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**Synchronous Computer-Mediated Team-Based Learning in the  
Spanish Foreign Language Classroom**

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## **Dedication**

This dissertation is dedicated to my family: to my daughters, Alex and Sophie, my husband, Mike, and my parents, Tom and Cornelia, whose love, and unfailing support made this achievement possible.

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# **Synchronous Computer-Mediated Team-Based Learning in the Spanish Foreign Language Classroom**

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This study presents an Activity Theoretical (Cole 1996; Engeström 1987) examination of team-based computer-mediated communication (CMC) in Spanish. The use of team “chat” activities, where the teacher is absent, provided socially-based opportunities for language practice and afforded social support for learners throughout the semester. The team chats created opportunities for social interaction that encouraged learners to bridge the gap between what they could do alone and what they could accomplish collaboratively with others, thus promoting the emergence of a Zone of Proximal Development (Vygotsky 1962).

This study analyzed the quantity of speech and the quantity and type of speech actions produced by the learners. The chats were characterized by equal participation. The absence of the teacher in the chats encouraged learners to take on teacher roles and to divide the labor in order to construct knowledge

collaboratively. Generally, two learners in each team were found to assume teacher roles. They produced higher percentages of discussion maintenance actions, on-topic moves, and elicits, and offered more linguistic support and scaffolding than their teammates. Learners overall tended to avoid the L1 and they produced high percentages of socializing actions, suggesting that the team-based chats generally fostered team solidarity. In interviews, learners confirmed that teams provided emotional as well as linguistic support and noted increased confidence and proficiency in Spanish, citing the team-chats as the cause.

Although the chats were characterized by intense social interaction, negotiation routines rarely occurred. Some evidence, however, of the incorporation of pragmatic, lexical and grammatical features was found, in addition to a unique form of negotiation, which evolved as a result of the collaborative team effort. This collaboration pushed learners to focus on form and to “output” (Swain 1995), perhaps causing interlanguage modification.

Although AT offers a valuable descriptive tool for the contextualized examination of language *use* in the chats, the fact that it does not make any predictions for language learning illustrates its limitations for an examination of language *acquisition*. This study proposes that AT be combined with a more predictive framework, such as the Pushed-Output Hypothesis (Swain 1995) to provide a more productive and fruitful examination of team-based language use and acquisition.

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# CHAPTER ONE

## Introduction

### 1.0 INTRODUCTION

Recent technological advances in network-based communication along with a shift toward a more social view of learning present special promise for foreign language learners. Of particular interest among various forms of computer-mediated communication (CMC) is synchronous, real-time communication or “chatting” due to its resemblance to oral interaction. Network-based CMC allows learners to communicate and collaborate with one another online via written text. CMC chatting has been shown to be beneficial for language learning. Not only has this procedure been found to promote more language production than in face-to-face oral discussions, higher rates of participation, increased motivation, and positive attitudes, but many studies also find that computer discussions show more language complexity and sophistication than oral discussions (Chun 1994; Kern 1995; Warschauer 1996a; Kim 1998). In fact, a few FL studies even make claims of improved linguistic competence with CMC due to the negotiation of meaning that chatting fosters (Chun 1994; Kern 1995; Beauvois 1998; Pelletieri 1999; Blake 2000).

The introduction of CMC in the foreign language classroom coincided with a shift in education from a cognitive view of learning to a more collaborative and social view of learning (Hawisher 1994) and, correspondingly, a recent trend

in education has motivated the creation of computer-supported collaborative learning (CSCL) environments. Research has shown that a collaborative learning structure leads to greater communication and exchange of information between students (Johnson & Johnson 1993, Sharan 1990).

Generally, studies of the application of CMC in foreign language learning are aligned with the Interactionist framework (Long 1985), which focuses on individuals and isolates them from the context of the interaction itself (Gass, Mackey, & Pica 1998; Varonis & Gass 1985; Gass 1997). The Interactionist framework (Long 1985) will be discussed in the subsequent section. More recently, however, as a result of a renewed interest in Soviet psychology and a shift toward a more social view of learning, the importance of studying the contexts within which interaction occurs is gaining considerable ground. In particular, due to the nature of a collaborative learning environment, any investigation into its benefits must integrate the language learner and the language learning context.

This study aims to examine the nature of the activity of synchronous computer-mediated team-based collaborative discussions in Spanish foreign language learning through the context in which the discussions occur. The design of this study draws heavily upon Sociocultural Theory and its emphasis on social interaction and collaboration. Activity Theory (Cole 1996; Engeström 1987) was chosen for the analysis and entails a combination of quantitative and qualitative methods involving the observation and description of the participants and processes of the activity.

In the next section, important findings in SLA with regard to interaction are discussed briefly, followed by a discussion of some of the most important findings in foreign language learning research with regard to the application of computer-mediated communication (CMC). Next, the benefits of a CSCL setting are described, followed by a discussion of its application in the field of foreign language learning. In the subsequent section, the limitations of the Interactionist theoretical framework (Long 1985) are examined with regard to the present study of team-based collaborative CMC chatting. Finally, a Sociocultural and Activity Theoretical perspective is presented as a more suitable theoretical framework for the purposes of the present investigation.

## **1.1 INTERACTION**

The Interactionist framework (Long 1985), based on input and output research models, has been extremely useful for understanding the benefits of classroom interaction in general, and of online chatting specifically. A very brief overview of the Interactionist framework is provided in this section. A more detailed account is provided in Chapter 2.

In order to promote the development of the foreign language learner's interlanguage system, Interactionist research advocates that foreign language learners be exposed to two processes: (1) the presence of comprehensible input in learner interactions; and (2) the chance for learners to structure their output grammatically (Swain 1985). The basic proposal is that, in order for the learner's interlanguage to evolve toward the target language, opportunities to focus on communicative deficiencies must be provided. It is believed that the negotiation

of meaning encourages the learner to focus on linguistic deficiencies; in other words, to “notice the gap” (Gass 1997; Schmidt 1990; Schmidt & Frota 1986). Many studies demonstrate that the negotiation of meaning provides learners with linguistically modified input, making the target language input in conversation more comprehensible (Gass, Mackey, & Pica 1998; Varonis & Gass 1985; Gass 1997). Opportunities for interaction and the negotiation of meaning are made available to students through informal group and pair work that require learners to converse in the target language.

Despite all the emphasis placed on the benefits of negotiation, Bearden (2003) points out that the outcome of negotiation is rarely discussed in Interactionist research, and that previous studies have not investigated the degree to which negotiation routines actually succeed in achieving these results.

## **1.2 COMPUTER MEDIATED COMMUNICATION**

The pedagogical benefits of Computer Mediated Communication (CMC) have rapidly become one of the most discussed topics in foreign language learning. The instructional use of local area networks, which link computers in a lab or classroom to each other, has introduced the possibility of real-time, synchronous, many-to-many on-line discussion by a whole class or by smaller groups within a class (Warschauer 1997). Another use of technology in the foreign language classroom, which does not restrict learners to any specific physical place, is the use of worldwide networks such as the Internet for computer-mediated communication via, for example, electronic mail, bulletin boards, or discussion lists. This medium enables learners to communicate and

take part in authentic learner-controlled conversations in a time- and space-independent fashion. It also provides a valuable mediational tool for collaborative learning.

Several studies make claims of improved linguistic competence with CMC, citing the negotiation of meaning that CMC fosters as the principal cause. Pelletieri (1999) and Chun (1994) claim that CMC fosters negotiation of meaning. Blake (2000) also makes this claim, although in his study he finds that negotiation routines comprise only a small fraction of overall conversational turns. Both Blake (2000) and Pelletieri (1999) claim that task type has an effect on the quantity and quality of negotiation that is promoted via CMC. Blake verifies Pica, Kanagy & Falodun's (1993) prediction and finds that group jigsaw tasks promote students' metalinguistic awareness. In jigsaw tasks each partner has part of the information that must be shared in order to solve the problem (two-way task). In Information-gap tasks, the pertinent information held by one partner must be solicited by the other in order to complete the task (one-way task). Whereas Blake's data show mostly lexical negotiations resulting from these online tasks, Pelletieri takes the research one step further, claiming that post-task composition activities that force the students to reflect on the language they produce promote morphosyntactic negotiations.

### **1.3 COLLABORATION**

The use of Internet-mediated communication is illustrative of a view of learning that is a collaborative rather than individual endeavor occurring within a new social and cultural context. Unfortunately, the enormous potential that a truly

collaborative computer-mediated instructional strategy can have for foreign language learning has not been fully realized. One of the causes is that there is a misconception among foreign language teachers and theorists about what exactly constitutes collaboration. There is much written about “collaborative” knowledge construction (Lotman 1988), and CMC’s “potential for promoting collaborative learning” and a need for more “collaborative approaches” (Warschauer 1997), but most often, the term “collaborative” is used casually in reference to an unspecified form of small-group work.

In a foreign language classroom, working in informal small groups, having pairs or small groups of learners write up dialogue, do exercises, and research a project together have been common practice. It is important to understand, however, the crucial difference between merely placing learners into small groups to work together on isolated activities and structuring a team-based collaborative learning environment. In the team-based environment, learners work with the same team for the entirety of a semester. The use of teams for language learning is aligned with Vygotsky’s belief that all higher-order functions develop out of language-based social interaction and that collaborative learning is essential for traversing the “Zone of Proximal Development” (ZPD), that is, for bridging the gap between what learners can do alone versus what they can accomplish by collaborating with others (Vygotsky 1962). Chapter 2 reviews the different methods of collaborative learning, and contrasts them to team-based learning. Chapter 2 also provides a review of the recent literature documenting the benefits



of a collaborative learning setting in general and a team-based setting in particular for foreign language learning.

#### **1.4 THE SLA RESEARCH TRADITION**

The majority of CMC studies are aligned with the Interactionist research traditions within SLA. Despite the enormous contributions of the Interactionist approach to the field of SLA, much of second language speech production research is based on cognitive-processing and information-processing approaches focused strictly on language as an aspect of individual cognition. For example, a long-standing practice of Interactionist SLA researchers is the collection of “performance data” whereby learner language that has been produced in interactions with others is recorded and analyzed. This method separates the individual from the linguistic tools that mediate the interaction. The collaborative dimension of meaning construction is lost (Savignon 1991), and the learner is isolated from the context.

According to Brooks and Donato (1994:262), the literature represents learner discourse as “the result of encoding, decoding, and modifying internal representations of the new language.” Language acquisition is viewed as an individual phenomenon centered in the mind of the individual (e.g., Brooks & Donato 1994). Similarly, according to Kramsch (2000:133), “Traditional theories of language and language acquisition are predicated on a clear dichotomy between the individual and the social.”

Nunan (1992) asserts that earlier studies do not reveal the use of language as a strategic tool for meaning construction. Similarly, Brickhard (1994) perceives the encoding-decoding view as deficient because it does not fully explain how discourse interacts with social realities in order to modify and construct the social situation. Brooks and Donato (1994:264) argue that “both the individual and the linguistic tools must be understood as an irreducible whole.”

More recently, it has been strongly asserted that L2 interaction studied within an individual and cognitive framework does not place enough importance on the influence of social context on individual linguistic development and does not adequately account for many of the sociolinguistic and communicative aspects of language use (Firth & Wagner 1997; Hall 1997; Liddicoat 1997; Rampton 1997; Thorne 2000).

The new context of CMC provides authentic opportunities for language learners to engage in meaningful interaction. Especially with regard to the interaction that occurs in a truly collaborative, team-based learning setting, the importance of context and activity for language development cannot be ignored. Goffman (1964) observed that oral communication is embedded in “frames” and therefore could only be understood in relation to the demands of the context.

