switching. When Maria works with Minh, she occasionally switches from English to Spanish while talking to him. The next example is preceded by a lot of laughter. They have answered a question appropriately. Minh has indicated that he is happy by

issuing forth a high pitched crow of delight. Maria laughs both at and with Minh. Perhaps this deleterious, giddy experience paves the way for Maria's teasing and silly switching between 'pilot' and the Spanish equivalent, 'piloto.'

Example 5.5: Code switching

	1	Maria:	Alright.
	2	Minh:	/Wait./
			[MINH LOOKS AT MARIA AND THEY MAKE EYE CONTACT. HE LAUGHS.]
	3		Heh-heh.
	4	Maria:	Heh-heh.
	5		Qual es? [GLOSS: WHAT IS IT?]
	6		Why?
	7	Minh:	Why?
→	8	Maria:	Pilot. (pronounced [pi ló:t])
→	9		Es is piloto. (pronounced [pi ló to])
→	10		Pilot.
	11		Yeah.
→	12		Es pilot.
	13	Minh:	/Wait./
	14	Maria:	Heh-heh.
→	15		Es is piloto.
→	16		Piloto.
	17	Minh:	Where.]
→	18	Maria:] Piloto. [MARIA POINTS TO THE SCREEN.]

This segment of the interaction occurs shortly before the class ends. Maria and Minh are winding down after working together for about an hour. They have practiced the list of occupational terms twice already. The mood is light and giggly.

When the graphic of a pilot appears on the screen, Minh is able to locate the word in his notebook and type it into the computer. When his answer has been evaluated as incorrect, it causes him to question whether the graphic really represents another word or if he has incorrectly typed the word 'pilot.' Maria assures him, by pointing and repeating pilot/piloto, that the graphic is of a pilot. Why Maria chooses to tease Minh with Spanish is unclear. She demonstrates that she knows the English equivalent for 'piloto,' 'pilot.' She laughs as Minh scans his notebook for the correct spelling of the word, and continues to talk with him in Spanish.

Perhaps Maria does this because she recognizes the cognate. Previously, she has said the names of other occupational titles in Spanish, but to herself. Here, she is attempting to communicate with Minh in Spanish. At any rate, Minh does not appear to get the joke, even though Maria seems amused. In fact, it seems as if Maria enjoys making a confusing situation even more confusing.

Savoring. People may repeat a funny line because they have enjoyed it and wish others to do so. In example 5.4, Liz repeats Antonio's 'Take a break,' as he comments on an animated dog's behavior. Liz savors the funny remark. The following example shows something similar. Minh and Antonio work together, with Liz, their classroom teacher, standing behind Antonio's chair. Here, Minh savors by repeating after Antonio.

Example 5.6: Savoring

→	1	Antonio:	See the dog?
	2	Minh:	Hmm.]
	3	Antonio:	Huh.
	4	Minh:	Hee-hee-hee.
→	5		See dog.

In this example, Minh shares Antonio's enjoyment. His repetition of Antonio's utterance (line 5) shows 1) that he has heard Antonio's question (line 1) and is responding to it, 2) that he, too, finds the little dog funny.

Absurd description. The following example involves the animated dog yet again. In this example, the conversationalists discuss the dog and his master as if they were Truman School students.

Example 5.7: Absurd description

1 Antonio: Now it's go.] So they go
 2 Susan: away.
 → 3 Antonio: Take a break.] Hah [hah.] →
 4 Susan: Take]
 → 5 Minh: a break.
 → 6 Antonio: Hah.] Go outside.
 → 7 Minh: Ma-Maybe they go to Seven →
 → 8 Susan: Eleven and get some coffee.
 → 9 Antonio: Heh-heh-heh.] And a little.
 → 10 Susan: Meat for the dog.] Hah-heh.
 → 11 Antonio:
 → 12
 → 13
 → 14

In this excerpt, the conversationalists project the daily reality of studying at Truman Center onto the animated sign painter and his dog.⁷ Antonio begins this by announcing to the animations that they should 'Take a break' (line 3). Susan and Minh join in by laughing and repeating (lines 4 and 5). Minh extends the idea even further, by stating that the animations 'Go outside' (line 8). Finally, I paint a picture of the computerized characters walking across the street for coffee and snacks from the convenience store, just

⁷In lines 1 and 2, there is an example of me, the teacher, remodeling the phrase uttered by Antonio. I change his, 'Now it's go.' to 'So they go away.' This type of corrective feedback through paraphrase is discussed later in this chapter.

like Truman students do at the class break (lines 9 through 13).

In this excerpt, when the learners utter 'Take a break,' two different time scales for repetition are represented: immediate and long term. First, Minh gleefully savors Antonio's 'Take a break,' as soon as Antonio says it. 'Take a break' and the other funny comments (reference to going outside and to Seven-Eleven) come from the daily classroom language that learners and teachers use and apply to themselves. At 10:30 every morning, teachers announce to their classes that they are to 'take a break.' Teachers may embellish this with the directive, 'Go outside.' Many Truman students troop across the street to buy coffee and danish from the Seven-Eleven. 'Take a break' constitutes an example of pre-patterned language, language that is used as an unanalyzed, whole expression (Oxford 1990).

When the learners address the animated characters with 'Take a break' and 'Go outside,' they use the language that teachers usually use with them. In applying this language to computerized characters, the learners and I use language in a playfully absurd way.

We are applying our own routine to imaginary 'classmates' while extending the use of commonly used and heard language to a new context of situation.

It is a wonderful thing to express humor in one's second language and to share this humor with others. It is a way in which we acknowledge our commonality. This is precisely what occurs here. Learners project their experience of language as it affects them everyday and apply it to something new. They are, as Becker (1984, 1994) would likely note, creatively applying their knowledge of prior texts to new situations.

Incorporation of Computer Language into Learner Discourse

In using computers in their educational experience, learners acquire a new domain of expressions, such as 'space bar,' 'return,' and 'arrow key.'⁸ Learners are able to incorporate use of these

⁸Everyday use of computer technology has altered the way in which we use the language. Just recently, I had a discussion with somebody about the way we casually talk about 'creating a document' with word processing software, when we used to merely 'type letters' with typewriters. I remember when the verb 'create' was used almost solely to refer to the beginnings of humanity and the world as described in

terms into their utterances with each other. They may also borrow whole phrases from the on-screen computer text and apply them where they feel it is appropriate when communicating with another learner. A learner may read aloud or rephrase on-screen text in order that his/her partner will understand it. Examples of these uses follow.

Borrowing computer text. In the next example, Maria is attempting to pronounce one of the vocabulary items that she has just copied from the screen into her notebook. Minh is anxious for her to finish up so that they can go on to the next problem. Maria borrows a phrase that flashes onto the monitor screen whenever the disk drive is busy, 'One moment please.'

Example 5.8: 'Borrowing' computer language

	1	Maria:	R.
	2		Arts.
	3		Arts.
	4		Arts.
	5		Arts.
	6	Minh:	R.
	7		You know.
→	8	Maria:	One moment please.
	9		/ ? / esto.
			(GLOSS: /?/ THIS ONE.)
	10		Arts.

the Book of Genesis or to the making of an artwork, and a 'document' was a written record of historical import, like the Magna Carta.

In this example, Maria utters the phrase, 'one moment please,' (line 8) to tell Minh that she would like him to give her a few more minutes.

There are two interesting features of the incorporation of this borrowed language. First, Maria utters the complete computer text as a whole chunk of text. It is a pre-patterned, unanalyzed phrase. Secondly, the phrase 'one moment please' is of a formal register. It seems too polite for interaction between peers. Such a phrase is associated with operators transferring telephone calls, or with receptionists asking business visitors to wait while reporting to a superior that a person with an appointment is waiting in the lobby.

Maria uses this phrase in order to get Minh to stop talking to her, so that she may concentrate on trying to pronounce the word 'artist' and to make sure that she has written it down properly. She is using it without regard to register. This points to Maria's status as a beginning speaker. The memorized pre-patterned phrases that she is able to utter fluidly stand in contrast to her one-word utterances laden with

intonational cues. Gradually, as her fluency and sociolinguistic competence develops, she will be able to utter longer chunks of speech with a sensitivity to appropriate register.

Even though her use of this phrase may sound odd, using it points to Maria's resourcefulness as a language learner. By incorporating a formulaic expression she has recently seen on the computer screen, Maria is able to express herself and apply a new phrase to serve her communicative needs.

Paraphrasing on-screen language. Learners and teachers may choose to paraphrase on-screen language in an attempt to compensate for what they perceive to be their interlocutors' inability to understand on-screen text. The following excerpt demonstrates this. In the example, Antonio is explaining to Minh that he is to wait.

Example 5.9: Paraphrasing on-screen text

	1	Antonio:	Wait wait wait wait.
	2	Minh:	Yes no?
	3		Again?
	4		Again,
	5		Yes no?
	6		Yes.
	7	Antonio:	Yes.
	8		/ ? /
→	9		One moment please.
			[ANTONIO READS FROM SCREEN.]

→ 10 You have to wait.
 → 11 Okay?
 → 12 Wait.
 13 Now.
 14 Again.
 15 Heh.
 16 Is your name Minh?
 [ANTONIO READS FROM SCREEN.]
 17 Okay.

This excerpt captures interaction as Antonio and Minh end one drill and are about to begin a new one. The on-screen message, 'one moment please,' appears on the screen, and Antonio reads it aloud (line 9). He then paraphrases it, telling Minh, 'You have to wait. Okay? Wait.' (lines 10 through 12).

In this example, Antonio reads aloud and then paraphrases for Minh. In so doing, he reflects a change in register from that of the politely distant computer phrase to one that reflects the language he uses with Minh throughout their interaction. Antonio demonstrates that he has some facility in shifting between registers. He also demonstrates an ability to simplify language, from the indirect 'one moment please' to the explicit 'wait.' Finally, he emphasizes that not only does the computer program require that users refrain from keyboarding, but that he, Antonio, wants Minh to refrain from this activity as well.

In the next section, I show how teachers modify learner utterances in order to build rapport while modeling proper grammatical construction.

Teachers Paraphrase Learner Utterances

In the next example, Maria tells me that her husband has a computer at home and that her youngest daughter uses computers at pre-school. I paraphrase what she is telling me. By so doing, I demonstrate that I have comprehended her. I also ratify her contributions to the discourse. By showing interest in this way, I encourage Maria to continue telling me about her family's experience with computers. In this way, paraphrased repetition serves as an interactional device.

Example 5.10: Teacher paraphrase of learner utterance

	1	Maria:	Yeah,
	2		Yeah,
→	3		Computer,
→	4		at my house.
→	5	Susan:	You have a computer→
→	6		at your house?
→	7	Maria:	Oh yeah,
→	8		My husband.
→	9	Susan:	Your husband has a computer?→
→	10	Maria:	Yeah. ㄱ
	11	Susan:	Oh,
	12		I didn't know that.
	13		Oh. ㄱ

14 Maria: ↳ Heh-heh. ↳
 15 Susan: ↳ That's→
 16 interesting. ↳
 17 Maria: ↳ I like.→
 18 Susan: Does Daysi use the computer?
 19 Maria: Yeah.
 → 20 Daysi,
 → 21 I like it.
 → 22 I-In the school,
 → 23 The computer.
 → 24 Susan: Daysi's using the computer→
 → 25 at in the in school?→
 → 26 Maria: ↳ Yeah. ↳
 → 27 Maria: Yeah.

Three times in this interaction, I build upon what Maria has said, incorporating what she has told me into the form of a yes/no question to which she responds.

The first instance occurs in lines 3 through 7, in which Maria tells me that she has a home computer ('Computer, at my house.'). I respond by turning this information into a question ('You have a computer at your house?'). Maria responds that she does ('Yeah.'). Next, in lines 8 through 10, Maria offers that the computer actually belongs to her husband ('My husband.'). I rephrase this into another question ('Your husband has a computer?'). Maria confirms that her husband owns a computer. In response to my question about her daughter's use of the computer (lines 18-19), Maria responds, 'Daysi, I like it. I-In the school, the computer.' (lines 20-23). Again, I

paraphrase her statement, converting it to, 'Daysi's using the computer at in the school?' (lines 24-25). Maria then confirms that this is accurate.

The technique that I use with Maria employs indirect corrective feedback in a communicative situation. I provide Maria with grammatically correct utterances that incorporate her terms and phrases, an approach advocated by Terrell (1977, 1982). This process seems to be an adult version of what Scollon and Scollon (1984:180) term vertical constructs. Vertical constructs are a three part communicative routine in which a child makes a remark, a caregiver requests further information, and the child adds a bit more. In this three part series, the child has managed a topic-comment construct.

In classroom discourse, the three part question-answer-feedback loop is quite common when teachers communicate with learners. A teacher asks a question, a student answers, and the teacher or another student may give feedback. The interaction pattern between Maria and me differs from this. In this example, Maria supplies information, I formulate a confirmation check

in the form of a statement with rising question intonation, and Maria confirms.

Adults are already capable of communicating in a first language. This, among other factors, differentiates child language acquisition from adult second language acquisition. As an adult, Maria attempts to communicate a complete idea (topic and comment) of which she has proprietary knowledge. In each of the three attempts that Maria makes to tell me information about her home computer, she supplies her own topic and comment, with me rephrasing it for her and waiting for her confirmation. For the first sequence, this process is sketched out below.

Topic + Comment --> Rephrasing --> Confirmation
as question

Maria

Topic: Computer,
Comment: At my house.

Susan

Rephrasing: You have a computer at your house?

Maria

Confirmation: Oh yeah.

By using Maria's language in this interaction, I ratify her contributions, maintain the focus on the topic that

she has offered for discussion, and offer her comprehensible input.

Maria is not discussing anything related to our ongoing interaction with the computer. She is required to offer me as much information as possible, in order that I understand her frame of reference. The task focused talk among learners interacting at the computer does not often require such explicit talk, because the topic is in plain view and understood from their context of situation. In fact, as Kleifgen (1992) has shown, reduction in discourse signals interactivity among a group of computer users, the software, and the computer. Reduction and ellipsis in task-based interaction is a sign of full engagement in the task at hand.

Repeating After a Teacher

Throughout this chapter, there are examples of interlocutors taking turns at talk. This is to be expected when two or more individuals are working together. Some alternating turns occur as adjacency pairs. One learner requests confirmation, and the other learner issues the confirmation. A teacher asks

a question, and a learner answers. The student coach lists letters to be typed, and the student keyboarder enters them while repeating the letters as if making oral check marks.

There is a special type of repetition, which I call TRAILING, in which a learner repeats or paraphrases the last part of a teacher's utterance.⁹ This usually occurs when a teacher is reading from the monitor screen, offering an explanation, or modelling vocabulary pronunciation. In the following example, Liz selects Antonio to be student keyboarder. Notice how Minh paraphrases, the teacher, Liz's words.

Example 5.11: Trailing onto a teacher's words to support her

	1	Liz:	'kay.	
→	2		Antonio's turn.	└ Okay.
	3	Antonio:		
→	4	Minh:	Antonio.	
→	5		You.	

Even though Antonio already has agreed to take a turn by uttering, 'Okay,' Minh supports Liz's suggestion in lines 4 and 5, and even addresses Antonio by first

⁹This need not be exclusively a paraphrase or a repetition of a teacher's words. Some learners latch onto a teacher's turn by saying, 'Yeah,' or 'Good.'

name, like the teacher does, something he never does when working alone with Antonio. By doing this he is in safe company to issue a directive to Antonio, who usually issues them to Minh.

Self-Repetition

Tannen (1983a:362) notes that repetition in narrative discourse is tied to emotional involvement, a finding ratified by Brody (1994) and her work on Tojalab'al discourse. Speakers may repeat a phrase in order to emphasize a point. In fact, Tannen (1989:56) asserts that a person may employ variations of phrases in order to highlight the most significant point of a narrative. I suggest that the learners participating in this study employ repetition for the same reasons. Although they are not retelling narratives, learners repeat phrases in the course of on-going, task-related interaction for emphasis tied to their engagement in the academic activity. In the following section, I present analyses of two sets of discourse excerpts. In each set, a speaker recycles the same phrase at different times within the computer session. In both

sets, the speaker uses repetition as an emphatic device.

Immediate repetition: Urgency. Participants may repeat a lexical item or phrase several times in a row to indicate urgency. In the following example, Antonio tells Minh not to touch the computer, but to wait because the drive light is on, signalling that the computer is busy. Once the drive light goes off, and the screen contains information, Antonio tells Minh to go ahead.

Example 5.12: Repetition to indicate urgency

→	1	Antonio:	No no no.
	2		/wrong answer./
→	3		Don't touch.
→	4		Don't touch.
→	5		Please.
→	6		Don't touch.
→	7		Don't touch.
	8	Minh:	Yes.
→	9	Antonio:	Wait wait wait.
→	10		Wait wait.
	11		Okay.
→	12		Go ahead.
→	13		Go ahead.
	14		Okay.
	15		Number three.
	16		Okay.

In this example, Antonio repeatedly orders Minh to keep from working on the computer. When Antonio supplies a barrage of directive phrases such as 'no,' 'don't touch,' and 'wait,' he slows Minh down. Minh stops

working to listen to Antonio. When Antonio notices that the drive light has gone off, he indicates to Minh that he may now engage in keyboarding (lines 12 through 16).

Antonio's quickly repeats prohibitions, directives uttered to prevent action (Jones 1992:434), in order to prevent Minh from typing. In so doing, he also asserts his power over Minh. Through his compliance with the prohibition, Minh acknowledges Antonio's power over him. In this example, and throughout their interaction, Antonio uses this strategy, repetition of prohibiting directives, to gain control in situations with Minh.

Antonio's style of issuing prohibitives may be compared to the aggravated style of issuing directives used by urban African-American boys studied by Goodwin (1980). In the task-focused discourse of these boys, whom Goodwin observes both making sling shots and preparing for sling shot battle, Goodwin notes that hierarchy is interactionally achieved. To be considered a leader by the group, other boys must follow the leader's direction. Both the giving of the directive and compliance are necessary to confirm

hierarchical status in the group. Minh and Antonio employ the same strategies within their own group.

Repetition over time: Emphasis in reference to different situations. In the last example, I have discussed repetition occurring immediately after the initial utterance of a phrase. The next examples indicate how speakers utilize repetition over time within the same episode. For example, in the following set of excerpts, Antonio uses the same phrase for three different purposes:

1. to encourage Minh (5.13a),
2. to rebuke him (5.13b), and
3. to remind Minh of a directive he has given earlier (5.13c).

The three excerpts appear in different parts of the same discourse text. The first two segments happen within minutes of each other toward the beginning of their interaction, while the last exchange occurs around the middle of the time that they use the program (approximately 30 minutes into their interaction). The targeted phrase in examples 5.13a through 5.13c is, 'I told you.' In each case of usage, the phrase signals emotional emphasis.

In example 5.13a below, Antonio uses 'I told you' as a marker of encouragement. His tone of voice is soft, and he is smiling.

Example 5.13a: I told you = encouragement

1 Antonio: Heh-heh.
 2 This space.]
 3 Minh: A:right.
 4 Yeah.
 → 5 Antonio: I told you.
 6 Minh: Yeah.

In example 5.13a, Antonio utters the phrase after Minh has selected a wrong answer, has tried again, and has selected the correct answer on the second try. Antonio's tone is one of encouragement, as if he is saying, 'I told you that you could do it.' He supportively contributes to Minh's own satisfied evaluation of his performance, 'A:right. Yeah.' (spoken in lines 3 and 4).

In 5.13b below, Antonio chides Minh for not following directions. In this case, his use of 'I told you' signals rebuke.

Example 5.13b: I told you = rebuke

1 Antonio: Here.
 2 More.
 3 No:.
 4 Wrong.]
 5 Minh: Oh.
 → 6 Antonio: I told you.
 7 Minh: Oh yeah,]

8 Ah.
9 Again.

In lines 1 and 2, Antonio indicates that Minh is to move the cursor over one more space to select the answer. When Minh does not do this, the answer is marked as incorrect. Antonio, with annoyance in his voice, tells Minh, 'I told you.' In this case, Antonio excuses himself from sharing responsibility for an incorrect answer.

Finally, in example 5.13c, Antonio recycles, 'I told you,' prefixing it to a reiteration of his order that Minh 'wait' before keyboarding in an answer.

Example 5.13c: I told you = reminder

1 Minh: Has [not,]
2 Antonio: Has [Has] not,
3 / ? /
4 Wait wait wait.] Yeah.
→ 5 Minh: I told you wait / ? / .→
6 Antonio: Okay.
7 Minh: Oh.
8 [MINH HITS THE SIDE OF HIS FACE.]
9 O:h.
10 Yeah.
[MINH REALIZES THAT HE HAS MADE ANOTHER MISTAKE.]

In this case, Antonio has told Minh to wait (line 4) although Minh has acknowledged that Antonio has addressed him by saying 'Yeah,' (line 5) he continues

to keep his hands near the keyboard, poised to type his response to the question. In line 6, Antonio repeats his order, this time introducing it with reference to his previous command. His voice is sharp as he says, 'I told you wait.' In line 7, when Minh agrees to wait by uttering, 'Okay,' his tone of voice indicates that he feels insulted by Antonio.

In this set of examples, Antonio is able to use a formulaic phrase, 'I told you,' to signal emphasis. 'I told you,' as a phrase, is inherently anaphoric. It explicitly refers to some prior utterance made by the speaker. The speaker may opt to quote him/herself, or let the interlocutor remember the speaker's earlier utterance. Each time he utters this phrase, Antonio prompts Minh to think about what he has said earlier. In drawing such attention to his previous dialogue, Antonio emphasizes the importance of what he has said. Each time he uses such a phrase, regardless of his temper (happy, annoyed, etc.), he involves Minh in reflecting upon his earlier words.

Repetition over time: Emphasis in reference to the same situation. In the second set of excerpts, Minh uses the same phrase of complaint several different

times to refer to an instance in which Maria spells the word 'musician' aloud to him while he types, but forgets the second 'i.' Unable to correct the typographical error, he ultimately gets the answer wrong. In uttering the phrase and variations, 'You forget one more 'i,' Minh accomplishes the following:

1. he scolds Maria;
2. he reports her mistake to a teacher;
3. he later turns the mishap into a joke that relies on their mutual experience for humor.

In example 5.14a, he blames Maria for not spelling the word correctly just as Penny, a teacher, walks within earshot. Then, in example 5.14b, Minh tells Penny that Maria forgot to tell him about the second 'i' in 'musician.' The final example, given in 5.14c, occurs much later in Maria and Minh's interaction (a few minutes before they finish and go home) when they are spelling the words for the second time. When they get to 'artist,' Minh reminds Maria of their earlier problem with the word 'musician,' and they both laugh.

In the following example, Minh utters the phrase, 'You forget one more 'i,' for the first time in lines 7 and 8.

Example 5.14a: Minh discovers error

1 Minh: No A,
 2 C I.
 3 Maria: Muscian.
 4 Mucia.
 5 /? la una es/
 [GLOSS: THIS IS IT.]
 6 Minh: Yeah.
 → 7 You forget.
 → 8 One more.
 → 9 I.
 10 Maria: Okay.

Throughout this set of excerpts, Minh uses the phrase, 'You forget one more 'i,' to refer to the incident that occurs in example 5.14a. It is in this excerpt, Minh discovers that he has typed the word 'musician' incorrectly, because Maria has neglected to spell out the second letter 'i' to him.

In example 5.14b, Minh repeats the accusation of Maria's mistake twice more. The first time, Maria protests with a stream of 'alrights.' The second time (lines 12 and 13), Maria does not respond. Penny, the ALL teacher, has appeared to compliment them on getting the correct answer. Minh tells Penny that Maria has forgotten a letter, but all Penny sees is a screen with the correctly spelled word on it. She comments that the word is spelled correctly. In this case, Minh's lament goes misunderstood, and therefore, unnoticed.

Example 5.14b: Minh chides Maria for her error

1 Minh: Yeah.
 2 Correct.
 3 Good.
 → 4 You forget,
 → 5 one more.
 → 6 I.
 [MINH POINTS TO THE WORD ON THE
 SCREEN AS PENNY COMES INTO HEARING
 DISTANCE.]
 7 Maria: Wait.
 8 Alright,
 9 Alright,
 10 Alright,
 11 Alright.
 → 12 Minh: You forget,
 → 13 One more.
 → 14 I.
 15 Penny: Good.
 16 Minh: Yeah.
 → 17 Ma-ma-maria.
 → 18 wa-forget
 → 19 wa-one more.
 → 20 I.
 [MINH IS POINTING AT MARIA.]
 21 Penny: That's right.
 22 Musician.

In this example, Minh persists in reminding Maria that she has made a mistake. Maria tries to get Minh to stop accusing her by uttering a string of 'alrights' in lines 8 through 11.

Minh continues to voice his annoyance by telling Penny, an ALL teacher, that Maria has forgotten to tell him the second letter 'i.' Penny has not been party to the previous interaction between Maria and Minh. Minh's complaint is lost on Penny. All she sees is the

correct answer on the screen. In fact, she compliments them on their correct answer by saying, 'That's right. Musician.' in lines 21 and 22.

Finally, in excerpt 5.14c, Minh recycles his remark when a graphic of an artist shows up. Perhaps he is reminded of the earlier incident because the artist and musician graphics appear to be similar. Both are unusual vocabulary words for beginners. They both are spelled with the letter 'i,' too. This time, when Minh repeats the phrase, he and Maria end up laughing, recalling their earlier shared experience.