Warschauer, in his review of CMC (1997), calls for the incorporation of a sociocultural ideology into foreign language teaching. Similarly, Kern (1998:57) states, “technologies of writing are always tied to particular forms of social interaction and conceptions of literacy,” and posits an approach that syncretizes elements of the socio-cognitive approach with a sociocultural approach. The

interaction that takes place in the new context possesses the inherent historical, contextual and social qualities of the situation in which it occurs. Thorne notes that “sociocultural and activity theory approaches reveal the contextual dimension of CMC FL interaction” that he argues “are still blank spots on the map for psycholinguistic and socio-cognitive approaches” (1999:74). Bearden (2003) finds that the Interactionist framework does not allow for a sufficiently detailed investigation of CMC interaction and proposes Sociocultural Theory as a richer model that provides a better framework for the investigation of learner discourse.

### **1.5 SOCIOCULTURAL AND ACTIVITY THEORY**

Up until about 1998, individual, largely cognitively-oriented theories informed the studies of oral interaction between second language learners (Long 1981; Swain 1985; Pica 1987; Gass & Varonis 1994; Gass, Mackey & Pica 1998). Since that time, SLA researchers studying the role of speaking in second language interactions have set aside the encoding-decoding position of second language interaction. In order to capture the context and activity of foreign language learning, recent studies place particular emphasis on a sociocultural and activity theoretical framework originating in part from the work of the Soviet psychologist L.S. Vygotsky (1896-1934) (e.g., Ahmed 1994; Diaz & Klingler 1991; Donato 1994, 2000; Kramsch 2000; Lantolf 2000; Lantolf & Appel 1994; McCafferty 1992; Pavlenko & Lantolf 2000; Thorne 2000; van Lier 2000).

Vygotskian theory emphasizes that social interaction and collaboration are essential to the learning process because, in Vygotsky’s view, learning is determined by social relationships and is mediated by language via social

discourse. He states, “(t)he most significant moment in the course of intellectual development, which gives birth to the purely human forms of practical and abstract intelligence, occurs when speech and practical activity...converge” (1978:24). Vygotsky’s notion of the Zone of Proximal Development (ZPD) has significant implications for peer collaboration. The ZPD is defined as the difference between what an individual can do alone and what the same individual can do with adult guidance or in collaboration with peers. This approach therefore emphasizes the need for a collaborative rather than individualistic learning environment where learners are enabled and encouraged to interact and give each other support with their language learning.

Activity Theory is based on the main ideas of Vygotsky. The other names most often associated with Activity Theory’s birth and development are A.N. Leont’ev, P. Galperin, P. Zinchenko, and A.R. Luria. The origins of the theory are found in Soviet psychology and the economical and philosophical writings of Marx in which activity is viewed as a social and historical enterprise that connects individuals and their environment. “[A]ctivity is initially social in nature, that is, it is developed only under conditions of cooperation and social interaction among people” (A. N. Leontiev 1981, p. 55). The activity itself is the general arena where thought is socially constructed. An activity is not a set of behaviors that individuals employ in order to adapt to their environment; rather, it is a complex system with its own local structure, actions, motives, and operations that have their distinctive dynamics and forms (A. N. Leontiev 1981).

One of the most important points concerning activity is its mediated character. Individuals use instruments, or tools, to perform a variety of tasks. Those tools mediate actions between the individual and the environment. Moreover, tools are not merely objects that aid in the completion of a task; they are also created by people under specific cultural and historical conditions. Thus, they are bound to the social relations underlying the task for which they were originally created.

Because Activity Theory assumes that “the human mind emerges and exists as a special component of human interaction with the environment” (Kaptelinin 1996, p.107), it allows a contextualized understanding of the phenomenon while keeping the human being in the center of the investigation. Thus, too, it stands in distinct opposition to the cognitive approach. Kuuti defines Activity Theory as a “philosophical and cross-disciplinary framework for studying different forms of human practice as development processes, with both individual and social levels interlinked at the same time.”

Therefore, purposeful activities mediated by language within a team-based learning environment (chat rooms, bulletin boards, newsgroups, etc.) where teams of learners are enabled and encouraged to interact, support one another, and reflect on their use of language, are potentially useful and powerful tools for foreign language learning. This social interaction is not an end in itself, but is instead the means to an end; an environment that fosters learning the language, learning about the language, and learning through the language as a group rather than an individual effort. To date, however, there has been a paucity of research in

the field of foreign language learning that documents the effects of the application of a computer-supported team-based learning environment to the activity of synchronous computer-mediated discussions. Moreover, the majority of the research on synchronous computer-mediated discussion, or chat, has examined teacher-led, full class discussions (Kelm 1992; Chun 1994; Kern 1995; Beauvois 1997). Very little investigative attention has been paid to the study of learner-dominated small-team interaction. The analysis of this learning situation is of primary interest in the present investigation.

The purpose of the present study is to describe the activity of computer-mediated team-based collaborative Spanish foreign language learning from a third-person (researcher) and a first-person (learner) perspective. At the heart of the study is the activity of synchronous computer-mediated discussions or “chat” carried out within a team-based collaborative learning setting. These chats are examined within the framework of Activity Theory, which provides a means by which the learner and the language learning context can be fully integrated, and a way in which to account for and explain the rich fabric of the collaborative endeavor.

## **1.6 OVERVIEW OF SUBSEQUENT CHAPTERS**

In Chapter 2, a review of the literature further highlights the need for this different theoretical framework. Chapter 3 presents the experiment design and a discussion of the units and methods of analysis. Chapters 4 and 5 present the quantitative and qualitative results, respectively. Chapter 6 is a discussion of these

results and their implications with regard to the field of SLA theory and pedagogy.

## **CHAPTER TWO**

### **Literature Review**

#### **2.0 INTRODUCTION**

The present chapter discusses the most current literature in the field of Second Language Acquisition (SLA) that is relevant to a study of language learning in a team-based computer-supported setting. The first section provides an overview of the history of the Interactionist tradition (Long 1985), including its origins and evolution. The next section traces the development of the uses of technology in language learning from its earliest software applications to the present trend for dialogic interaction via the computer. Next, the findings from the most recent body of research on synchronous Computer Mediated Communication (CMC) discussions in language learning are reviewed, and the theoretical underpinnings of recent SLA research in this field are presented, followed by the research questions that form the basis of this investigation.

#### **2.1 THE INTERACTION HYPOTHESIS**

A long-standing interest of SLA research has been the benefits provided by interaction in the target language. The Interactionist framework (Long 1985), based on input and output research models, has been extremely useful for understanding the benefits of classroom interaction in general, and of online chatting in particular. Stephen Krashen's (1985) Input Hypothesis claimed that



“humans acquire language in only one way – by understanding messages or by receiving ‘comprehensible input’” (Krashen 1985:2). For Krashen, language acquisition occurs when a learner is surrounded by target language input at  $i+1$ , where  $i$  represents the learner’s current level of competence and  $+1$  corresponds to the stage a little beyond the learner’s current level of comprehension; that is, the level subsequent to  $i$  in a natural developmental sequence. The learner progresses from stage  $i$  to stage  $i+1$  by comprehending input containing  $i+1$  (Krashen 1982). Furthermore, Krashen argues that it is “theoretically possible to acquire language without even talking” (1982:60). The extreme importance that this hypothesis places on input over communicative interaction has been questioned (Porter 1986). Many researchers believe that conversational interactions in the classroom are as crucial as input, if not more so, for the development of the learner’s communicative competence (Porter 1986; Gass 1988, 1997; Savignon 1972; Long 1981).

As a consequence of this opposition, Long’s Interaction Hypothesis (1985) was developed, which proposes that interaction among foreign language learners in which the learners negotiate meaning with other learners greatly enhances the conditions for second language acquisition (Long & Robinson 1998).

Long’s (1985) Interaction Hypothesis was followed by Swain’s Output Hypothesis (1985). The Output Hypothesis states that input is not enough and that interaction and form-focused negotiation foster modified learner language. Language production itself can push the learner from a more semantic type of

language processing required for comprehension to a more syntactic processing (Swain 1985, 1995; Swain & Lapkin 1995).

In fact, much research suggests that foreign language students must be exposed to two processes inherent in interaction: (1) the presence of comprehensible input in learner interactions; and (2) the chance for learners to structure their output grammatically (Swain 1985). It appears that, in order to stimulate the development of the learner's interlanguage system toward the target language, opportunities to focus on communicative deficiencies must be available. These types of opportunities have been made available to learners through informal group and pair work that require them to converse in the target language.

Numerous studies of non-native speaker (NNS) interaction in the second language classroom have brought attention to the negotiation of meaning and modification of L2 development (Long 1985; Long & Porter 1985; Pica, Halliday, Lewis & Morgenthaler 1989). These studies have demonstrated that careful and often labored negotiation of meaning provides learners with linguistically modified input, making the target language input in conversation more comprehensible for the learner's subconscious language processing mechanism (Gass, Mackey, & Pica 1998; Varonis & Gass 1985; Gass 1997). Pica (1994:494) defines the negotiation of meaning as "the modification and restructuring of interaction that occurs when learners and their interlocutors anticipate, perceive, or experience difficulties in message comprehensibility." The negotiation of meaning encourages the speaker to focus on linguistic deficiencies, in other

words, to “notice the gap” (Gass 1997; Schmidt 1990; Schmidt & Frota 1986). During conversation, instances of communicative confusion presumably arise and the partners set aside the discussion at hand in order to resolve the problem through negotiation by the use of clarification requests and confirmation checks. A clarification request is defined as an interactional move in which a speaker solicits aid in understanding a partner’s previous utterance by means of questions or statements of non-comprehension. A confirmation check is defined as the repetition with rising intonation of all or part of a partner’s previous utterance in an attempt to confirm that the message was understood correctly. This practice can result in the correction of errors and a more evolved interlanguage. Negotiated interaction, therefore, is a most vital source of data and the need remains for the continued identification of the ways in which learners receive comprehensible input and comprehensible output (Pica, Halliday, Lewis & Morgenthaler 1989: 84).

## **2.2 TECHNOLOGY AND LANGUAGE LEARNING**

An exhaustive review of all research areas related to technology and SLA is beyond the scope of this study. This section, however, provides an accounting of the earliest applications of technology in foreign language learning, followed by a classification of the various software programs used in the foreign language classroom over the past two decades. This classification highlights the logical evolution of the implementation of technology in the foreign language classroom from drill and practice-type software up to the current fascination with internet-

based tools such as CMC. Those studies that best represent the important field of CMC are included.

### **2.2.1 Background**

Computer-Assisted Instruction was introduced in the early 1960s and much ground-breaking work in this area took place in the late 1960s and 1970s. The large quantity of literature on computer-assisted instruction from this time period is surprising. Several projects were based on technically sophisticated hardware systems, for example, the PLATO project of Illinois (Ariew 1974; Chapelle & Jamieson 1983) and the FRAND project at the University of Alberta (McEwen 1977).

According to Wyatt (1983:3), the advent of the microcomputer “completely changed the rules by which the field of educational computing previously operated.” In the early to mid 1980s, computers became relatively financially accessible and the number of computers in schools increased dramatically.

### **2.2.2 Classification of Computer Applications**

A huge number of technological offerings for language learning fall into the category of drill-and-practice software. More recently, this type of program has been called Intelligent Tutoring Systems. There are many other types of educational software programs available, however. Software programs used in the foreign language classroom are traditionally classified in the following manner: tutorials with drill-and-practice; problem solving; simulations; and instructional

games (Hope *et al.* 1984). Several more types of software programs, such as Hypertext, have been available since 1984, in addition to online programs and resources made available on the World Wide Web.