Example 5.14c: Repetition turned into a joke

	1	Maria:	Alright.	
	2		Artist.	
	3		Alright.	
	4		A.	
→	5	Minh:	You.	
→	6		You-you	Yeah. forget.
	7	Maria:	Yeah.	
	8		Yes.	
	9		Heh-heh.	
	10	Minh:	Heh.	

In this final example, Minh brings up the earlier mistake that Maria made, once Maria says the target word 'artist' and begins to spell it (lines 2 through 4), referring to the correct spelling she has copied previously into her notebook. Minh's tone of voice is not accusing, but kidding. Before he even finishes his

statement, Maria recognizes what he is about to say, interjecting 'Yeah' in the midst of Minh's utterance (line 7). She begins to laugh and he joins her (lines 9 and 10).

Each time Minh repeats the utterance, 'You forget one more 'i,' he emphasizes the trouble he has with Maria. This phrase summarizes the effect that working with her, at least on this vocabulary word, has caused him. Each utterance reinforces his negative evaluation of the experience, except for the last example. In the last example, chiding is turned into joking.

Analysis of the previous examples has indicated how self-repetition can be used for emphasis. Whether speakers repeat themselves within the same utterance or repeat a phrase over time, through repetition they may indicate their emotional involvement within the context of utterance.

Speakers also self-repeat in a non-communicative way. Often, learners repeat words or phrases to practice saying them or to commit them to memory. Teachers may repeat words in order to model correct pronunciation. In such instances, the focus of repetition is on accuracy of form of the word or

phrase, not on the communicative content, as seen in the following section.

Repeating to Practice Pronunciation

Piper (1986) states that much of the conversational spin-off she observes when trios of NNSs work with language learning software appears in the form of repetition of on-screen text. She questions the value of such repetition, wondering about the utility of repeating vocabulary items that one already knows. The participants in this study also engage in repetition of on-screen text: target language learning items as well as program commands. Learners repeat in order to memorize the spelling of words and to commit the lexical items to memory. For these learners, such repetition appears to be useful. Teachers are able to model correct pronunciation, so that in addition to memorizing spelling and associating a picture with a word, learners are able to practice pronunciation.

Self-repetition. In the following example, Minh and Maria repeat the target vocabulary item 'dentist' as they copy it into their notebooks.

Example 5.15: Repetition to memorize

→ 1 Minh: Dentist,
 → 2 Dentist.
 → 3 Maria: Dentista.
 [gloss: DENTIST]
 → 4 Dentist.
 → 5 Dentist.
 6 Minh: You finish?
 7 Maria: Oh,
 8 Minh.
 9 Minh: hmm-mhh!
 → 10 Maria: De:n,
 → 11 tis.
 → 12 Dentist.
 13 Finish.

In this example, both Maria and Minh repeat the target vocabulary word 'dentist' several times as they write it down. Maria first uses the Spanish cognate 'dentista' before repeating the English 'dentist.' By repeating the item, they attempt to commit it to memory..

Other-repetition. Teachers model the pronunciation of target items in order to help learners speak properly. In the following example, I model the pronunciation of 'mechanic' for Maria. Minh joins in after a few seconds.

Example 5.16: Modeling correct pronunciation

1 Susan: Mechanic.
 2 Maria: Mechanic.
 3 Susan: Mechanic.
 4 Maria: Mechanic.

[MARIA TURNS AROUND IN HER CHAIR TO LOOK AT ME. SHE PUTS HER LEFT HAND ON MINH'S CHAIR.]

5 Susan: Mechanic.
 6 Maria: Mechanic.
 7 Minh: Mechanic.
 8 Susan: Um-hmm.

This is a pedagogical exercise. Participants are not communicating information to each other. We are purely focused on the form of the utterance, not the content. The learners repeat in order to improve their pronunciation of new vocabulary.

In this section of the chapter, I have examined the forms and functions of repetition as learners and teachers interact at the computer. I have demonstrated that the learners use forms of repetition in order to communicate with each other and with their teachers. Repetition enables participants to construct emergent discourse economically and to indicate that they are on topic. Through repetition, participants signal their involvement with each other and with the emergent dialogue. They are able to creatively use the language with humorous intent. Tannen's (1987a:581, 1989:3) observation, that individuals employ varieties of repetition in order to maintain conversational coherence, bears out in each text example. For some

learners, such as Mariam (the learner least proficient in English), lack of repetition would render interaction as out of focus and incoherent.

In the remaining section, I switch the focus of analysis from the role of repetition as a feature of interpersonal involvement to the effect of drill and practice software on patterns of interaction. Drill and practice software is formulaic and rigid. The structure of the drill imposes itself on the interaction of the learners. This is most apparent in *Basic Vocabulary Builder*, in which learners are to spell words represented by graphics. This program is not multiple choice like the other two programs the learners use; therefore, there are no answers laid out for them to consider and select. Analysis of repetition related to use of this program appears below.

Repetition in Using Drill and Practice Software

The structure of drill and practice programs imposes a framework within which learners must organize their interaction. The interactional routine impacts the interaction in two significant aspects:

1. learners adhere to the interaction framework throughout the interaction;
2. learners repeat on-screen text to themselves and to their partners with high frequency.

To explain structures of interaction between learners using drill and practice educational software together, I analyze the interaction of Maria and Minh using *Basic Vocabulary Builder*. As stated before, to use this program learners type a vocabulary word while viewing a graphic representing the item. Users accrue points for spelling words correctly. Because this program is drill and practice, it tests learner knowledge of how certain words are spelled. It does not teach spelling rules or strategies.

In this lesson, the classroom teacher, Liz, has decided that the learners should copy the words into notebooks before going through the drill to test spelling skills. This shifts the use of the program from a spelling test to a scanning and copy exercise.

In other words, learners are not required to remember the spelling of the words, but to be able to recognize them in a self-constructed list, and to be able to type them into the computer, where they appear under the graphic. Use of this program is one of several activities that the learners participate in both in the ALL and in the classroom in order to learn vocabulary within lifeskills contexts.

A pattern of repetition of vocabulary items emerges. Maria repeats words three times as often as Minh does, although the amount of repetition varies depending upon which communicative event they are involved in, namely:

1. **First Pass** - in which they use the program as an illustrated electronic word list and copy the spelling words into their notebooks;
2. **Spelling**
 - a. **First Spell** - in which the learners refer to their lists and enter the spellings into the computer;
 - b. **Second Spell** - a repetition of first spell.

A summary of word repetition in each communicative event appears in Table 5.1 below.

TABLE 5.1 REPETITION OF VOCABULARY ITEMS BY COMMUNICATIVE EVENT			
Communicative Event	Minh	Maria	Totals
1. First Pass	16	48	64
2a. First Spell	33	93	126
2b. Second Spell	13	44	57
Totals	62	185	247

When Minh and Maria use the program during First Pass, the teacher instructs them to press 'return' twice each time a picture cue is shown. Once this is done, the computer treats this action as two poor attempts at spelling a word and presents the user with a correct spelling. Minh and Maria copy the word into their notebooks, and proceed to the next item on their First Pass through the program. They then go through the same vocabulary list again, this time typing the word onto the screen and referring to their notebooks when necessary during First and Second Spell. Features of patterns of interaction are essentially the same in First and Second Spell, but differ from those of First Pass. Differences are summarized in Table 5.2 below.

TABLE 5.2
A COMPARISON OF **FIRST PASS** AND **FIRST AND SECOND SPELL**
IN USING *BASIC VOCABULARY BUILDER*

First Pass	First & Second Spell
1. Student keyboarder must press the return key twice in order to see how a word is spelled.	1. Learners announce the vocabulary item once they recognize it.
2. Learners read word aloud and then copy it into their notebooks.	2. Learners spell word aloud together. Student keyboarder types it in. Student coach may refer to word list and offer support by repeating letters aloud as keyboarder types.
3. Learners must be finished with one item and agree to continue to next by pressing the space bar.	3. Learners repeat the target vocabulary item before advancing to the next problem by pressing the space bar.

Discourse excerpts representing each step in the communicative event follow.

At the boundaries of each step there is potential for participants to negotiate the procedure required within the step. This is most noticeable during the first several minutes of First Pass. That Minh and Maria work together to establish a routine here is not surprising on two counts. First, they are both new at sharing the computer; therefore, they have to work out a system that they can use. Second, it is obvious that the actual use of the program involves typing answers. It is somehow counter-intuitive to press return twice, accumulate no points (points scored are displayed on

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screen at all times), and copy down the words, all without any typing. These two features cause some initial confusion that Maria and Minh work out through their interaction.

Minh is the student keyboarder. Throughout his interaction with Maria, he is intent on typing words correctly and getting a positive evaluation from the computer program. Maria sits to his side and acts as student coach. Minh does not always rely on her for support. Maria is in somewhat of a bind: she doesn't have a role integral to getting to the end of the drill, and yet is somehow to share the computer with Minh. She has, then, two pressures upon her: 1) to help Minh as a learning partner when he needs the help (a social role), and 2) to learn the vocabulary (a language learning goal). Therefore, as we shall see, she engages in a fundamental language learning strategy, repetition, to alleviate these pressures.

Framing: Establishing structure to use the software. Recall that in Chapter 3, 'Directives,' I distinguished between CONTEXTUALIZATION CUES (Gumperz 1982) and COMMUNICATIVE SIGNALS. Briefly, contextualization cues

are conventions of discourse tacitly shared by a speech community. They guide individuals in formulating their own and interpreting other's discourse. I argue that because the learners in this study are at the beginning stages of developing competence in English and because they are interacting with other beginners in their second language, they must work to set up some communicative signals in order to frame and interpret different stages of their interaction. Some cues are already shared by learners. For example, all learners use rising intonation to frame utterances as yes/no questions. However, the signals that learners work to set up are not tacit: they are interactionally negotiated. Their very negotiation fits well within the framework of task-oriented talk. Setting up these signals is part of the process of creating a coherent framework for interaction. The examples that follow demonstrate how Maria and Minh set up communicative signals during First Pass.

Pointing out what-not-to-do. As previously mentioned, Maria and Minh are not to do any typing other than pressing return and space bar during First Pass. In the next example to Minh's dismay, Maria

tries to type the target vocabulary word 'nurse.' He pushes her hand out of the way and continues on to the next word. This results in Maria's understanding that words are only to be copied, not typed. The following example is taken from Minh and Maria's interaction while they are working with the first vocabulary item 'nurse.'

Example 5.17: How not to type during First Pass

	1	Maria:	S.
	2		Okay.
→	3	Minh:	No.
→			[MINH PUSHES MARIA'S HAND AWAY.]
→	4	Maria:	<i>(acc)</i> Nononononono.
→			[MARIA PUSHES MINH'S HAND AWAY.]
→	5		N.
→	6		N N N N.
→			[MARIA TRIES TO TYPE N ON THE KEYBOARD.]
	7	Minh:	<i>(f)</i> Not yet.
	8	Maria:	Yeh.
	9		No?
	10	Minh:	Not yet.
	11	Maria:	Oh yeah.
	12		Pilot.
	13		Point.
	14		This sweater.
	15		/Square./
	16	Minh:	You finished?
	17	Maria:	/Ware./
	18		/S,/
	19		/U,/
	20		/Shit./
	21		Pilot.
	22		Piloto.
	23		Pilo::t.
	24		Zero points.
	25		Poi:nts.
→	26		Okay.

→

[MINH ADVANCES TO THE NEXT
GRAPHIC.]

In example 5.17, it is clear that Minh and Maria have different ideas about what they are to do once they have copied a vocabulary item. In line 3, Minh pushes Maria's hand away from the keyboard while he says, 'No.' In line 4, Maria does the same to Minh. She wants to type the letter 'N' and spell the word 'nurse.' Minh tells her, 'Not yet,' in line 7. They are then presented with the next graphic, that of a 'pilot.' Notice in line 26 that Maria gives Minh a signal that he may continue by uttering, 'Okay.' Minh responds by advancing to the next graphic.

At the beginning of their interaction, Maria and Minh do not operate under the same rules for using the program. This results in some pushing accompanied by 'no.' Maria complies to Minh's way of using the program, refraining from typing throughout First Pass. Notice that by emphasizing what they are not to do, they have negotiated a routine for using the program throughout First Pass: when they see the picture, they must press return until they see the word and copy it.

This is not the only part of the routine they must establish. Recall from example 4.19 in Chapter 4,

'Repair and Correction,' that Maria initially copies all text appearing on the screen, while Minh just copies the target vocabulary item. Minh confronts Maria about this, complaining that she takes too long. Surprised that Minh does not copy everything, Maria responds that she likes copying everything down. Shortly thereafter, she abandons the practice (probably when she realizes that the on-screen text is unchanging except for the point accumulation and the target vocabulary item). For easy reference, the relevant excerpt of example 4.19 appears as example 5.18 below.