Tutorials present new information to the learner by means of explanations, charts, tables, definitions, and exercises. Many tutorial programs include computerized language drills. These programs represent a behaviorist approach to L2 learning and are based on computational linguistics, which studies the rules of language and how they can be used to create computer programs that comprehend and generate human language. Although few empirical studies have been undertaken to assess the benefits of drill and practice programs, computers are extremely efficient in their delivery. In these programs, the learner works alone and must either choose from a list of possible answers or supply “correct input.” These programs assume that the learners are already familiar with the basic concepts and that they are ready to increase their understanding of the material. Emphasis is placed on accuracy, fluency, and speed of performance (Balajthy 1986).

Drill and practice programs may be appealing because, in addition to their convenience, they are similar to the familiar language lab. Crook (1994), however, criticizes drill and practice programs because they reduce educational activity to a boring rehearsal of discrete subskills. Likewise, Chapelle (1997) notes that later applications of drill and practice type programs, known as intelligent tutoring systems, are incapable of encoding the complexity of human language. On a positive note, Salaberry (1996) points out that these systems can

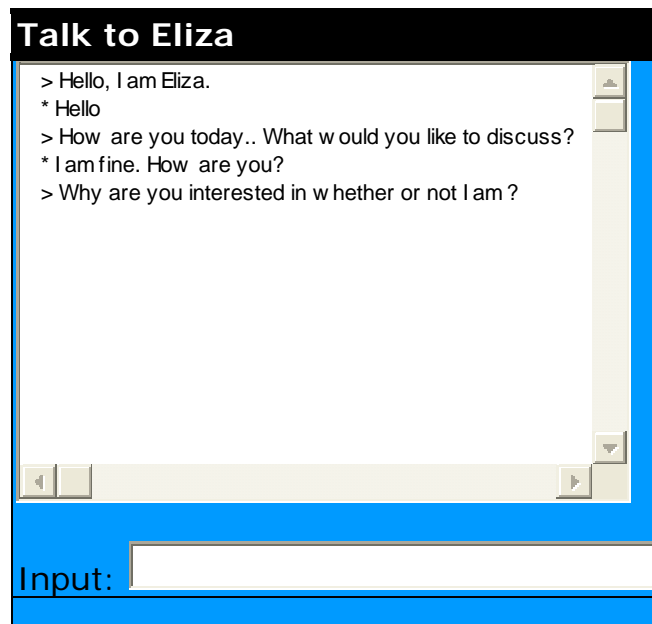
provide form-focused instruction. Similarly, Thorne (1999) sees value in their function as a multi-media tutorial resource in the Vygotskian sense because they can serve as a mediational resource with the potential to create or expand the learner's Zone of Proximal Development (ZPD) (discussed in section 1.5). They can support an activity that the learner could not accomplish alone. Thus, the field has witnessed a recent trend toward these programs used not as teaching instruments, but rather as FL learning tools by which learners can accomplish a certain task (Salaberry 1996).

In contrast to drill and practice, problem-solving programs offer practice on a higher plane through advanced tasks. Instructional games allow learners to use their knowledge on a certain subject matter to overcome obstacles and reach goals. With Hypertext, words or phrases on the screen can be electronically linked to other texts that learners can choose to follow, later returning to the text of the original link.

Currently, there is a variety of simulation software programs available in addition to free online programs and resources that require minimal computing skills. Task-based activities can engage learners in authentic situations. The term "simulation" covers a range of activities. The common feature of all simulations is that the user can participate in and potentially change the situation presented by the computer. Several types of simulations are available. In one type of simulation, the computer acts as a partner in an open-ended dialogue with the learner. *Eliza* (Figure 2-1) is an example of this type of program, in which

learners interact with the computer, drawing from a bank of canned responses based on keywords ( <http://www.manifestation.com/neurotoys/eliza.php3>).

**Figure 2-1: *Eliza***



The majority of software programs were designed for the individual learner, working alone at the computer. Many researchers pointed out the limitations of the individualized use of the computer, however. Among these limitations, Male, Johnson, Johnson, and Anderson (1986) include: (1) social isolation; (2) lack of oral explanation and elaboration of the information being learned; (3) lack of peer social models; and (4) impersonality of both the computer and the feedback it provides. These researchers argue that these limitations are eliminated in a collaborative learning setting, in which learners work together to accomplish a task or project. Johnson, Johnson, and Stanne (1986) found that oral interaction and collaborative acts are greatly increased if

the learners are not merely placed in pairs or groups at the computer, but rather are placed in cooperatively-structured computer activities.

An example of a more collaborative online resource is a Webquest, which was first developed in 1995 by Dodge and March at San Diego State University. Webquests are inquiry-oriented activities in which groups of learners use information drawn from the Web to solve problems or complete projects. *Travelsim* is an example of a Webquest that offers an online travel-planning simulation for ESL students. *Odyssee*, developed at the Goethe Institute for learners of German, is another type of Webquest in which learners of German exchange emails with native speakers. All participants initially are anonymous and use code names. The task is to discover where everyone is from on the basis of information received via weekly e-mails.

The recent shift in SLA interaction research from an interest in cognitive theories of learning to social and collaborative approaches is reflected in the evolution of the applications of technology to FL learning. Rather than focusing on opportunities for human-machine interaction, current CMC research applied to SLA emphasizes the importance of opportunities for human-to-human interaction. Like non-CMC interaction, it is believed that CMC interactions foster high levels of L2 development.

### **2.3 COMPUTER MEDIATED COMMUNICATION (CMC)**

In contrast to software programs in which learners interact with the computer, network-based CMC allows language learners to communicate and collaborate with other learners and with native speakers through a variety of



media. CMC comes in many forms and offers a variety of communicative situations. Asynchronous communication includes e-mail, discussion forums, and bulletin boards. Synchronous communication includes one-to-one conferencing, MUDs and MOOs<sup>1</sup>, Chat-based systems, and programs *Active Worlds*, where learners visit and chat via written text in 3D virtual worlds that have been created by other users. Users can create their own virtual world for others to visit and in which they can interact.

Until very recently, synchronous, computer-mediated audio communication required special software and hardware along with the use of costly specialized telephone lines. Recent advances in programming, computer speed, and Internet bandwidth have brought the ability to talk with and see others anywhere in the world to millions of computer users at little or no additional cost. *Wimba*, for example, offers web-based voiced software that is specially designed for language learning and higher education. With *Traveler*, users speak through 3D MUD-like avatars in a form of voiced chat.

The International Tandem Network, funded by the European Commission, offers the opportunity to learn language via email exchange with native speakers. In eTandem Europa ([www.slf.ruhr-uni-bochum.de/etandem](http://www.slf.ruhr-uni-bochum.de/etandem)), telephone and Internet audio have been used to allow pairs of learners with different native

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<sup>1</sup> MUDs (Multiple-User Domains) and their successors, MOOs (Multi-user Domain, Object Oriented), are full-fledged replicas of virtual worlds. In MUDs, users usually have to rise to such challenges as dragon slaying to become a wizard and achieve the right to extend the database, while MOOs are generally visited for social or educational purposes. Many MOO environments have preserved part of the MUD's game-like approach to online interaction, and regular MOO users tend to regard themselves as players or participants in a role-playing situation rather than simply as "users" of the environment.

languages to interact (see the Tandem Bibliography available at [www.slf.ruht-uni-bochum.de/learning/tandbib.html](http://www.slf.ruht-uni-bochum.de/learning/tandbib.html), in addition to Apfelbaum 1993; Brammerts 2002; Gläsmann & Calvert 2001; Helmling 2002; Kötter 2003; O'Dowd 2002; Rosanelli 1992).

## **2.4 THE NATURE OF THE CMC MEDIUM**

One of the most perplexing issues with regard to synchronous CMC chatting in the foreign language literature is how to classify the medium. Often it is referred to as a “hybrid” between spoken and written discourse. As early as 1991, Ferrara, Brunner and Whittmore, who coined the phrase *Interactive written discourse* to describe CMC, identify it as “an emerging hybrid register.” Wilkins (1991) finds that linguistic features of oral interactions occur very often in CMC. These features are identified as “indicators of personal involvement, disfluencies, and representations of paralinguistic elements” (p. 56). Wilkins concludes that what happens in CMC is “computer talk.” Similarly, Tudini (2002, 2003) observes that repairs, the incorporation of target forms, the variety of speech acts, and discourse markers of learner CMC discourse are more similar to oral rather than written discourse. Beauvois (1992) refers to the written communication in CMC as “speaking” and as “conversation in slow motion,” indicating an unspoken acceptance of the “hybrid oral-written genre” approach. Likewise, Gastaldi (2002) refers to Italian CMC discourse as italiano parlato digitato (*digital spoken Italian*). Negretti (2000) identifies elements of oral interaction in chat discussions such as the overall structure of the interaction, turn-

taking organization, turn design, expression of paralinguistic features and some pragmatic variables.

## **2.5 CMC STUDIES**

The interest in using CMC in the foreign language classroom has grown out of SLA Interactionist research (Long 1985), discussed earlier, that shows that increased opportunities for negotiated interaction by which learners receive comprehensible input and produce comprehensible output aid in the development of the interlanguage. There is an abundance of evidence showing that CMC can provide opportunities for interaction and collaboration among learners in the classroom and between learners and native speakers. Due to the potential of the Web and the Internet as a window to the authentic world of the language being taught, and the fact that it allows for far richer interaction and communication than anyone thought possible up to now, the use of CMC in the foreign language classroom has been a principal research focus for over a decade. In general, CMC chatting has been viewed in a unanimously positive light regarding its potential contribution to language learning. Many studies investigate learner discourse in web-based chat discussions (e.g., Kitade 2000; Negretti 1999; Sotillo 2000), while others compare the outcomes of these interactions to the results of face-to-face discussions (Kern 1995; Sullivan & Pratt 1996; Warschauer 1996).

### **2.5.1 CMC and Face-to-Face Discussions**

Many studies exist that compare face-to-face and CMC discussions. Several find similarities between CMC text-based interactions and face-to-face

interactions (e.g., Chun 1994; Kern 1995; Pelletieri 2000; Smith 2003). Sotillo (2000), for example, finds that CMC discourse functions are similar to those found in face-to-face conversations. Kern (1995) compares the linguistic quality of CMC discussions to face-to-face discussions, and observes that “learners’ language output was of an overall greater level of sophistication in terms of the range of its morphosyntactic features and in terms of the variety of discourse functions expressed” (p. 470). Kim (1998) and Warschauer (1996) confirm this claim, and also find that computer discussions show more language complexity and sophistication than oral class discussions.

### **2.5.2 Noted Advantages of Chatting Over Face-to-face Discussions**

Several studies that compare face-to-face and CMC discussions find that chat environments have certain advantages over face-to-face discussions. These advantages are social, linguistic, and affective. One advantage of chatting is the equalizing effect of the chat environment (Bump 1990; Kelm 1992; Kern 1995; Chun 1994; Warschauer 1996). One of the first to investigate the educational use of CMC, Bump (1990), reports that one of the primary advantages of CMC interaction is that it is “a truly egalitarian, student-centered interchange” (p. 54). Bump’s findings are consistent with those of other studies that find an increase in participation rates in the CMC sessions (Kelm 1992; Chun 1994; Kern 1995; Patterson 2001; Freiermuth 1998). Warschauer (1996) finds that unequal participation due to nationality in the face-to-face discussions does not occur in CMC, and that CMC does not present a disadvantage to more verbal learners. Kelm (1992) also reports a CMC equalizing effect. Kern (1995) finds striking

differences in the amount of output. Learners in his study took 2 to 3 1/2 times more turns in the CMC sessions than in the follow-up face-to-face discussions. Beauvois (1998), Kern (1998), Pratt and Sullivan (1994), and Warschauer (1996) have all found that learners produce more language, submit more turns at talk, and participate at higher levels in electronic conferencing sessions.

Another important advantage of CMC is that it can promote learner centeredness. Bump (1990), as cited above, recognizes this characteristic. Kern (1995), Chun (1994), Warschauer (1996), and Rankin (1997) observe that the decentralization of the instructor in CMC gives learners a greater role in managing the discourse. Thus, CMC can dramatically reduce the domination of discussions by the instructor and more confident learners.

It is commonly held that CMC creates a low stress, low anxiety environment that encourages equal participation by all participants. There is much anecdotal evidence in addition to learner feedback to support these claims. Kern (1995) reports that 80% of his participants report feeling more confident about participation in CMC discussions. Similarly, Warschauer (1996) and Freiermuth (1998) report a lower stress level among learners in the electronic discussions. Kim (1998) finds that high anxiety learners participated more in CMC than in face-to-face discussion. Rankin (1997) claims that CMC discussions lower the affective filter and several studies associate this decrease in stress to the increase in participation (e.g., Bump 1990; Kelm 1992; Beauvois 1998; and Kern 1995). A well-designed and comprehensive study by Beauvois (1998) confirms these

findings and reports that 92% of learners report lowered anxiety in the CMC sessions in comparison to oral discussions.

This lowered anxiety in chat discussions has been shown to lead to an increase in motivation. Motivation is shown to increase in general with CMC and especially when computer-based tasks are more integrated into the overall goals and structure of the course (Warschauer 1996, 1999). Kern (1995) attributes the increased motivation to the interactions via CMC that promoted peer learning.

Motivation is also closely linked with attitude. A vast majority of the studies focus on the attitudes of the learners toward CMC. None finds negative attitudes toward computers. All find overwhelmingly positive learner attitudes toward the use of CMC in the language classroom. This attitude is consistent across a number of variables including gender (Warschauer 1996b; Meunier 1996), computer skills (Beauvois 1998; Warschauer 1996b; Meunier 1996), and personality (Beauvois 1998; Meunier 1996). Beauvois (1998) finds that CMC was such a positive experience for her learners that they were more motivated and wanted to spend more time in the lab. Kelm (1992) finds that his learners had very positive attitudes toward CMC partly due to the camaraderie it engendered. This effect in turn motivated learners and made them more eager to take part in the discussions.

Finally, another advantage is that learners are found to be more likely to monitor and edit language produced in CMC since they have more time to view their language as they produce it and can later examine chat logs (Kern 1995; Ortega 1997; Pelletieri 2000). Pelletieri (2000) and Kern (1995) both note that

having more time to monitor and produce turns may be a key factor in the development of grammatical competence among language learners and it may promote “noticing” (Swain & Lapkin 1995).

## **2.6 CMC AND SLA**

Much of the CMC literature reports that chatting is especially effective in promoting language learning. The advantages cited above for CMC interaction have been shown to explain the increased language production and improved linguistic competence found in computer-mediated interaction. For example, Beauvois (1998) finds that Interchange groups achieved significantly better grades on their oral exams than the control groups, and observes that the researchers and teachers were surprised by the superiority of the oral expression in the exams of the experimental group (1998). Similarly, in Chun’s (1994) study of fourth-semester German foreign language learners, she finds that the learners demonstrated increased morphological complexity in their written work over the course of the semester. Kern (1995) confirms Chun’s findings in his analysis of the quality of the output in CMC sessions and finds that not only did learners produce more morphosyntactic features (e.g., tense, mood, conjunctions), but they also used a wider variety of discourse functions. Warschauer (1996) finds significantly more lexical and syntactic complexity in ESL CMC interactions than in face-to-face discussion.

CMC has also been claimed to offer increased opportunities for the negotiation of meaning. Blake (2000), Pelletieri (1999), and Chun (1994) all find

that CMC fosters the negotiation of meaning, which is crucial for the development of interactive competence. Other synchronous CMC studies of Japanese also find comprehensible input and modified output resulting from the negotiation of meaning that occurs in the CMC environment (Iwasaki & Oliver 2003; Toyoda & Harrison 2002). Blake (2000), however, finds that the total number of negotiation routines comprises only a small fraction of the overall conversational turns.

Not all findings are entirely positive, however. For example, Bearden (2003) examined interactions between native speakers and non-native speakers as well as interactions between non-native speakers and other non-native speakers in CMC and oral discussion formats. She found no evidence that the negotiation routine brought about a corresponding modification of the interlanguage.

Different uses of CMC with regard to task type and group size have been shown to yield different outcomes in terms of the quantity and the complexity of language produced. Warschauer (1999) finds that on-line tasks must be learner-centered and meaningful. Blake and Pelletieri have found that task type has a striking effect on the quantity and quality of negotiation that is promoted via CMC. Blake finds jigsaw tasks to be superior in promoting learners' metalinguistic awareness. Whereas Blake, and Smith (2003), find mostly lexical negotiations resulting from these online tasks, Pelletieri takes the research one step further, finding that post-task composition activities that force the learners to reflect on the language produced promote morphosyntactic negotiations. In contrast, Bearden (2003) investigated CMC discourse in three different task



formats: two-way information gap, information-exchange, and free discussion. Very little significant difference was found between the three task types with respect to the frequency of negotiation.

LeMond (2002), a pilot study on interaction in information gap versus free discussion activities in CMC, looked at the quantity of negotiation produced by the learners in the two formats. Although the information gap task was found to promote more negotiation routines than the free discussion task, the total number of negotiation routines for each task type was negligible. In the information gap task, negotiation routines comprised approximately 3% of the conversational turns, compared with 2% for the free discussion tasks. More importantly, it was also observed that the information gap task created opposition within the dyads. Learners became frustrated when their partners could not effectively communicate the necessary information to complete the assigned task. When the communication broke down learners resorted to English and most often did not even attempt to negotiate meaning with their partners. Thus, the use of information gap tasks was found to run counter to building social relationships within the learner pairs.

## **2.7 THE SOCIAL SETTING OF CMC**

Several studies recognize that the digital environment of CMC is social. Beauvois (1998) observes that, as the learners' computer conferencing skills improve, they are better able to express themselves and can interact more effectively with peers, resulting in the creation of a social community. Similarly,

Kern observes that the language in his data is a product of students' social interaction, with the context reflected in its form (1995). Due to this social context, Kern notes that the framework is oral despite the written form of the medium (1995). Although he finds the discourse generated during CMC sessions to be similar to written discourse because of its preference for certain syntax (e.g., subject-verb inversion in French), and greater lexical density, Kern also observes that it resembles oral discourse in its "light, familiar style, direct interpersonal address, rapid topic shifts, and frequent digressions" (1995:459). In a later study, Kern (1998) describes MOOs as "electronically mediated social environments" (p. 81).

## **2.8 COMPUTER-SUPPORTED COLLABORATIVE LEARNING IN FL**

The fact that CMC promotes interaction and the creation of a social learning community makes it a powerful tool with great potential for second language acquisition. The creation of computer-supported collaborative learning (CSCL) environments can further maximize CMC's potential in the FL classroom. Collaborative learning research conducted in the last two decades shows that its use in the classroom has pedagogical benefits. In comparison with whole-class methods, there is evidence that the use of collaborative learning promotes higher level achievement, positive social relations, and higher level motivation for learning (Sharan 1990; Sharan & Schachar 1988; Sharan & Sharan 1976; Slavin 1990; Trottier & Greer 1992). The research shows that CSCL leads to greater communication and exchange of information between students (Johnson & Johnson 1993; Sharan 1990). Collaborative L2 activities are found to

be beneficial because they provide increased opportunities for interaction and negotiation of meaning among learners (e.g., Swain 1994; Bejarano 1987).

Furthermore, it has been shown that when a collaborative learning environment is supported by CMC, its potential success for foreign language learning is remarkably enhanced (McGroarty 1991, Bejarano 1987). To date, however, no research has been conducted that documents the effects of team-based learning, a specific type of collaboration, on FL learning. The concept of team-based learning is discussed in the following section.

### **2.8.1 Team-based Learning**

Varying terminology has appeared in the literature in reference to group work in the classroom: learning groups (Bouton & Garth 1983), collaborative learning (Bruffee 1999; Hamilton 1997), cooperative learning (Johnson, Johnson, & Smith 1991; Millis & Cottell 1998; Slavin 1983) and team-based learning (Michaelsen 1983; Michaelsen & Black 1994; Michaelsen, Black & Fink 1996). Despite the different terms, all refer to the same general idea of placing individual learners into small groups in order to promote more active and more effective learning.

Three forms of small-group work emerge in the literature: informal small-group work; cooperative or collaborative learning;<sup>2</sup> and team-based learning. The use of informal small groups is by far the most common because it is the easiest format to employ. Generally, this method of small-group work is short term and

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<sup>2</sup> The terms “collaborative” and “cooperative” learning often are used interchangeably in most of the literature. The term “collaborative learning” is used here to refer to both and is distinguished from the term “Team-based learning.”

does not go beyond providing brief periods of practice in a narrowly defined exercise.

The use of more structured collaborative learning activities became common practice in the 1980s and 90s. In general, this type of small-group work consists of the frequent use of pre-planned small-group activities that promote individual and group accountability without changing the overall structure of a course.

In contrast to collaborative learning, team-based learning views small groups as the basis of a semester-long instructional strategy in which a sequence of small-group activities is designed and linked to accomplish two purposes simultaneously: reinforce student learning and enhance team development. Unlike small-group work, in team-based learning, learners work within the same team for the entirety of the semester. The rationale for this format is that it takes time for group members to get to know each other well enough to start functioning effectively as a team. Ideally, team-based learning proponents recommend groups of 5-7 learners in order to ensure that the team will have ample resources (Fink 2002; Michaelsen 2002). Teams are formed and activities are designed according to several guidelines. First, teams must be properly balanced with regard to such features as age, race, gender, as well as academic assets and liabilities. Second, procedures that ensure both individual and group accountability must be in place. Third, group assignments must require input from all group members. Finally, learners must have the opportunity to evaluate their peers (Michaelsen 2002). Therefore, in comparison to groups involved in informal small-group work and

collaborative learning, a team is characterized by a high level of individual commitment to the welfare of the team in addition to a high level of trust among team members. In order to develop an effective learning team, members spend time interacting together, pooling resources in order to meet common goals and complete challenging tasks.

The use of an electronic learning space can greatly enhance team-based learning. A common difficulty in the implementation of team-based learning is that in order to do the work, all members of a team must be present. The use of a technology-supported learning context alleviates this problem. Technology can be used to share files, search databases and the worldwide web, and interact both synchronously in a chat discussion and asynchronously via email and discussion boards with other learners.

## **2.9 THEORETICAL FRAMEWORK**

In order to investigate the processes of foreign and second language acquisition, a long-standing practice of SLA Interactionist researchers is the collection of “performance data” by recording and analyzing learner language produced in interactions with others. This practice was influenced by research done in the fields of anthropology and linguistics, primarily by Hymes (1961; 1962; 1974). Hymes stressed that language is a social and cultural phenomenon that is learned through social interactions. Although Hymes stressed the importance of communicative competence (the ability to produce utterances that are not so much grammatical but, more important, appropriate to the context in which they are made) over Chomsky’s (1957) notion of linguistic competence

(the ability to produce utterances that are grammatical), Chomsky's distinction between competence (an idealized capacity) and performance (the production of actual utterances) dominated SLA with a view of language as an aspect of individual cognition.

The origins of this distinction are found in de Saussure's (1916/1966) conception of language, which stressed the dichotomy of *langue* and *parole*. Dunn and Lantolf (1998) trace Chomsky's as well as Krashen's (1985) views on learning back to de Saussure. They discuss de Saussure's conception of language, noting that the separation of language (*langue*) from its uses (*parole*) resulted from de Saussure's aspiration for linguistics to attain the status of a true "science" that "studies the systematic structure of signs" (Dunn & Lantolf 1998: 425). For the same reason, de Saussure maintained the primacy of *langue* and defined it as a "rule governed, closed system of signs" instead of a "mediational artifact constructed by humans in history" (ibid.). Therefore, de Saussure's view of language sets language apart from human sociocultural history, making human activity as well as "the role of human relations in the learning and use of language" irrelevant (Dunn & Lantolf 1998: 426).