Example 5.18: Establishing what should be copied

- | | | | |
|------|--------|---|-------------|
| 1 | Minh: | You finished? ↴ | |
| | | [MINH IS ABOUT TO PRESS THE KEY TO GO ON, BUT HE PAUSES TO ASK MARIA IF SHE IS DONE.] | |
| 2 | Maria: | | ↳ (f)No. |
| 3 | | ata:ry. | |
| 4 | | Secretary. ↴ | |
| 5 | Minh: | | ↳ Finished? |
| 6 | Maria: | No., | |
| 7 | Minh: | Oh, | |
| 8 | | you., | |
| 9 | | Long time. | |
| 10 | Maria: | Why? | |
| → 11 | Minh: | You write. | |
| | | [MINH GESTURES TOWARD MARIA'S NOTEBOOK.] | |
| 12 | Maria: | Mechanic, | |
| 13 | | Eh. | |
| | | [MARIA LOOKS AT MINH'S NOTEBOOK.] | |
| 14 | | Oh. | |
| → 15 | | You ↴ no no? ↴ | |

[MARIA SWEEPS HER HAND TOWARD TEXT ON SCREEN.]

→ 16 Minh: [No.]
 → 17 No write here.
 [MINH POINTS TO THE SCREEN, INDICATING WHAT HE COPIES AND WHAT HE DOES NOT COPY.]
 → 18 Write here.
 → 19 No.
 → 20 No write.
 → 21 Maria: No no no.
 → 22 Por por por me,
 → 23 No problem.
 → 24 My like.
 [MARIA POINTS TO HERSELF AND THEN TO THE SCREEN.]
 → 25 I like it.
 [MARIA LOOKS AT MINH.]
 → 26 Me,
 → 27 Yeah.

Here, Maria and Minh again differ on procedure: Minh copies the target vocabulary item on the screen while Maria copies everything. Again, Maria ultimately acquiesces to Minh's procedure by generally abandoning her practice.

The last difficulty they work out in First Pass is how to signal when they are finished with one problem and are ready to continue to the next. Minh and Maria set up a communicative signal which they use until their routine is established. They use the word 'finish(ed)' to indicate when they are ready to move on. The following example demonstrates this.

Minh and Maria have just begun to use *Basic Vocabulary Builder*. Maria has uttered the words 'alright' and 'okay' while she copied down vocabulary items. Each time she uttered one of these words, Minh misinterpreted it as a signal indicating that Maria wanted to continue to the next problem. She kept stopping him from continuing. Finally he says the following (for clarity, certain intervening text between lines 3 and 4 has been omitted):

Example 5.19: Communicative signals

- | | | | | |
|---|---|--------|--|--------|
| → | 1 | Minh: | You finished? | └─ No. |
| | 2 | Maria: | | |
| | | | [MARIA CONTINUES TO WRITE.] | |
| → | 3 | Minh: | Finished? | |
| | | | [MARIA AND MINH DISCUSS HOW MUCH
TEXT THEY ARE TO COPY FROM THE
SCREEN.] | |
| → | 4 | Maria: | Finish. | |

In this example, Maria repeats the word 'finish' with statement intonation. This serves as an unambiguous, verbal check mark, a signal that she is ready to move on.

Later, they also are able to use words such as 'okay' and 'alright' to accomplish the same function. Initially, it had been confusing for Minh to interpret Maria's utterances of 'okay' and 'alright.' Maria uses these expressions to indicate her cognitive orientation

to a task at hand. For example, she says 'alright' to signal to herself that she is finished reading something, but this does not necessarily mean that she is ready to move to the next problem. The function of 'alright' is easily misunderstood. 'Finish(ed)' is clearer because it is Minh's signal, and the first part of a question/answer adjacency pair that Minh initiates.

In these three examples, learners negotiate the structure of their interaction. They jointly determine appropriate and inappropriate interaction. They establish that they must have a mutually understood signal so that they know when they are both ready to move on to the next problem. Once they have established a framework for interaction, they sustain and work within it, binding each step in their interaction with a signal that they are ready to continue with the next step. The pair encounters no such similar problems framing their interactions during First and Second Spell.

In First Pass, the goal is to write the word correctly in a notebook. Repetition of an item is less important to completion of the copying task than is

repetition of the letters forming the word. This is demonstrated in the example below.

Example 5.20: Repetition of letters while spelling a word

1 Maria: What happened. 7
[MARIA IS PUZZLED.]

→ 2 Minh: L A,
→ 3 R,
→ 4 T-I-S-T.
→ 5 A,
→ 6 R,
→ 7 T, I, S, T.
[MINH COPIES THE WORD 'ARTIST' INTO HIS NOTEBOOK.]

8 Maria: Zero.
[MARIA READS SCORE SECTION ON SCREEN.]

→ 9 Minh: A, R, T, I, S, T.
10 You finished?

11 Maria: No-oh.
12 / ? / que eso.
[GLOSS: / ? / LIKE THIS.]

13 Arts.
14 Artist.
[MARIA ATTEMPTS TO PRONOUNCE THE WORD.]

15 Minh: / You put this? /
16 Maria: Arts.
17 Ars.

→ 18 Minh: R.
[MINH HELPS MARIA SPELL THE WORD AS SHE WRITES.]

→ 19 Maria: R.
20 Arts.
21 Arts.
22 Arts.
23 Arts.

→ 24 Minh: T.
25 You know.

26 Maria: Arts.
27 Arts.

In this example, Minh and Maria are copying the word 'artist' into their notebooks. Notice how Minh repeats the letters aloud while copying. He also helps Maria to complete the spelling of the word while she copies it. Minh's approach to the task is to first say all of the letters aloud and then to copy down the word, while Maria's is to try to read the word and repeat it to commit it to memory while she copies.

In this subsection I have examined the routine that learners establish to work through the communicative event, First Pass together. Because they are required to work together, learners must jointly resolve their differences and settle upon a framework for interaction. Here, Maria has adjusted her behavior to follow the routine preferred by Minh (and although not demonstrated here, preferred by the teacher). Maria and Minh develop interactional cues that they both react to, especially apparent in Maria's signals that she is ready to continue with the program. In the next sub-section, I examine the routine Maria and Minh use during First and Second Spell.

Routine in First and Second Spell. As indicated in Table 5.2, learners follow the same routine in First and Second Spell:

- announce vocabulary items,
- spell words aloud while typing them,
- repeat vocabulary word before proceeding to the next problem.

Minh and Maria implement each step of this process smoothly. Examples demonstrating how these steps are enacted follow.

When a graphic appears on the screen, Minh and Maria automatically announce what it is before attempting to spell it. In the following example, neither Maria nor Minh automatically recognizes the graphic.

Example 5.21: Announcing a vocabulary item

	1	Maria:	Okay.
	2		You?
	3	Minh:	/I don't know./
	4	Maria:	└ _(acc) I don't→
	5		remember.
	6		/ ? /
→	7		_(p) Mechanic?
	8		No.
→	9		Oh [dentista.]
→	10	Minh:	_(f) dentist.]
	11	Maria:	/dentist./
	12	Minh:	_(f) Dentist.
			[1 SECOND SILENCE.]
	13		_(pp) / ? /
			[1 SECOND SILENCE.]
	14	Maria:	_(pp) /dentista/

In this example, Maria first identifies the graphic as being a 'mechanic' (line 7), but she immediately rejects it. Having given up, Minh presses return to reveal the word. Maria and Minh read 'dentist' aloud (lines 9 and 10). This type of routine exemplifies REHEARSAL (Kleifgen 1992:23) before attempting to spell the vocabulary word. Through this interaction, Minh and Maria demonstrate how important it is for them to be sure of a vocabulary item before attempting to spell it.

Once the learners have identified a word, they must spell it and type it into the computer. In the following example, I continue with the discourse contained in example 5.21 above. Here, Minh and Maria spell 'dentist;' however, they are not typing it. Minh has pressed return to get the correct spelling of the word because they were initially unable to identify the graphic. Minh reads the spelling from the screen, and Maria copies the word into her notebook.

Example 5.22: Spelling a vocabulary item

1	Minh:	D E N, ↴
2	Maria:	↴ D:::,
		[MARIA WRITES WORD IN NOTEBOOK.]
3	Minh:	↴ T I S T.
4	Maria:	/ ? /

Had Minh and Maria been able to identify the vocabulary item, they would have spelled it aloud in a similar way. (This shall be seen in example 5.24 below.) Nonetheless, Minh still spells aloud, adhering to the routine.

Finally, before proceeding to the next vocabulary item, one learner may repeat the target vocabulary item one more time. Again, I will continue to use the discourse surrounding the spelling of 'dentist.'

Example 5.23: Final repeat of vocabulary item

1	Maria:	(pp) Dentist.
2		(pp) Dentist.
2		(pp) Dentist.
3		Okay.
		[MARIA LOOKS UP FROM HER BOOK AND TOWARD THE SCREEN. MINH ADVANCES TO NEXT PROBLEM.]
4		(pp) Dentist.
		[MARIA REPEATS AS THE SCREENS CHANGE.]
5		Okay.

Maria says the word 'dentist' softly as she writes it into her notebook. This is her attempt to commit the item to memory.

Notice that Maria also utters 'okay' twice. The first time she utters 'okay' (line 3), she signals that she is finished with the activity of writing and repeating the word to herself. She is ready to work

with a new item. Minh responds to her cue by pressing the space bar to advance to the next problem. He has attuned to Maria's desire to continue. He has noticed that she has said, 'Okay,' while looking at the screen. This cues him that she is ready for him to advance to the next problem. The second time Maria repeats okay (line 5) she indicates that she is ready to work on the next problem.

During both First and Second Spell, the learners must recall which spelling word matches each picture cue, and locate it on the list. Repetition is one of the most obvious strategies for trying to commit something to memory; therefore, there is an increase in repetition in the First Spell. Second Spell immediately follows First Spell. It appears that a lot of repetition is not necessary in order to recall vocabulary items spelled just minutes before, as shown in Table 5.1.

In this section, I have compared the routine of First and Second Spell to the routine of First Pass. The routines of the spelling events are easier for Minh and Maria to establish than that of First Pass. When spelling, Maria and Minh use the software as it has

been designed to be used. In First Spell, the learners are using the software in a special way, in order to copy down the target items. I have demonstrated that even when recognition and subsequent spelling of an item is difficult, Minh and Maria still adhere to their established formula for interaction while using the software program. Even though the focus of their task shifts from copying words into notebooks to typing letters so that they appear on the monitor, the format of the software is exactly the same. Therefore, the learners can continue with features of their routine. Most importantly, they must be attentive to mutual ability to continue to the next problem.

More on repetition of letters and lexical items

When Minh spells alone in First Pass, he repeats the letters he sees on the screen while he makes himself a vocabulary list in his notebook. When Minh and Maria jointly spell words aloud in First and Second Spell, two processes are happening:

1. Minh and Maria are inputting information. They repeat letters as they search for the keys they need.
2. Minh and Maria are checking the accuracy of their spelling and typing before pressing return for the computer to verify their answers. They can accomplish this by:

- a) trusting that their response will be accepted, and therefore not proofing their work,
- b) checking accuracy of response after every letter, or every few letters while they input,
- c) inputting the word, and checking the spelling all at once when input is complete.

It is possible to proofread spelling either after every letter or all at once during the same drill, but that does not guarantee that the learners' response will be correct.

Copying the spelling of a word into a notebook during First Pass and later typing it on the screen during First and Second Spell almost without fail begin with either Maria or Minh announcing the word worked on. Once they are finished spelling or typing the word, one of them almost always repeats it. Maria engages in more initial announcing and repetition than Minh.

As shown in Table 5.1, Maria repeats the vocabulary items more often than Minh. In fact, she consistently repeats herself nearly three times more often than Minh does himself. This is attributable, in part, to social identity. Recall that Minh acts as

student keyboarder and Maria as student coach. Maria's role centers around talking. It is natural, then, that she repeats often. This might also be part of Maria's high involvement style of interaction. Repetition signals her emotional involvement with the learning task.

In addition to social role, recall that Minh's orientation to the task is one of recording new vocabulary, while Maria treats the exercise as an opportunity to practice pronouncing new vocabulary. This activity suits Minh's learning style better than Maria's. (Maria's desire to learn new vocabulary through listening and speaking would be better accommodated by using language master cards with the same vocabulary.)¹⁰

When Minh and Maria spell aloud, they repeat. They repeat while they are copying vocabulary words into their notebooks (copying, itself, being an act of repetition). They say letters aloud, both to themselves and to their partner in attempts to work through the computer exercise. As indicated in Table

¹⁰See Chapter 2, 'Method' for a description of language master cards.

5.2 below, spelling aloud jointly, an activity in which one learner states a letter and the other repeats as a word is spelled, increases from 0 to 7 in First and Second Spell, while Minh's practice of spelling aloud alone decreases from 6 occurrences in First Pass to 2 in First and Second Spell.

TABLE 5.3 SPELLING ALOUD					
Style of Spelling Aloud	First Pass	First Spell	Second Spell	Totals	
spelling aloud alone:	Minh	6	2	2	10
	Maria	0	1	1	2
spelling aloud independently, but simultaneously	1	2	0	3	
spelling aloud jointly	0	7	7	14	
Totals:	7	12	10	29	

Minh engages in more spelling aloud alone than Maria does, while, as indicated in Table 5.1, Maria repeats the vocabulary words three times as often as Minh. As discussed previously, this may be attributed to Minh's style of spelling to himself while he types. Often, while he says the letter aloud he is hunting for the corresponding keys. Minh can handle the activity on

his own, requiring little support from Maria as the student coach. Maria repeats vocabulary words often because she approaches the activity as a chance to learn new vocabulary and to practice pronouncing it, and not strictly as a spelling activity. Additionally, as stated before, she has nothing essential to add to the task. She already has copied the words into her notebook and Minh handles the keyboarding. She has time to practice her pronunciation of these vocabulary words.

In the following example, notice how Minh repeats after Maria as they spell 'police officer' together. Minh still acts as student keyboarder, while Maria coaches him by spelling aloud.

Example 5.24: Joint spelling of a vocabulary item

	1	Maria:	Yes.
	2		Sorry.
	3		Police.
	4	Minh:	Police.
	5	Maria:	Police.
	6	Minh:	Police.
→	7	Maria:	P O,
			[MARIA SPELLS THE WORD FOR MINH
			WHILE HE TYPES.]
→	8	Minh:	P
	9		Oh,
	10		yeah, yeah, yeah, yeah,
	11		yeah, yeah.
→	12	Maria:	P O,
→	13	Minh:	P,

→ 14 Maria: O,
 → 15 Minh: P O,
 → 16 Maria: L,
 → 17 Minh: O,
 → 18 Maria: L,
 → 19 L,
 → 20 Minh: P O L.
 → 21 L
 → 22 Maria: L,
 → 23 Minh: L,
 → 24 Maria: I
 [MARIA TYPES IN THE I WITH HER LEFT
 HAND.]
 → 25 I,
 → 26 I,
 → 27 Police.
 → 28 Maria: Policeh.
 → 29 office,
 → 30 Minh: Office,
 → 31 F.
 → 32 F.
 [MARIA IS TRYING TO TYPE IN THE
 WORD 'OFFICER.']
 → 33 O.
 → 34 O.
 → 35 o-o-o.
 → 36 Maria: F, [F,
 → 37 Minh: [F,
 → 38 Maria: F,
 → 39 I,
 → 40 C, [C,
 → 41 Minh: [C,
 → 42 E, [E,
 → 43 Maria: [E,
 → 44 Minh: R.
 → 45 R.
 → 46 Maria: / ? /
 → 47 Minh: R.
 → 48 Maria: / ? /
 → 49 Minh: Yeah.

The turn-taking pattern of repetition during times when Minh and Maria spell vocabulary words aloud jointly indicates how the utterance of a single letter is

communicative. All told, of the 14 instances in which Minh and Maria spell words jointly, twelve consist of them stating the letter and the other confirming it with a repetition, while two instances consist of Maria contributing one letter to the spelling effort. Maria utters a letter with rising intonation, and Minh repeats with falling intonation. By giving this oral 'check,' he signals that he has heard and understood her.

Minh and Maria use repetition of words and letters during the spelling process to verify that their answers are correct. Generally this is accomplished by checking as the word is spelled, as in the following example. Maria announces the word to be spelled, 'musician,' in line 2. Notice how Minh repeats each letter after Maria states it (lines 7 through 11):

Example 5.25: Ongoing checking of spelling through repetition

	1	Maria:	Alright.
→	2		mu:cian.
	3	Minh:	P, L?
	4		P, I?
	5		L, O, T.
	6	Maria:	Oh, Oh, um.
→	7		M,
	8	Minh:	Oh.
→	9		M,
→	10		M, U,
→	11	Maria:	S.

→ 12 Minh: S,
 13 Uh-oh! ↘
 14 Maria: Wow.
 15 /? Alright.?!/
 → 16 U, ↘
 → 17 Minh: U,
 → 18 Maria: S, ↘
 → 19 Minh: S.
 → 20 Maria: I, ↘
 → 21 Minh: I.
 → 22 Maria: C,
 → 23 Minh: C.
 → 24 Maria: Urm-hmm,
 → 25 I, ↘
 → 26 Minh: I. ↘
 → 27 Maria: A,
 [MINH IS HUNTING THE 'A' KEY ON THE
 KEYBOARD.)
 → 28 A,
 → 29 A.
 → 30 Minh: Yeh.
 → 31 A,
 → 32 Maria: N. ↘
 → 33 Minh: N.
 34 Yeah.
 35 Alright.

Minh confirms each statement of a letter by repeating the word and using falling intonation to signal 'check.' Occasionally, Maria will repeat a letter until Minh locates it on the keyboard. This occurs in lines 27 through 31, in which Maria repeats, 'A,' while Minh locates the letter on the keyboard. He signals that he has found the letter by stating, 'Yeh. A,' in lines 30 and 31.

It is not unusual that Minh and Maria check through repetition. This is a feature of task talk.

We would expect the same behavior from people assembling a piece of equipment, working on a car, or giving any kind of directions to another person. It is fine that the beginner discourse between Minh and Maria is automatically replete with repetition of this nature, not only in the course of actually spelling a word, but in other task-related talk. ESL learners are often taught about requesting confirmation, offering clarification, and giving comprehension checks when they are at an advanced beginner or intermediate level of English proficiency. It is not until learners have developed a bit of meta-language in the second language that such concepts are broached in class. The more opportunities learners have to engage in this type of behavior, the better equipped they are to discuss such topics later in lessons designed to heighten learners' awareness of sociolinguistic competence.

In this section, I have discussed the impact that a drill and practice program, *Basic Vocabulary Builder*, has upon the structure of interaction of two beginning learners of English, Maria and Minh. Their task calls for a great deal of repetition of letters and vocabulary words. Maria, who takes to the exercise as

an opportunity to practice pronouncing new vocabulary, engages in the most lexical repetition of on-screen words, while Minh, who keyboards, engages in the most spelling aloud alone. This seems to be because Minh focuses on the spelling and typing aspect of the activity. In addition to accurately copying and typing words, learners interactionally set up communicative signals to enable them to facilitate their joint use of the program.

DISCUSSION

When learners repeat, they remember, and they are able to apply old words to new situations, gaining a history in a new language. In new situations, learners are able to work together to create a pattern of interaction which renders their subsequent joint actions coherent. Below, I make some final comments about the interactive work of repetition used by the participants in this study. I discuss task-oriented talk and accommodation. I suggest that forms of repetition are fundamental for beginning learners to communicate effectively and efficiently.

Repetition Facilitates Language Learning, Especially for Beginners

In the Piper (1986) study, turn-taking among three ESL learners using CAI is described as rapid, and individual turns are less than three words long. She cites the work of Brown and Yule (1983b), who maintain that long, complex turns are most important for language practice for advanced speakers, because this type of language use poses the greatest challenge for second language speakers in encounters outside the classroom. Not all interaction among interlocutors is characterized by long, involved conversation. If the goal of the interaction is to successfully complete an immediate task, the orientation creates an environment conducive to the use of short turns.

This is not to say that computer-assisted language learning (CALL) activities which promote complex turns cannot be developed. A CALL environment conducive to relating narratives, telling jokes, or giving detailed instructions, the types of discourse genres Brown and Yule (1983b:20) mention as requiring long, involved turns at talk must be incorporated into an activity in which learners use software. For example, if after using simulation or game software learners are asked to

recount to others what happened while they used the software, they would be retelling. In the retelling of an event occurring in the microworld environment, the learners would create a narrative, a speech genre which can contain longer, more complex utterances than task-talk (cf. Wyatt 1987 on the integration of CALL materials into various pedagogical approaches).

The beginning ESL learners participating in the present study use drill and practice software. At the time the data was gathered and currently, this is the only type of educational software available for beginning learners. It has not been designed to encourage discussion. Outside of the activities of the sign painter and his dog in *Contraction Action* drills, there are few events occurring in the microworld that learners can narrate.¹¹ The dog and the painter appear to walk off the screen when a drill finishes. This is the same time that a teacher naturally appears to help the learners move along to the next drill.

The students participating in the study are beginning learners of English. A feature of their

¹¹Minh approximates telling a narrative when he complains that Maria has forgotten to spell the word 'musician' with two i's.

speech is short (1 to 3 word-long) utterances. In addition, they are just beginning to develop their reading skills in English. They are unable to understand complex language appearing on the monitor screen. (See Chapter 3, 'Directives,' for further discussion of on-screen language.) If a goal of having such learners use software were to help them develop their vocabulary through the telling of conversational narratives, then it seems that tasks which resulted in experiences that could become narrative events would be a first step in accomplishing such a goal.

For example, in learning occupationally related vocabulary items, learners could select a graphic representing a worker and click on the tools s/he needs in order to work. The worker could then be placed into the context of a workplace. By using a mouse to click on tools, a learner could hear the name of the tool and see it spelled. The learner could print out the picture, along with a word bank. The picture could be used as a cue to tell a story. Such an approach is based more on independent discovery than on rote learning and more on building a context for narrative events. Learners would still learn vocabulary and

could still practice spelling it, but would also be directly involved in creating a meaningful context for developing conversation, reading, and writing skills within the target language.

The discourse examined in this study is primarily non-narrative, task-related talk seasoned periodically with conversational dialogue. Conversational discourse usually co-occurs with a teacher present. There is a simple reason for this: the animated characters are at their most lively at the end of a drill, and the teacher (usually me) approaches the learners when they complete a drill to see if they would like to practice again.

In this chapter, I have demonstrated the functions that forms of repetition provide to the learners' task-related discourse. In line with Tannen's (1987a, 1989) and Norrick's (1987) findings on form and function of repetition in casual conversation, I have shown that beginning learners are capable of producing different forms along a continuum from direct reiteration to paraphrase. Learners weave fluent formulaic phrases learned from the classroom, the community, and the computer into their discourse with each other and with

their teachers. Oxford (1990:72) notes that repetition is important in developing abilities in a second language. She suggests that beginners can expand their communicative competence by meaningful use of formulaic expressions.

The task-based emphasis of their discourse calls for a good deal of lexical repetition. Participants need to speak directly and accurately in order to perform well together. It is not surprising, then, that the more task-based the interaction (as in joint spelling) the more lexical repetition appears. Such repetition is less an indication of a learner's status as a beginner than of an adult's ability to strategize for effective task-based dialogue (in line with Kleifgen's [1992] findings of repetition employed by a trio of experienced computer users).

Forms of Repetition Used to Accommodate Interlocutors

Participants in discourse use forms of repetition to accommodate their interlocutors. Forms of repetition, as Kim and Mariam demonstrate most clearly as they communicate, comprise basic strategies that beginning learners of a second language rely on to express themselves and to make themselves understood by

others. The first example in this chapter detailed how lexical repetition combined with change in intonation constituted a question/answer sequence between Kim and Mariam.

In fact, to see the result of repetitive interaction on the learner with the most to learn (Mariam), let us conclude this discussion by examining a rare instance in the interaction between Kim and Mariam. Here, Mariam requests confirmation on how she is to proceed with a turn, rather than for the identity of a letter.

Example 5.26: Repetition's effect on a beginner's discourse

→	1	Kim:	Down.
	2	Mariam:	U.
	3		Z.
	4		N?
	5	Kim:	No.
	6		One more time.
→	7	Mariam:	Down?
	8	Kim:	Yes.

This example is interesting because it shows that Mariam can recall Kim's use of 'down' (line 1) to mean pressing the down cursor key, and can draw upon this as a lexical resource when she offers a comprehension check/confirmation request to Kim (line 7). Mariam rarely communicates by naming actions, rather, she

names letters that she sees on the screen. This example demonstrates that she is capable of using less concrete expressions through new and practiced association.

As discussed in Chapter 3, 'Directives,' Kim keeps her utterances to Mariam brief and focused either on cursor keys to press or the identity of alphabet letters appearing on the screen. In addition to providing Mariam with the minimum language necessary to communicate her thoughts, Kim also provides Mariam with a limited, but reliable stock of expressions that she is expected to interpret, and also can use in order to communicate with Kim.