Bakhtin's (1986) dialogism offers a critique of de Saussurean linguistics. Bakhtin, regarding de Saussure's rather abstract system as devoid of social context, argued that a speaker's utterances were always directed at others, who in turn would produce countering utterances, as in a dialogue. Rather than having a relatively fixed significance, a sign was more of a changing field, a center of contention between speakers in different voices (p. 88).

Much of second language speech production research is based on these cognitive-processing and information-processing approaches focused strictly on language as an aspect of individual cognition. As a result, the acquisition of language is perceived as an individual phenomenon centered in the mind of the individual (Brooks & Donato 1994).

Recently, it has been strongly asserted that L2 interaction studied within an individual and cognitive framework only superficially recognizes the influence of social context on individual linguistic development and its potential for truly collaborative L2 acquisition (Firth & Wagner 1997; Hall 1997; Liddicoat 1997; Rampton 1997; Thorne 2000). Thorne (2000) points out that this type of cognitively-oriented research generally requires isolated variables, an experimental design that is easy to replicate, and specific decontextualized and controlled environments. Firth and Wagner (1997) note that this approach ignores the importance of context and sociocultural and sociohistorical issues, and does not adequately account for many of the sociolinguistic and communicative aspects of language use.

According to Brooks and Donato (1994:262), the literature represents learner discourse as “the result of encoding, decoding, and modifying internal representations of the new language.” Brickhard (1994) perceives the encoding-decoding view as deficient in that it only reflects message transmission and reception and does not fully explain how discourse interacts with social realities in order to modify and construct the social situation. As Savignon (1991) points out, the collaborative nature of meaning construction is lost when the task is one

of sending and receiving pre-fabricated, unalterable meaning. Similarly, Nunan (1992) notes that earlier studies do not reveal how language is used as a strategic tool for constructing meaning and that the speech produced by learners is usually reduced to a set of figures and numbers.

Especially with regard to the interaction that occurs in a truly collaborative, team-based learning setting, the importance of context and activity for language development cannot be ignored.

## **2.10 THE IMPORTANCE OF CONTEXT AND SOCIOCULTURAL ISSUES IN INTERACTION**

### **2.10.1 Sociocultural and Activity Theory**

Recently, SLA researchers studying the role of speaking in second language interactions have set aside the encoding-decoding position of second language interaction in favor of a theoretical framework originating in part from the work of the Soviet psychologist L.S. Vygotsky (1896-1934) (Diaz & Klingler 1991; McCafferty 1992; Ahmed 1994; Coughlan & Duff 1994; Donato 1994, 2000; Lantolf & Appel 1994; Gillette 1994; Kramsch 2000; Lantolf 2000; Pavlenko & Lantolf 2000; Thorne 2000; van Lier 2000).

Sociocultural Theory, a broad-based intellectual movement of the cultural-historical school of Russian psychology, rejects the communicative view of language, which makes a clear distinction between thinking and speaking and views the role of speaking as simply the transmission of previously formed thoughts (Lantolf 2000). The fact that, for Vygotsky, thinking and speaking are inherently interrelated differs from the encoding-decoding viewpoint. Brooks and



Donato (1994:264) note that the encoding and decoding perspectives of speech production separate the individual from “the semiotic systems mediating their activity” and they argue that “both the individual and the linguistic tools must be understood as an irreducible whole.”

Sociocultural theory emphasizes that social interaction and collaboration are essential to the learning process. This social interaction is not an end in itself, but instead the means to an end; an environment that fosters learning the language, learning about the language, and learning through the language as a group rather than an individual effort. Central to Vygotsky’s theory is the zone of proximal development (ZPD), which is “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (Vygotsky 1978: 86). Vygotsky perceived that communication focuses on how individuals, through speaking, preserve their identity and collaborate to construct a social world as they communicate (Brooks & Donato 1994:273). The Vygotskian approach, then, emphasizes the need for a collaborative rather than individualistic learning environment where learners are enabled and encouraged to interact and give each other support with their language learning.

Activity Theory is a commonly accepted name for a line of theorizing and research initiated by the founders of the sociocultural movement, who include L.S. Vygotsky, A.N. Leont’ev, and A.R. Luria in the 1920s and 1930s. Kuutii (1996) traces its origins back to the 18<sup>th</sup> and 19<sup>th</sup> century German philosophers

Kant, Fichte, and Hegel. According to Kuutti, these philosophers emphasized the role of mental activity in defining the relationship between subject and object. This concept of activity was brought into Materialistic Philosophy by Feuerbach in the writings of Marx and Engels. According to Engstrom (1999), in his *Theses on Feuerbach*,<sup>3</sup> Marx was the first philosopher to explain in detail the theoretical and methodological core of the concept of practical-critical activity, where the central activity was the transformation of material objects (Kuutti 1996). According to Engstrom (1999), Marx found human nature not within the individual, but in the worlds of artifact creation and use.

Based on Marx and Engels' materialist interpretation of the Hegelian conception of self-creation through labor as the essence of humanity, Leont'ev (1981) formulated a concept of human object-oriented activity and emphasized that "only through a relationship with other people does man relate to nature itself .... (L)abor appears from the very beginning as a process mediated by tools and at the same time mediated socially" (p. 208 in Engeström 1999:4).

From 1920 until 1990, Activity Theory was the dominant theory in the field of social studies in the communist block, used as a means of supporting communist ideology with scientific psychological explanations. After the end of the Cold War, Activity Theory attracted the attention of Western scholars. Currently, it is a widespread means of academic inquiry espoused by researchers in different fields, including second language acquisition and human computer interaction.

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<sup>3</sup> The *Theses on Feuerbach* are eleven short philosophical notes written by Karl Marx in 1845. They outline a critique of Marx's fellow Young Hegelian philosopher Ludwig Feuerbach. Marx did not publish it during his lifetime. They were later edited and published by Engels in 1888.

Originally the goal of Activity Theorists was to gain a holistic understanding of the relationship between three entities: the individual, the individual's environment (both physical and social), and the individual's actions in the environment. Activity Theory gives attention to what the individual brings to a situation and how the individual's interaction with it transforms it. Kuuti defines Activity Theory as a "philosophical and cross-disciplinary framework for studying different forms of human practice as development processes, with both individual and social levels interlinked at the same time" (1996:25). It is interventionist in its methodological approach, viewing humans as the creators of activities.

Context is formed as activities are acted out by people and artifacts. In Activity Theory the notion of context is very specific. The activity itself is the context. Context is what takes place in an activity system in which there is an object, actions, and operations. It is formed through an activity being acted out by people and artifacts. "Context is not an outer container or shell inside of which people behave in certain ways. People consciously and deliberately generate contexts (activities) in part through their own objects" (Nardi 1996: 76).

Therefore, the activity is a form of doing, directed to an object. The objects of the activities are what distinguish them from each other. It is the transformation of the object to an outcome that motivates the existence of an activity (Kuutti p. 27).

In Engeström's model of an activity (Kuutti p. 28), three mutual relationships exist between subject, object, and community. The subject is the

person or group engaged in the activity. The object is the “objective” held by the subject that motivates the activity. On the individual level, the relationship between the subject and the object is mediated by tools. A tool is anything used in the transformation process (material tools and tools for thinking). The relationship between the subject and the community is mediated by rules. Rules are explicit and implicit norms, conventions, and social relations within a community. The relationship between the object and the community is mediated by the division of labor. The division of labor is the explicit and implicit organization of a community as related to the transformation process of the object into the outcome. The actions are goal-directed processes that must be undertaken to fulfill the object. Different conscious actions may be undertaken to meet the same goal. Artifacts are instruments, signs, language, and machines that mediate the activity. They are created by people to control their own behaviors. They also carry with them a particular culture and history (Kuutti 1991). Radford (1998) uses the stylus to provide an excellent example of how a tool’s sociocultural and sociohistorical past are embedded in its nature. The stylus was a triangular shaped reed used by scribes to make signs on clay tablets in Mesopotamia in the third and second millennium BC in order to produce diplomatic letters, commercial transactions, legal letters, mathematical calculations, etc. Not everyone could be a scribe. Scribes were chosen by the gods. Therefore, the stylus not only bears in itself the purpose for which it was originally created, but also the social division of work underlying its creation.

Activity theory is a powerful descriptive tool rather than a predictive theory. According to Nardi (1996:7), “Activity Theory incorporates notions of intentionality, history, mediation, collaboration and development .... (C)onsciousness is not a set of discreet disembodied cognitive acts....Consciousness is located in everyday practice: You are what you do.”

Therefore, in order to preserve "the manifold richness of the subject" (Luria 1979:174), Activity Theory was chosen as the framework for the analysis of the activity of CSCL and for assessing the effects of CSCL on the quality of chatting in the foreign language instructional settings that comprise this study. In keeping with Activity Theory tradition, varied methods of research that include a combination of quantitative and qualitative methods are used. This analysis of the activity in a CSCL environment involves the observation, description, and interpretation of the participants and processes of the activity of computer-supported collaboration. Furthermore, the activity of CSCL is viewed from a third person (researcher) as well as a first person (learner) perspective.

As mentioned earlier, Engeström (1987) and Engeström and Cole (1993) identify the minimum elements of an activity system as *subject*, *object*, and *outcomes*, mediating *artifacts*, *community*, *division of labor*, and *rules*. These participants and processes constitute the main focus of this study and are identified in the following paragraphs.

The individual learners are the *subjects* of the activity. These subjects share in the manipulation and transformation of a common *object*. Here, the *object* is the text generated by the computer-supported synchronous discussions.

This discussion is mediated by the following *artifacts*: the computer, the Internet, and the Blackboard software (*the tools*), as well as the language, both the L1 and the interlanguage stage in the development of the L2 (*the signs*). The activity itself is realized by actions such as writing and reading, typing, and using the computer mouse. These become the automatic operations of the activity.

In this study, the *community* is the team nested within the communities of the foreign language classroom and the university (*the institution*). The function of the community is to regulate the interactions of subjects and object. The relationship between the subject and the community is mediated by *rules* covering explicit and implicit conventions and norms for acceptable and appropriate behavior. The *division of labor*, which refers to the organization of the community as it functions to transform the object, mediates the relationship between the object and the community. The division of labor is represented here by the actions and interactions among the members of a team and the “division of power and status” that emerge within it (Engestrom 1993:67).

Therefore, purposeful activities mediated by language and technology within a team-based learning environment where learners are enabled and encouraged to interact, support one another, and reflect on their use of language, are a potentially useful and powerful tool for foreign language learning.

## **2.11 RESEARCH QUESTIONS**

To date there has been a paucity of research in the field of foreign language learning describing the application of a computer-supported team-based learning environment on the activity of synchronous computer-mediated

discussions. The majority of the SLA literature on CMC examines whole class, small group, or dyadic discussions without embracing a truly collaborative or team-based approach. Furthermore, most CMC research deals with discussions in which a teacher participates and often dominates. There is very little SLA Interactionist research that describes CMC chatting that is learner-controlled and regulated.

Generally, studies of the application of CMC in foreign language learning have been aligned with the Interactionist framework (Long 1985), which focuses on individuals and isolates them from the context of the interaction itself. Due to the nature of a collaborative learning environment, any investigation into its benefits must integrate the language learner and the language learning context. Therefore, the Interactionist approach, which focuses on dyadic interaction in controlled tasks, is not suitable for the study of team-based CMC.