Speakers use other forms of repetition to accommodate their addressees' understanding, as I have demonstrated throughout this chapter. They may choose to paraphrase themselves, others, or on-screen language in order to make text they perceive as difficult to understand more comprehensible. Participants also engage in rapid-fire repetition (e.g., 'Wait wait wait'), indicating urgency and emotional affect. The beginning speakers in this study show themselves able to draw from the many dimensions of repetition in

language in order to express themselves. Mariam, the individual with the farthest to go, begins her language development by initiating a discourse sequence through lexical repetition with change in intonation.

CONCLUSION

Throughout this chapter I have offered examples and analyses of repetition in the discourse of beginning learners of English. Far from being meaningless droning, repetition plays varied roles in conveying information, while participants maintain cohesive discourse. Speakers use forms of repetition to emphasize, to connote emotional involvement, to signal that they are on topic, and to accommodate their listeners. Use of repetition signals that participants in interaction wish to establish and maintain rapport by both supportively repeating and by engaging in humorous language play.

Within task-based interaction, learners structure their talk into routines reflective of the design of the software they use. Routines require learners to establish communicative signals to indicate when they may proceed step by step through the routine. Such

signals and steps are established through negotiation and leave their imprint on the structure of subsequent interaction.

I have discussed features of software design that would enable learners to extend their discourse. This topic is further taken up in the Chapter 6, 'Conclusion.' Upon summarizing findings in this study, I discuss implications for educational software design and how to situate CALL software appropriately into language learning lessons. I return to a theme I began in Chapter 1, literacy, and discuss these study findings in terms of second language literacy development.

Chapter 6: Conclusion

Can I take off the little microphone?
--Susan to Kim

Oh, you put it under here.
--Susan to Mariam
(*Mariam has somehow knotted her scarf,
which she wears as a kerchief,
over the microphone.*)

INTRODUCTION

Although it has been four years since I unpinned the lavalier microphones from the tops of collars and from beneath the folds of scarves of the learners who participated in this study, little has changed regarding the paucity of software available for adult learners such as Mariam, Kim, Juan, Antonio, Minh, and Maria--learners who are developing literacy skills in English as a Second Language. A posting concerning the lack of available software that I sent to the field via the TESLCA-L branch of the TESL-L¹ listserv during the summer of 1994 was met with agreement: there is still next to nothing available.

¹TESL-L is an unmoderated listserv originating at the City University of New York. Subscribers are those interested in the teaching of English as a second or foreign language. One of the several branches of TESL-L is TESLCA-L. Subscribers to this branch are interested in the use of computers in English language learning.

The software programs that the learners in this study use are still on the market. And although Apple IIe computers are no longer manufactured, they are still in use in classrooms across the United States. In fact, it still remains that most educational software available for low-literate beginning speakers is drill and practice. Therefore, findings from my study are relevant and highly useful not only in determining the features of learner-learner social interaction with software that they are most likely to encounter today, but also in determining alternatives to improve future software design.

This study is unique. It is the lone study of NNS-NNS, low-literate, adult ESL learners at beginning stages of speaking proficiency who use educational software as part of their program of language learning. Interactional sociolinguistic analysis of their interaction with each other, with teachers, and with the computer yields information useful for researchers and practitioners interested in better understanding the process of adult second language acquisition and second language literacy development. The purpose of this chapter is to summarize study findings, report on

contributions to the field, and indicate areas for further research.

This chapter is divided into four main sections: 1) review of findings, 2) contributions to sociolinguistics, 3) contributions to second language acquisition, and 4) second language literacy and CALL. Topics are interrelated; therefore, natural overlap exists among the sections. At the conclusion of this chapter, I discuss use of interactional sociolinguistic analysis in such a study as well as suggest future research into the use of computers by adult ESL literacy learners.

The first section, 'Review of Findings,' synthesizes the analyses contained in chapters three through five and concerns study participants' use of directives, repair routines and correction strategies, as well as forms and functions of repetition. Examination of discourse reveals the features of positive and negative politeness at work in task-oriented discourse. While working through tasks, participants are constantly assessing their own as well as their interlocutor's ability to speak and understand. As a result, learners and teachers use

accommodation strategies as they negotiate meaning with each other.

The subsequent section, 'Contributions to Sociolinguistics' includes an overview of the applicability of study findings with regard to analysis of directives, repair and correction, and forms and functions of repetition. I pay particular attention to improved understanding of the processes comprising the negotiation of meaning and accommodation by beginning speakers set forth by this study. Further discussion centers on the roles that educational software can play in helping beginning ESL literacy learners practice the language they learn. Detailed discussion of each of these areas follows.

In 'Contributions to Second Language Acquisition,' I discuss how this study furthers the understanding of two social processes that affect second language acquisition (SLA): negotiation of meaning and use of accommodation strategies. I also explain how use of computer assisted language learning (CALL) affects ongoing interaction among participants.

Finally, in the section 'Second Language Literacy and CALL,' I revisit the literature on orality and

literacy and approaches to second language literacy pedagogy first introduced in Chapter 1, 'Introduction and Literature Review.' I present ideas for the development of educational software for adult second language literacy beyond drill and practice. In this presentation, I rely on Wyatt's (1987) relational taxonomy of software for language learning. The chapter conclusion follows this section.

REVIEW OF FINDINGS

In this section I recapitulate study findings discussed at length in chapters 3 through 5. These cover the following areas:

- forms and functions of participants' directive utterances and on-screen program text;
- participants' repair routines and correction strategies and computer-generated corrective language;
- forms and functions of repetition in participants' discourse and the relationship between the software lesson structure and structure of learner-learner interaction.

Upon reviewing findings, I examine these areas in terms of politeness in task-focused interaction,

accommodation strategies, and the negotiation of meaning.

Directives

As discussed in Chapter 3, 'Directives,' learners demonstrate a broader range of syntactic forms of directives when they interact with each other than when they interact with teachers. Furthermore, the range of directive functions is broader when learners interact with each other than with their teachers. When interacting with teachers, learners primarily use directives to ask for confirmation or clarification. When interacting with each other, learners direct each other toward actions to complete the task at hand, as well as ask for confirmation and clarification.

Furthermore, there is a relationship between social identity and the forms of directives used. Recall that learners may function as student keyboarders or student coaches. Student coaches issue the highest number of directive utterances to their partners, most of them in forms of the imperative. Likewise, teachers primarily use forms of the imperative when giving learners directions. Incumbents

of social identities that carry with them the responsibility to explain and give directions use more imperatives than those who do not assume such roles.

In task-oriented interaction, attention to positive or negative face is less important than focus on the task. Therefore, use of the imperative, a bald-on-record strategy, is common to task-centered talk. On-screen directives to learners are also primarily forms of the imperative, for the same reason: they are task-oriented.

Directives that coaches and teachers utter are weighted with a greater number of participant roles than those of the keyboarder. In analyzing discourse excerpts according to Levinson's (1988) modified taxonomy of Goffman's ([1979] 1981a, 1981b) production format and participation framework, I have shown that when learners and teachers direct others to complete tasks, they serve not only as authors of their own utterances, but may also serve as spokesmen and animators, as they read or interpret on-screen text for their partners, or carry out a teacher's wish in assisting their partners.

Finally, learners employ other-directed and indirect communication strategies in requesting assistance and directing others (both functions of directives). Other-directed strategies actively engage interlocutors in two-way speaking encounters. Such other-directed strategies include using forms of questions (such as yes/no intonation and tag questions), asking for help, or stating that help is needed. To enable smoother communication, partners may conventionalize communicative signals in order that both of them follow the same rules of interaction.

Indirect strategies do not actively engage interlocutors in two-way interaction. Strategies such as switching to native language, appealing for assistance through deferential behavior, and message abandonment rely on a someone to notice that an individual requires or wants assistance, but is not directly requesting it.

Repair and Correction

The participants in this study are engaged in completing academic tasks. There is pressure on the learners to answer correctly the problems posed by the

educational software. They must interact in English, the language in which they are just beginning to develop communicative competence. In working within the pressure to perform and speak well, learners and teachers engage in repair sequences. Analysis of self- and other-initiated repair reveals the following:

- When interacting with other learners in real-time, learners show a preference for self-repair (both self- and other-initiated).
- In real-time, teachers tend to other-initiate and other-repair learner utterances

The findings for learner-learner interaction are similar to those found by Schegloff, Jefferson, and Sacks (1977) in analysis of everyday conversation. The findings for teacher-learner interaction follow those of Juvonen (1989) in his study of teacher-pupil interaction in a Swedish as a Second Language educational setting.

When data are normalized to exclude length of time as a factor in the type of initiation and repair options to be used in order to answer the question, 'What effect does the presence of a teacher as a participant in an interaction have upon repair?' the following results:

- Self-initiation and self-repair generally appear to decrease among learners when teachers are present.
- There are no striking patterns evincing a tendency toward increase or decrease in other-initiation or other-repair when a teacher is present.

Recall that learners interact with many different teachers: the classroom teacher, occasionally the Adult Learning Laboratory (ALL) manager or an ALL teacher, and me (the participant-observer). Teachers have different styles for interacting with learners. This factor, the limited amount of data, and the use of three different software programs are but a few of the reasons that these results obtain and should not be generalized beyond this study.

Correcting others is face-threatening. However as mentioned before, in interactions where participants focus on completing a task face redress may be considered irrelevant. Learners addressing each other almost exclusively go bald-on-record or employ positive politeness strategies. Use of negative politeness strategies is limited to native language interaction. To go off-record requires mutual understanding of conventional off-record language, and to use negative politeness strategies requires the ability to use

complex grammatical structures that the beginning learners in this study cannot produce.

Teachers are able to use phrases to hedge corrective language. Additionally, because teachers are focused on teaching and not on answering computer-generated problems correctly, they can other-initiate repair sequences in attempts to get learners to self-repair their utterances. Both of these strategies are used in order not to offend the face of the learners. On-screen corrective language is generally direct and bald-on-record. This, too, can be attributed to the task-orientation of the software program. In general, drill and practice programs direct learners to try again, rather than hint correct answers or give rules so that learners can infer the correct answer.

In correcting each other, participants accommodate their interlocutors' understanding the following strategies:

- gesture, such as pointing or mime,
- prosodic cues,
- speaking explicitly.

Gesture is both physical and visual. To gesture by pointing or engaging in mime incorporates a second

sensory channel into interaction. This can strengthen the message a speaker attempts to convey.²

Individuals also communicate through prosody (Gumperz 1982). For example a speaker can contrast two points by placing high pitch on the first item and low pitch on the second. Contrasting pitch facilitates the addressee's understanding that two points are being distinguished.

Finally, speakers can modify their utterances to word a message in an increasingly explicit fashion. Pronouns may be more difficult to understand than concrete, referential noun phrases. Other-focused speakers respond to their addressees' apparent lack of understanding by modifying utterances to be more understandable. One way to do this is to use more precise wording.

Repetition

Repetition is an umbrella term for a range of discourse practices from verbatim reiteration to

²Of course there are gestures that can be misinterpreted by interlocutors. Body language that is publicly appropriate in one culture can be considered insulting or obscene by another.

paraphrasing (Tannen 1987b). Individuals may repeat themselves or others right away or at some point in the future. People use the past to interpret and understand the present. Likewise, people use language uttered in previous contexts in order to interpret the world around them and the situations they find themselves in.

In this study, participants use a variety of forms of repetition to accomplish different functions, ranging from pronunciation practice to participation in humorous conversation. Furthermore, the structured format of the drill and practice programs participants use affect the structure of learner-learner discourse as the individuals work through new language problems in the same format over and over again.

Learners engage in lexical repetition with shifts in intonation in order to make confirmation requests. They may repeat the same intonation contours or stress patterns with different words, in order to subtly correct their partner. They may hold a pattern constant throughout an utterance, adding new information to old within a prefabricated structure. Such structurally-based repetition provides for

cohesive and coherent texts among participants in a discourse.

Participants also may use forms of repetition to show support for others, build rapport, or to be funny. Pedagogically, teachers use paraphrase in order to support learners for contributing to discourse, and to provide a grammatically correct model based directly on learner contributions.

Learners also repeat for emphasis. They may repeat the same word or phrase several times in a row (e.g., 'Wait wait wait. '), or recycle a phrase at different times in similar situations (e.g., 'You forget...'). Both types of repetition signify emotional emphasis.

As does the teacher-uttered language in the classroom (e.g., 'Take a break. '), software programs provide learners with new phrases to adopt and try out. Learners are able to incorporate use of computer terminology (such as names of keys: space bar, return, arrow) and on-screen text (e.g., 'One moment please. ') into their English language repertoire. Using formulaic language and recombining known patterns by substituting new words and phrases are important ways

in which learners gain skill in learning a new language (Chamot 1987:77, Oxford 1990:74).

Drill and practice software affects interaction in two ways:

- learners follow the pattern established by the unchanging structure of the software lessons;
- learners engage in a great deal of repetition of on-screen text to themselves and their partners.

Learners repeat vocabulary words and the letters used to spell them as they commit words to memory, copy words into their notebooks, search for words in their notebooks, hunt for computer keys, and practice pronunciation.

Finally, as learners realize that the software drills are structured, they are able to establish communicative signals (discussed in the previous section, 'Repair and Correction') to indicate to each other when they are ready to proceed to a new problem. These signals are interactively negotiated.

The task-centered nature of drill and practice language learning software is conducive to the use of short turns in order to accomplish a task. Such focused, task-specific interaction offers beginners a

challenge. Repetition is a resource they use in order to facilitate task-based interaction. If the goal of having learners use software together is to enable them to take longer turns at talk, then the educational activity incorporating the use of software must be structured to facilitate the emergence of discourse genres marked by longer turns at talk. However, if the goal is to have learners help each other complete a focused academic task, then task-based interaction marked by use of the imperative, repetition, and short turns results.

Summary

The language of the beginners using educational drill and practice programs is marked by short turns within the context of task-based interaction. In general, participant discourse is marked by:

- use of the imperative, a bald-on-record politeness strategy;
- use of a variety of accommodation strategies, including:
 - other-directed and indirect techniques used to direct others or request assistance,
 - gesture (pointing and mime),
 - explicit language, and
 - repetition.

As learners negotiate meaning through requesting confirmation and clarification, they draw upon these resources in order to compensate for the limitations of being beginning speakers. The learners in this study demonstrate linguistic and paralinguistic resourcefulness as they interact with each other as best as they can.

In this section, I have summarized study findings concerning how learners and their teachers interact while using drill and practice software. In the following sections I further discuss contributions of this study to sociolinguistic research, the study of second language acquisition, and to the development and implementation of CALL in second language literacy programs. I then draw the chapter to a close by offering final reflections on the use of interactional sociolinguistic analysis of classroom discourse and implications for further research.

CONTRIBUTIONS TO SOCIOLINGUISTICS

In this section, I discuss the contributions of this study to the field of sociolinguistics, with particular attention to the study of language in

educational institutions. To this end, I discuss, in turn, the topics summarized in the previous section: directives, repair and correction, and repetition. I follow this with a discussion contributions to areas not traditionally discussed in sociolinguistics: second language acquisition and computer assisted language learning.

Directives

Recall from Chapter 1 that there are relatively few linguistic studies of adults using directives. Lack of sociolinguistic research on directives used by competent adult speakers has been noted by Jones (1992). Kasper and Blum-Kulka (1993) concur, as they state that little research exists on the development of pragmatic competence (including the use of directives) among adult second language learners. Yet, according to Scarcella (1983) forms of directives are among the first speech acts that adult second language learners use. It seems then, that it would be important to advance the study of this topic in order to more fully understand how adult beginning learners of a second

language develop their sociolinguistic competence within it.

This study provides a close examination of the forms and functions of directives used by beginning speakers of English as a Second Language in a unique, interethnic, task-focused encounter. In examining how participants use directives while using instructional software together, I present an analysis not only of spoken directives, but also of non-verbal behavior with directive functions. These directive functions comprise the other-directed and indirect communication strategies discussed in Chapter 3, 'Directives.'

Learners, as stated before, use types of directives with each other that they do not use with their teachers. This observation has implications not only for the STUDY of directives given in classroom situations, but also for the DESIGN of collaborative language learning activities. In the present research, analyzing learner-learner directives was facilitated by videotaping. I expect that interaction would have been extremely different, had I collected data by being constantly, physically present, and consistently part of the ongoing interaction. In the educational context

reported on in this study, learners only request assistance from teachers. In terms of designing activities to enable learners to develop both functional and syntactic versatility in giving directives, it is important to examine what occurs spontaneously between learners. This study provides such baseline data.

By using Levinson's (1988) taxonomy of Goffman's participation framework (as given in Goffman [1979] 1981a and 1981b) I also have demonstrated the multiple participant roles are managed by the individual who directs action. When teachers enter the dialogue, they assume the multiple roles (author, spokesman, animator) that one of the learners, primarily the coach, usually manages when the teacher is not present. It is important to be aware of how much impact the social identities of individuals in an interaction affect participation.³ Such a perspective never has been

³I have taken this finding to heart. As a teacher, I am fortunate to have several skilled instructional assistants and well-trained volunteers helping me in my computer classroom. I make sure that beginning learners spend plenty of time with the volunteers, assistants, and other learners, before I 'hyper'-assist them. At least initially, most learners speak much less to me than they do to these other individuals. As a teacher, I am better able to assess

taken up in previous sociolinguistic studies of directives.

Likewise, such a framework has never been used to account for the participant status of the computer when used by a small group of learners. This is the first sociolinguistic study to characterize the computer as a relay of text authored by a principal or formulator external to the interaction. Such analysis supports Kleifger's (1992) findings: the computer, complete with instructional software, is a poor substitute for a human interlocutor because it is unable to accommodate its audience well. The computer users comprising the audience must orient themselves to the idiosyncracies of ambiguous on-screen text, the computer's rhythm, and the inability of the program to repeat on-screen text once the return key has been pressed.

aspects of their language learning needs by listening to and watching their interactions with others, than by relying on what I observe from their direct interactions with me.

Repair and Correction

To my knowledge, there are no published studies examining repair and correction strategies used between non-native adult learners communicating in a second language while engaged in task-focused interaction. As cited earlier, Juvonen (1989) has examined the discourse between a Finnish girl learning Swedish as a Second Language, her Swedish teacher, and Juvonen (present as participant observer). Juvonen observes that in their asymmetrical situation, the girl generated more repairables in activities in which the teacher had more control, and less in a situation in which the girl tells a personal narrative.

My study confirms Juvonen's results in a new educational setting: teachers tend toward other-initiated, other-repair. However, my data adds another dimension to this finding: learners tend to prefer self-initiated self-repair when interacting together. This is in agreement with Schegloff, Jefferson, and Sacks's (1977) study of repair in conversational discourse. As a sociolinguist, this data, although derived from conversation analysis, informs me that social context and social identity play major roles in

how discourse emerges in a classroom. If the focus of an activity is to develop conversational fluency, a teacher's presence can obscure how learners perform.

Repetition

This study presents numerous examples of forms and functions of repetition in educational discourse, initially identified by Norrick (1987) and Tannen (1987a, 1987b, 1989) in analyses of conversational discourse. That learners apply formulaic classroom expressions (e.g., 'Take a break' and 'Go outside') to make humorous remarks about situations that appear on the monitor screen is an example of how repetition enables individuals to renew prior texts (Becker 1984, 1994) and expand their abilities to be at home in their new language. Likewise, learners learn and borrow on-screen text and incorporate it into their conversation. I think it is possible that learners are able to take the language experience gained by working with a peer at the computer and use it in new contexts outside the classroom.

On a more theoretical note, I have discussed the relationship I draw between repetition and frame and

schema in Chapter 1, 'Introduction and Literature Review' and in Chapter 5, 'Repetition.' We can only recognize and then respond to new situations in terms of similarity or dissimilarity to previous experience. The metaphorical quality of language that Lakoff and Johnson (1980) discuss must be related to how individuals tacitly rely upon personal experiences and socio-cultural knowledge to make sense of the world around them.

Becker (1984, 1994) speaks of language and memory as drawing upon prior texts, while Bakhtin (1986) maintains that all new utterances have their beginnings in those previously spoken. They both imply that the cultural and social, as well as the personal, meanings that language both denotes and connotes are reflective of social experience. Social experience and knowledge is then reflected in the language that individuals use.

This link, between repetition and the frames and schemata people use to interpret experiences and act upon them, has everything to do with learning a second language in a new culture. Second language learners must be able to see themselves in new social contexts which they can understand and participate in. They

must be able to draw connections between life before and life now. Socially, this is accomplished through languaging the old and new.⁴

In this section, I have discussed specifically how the present study contributes to the body of knowledge of sociolinguistics. This examination has been conducted by exploring participants' uses of directives, repair and correction, as well as repetition. In the following section, I continue to report on contributions to the field of linguistics, by

⁴Once, when meeting a Truman student, Yohannes, in the ALL for the first time, I asked what he had done for a living in his country. Yohannes told me that he had been a well-known choreographer of modern folk dance for a state-sponsored dance troupe in Africa. The troupe had toured internationally and even had performed at Washington, D.C.'s Kennedy Center before the political situation in his war-torn country forced him and his wife (the featured soloist) to seek political asylum in the United States. In the U.S., he works as a parking lot attendant. After Yohannes told me about his career in Africa, he began to cry. He said to me, 'You are the first person to ask me who I am. I am not a parking lot attendant. I am a choreographer.'

This is a comment on the clash of schemata that Yohannes recognizes: the parking lot attendant he cannot acknowledge versus the choreographer that no driver can see. If customers in his parking lot knew about Yohannes as a person, there is no telling how frames for interaction between the parties would be affected.

discussing study findings with regard to second language acquisition.

CONTRIBUTIONS TO SECOND LANGUAGE ACQUISITION

This study contributes to the body of knowledge of Second Language Acquisition (SLA) in the following areas:

- the negotiation of meaning between NNS-NNS dyads of low-literate beginning speakers as well as between NS teachers and NNS learners engaged in language learning activities;
- accommodation strategies used in NNS-NNS as well as NS-NNS interaction;
- the use of available CALL by adult, low-literate, beginning speakers of ESL.

In this section, I explain how study findings enhance understanding of low-literate beginning language learners' SLA with specific regard to each of these areas.

Negotiation of Meaning

As discussed in Chapter 1, 'Introduction and Literature Review,' the development of communicative competence in a second language is enhanced if learners have opportunities to engage in the negotiation of meaning--the process of interactionally resolving

misunderstandings (Doughty and Pica 1986, Gass and Varonis 1985, Pica 1988, 1993, Varonis and Gass 1985a, 1985b). When working together, learners initiate other-initiated self-repair (OISR) routines in approximately 25% of all instances in which they engage in repair. This type of repair routine is ripest for the negotiation of meaning. OISR routines require individuals to repeat and rephrase previous utterances.

When learners are required to rephrase and clarify, discourse is enriched (Pica 1988, 1993, Varonis and Gass 1985a). Such situations offer authentic communicative language practice, as Pica (1993) has shown. This practice is so valuable to development of communicative competence, Pica mentions, that classroom activities have been developed to facilitate conditions in which negotiation of meaning occurs with greater frequency. If either CALL programs themselves or lessons which incorporate use of the computer enabled such practice, they would be more valuable to the process of negotiation of meaning. That the learners in the current study were not particularly positioned to engage in negotiation of meaning and yet did so fairly frequently shows that

meaningful, task-based interaction is a natural area in which to develop such activities.

Accommodation

Beebe and Giles (1984:18) maintain that accommodation theory offers a solid framework for examining the relationships between linguistic and social psychological factors that affect SLA. Heretofore, researchers using communication accommodation theory (CAT) to study SLA have focused on phonetic variation to measure linguistic convergence and divergence (e.g. Beebe and Zuengler 1983). SLA has also been used to account for variation in foreigner talk (Zuengler 1991).

In this study, I have examined accommodation strategies that participants, both learners and teachers, use in order to communicate more effectively with their interlocutors. More able learners and teachers accommodate their less proficient interlocutors by simplifying language, paraphrasing, repeating, and gesturing. Teachers may underestimate learners' ability to understand and unwittingly engage in hyperexplanation (Erickson and Schultz 1982).

Learners may respond either by deferring to the teacher's higher institutional status or by indicating that they don't need such extensive assistance.

In examining cross-cultural interaction among non-native speakers communicating in a second language, it is important not only to examine phonological changes but also alterations in discourse structures and strategies. Difficult to determine in either case, are whether documented changes are due to the ever-evolving interlanguage of second language learners, to social factors, or to both (Beebe and Giles 1984).

In this study, motivation for teachers' accommodation of learners' perceived ability to understand may be quite different from a more able learner's motivations for accommodating his/her partner. Teachers accommodate learners as part of their teaching strategy. More able learners, on the other hand, may have instrumental interests in simplifying language to accommodate their partners--if the partners understand what to do there may be a higher likelihood that they will answer problems correctly. More research is needed in this area in

order to better understand motivations for accommodation in interethnic educational settings.

Computer Assisted Language Learning

In this section, I briefly summarize the type of software study participants use and detail how it affects their second language learning. This serves as background for the claims I make in the following section, 'Second Language Literacy and CALL.' There, I explain how other types of software may affect development of second language literacy skills.

As discussed at length in Chapter 2, 'Method,' focal learners used one of three drill and practice programs:

- *Words at Work: Contraction Action* - a program in which learners identify and practice forming contractions,
- *Fun from A to Z* - a program in which learners practice identifying letters of the alphabet and sequencing them, and
- *Basic Vocabulary Builder on Computer* - a program learners use to practice spelling words that share a context.

The first two programs have been designed for children, while the last program has been designed for ESL/EFL learners of all ages.