The use of CMC in foreign language learning has helped to initiate a pedagogical shift from cognitive views to contextual, collaborative, and social approaches to language learning. Sociocultural Theory has been cited extensively in CMC research in recent years as a new way to understand foreign language learners and a new way to view interaction. While Sociocultural Theory has been recognized as providing a productive framework to explain CMC interaction, rarely is it recognized as providing a productive framework for the design of a language learning environment for a study of team-based CMC. The computer-mediated team-based language learning environment of the present study has been

designed in alignment with Vygotsky's emphasis on collaboration and interaction in human development.

### **2.11.1 Research Questions**

Activity Theory has been chosen for the analysis of the chat discussions because it provides a productive framework for mapping such important features of synchronous computer-mediated discussion as the notions of community, rules, and division of labor. In order to fill the gaps in SLA Interactionist research that have been mentioned in this section, this study addresses each of the following research questions:

(1) From a research perspective, what is the nature of a computer-supported team-based foreign language discussion activity? What is the nature of the participants and processes (subject, object, artifacts, community, division of labor, and rules) of the activity and how are they revealed in the discussions?

(2) From a learner perspective, what is the nature of a computer-supported team-based foreign language discussion activity? What is the nature of the participants and processes (subject, object, artifacts, community, division of labor, and rules) of the activity and how are they revealed in the interviews?

(3) How do learners' histories with computers and team work inform a description of computer-supported team-based foreign language learning?

(4) What is the nature of the interaction that occurs in computer-mediated synchronous chat discussions in a team-based learning setting? What are the interactional dynamics and features that characterize it?



## **2.12 CHAPTER SUMMARY AND OVERVIEW OF SUBSEQUENT CHAPTER**

The present chapter discusses the most current Interactionist literature in the field of SLA, and reviews the findings of the most recent body of Interactionist and Sociocultural research on synchronous computer-mediated discussions. Gaps in the literature are discussed and the research questions that form the basis of this investigation are presented. Chapter 3 presents the experimental design and a discussion of the units and methods of analysis.

## **CHAPTER THREE**

### **Experimental Design and Methodology**

#### **3.0 INTRODUCTION**

In order to answer the research questions proposed in Chapter 2, a study was designed as presented in this chapter. The first section describes the setting of the study and briefly discusses the earliest research involving Computer-Assisted Communication Devices (CACD) and, specifically, computer-mediated synchronous discussion, also known as “chat” rooms (see Chapter 2 for a thorough examination and discussion of this body of research). The second section describes the participants in the study. The third section explains the experimental design while the fourth describes the data sources and the data collection methods. The fifth section outlines the various methods of analysis that are employed in this investigation.

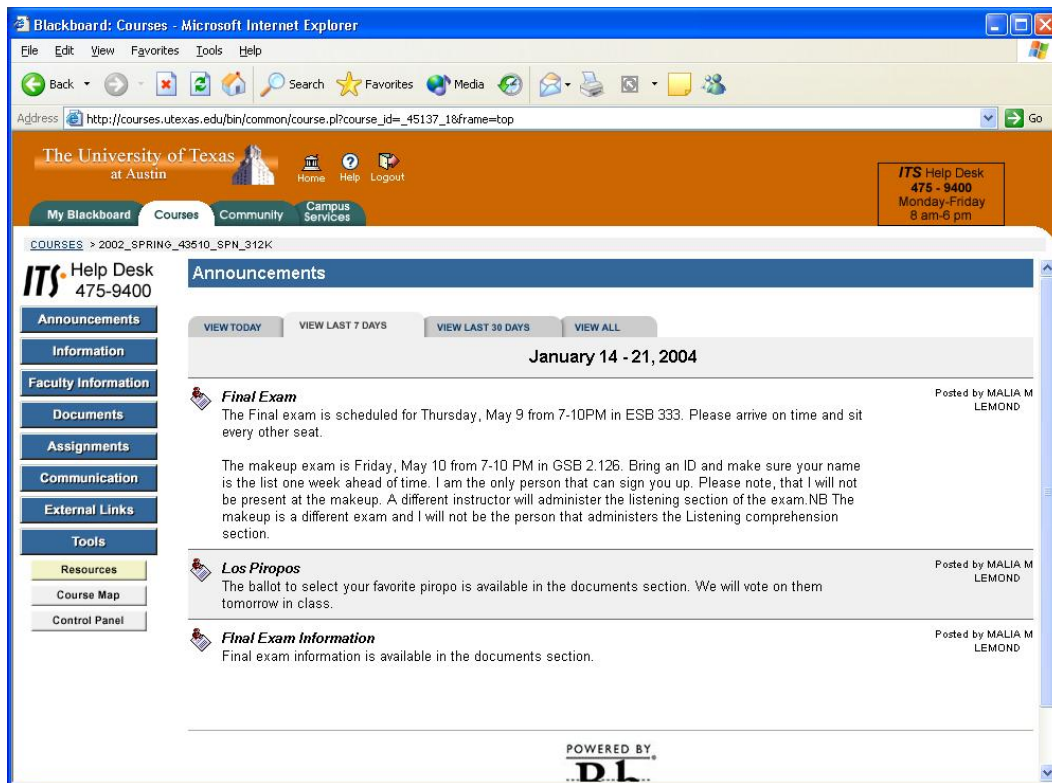
#### **3.1 DESCRIPTION OF THE SETTING**

One of the earliest synchronous, real-time network software was INTERCHANGE, developed by the Daedalus Group. This Local Area Network (LAN) allowed learners to send messages to one another concurrently from individual stations in the same computer lab. In 1988, the English Department at the University of Texas at Austin used LANs to teach English composition and literature. The project was expanded in 1990 to include ESL and Portuguese classes. Dr. Orlando Kelm, a Portuguese language professor at UT Austin, was

the first to use the English Department's experimental writing lab for classroom computer-mediated chat sessions in a foreign language.

The Daedalus Interchange for computer-mediated chat sessions was used by the investigator of the current study in a previously unpublished work. It was found that the Daedalus program was not compatible with the creation of an on-line collaborative environment since it is a local area network available only to certain labs on campus, and not accessible through the Internet.

The University of Texas has integrated Blackboard 5 course management software (see Figure 3.1) with the UT campus-wide, high-speed digital data network to help faculty make better use of the Web in their classes. Instructors can create and manage course Web sites without having to know HTML, and course material is easy to put up on the Web using Blackboard software. Blackboard enables faculty and learners to communicate and collaborate through real-time chats, threaded discussions, class e-mail, and online file exchanges. This medium was chosen for this study because of its convenience and its compatibility with a collaborative classroom. A very important feature of Blackboard for the purposes of this investigation is that it allows for different groups, or teams, within a class to have access to their own private chat room, discussion forum, email, and file exchange. In addition, Blackboard automatically archives all chat room transcripts and allows the instructor to track learner use of each aspect of the site.



**Figure 3-1: Reproduction of the Blackboard Course Web Page**

In the following sections, all aspects involved in the design of the experiment and the methods of analysis are described.

### **3.2 PARTICIPANTS**

#### **3.2.1 Learners**

The study began with 125 university Spanish learners enrolled in third-semester beginning Spanish. This particular level was chosen for the present study for several reasons. The most important reason was that learners at this level generally have been exposed to enough grammar to be able to communicate to some effect in the target language. The proficiency level of learners of first and

second semester Spanish generally would not be adequate for comprehensible communication in this medium. In addition, previous research on chatting in foreign language examines similar levels (e.g. Beauvois 1992; Kern 1995; Beauvois 1998; Pelletieri 1999; Blake 2000). Therefore, in order to make comparisons between the results of previous studies and the present investigation, a similar level of proficiency was required.

Due to absences in the chat sessions that constitute the main focus of this study, however, many of the original participants had to be eliminated and the number of participants was reduced to 38. The classes were selected based on the criteria that instructors agreed to incorporate Blackboard into the course. Learners in all classes from which data were gathered represent a “convenience sample.” In other words, they were not specifically selected based on any criteria other than having formally enrolled in a section of third-semester Spanish.

Of the 38 subjects, 15 were female and 23 were male. The average age of the subjects was 24.4 years old. The mean grade point average (GPA) was 2.96. The learners were required to have completed two semesters of university level Spanish courses or their equivalent in order to take third-semester Spanish. The average number of years that the learners had studied Spanish in both high school and university courses before this course was 2.7. This information is presented in Table 3-1.

**Table 3-1: Gender, Age, GPA and Years of Spanish study**

Learner	Gender	Age	GPA	Years Studying Spanish
A1	M	23	2.5	3
A2	M	23	2.9	3
A3	F	22	3.2	4
A4	F	22	3.2	3
A5	M	20	2.9	2
B1	F	23	2.9	3
B2	M	19	4.0	3
B3	M	29	2.8	1
B4	F	21	2.9	4
B5	M	22	2.8	1
C1	M	33	2.0	3
C2	F	25	3.0	3
C3	M	20	3.6	4
C4	M	22	2.9	2
C5	F	22	2.9	2
D1	M	24	2.5	2
D2	F	25	3.0	1
D3	M	22	2.8	1
D4	M	26	3.0	1
D5	M	24	3.2	1
E1	M	21	3.3	4
E2	F	20	2.6	3
E3	M	23	2.2	2
E4	F	20	3.9	1
F1	M	23	2.0	4
F2	M	21	3.0	2
F3	F	21	3.2	4
F4	M	22	2.5	5
G1	M	20	2.8	3
G2	M	24	2.1	2
G3	M	20	3.1	4
G4	F	20	3.8	3
H1	M	23	3.0	1
H2	F	21	3.5	3
H3	F	21	2.6	3
I1	F	22	3.2	4
I2	F	20	3.0	3
I3	M	24	3.7	4

There were 4 learners who indicated that a language other than English or Spanish was the primary language spoken in the learner's home. These languages included Chinese, Thai, and Hebrew. Out of the 38 subjects described above, there were no Spanish Heritage speakers participating in the study.

### **3.2.2 Instructors**

Of the 4 instructors, 3 were female and 1 was male. All were graduate student instructors. One was a native of Spain, 1 was a native of Brazil, and 2 were native speakers of English from the U.S. All instructors from the U.S. had spent at least 9 months in residence studying Spanish in Spain. All instructors said they felt very comfortable using the computer and the Internet on a daily basis. All instructors received a Blackboard tutorial beforehand. All chat sessions and computer-supported assignments, in addition to the Blackboard class sites and on-line assignments, were established by the researcher. The instructors did not participate in the Blackboard chat sessions.

### **3.3 PROCEDURES**

This study was designed to follow the official syllabus of the course, which was adapted to utilize a computer-supported team-based learning environment. Data were collected from assignments and activities that took place as part of the required curriculum.

### **3.3.1 The Blackboard Courseware**

All learners in the study were required to use the Blackboard courseware, which is provided free of charge by the university. Sixty-five percent of learners had previous experience with the Blackboard Courseware. A hands-on Blackboard tutorial in which all learners were present was given in class in the first week.

### **3.3.2 Teams**

Learners were separated into teams at the end of the first week based on information obtained in the Background Survey described in section 3.5.2. Every effort was made to balance the teams with regard to gender, age, GPA, computer experience, foreign language experience, and enjoyment of Spanish. Table 3-1 shows the individual characteristics of the members of each team. The same teams worked together throughout the semester to complete online and in-class assignments. They were encouraged to use the Blackboard's functions to prepare for all assignments, and all Blackboard communication was required to be in Spanish. A total of 9 teams participated in the study. Ideally, team-based learning proponents recommend groups of 5 to 7 learners in order to ensure that the team will have ample resources (Fink 2002; Michaelsen 2002). Unfortunately, due to attrition, each team in the present study had from 3 to 5 team members



### **3.3.3 On-line Assignments**

Throughout the semester, the team members completed on-line assignments in Spanish. All entries appeared in the team's private discussion forum and were accessible to all team members. In order to build a successful virtual learning community, as discussed in Chapter 2 (e.g., Palloff & Pratt 1999; Woodruff 1999), the on-line assignments were carefully designed so that team members could get to know each other and build levels of understanding, support, and trust before working together to complete team projects. Therefore, the first on-line assignment required members to introduce themselves and share personal information about interests, backgrounds, expertise, and course expectations through a posting on the team's Discussion Board (see Example 3-1). In the next on-line assignment learners were required to read all the introductions posted to the Discussion Board by their teammates and respond directly to at least two by posting a reply to the original message (see Example 3-2). After several assignments that encouraged the establishment of a good group dynamic and strong rapport within the teams, the assignments began to focus on tasks that the team members were required to complete together.

The rationale behind these assignments with respect to collaborative learning was to teach the learners how to work toward a common goal as a team. For example, the teams were required to do several readings utilizing a collaborative reading technique. First, the reading was divided among the team members. For each section, one team member was assigned the role of "Recorder" and a different team member was assigned the role of "Monitor." The

job of the Recorder was to read the section, summarize it and post a summary in Spanish to the team Discussion Board. The job of the Monitor was to read the same section as well as the Recorder's summary of that section. Then the Monitor would post a message to the Team Discussion Board either to confirm the accuracy of the Recorder's summary or to note any errors or omissions made by the Recorder. This collaborative reading method is intended to encourage positive interdependence and facilitate participation (see Appendix A for a list of all on-line collaborative assignments).

### **Example 3-1: The first two discussion board assignments**

ALL COMMUNICATION POSTED TO YOUR BULLETIN BOARD MUST BE IN SPANISH!!!! Remember to include your name with everything you post to assure proper credit for assignments.

#### **Assignment 1A.**

Post a message to your team's Discussion Board that includes the following information by (date):

1. Nombre, apellido y edad
2. La cantidad del tiempo que llevas aquí en UT
3. La especialización académica
4. Las actividades en que participas con frecuencia
5. Los intereses: por ejemplo, cuando lees el periódico, ¿qué parte lees con más frecuencia? ¿Qué revistas lees? ¿Cuál es tu programa de televisión favorito?
6. ¿Cuáles son tus debilidades en cuanto al español? ¿Dónde debes mejorar?
7. ¿Cuáles son tus fuerzas en cuanto al español?
8. La pregunta más importante: ¿Cuál es la meta más importante para este curso?

#### **Assignment 1B.**

Read all of the Introductions that were posted by your teammates to the Discussion Board (Assignment 1A) and respond to at least two of the messages by (date). Post these to the Discussion board also. In your responses, please include your name, what you have in common with that person, what you found interesting about that person's introduction and what else you would like to know about that person.

### **3.3.4 Oral Presentations**

All of the online assignments were geared toward building a successful virtual learning community so that the teams would be cohesive enough to

successfully complete group projects. One of the most important group projects was an oral in-class cultural presentation (see the assignment in its entirety in Appendix E). A topic was assigned to each team to be prepared and undertaken collaboratively. The purpose of the oral presentation was to promote team-member accountability and whole-group participation. In addition, to further strengthen the feeling of positive interdependence among team members, part of the oral presentation assignment included the completion by each team member of a Peer Evaluation for each member of the team. This practice is common to collaborative learning environments.

### **3.3.5 On-line Chat Discussions**

The learners also met in the language lab on five occasions to participate in chat discussions with their teams. Learners entered the lab, chose a computer, and logged on to one of the facility computers. They then logged in to their team's private Virtual Classroom. The Virtual Classroom combines a chat room with a shared whiteboard and web navigation tool. Instructors and learners can hold synchronous discussions, question-and-answer sessions, and review Web-based materials. Due to the synchronous nature of the Virtual Classroom, multiple users must participate at the same time. Learners enter their comments in the text box and hit the "enter" or "return" key to submit them. After hitting the "enter" key, the learner's comments appear in the chat window next to the learner's name. Learners can view all entries by their teammates either as they appear or they can

scroll back to view previous entries. All participants were present in the lab together, and help was available to learners when technical difficulties arose.

The chat sessions were of two types: (1) chats based on specific themes that required each team to reflect back on the discussion and construct a summary of the discussion together as in Example 3-2; and (2) chats that required no such post-activity reflection as in Example 3-3 (see a chat topic list in Appendix B).

### **Example 3-2: Chat assignment with post-activity reflection**

In your group's blackboard chat room, select one of the topics listed below and, using the questions as a guide, IN SPANISH discuss the topic as a group. When you have nothing more to say about the topic, select another one and discuss. In the last 5 minutes of class, each team member will enter a brief summary statement about the discussion.

#### **Las familias grandes**

Hable sobre las ventajas y desventajas de criarse en una familia numerosa y multigeneracional. Haga recomendaciones para que la gente se lleve bien con los hermanastros y padrastros.

#### **La "Generación X"**

Explique por qué Ud. pertenece o no pertenece a la llamada "Generación X".

Compare a los "hippies" con los miembros de la "Generación X".

Si fuera miembro de otra generación, ¿qué opinaría de la "Generación X"?

#### **El exilio**

¿Cómo influye el ambiente donde Ud. se crió en su visión del mundo?

¿Qué pasaría y cómo se sentiría si nunca pudiera volver al lugar donde nació o crió?

#### **Conexiones familiares**

¿Cree que la familia es más o menos importante ahora que hace veinte años?

¿Cómo podemos mantener las conexiones con la familia y nuestras raíces en este mundo moderno?

### **Example 3-3: Chat assignment with no post-activity reflection**

In your group's blackboard chat room, select one of the topics listed below and, using the questions as a guide, IN SPANISH discuss the topic as a group. When you have nothing more to say about the topic, select another one and discuss.

#### **Los talk shows**

Describa un *talk show* que Ud. ha visto.

¿Qué recomienda que haga el presentador/la presentadora de ese programa para mejorarlo?

Dé su propia opinión sobre los *talk shows* en los Estados Unidos. ¿Qué imágenes presentan del país y de los norteamericanos?

#### **El orgullo regional**

¿Qué aspectos de su estado o país le hacen sentirse orgulloso/a?

¿Qué le gustaría cambiar?

En su opinión, ¿es su estado el mejor del país? Explique su respuesta.

#### **La edad legal para tomar bebidas alcohólicas**

¿Qué pasaría si se estableciera la edad de los 18 años como edad legal para tomar bebidas alcohólicas?

¿Cree que es una buena idea que los padres enseñen a sus hijos menores de 21 años a tomar bebidas alcohólicas en casa?

**La apariencia física**

¿Qué aspectos de la apariencia física nota Ud. cuando conoce a una persona por primera vez?

¿Alguna vez conoció Ud. a alguien que, por su aspecto físico, parecía ser de una manera, pero luego Ud. descubrió que él/ella era una persona totalmente distinta? Describa esa situación.

¿Qué opina Ud. de la gente que siempre va a la moda o de la gente que nunca se viste según la ocasión?

The chat discussions were based on a speaking activity in the Third-semester Spanish textbook used at the time at the University of Texas.<sup>4</sup> These activities were designed as speaking activities that require learners to use the higher-level speaking skills outlined by the ACTFL Proficiency Guidelines (1999). For example, learners are required to perform certain such communicative functions as support an opinion, discuss advantages and disadvantages, and hypothesize, in order to participate successfully in the discussion. The log files of three chat discussion sessions from the beginning, middle, and end of the semester (the fourth, ninth, and thirteenth week) were analyzed and are discussed in greater detail in section 3.5.1.

### **3.4 DATA SOURCES, AND DATA GATHERING METHODS**

The collected data that form the basis of this study are the chat session log files and the in-depth interview transcripts. Background surveys, notes from researcher observation of the chat discussions and the discussion forum log files, and learner peer evaluations were also examined.

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<sup>4</sup>Foerster, S. & Lambright, A. (1999). *Punto y Aparte: Spanish in Review, Moving Toward Fluency*. Boston, MA: McGraw-Hill.

### **3.4.1 The Chat Session Log files**

Log files of the chat sessions that were discussed in section 3.4.5 were automatically recorded and archived in Blackboard. Team members had access to the chat archives for their team only. For each of the 9 teams observed, 3 chat session log files were analyzed for each team. The total number of log files was 27.

### **3.4.2 Survey**

A background survey was distributed to all participants at the beginning of the semester. In total, 38 surveys were analyzed. The survey provided profiles of learners' computer use, including if and how often they use e-mail and chat rooms, if they have experience using Blackboard, and whether they feel comfortable and enjoy using computers. The survey also provided profiles of learners' experience with collaboration and foreign language, including if their native language is English, what language they speak at home, how many semesters of high school and college Spanish they have completed, and whether they enjoy learning and speaking in Spanish. Lastly, the survey provided profiles of the learners' academic success history, such as their overall GPA to date as well as the learners' GPA in Spanish. One use of the surveys was to divide the classes into teams. The surveys were also used to help orient the researcher to the learners' backgrounds during interviews (see Appendix C for the background survey).

### **3.4.3 Regular observation of Blackboard chat sessions**

During chat sessions, which took place in a total of 38 hours throughout the semester, the presence of the investigator in the lab enabled observations on informal interviews and discussions with individual learners, and the activities of class instructors. On-line activities were observed, as were the interactional dynamics between learners and computers and the presence of such factors as off-line interaction, laughter, and self-talk.

### **3.4.4 In-depth interviews with learners**

During the data-gathering phase, 14 individuals were interviewed on a volunteer basis. The interviews were recorded on audiotape by the investigator in a library conference room on campus. The duration of the interviews varied depending upon the amount of information and elaboration provided by the interviewee. An attempt was made to put the interviewee at ease by having an informal discussion immediately prior to the formal interview. Full transcriptions were made of each formal interview, and all interviewees were learners in the participating third-semester Spanish classes.

In-depth interviews provided a first-person narrative of the computer-supported collaborative environment. The interviews for this study facilitated the ability to discuss with learners the meanings of their on-line activity and history. Mishler (1986) rejects interviewing that is based on a stimulus-response model where the interviewer's questions are treated as a standard research stimulus. The questions are assumed by the researcher to remain constant so that any variance in

the response can be explained by factors related to the interviewees. Mishler argues instead for interviews to be understood as discourse in which the researcher must generate a free-flowing stream of information from the subject by means of questions that do not require closed responses. Mishler also insists that the researcher describe in as great detail as possible the interviewing procedure. These details of the procedures serve as proof of the trustworthiness of the data. Therefore, following Mishler's advice, questions that do not require closed responses were used in order to develop an account of how participants reflect on their own experiences with computers and foreign language learning, and to understand the learner in a broader social context, especially in relation to language acquisition.

Interviews followed a protocol of questions focused on the qualities of social engagement, language and computer use, attitude, a sense of personal and group dynamics, and discussions of actual on-line events (see Interview Topic Guide in Appendix D). In addition to the findings of a detailed analysis of computer-mediated team-based learning, interviews shed light on the communicative and collaborative tactics that were appropriated by participants as they engaged in chat discussions.

### **3.5 ANALYSIS**

#### **3.5.1 Quantitative Analysis**

A descriptive numerical analysis of the synchronous computer-supported discussion logs supplies one dimension of the detailed description of the activity.



A second dimension is found in a qualitative microanalysis, discussed below. Both methods of analysis have the goal of fully describing the activity of computer-mediated team-based synchronous discussion in terms of the notions of community, rules, division of labor, learner attitudes, goals, motives, and personal as well as sociocultural histories with computers and collaboration. For the quantitative analysis, quantity of speech, speech actions, and L1 use are measured and the relationship of these outcome variables to each other are examined.