Each program falls into the drill and practice category. With these programs, learners generally test their knowledge of content they have been taught previously. Both *Contraction Action* and *Fun from A to Z* contain multiple choice drills for practice, as well as fill-in exercises. *Basic Vocabulary Builder* tests spelling. In using this program, learners are not coached or given hints in order to modify their spelling.

As discussed at length in Chapter 5, 'Repetition,' drill and practice programs influence the framework of participant interaction and discourse. The task-centered nature of these programs engenders repetitive short turns. The exception occurs when participants stop to talk and laugh about the painter and dog appearing in *Contraction Action*. The learners and teachers find the simple animations engaging--something to discuss. This leads me to believe that if use of software is to lead to longer turns at talk, there must be something of interest to discuss. Positing software use into educational contexts which encourage learners to tell narratives or share complex information would most likely yield more complex language.

In this section, I have discussed how the present study contributes to various aspects of second language acquisition research. As computer assisted language learning becomes increasingly popular and available to adult ESL programs, it is important to examine how different types of social interaction around the computer affect the learners as they develop their language skills. This discussion is taken further in the following section.

SECOND LANGUAGE LITERACY AND CALL

A discussion of current pedagogical practices to second language literacy appears in Chapter 1, 'Introduction and Literature Review.' In effective adult ESL programs, learners and teachers establish goals together. Instruction is based on learner needs and engages learners in developing language and literacy skills that are relevant to situations beyond the ESL classroom. In general, adult literacy programs (both native and second language) emphasize that the learner is at the center of the learning process and has a lifetime of knowledge and experiences which serve as valuable curricular resources in the adult classroom

(Auerbach 1992, Guth and Wrigley 1992, Weinstein-Shr 1993b, Wrigley 1993, Wrigley and Guth 1993).

This philosophy seems to be suspended when it comes to the design of educational software marketed for use by adults like those who participated in this study. There simply is no software designed to assist learners in developing literacy skills within learning contexts familiar to them from their lifetime of experiences. Drill and practice programs require learners to recall previously learned information in a question/answer format that is tightly linked to traditional school-based, teacher-fronted instruction.

Aspects of the activity that they engage in are unnatural to their use of language outside of the context of the drill. Consequently, learners who have minimal experience in schools work through exercises which are neither anchored within their learning experiences nor related to their needs beyond the classroom. Tests that serve to measure familiarity with test forms are neither a measure of cognitive ability (Cole, Gay, Glick, and Sharp 1971) nor of literacy practice (Scribner and Cole 1981). Literacy skills taught in the schools must be relevant to

literacy practices and needs outside the classroom (Gee 1990, Heath 1983, Street 1984, 1993a, 1993b).

This is not to say that use of drill and practice programs is bad. Using such programs gives learners the opportunity to work with three types of electronic text: instructional (including the mechanics of program use and which keys to press), lesson content, and evaluative--all while interacting in a second language. When appropriate for learners' needs and abilities, such an educational environment can offer rich opportunity for learning new literacy skills and practicing the second language.

This is also not to say that drill and practice programs, in general, are categorically flawed. Computer programs, like any other language teaching/learning material, have their uses. Just like audio cassettes, videotapes, and textbooks, some programs are designed better than are others. However, something is amiss when this is the only type of educational program made available to low-literate beginning speakers.

In a discussion of CALL software and pedagogy, Wyatt (1987) proposes a three-way relational

classification of software. This appears in Table 6.1 below.

TABLE 6.1 RELATIONAL CLASSIFICATION OF CALL APPROACHES (Wyatt 1987: 89-90)	
Approach	Characteristics
A. INSTRUCTIONAL e.g. tutorial, drill and practice, many 'games'	<ul style="list-style-type: none"> · Students are responders, not initiators, despite their high level of activity · Detailed set of high- and low-level learning objectives · Predetermined learning path(s) · The computer instructs the student; students learn <i>from</i> the computer
B. COLLABORATIVE e.g. modeling, discovery, simulation, adventure reading, annotation, some 'games'	<ul style="list-style-type: none"> · Students are initiators, take more responsibility for their learning · May only be possible to specify learning objectives in high-level terms · No predetermined learning paths · Elements of discovery learning; students learn <i>with</i> the computer
C. FACILITATIVE e.g. word and idea processing, spell check, on-line thesaurus, text analysis	<ul style="list-style-type: none"> · Students are initiators, entirely responsible for their learning · Learning objectives and paths not specified or embodied in computer program · Students use computer as <i>tool</i> to reduce 'inauthentic labor'

This classification system is useful not only because it specifies the relationship between the learner and the computer, but also because it clarifies the differences between computer assisted INSTRUCTION and computer assisted LEARNING. Notice that when using

instructional programs students are defined as RESPONDERS, but when using collaborative⁵ or facilitative software students become INITIATORS who take on responsibility for their own learning. CALL programs available for learners like those who participated in this study fall overwhelmingly within the instructional category. Not surprisingly, such instructional programs make up the bulk of available software for adult literacy service providers (U.S. Congress, Office of Technology Assessment 1993:200).

Office productivity software (facilitative) can be used easily with beginning learners. As discussed in Chapter 1, Stone (1991) highlights ways to use word processing, database, and spreadsheet software for literacy learning projects. While developing literacy skills, learners simultaneously develop computer literacy with software used outside of instructional contexts. Further, with the promise of increasing access to on-line services and Internet listservs, it is possible for learners to be able to communicate via e-mail with other adult literacy learners around the

⁵By 'collaborative,' Wyatt means that the learner collaborates with the computer.

country, although such access is currently limited to but a few adult education programs (U.S. Congress, Office of Technology Assessment 1993:208).

Recall that writing software has been successfully used in collaborative writing approaches with children (Daiute 1985). Collaborative writing turns a solitary activity into a communicative act (Levin and Boruta 1983). Interaction during the writing process is also successful when learners are assigned specific roles in the interaction (Heap 1986). These approaches can also be used with and by adult learners.

Missing from the array of software for adult low-literate beginning learners of ESL is collaborative software. The software that could encourage beginning language learners to take risks and to explore their new language is now non-existent. The advent of multimedia technologies incorporating use of laserdiscs, increasingly affordable CD-ROM, and less complicated input devices (such as touch screens and mice) must hold some promise for low-literate adult learners to explore their target language and create meaning without being constrained by the limitations of hardware or the controlling format of instructional

software. Activities could be designed so that learners could work together.

The secret to working with adult ESL literacy learners with little school experience and a beginner's oral proficiency is to let their experience and their needs inform the content of instruction and to let their approach to learning clear a path for effective instruction and learning, an approach supported by results of psychological and anthropological studies of literate, but unschooled people (Scribner and Cole 1981). Software programs in which learners make decisions about what they want to learn or practice, unfettered from loops that require them to excel at school-based question/answer formats, would foster independence and confidence in learners' abilities to express themselves.

In this study, I have examined the discourse of NNS-NNS dyads using drill and practice software as part of their course of instruction in a ESL course for low-literate beginning speakers. In addition, I have studied the interaction of the learners with their teachers. In my analysis, I also treat the interaction among the learners and teachers with the computer

programs that they use. Interaction consists of task-based discourse. Study results indicate that even with the rigidly formatted software that they use, learners are encouraged to communicate with each other while solving language problems together.

Evidence for this lies in the variety of syntactic forms and communicative functions of directives. Furthermore, that learners demonstrate a preference for self-initiated and other-initiated self-repair routines shows that they are intent on communicating clearly and intent on understanding their partner's speech. Finally, learners use many forms of repetition as they interact, often incorporating on-screen text into their discourse. Imagine the potential effect of software that enables learners to exercise more control over what they are learning on their interaction.

Conducting this study has intensified my interest in developing more authentic approaches to the use of technology by adult ESL literacy learners. This has been, and is currently done, in the Truman ALL. At all proficiency levels, learners use the ALL as a writing workshop and publishing center for learner-written materials. Some learners dictate their stories to a

teacher, volunteer, or another learner who serves as a scribe while others type their own stories. The ALL instructional staff has used many of these texts to create an on-line library of learner stories with such themes as 'Life in My Country,' 'My Keepsake,' and 'Safety at Work.' The accessibility of these stories for other literacy learners makes them a popular choice among new readers.

Learners of different literacy levels use the ALL to write résumés and cover letters to help them in their job searches. Learners also have created greeting cards to send to friends and family using user-friendly printshop software. Learners may research academic and vocational training requirements for various professions with an annually updated database. More authentic materials can be developed for and used by the Kims, Juans, and Mariams struggling in adult ESL programs around the country.

CONCLUSION

In Chapter 1, 'Introduction and Literature Review,' I note that long-term, ethnographic studies of adult literacy programs are not funded by federal

research dollars, yet federal agencies require that projects that they support through demonstration grants indicate successful learner outcomes. This study, although not an ethnography, is important in demonstrating one common use of widely available and frequently used instructional technology. In this section, I explain how interactional sociolinguistic analysis of discourse is integral to better understanding of how beginning speakers communicate with each other. This is followed by implications for further research.

Analysis of Discourse

In ethnographic studies of communities and educational institutions, discourse analysis has proven to be a useful tool in explaining the relationship of discourse texts generated in different social contexts. Studies discussed in Chapter 1 include Heath's (1983) study of literacy and learning in families and schools in a Piedmont Carolina community in the process of integration and Boggs's (1985) study of native Hawaiian children's discourse practices in order to help teachers develop more culturally appropriate teaching

approaches. These are two of many examples of how discourse analysis within ethnographic studies have been used to improve children's schooling.

Carefully conducted heuristic analyses of discourse produced in educational institutions (e.g., Boggs 1985, Erickson and Schultz 1982, Heath 1983, Kleifgen 1985), medical institutions (e.g., Hamilton 1991, Tannen and Wallat 1982, 1983, 1986, 1987), and casual social settings (Tannen 1984) enable researchers to better understand individuals' strategies for participating in discourses. This study should help educators and educational researchers to better understand the relationships among learners, teachers, and instructional texts, as informed by the participants' own discourse. Discourse practices like these must be documented in order to account for a learner's language and literacy development, as well as to guide practitioners in the formation of more effective instructional practices and the design of authentic, relevant educational materials.

This is necessary now more than ever, as educational software programs and integrated learning systems not designed intentionally to meet the needs of

adult ESL learners are marketed to programs as if they are a natural solution to literacy needs of adult new learners of English as a Second Language. Adult learners, such as Maria, Minh, and Antonio express their delight in using computers to learn and practice, while Mariam, Juan, and Kim exhibit confusion and frustration when software does not meet their needs. This is part of the story told by listening to and examining learner discourse.

Differences between learner-learner and learner-teacher discourse are best captured by continuously audiotaping or videotaping naturally occurring interactions among participants who usually work with each other. Without such data, teachers would never know how learners interact when they are not present. Mariam's occasional attempts to initiate interaction would be lost. Juan and Kim's elaborate scheme to cover their inability to spell would remain unnoticed. The findings of this study would be unobtainable without the transcription of videotaped data and subsequent analysis.

Implications for Further Research

This study serves as a point of departure for additional research in the discourse of adult ESL learners interacting at the computer. This research has provided an examination of task-based interaction of learners, which is characterized by short, repetitive turns. Another area worthy of study would be to examine a situation in which social interaction at the computer would encourage speech genres characterized by longer turns at talk among learners who are capable of producing longer discourse. For example, pairs of learners could work with simulation or problem solving software, knowing that they would later be responsible for narrating what happened within the microworld to other learners.

To analyze the interactions of such a situation, the researcher would compare the social interaction at the computer to the discourse of the narrative event. I hazard a guess that social interaction would consist of task-related talk combined with some longer turns, as individuals negotiate decisions to be made. The narrative event would consist of longer turns as well, in which the primary speaker, or narrator, would

incorporate language s/he encountered while using the software.

Furthermore, it would be useful to test the effectiveness of lessons designed to assist low-literate beginning speakers in initiating learning situations. Such an example is discussed in Chapter 5, 'Repetition.' There, I offer a simple suggestion in which a learner could use a computer graphics program to create a picture of a worker on the job, complete with tools. As the learner built the picture, s/he could click on objects with a mouse, hear the word spoken and see it spelled. The print out would include a word bank as well as the picture. This product could serve as cue for the learner to tell and write a story based on his/her own experience on the job. There is no telling how learner-controlled programs that combine graphics and print with sound would affect social discourse among ESL learners working together at the computer until such programs are created and used by their target audience.

A Final Comment

Adult ESL literacy learners have affected my life in many ways. They have been my great-grandparents, farmers who emigrated from Central Europe. They have been my neighbors in the municipality where this research was conducted, learners in my classroom (both traditional and the ALL), and my friends. It is my hope that this research results in better understanding of their capabilities and needs as expressed through their social interaction with each other, their teachers, and computer programs.

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