### ***3.5.1.1 Quantity of Speech***

The Target Language (TL) and the learners' first language (L1) are important artifacts that mediate the activity of synchronous chat discussions in a computer-mediated team-based learning environment. Therefore, the quantity of speech produced by individual learners in each chat session indicates the degree to which learners participate in the chat discussion activity and the degree to which the TL and the L1 mediate the activity. The quantity of speech can also reflect the symbolic division of labor as well as the divisions of power and status that emerge during the activity.

In order to measure the quantity of speech produced by individual learners in the chat discussions, the outcome variables of the sums of the total number of words produced by each learner, and the total number of electronic units (e-units) produced by each learner in each of the chat discussions were calculated. An e-unit is a freestanding communicative unit that includes one learner's utterance bounded before and after by the turns of other learners. Real-time electronic communication possesses many features that are not captured by units of analysis

developed for non-digital forms of spoken and written discourse (e.g., turn, c-unit, t-unit). Thorne (2000) proposes a “more contextually relevant” unit of analysis, which is the electronic turn (e-turn), for the analysis of computer-mediated synchronous discussions. Thorne likens e-turns to “turns at talk” (Sacks, Schegloff, & Jefferson 1974). Thorne’s “e-turn” represents an utterance that occurs in a MOO environment (discussed in Chapter 2), in which the MOO server recasts the chat room entries, often with the addition of a computer-generated message. Therefore, in order to distinguish the chat room entries in the present study from Thorne’s MOO entries, the term “e-unit” was chosen. In Example 3-4,<sup>5</sup> an excerpt from one of the chat discussions shows 4 separate e-units.

**Example 3-4: Chat excerpt illustrating four electronic units (e-units)**

- |   |                             |                                      |
|---|-----------------------------|--------------------------------------|
| 1 | B2: Que tema quieren hacer? | <i>What topic do you want to do?</i> |
| 2 | B3: la primera tema         | <i>the first topic?</i>              |
| 3 | B2: que es esa?             | <i>what is that?</i>                 |
| 4 | B4: Las familias grandes    | <i>Big families</i>                  |

**3.5.1.2 Participation**

In order to measure the quantity of speech produced by individual learners in the chat discussions, and to establish a pattern of participation of a team of learners in each of the three chat sessions, the total number of words and e-units produced by each learner in each team-based chat discussion was counted. Following Ruberg *et al's* (1996) use of “Interchange Analysis” to describe the participation in computer-mediated discussions, the percentage of words (referred to as a “volume ratio” by Ruberg) for each individual learner was obtained by

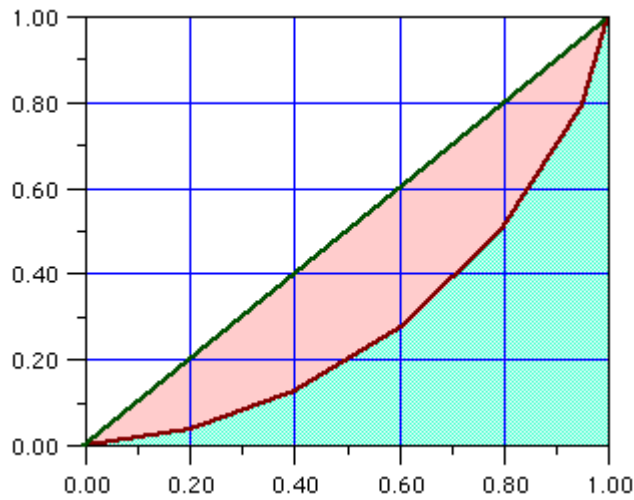
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<sup>5</sup> The examples are presented in exactly the same form in which they were typed by the learners during the chat sessions.

dividing the total number of words produced by each learner into the total number of words per team per chat session. Next, the percentage of e-units (called a “participation ratio” in Ruberg) was obtained for each individual learner by dividing the total number of e-units per learner per chat into the total number of e-units per team per chat. Finally, an average turn length was obtained for each individual learner by dividing the number of words per learner per chat into the learner’s total number of e-units per chat.

#### ***3.5.1.2.1 Participation Equality***

Following Warschauer (1996), the Lorenz Curve construction was used in the present study to give a rough measure of the degree of inequality in the participation distribution. The measure is called the Gini Coefficient. The percentages of words per learner that were calculated for the individual learners in each team are used to compute the Gini coefficient of participation inequality, as illustrated by Figure 3-2 (<http://william-king.www.drexel.edu/top/prin/txt/factors/dist4.html>).



**Figure 3-2 Lorenz Curve and Gini Coefficient**

To compute the Gini Coefficient, the area between the Lorenz Curve and the 45 degree equality line is measured. This area is divided by the entire area below the 45 degree line (which is always exactly one half). The quotient is the Gini coefficient, a measure of inequality. In other words, the Gini coefficient is the area shaded in pink divided by the total of the areas shaded in pink and light blue-green.

For a perfectly equal participation distribution, there would be no area between the 45 degree line and the Lorenz curve - a Gini coefficient of 0. For complete inequality, in which only one person participates, the Lorenz curve would coincide with the straight lines at the lower and right boundaries of the curve, so the Gini coefficient would be 1.

### ***3.5.1.2.2 Participation Leaders***

Next, for each team, in order to identify which learners dominated the chats in number of words and e-units, the percentages of words and e-units for each learner were ranked. A value of 1 was assigned to the highest percentage and values of 2 for the next highest, and so on, respectively, for both words and e-units. For example, in teams where there are 5 learners, a learner that is assigned a value of 5 indicates that the learner produced the lowest percentage of words or e-units for the team. In order to identify the overall participation leaders for each team, the ranked variables for both words and e-units were recoded with a value of 1 assigned to the highest rank, and a value of 0 assigned to all other ranks.

### ***3.5.1.2.3 Gender and Participation***

In order to understand the nature of the computer-supported team-based activity, the social dynamics that emerge must be examined. Studies on the social dynamics of CMC have found that computer-mediated communication fosters more balanced participation between women and men (Sproull & Kiesler 1991; McGuire, Kiesler and Siegel 1987). A Pearson chi-square test was performed to determine what percentage of the leaders in number of e-units and number of words for each team and each chat was male and what percentage was female. A Pearson's chi-square test is used to assess whether paired observations on two variables are independent of each other.

### ***3.5.1.3 Speech Actions***

For the purposes of the present study, the term speech action will be used to refer to the communicative function or functions realized by an e-unit. The term action is used instead of act because the context of the computer-mediated synchronous discussion is different from that of oral conversations, and in order to emphasize that language is a dynamic social action. Determining which speech actions are the most commonly used, by whom and to what purpose, in addition to illustrating further the way in which the TL mediates the synchronous chat activity, can supply more information about the activity of a team-based synchronous chat discussion and about the learners themselves. In particular, a learner's choice of speech action can provide information about their individual goals and motives, and the way in which they divide the labor in order to collaborate, build camaraderie, and construct meaning in a synchronous chat discussion. Therefore, each e-unit was analyzed and classified according to its speech action in the discourse. The total number of occurrences of each speech action in each of the synchronous discussions was counted.

The categories used in the present investigation to classify the different speech actions of each e-unit in the synchronous discussions were developed somewhat inductively. To a certain degree, they are based on Systemic Functional Linguistics, which takes into account the contextual dimensions of language and identifies the speech actions of each e-unit in order to gain an in-depth understanding of the relations between learners as they converse with each other (Eggins & Slade 1997). This method allows the investigation to go beyond the

analysis of quantity of participation and to “lay bare the linguistic behaviors which are associated with certain social roles and the interactive behaviors which enable participants, consciously and unconsciously, to position themselves and their fellow interactants as sociocultural subjects” (Eggins & Slade 1997, p. 226).

Systemic Functional Linguistics considers function and semantics as the basis of human language and communicative activity. A Systemic Functional Linguistics analysis begins by examining the social context, and then considers how language acts upon and is constrained and influenced by this social context. Systemic Functional Linguistics states that particular aspects of a given context (such as the topics discussed, the language users, and the medium of communication) define the meanings likely to be expressed and the language likely to be used to express those meanings. In Systemic Functional Linguistics, the primary construct for explaining linguistic variation is “register.” Register is seen as the linguistic consequence of interacting aspects of context. The analysis of context is broken down into “field, tenor, and mode,” which collectively constitute the register of a text (Halliday 1985).

“Field” refers to what is happening, to the topics and actions that a language is used to express. “Mode” refers to the channel through which communication is carried out. “Tenor” denotes the language users, their social roles and relationships, including status, and their purposes. For the purposes of the present study, the field of the discourse situation can be described as a computer-mediated synchronous discussion. The mode of the synchronous discussion was written, yet conversation-like, computer-mediated communication.

With regard to tenor, the learners in the synchronous discussions were teammates who held equal power over each other in terms of institutionally determined relations. The results from the learner interviews show that most of the learners initially saw their teammates as strangers, acquaintances, or friends.

Halliday (1984) identified a dialogue as “a process of exchange” in which relationships are established by the interactants. Learners adopt speech roles as they initiate communication and respond. The choice of responding actions is greatly constrained by the initiating actions. When learners take on a particular role, they assign a role to the other learners in the interaction. In other words, the assigner’s e-units create tasks for their teammates.

These speech roles are realized by speech actions. The choice of speech action is also influenced by contextual demands, especially by the relationships between the interactants in a conversation (tenor) (Eggins 1994). For example, if learners see themselves as being on unequal footing with a teammate, they may avoid using a command form for a request and use a modulated interrogative (e.g., “Could you tell me about your family?”). One way in which these relationships are revealed is by finding out who is doing the talking in a situation. A second way of analyzing these relationships is by examining what learners do when they get the “speaker” role or, in other words, what they accomplish by means of their choice of speech action.

Because the context of the computer-mediated synchronous discussion is different from that of oral conversations, which are the focus of the Systemic Functional Linguistics research, a new system of speech actions was developed



after a careful examination of the transcripts of the synchronous discussions. Another source in the literature for the classification of the different speech actions of each e-unit in the synchronous discussions is Sotillo (2000), who prepared her list of categories specifically for synchronous computer-mediated discussions.

Table 3-2 summarizes the speech actions that could easily be identified in electronic discussions as learners engaged in learner-centered exchanges and provides examples of each type. An interrater reliability coefficient of .92 was obtained in coding for speech actions.

**Table 3-2: Speech Actions and Examples from the Chat Transcripts**

Speech Action	Example from Chat Transcripts
1 Greeting	Hola amigos!! <i>Hi friends!</i>
2 Topic Initiation	La Apariencie Fisica? <i>Physical appearance?</i>
3 Provide General Information	Aleman es en Europa circa de Francais <i>Germany is in Europe near France.</i>
4 Share Personal Information	Peleo con mi madre mucho <i>I fight with my mother a lot</i>
5 State Preference	prefiero un hombre alto <i>I prefer a tall man</i>
6 State Opinion-Marked	pienso que las familias grandes son muy interesante <i>I think that big families are very interesting</i>
7 State Opinion-Unmarked	una familia grande pelea mucho <i>a big family fights a lot</i>
8 Recommend/Suggest	recomiendo que escribamos en un topic nuevo <i>I recommend that we write about a new topic</i>
9 Clarification/Explanation	es porque hay diez anos entre de mis hermanos y yo <i>it's because there are 10 years between my brothers and me</i>
10 Elicit of Personal Information	Son amigos (name)? <i>Are you friends, (name)?</i>
11 Elicit of Preference	Quieres que hacer numero uno? <i>Do you(pl) want to do number 1?</i>
12 Elicit of Opinion	que piensas (name)? <i>what do you think, (name)?</i>
13 Elicit of Information	Donde esta Tom Bean <i>Where is Tom Bean</i>
14 Elicit of Clarification/Explanation	oh, no te gusta tambien??? ... como (name)? <i>oh, you don't like it either???..Like (name)?;</i> lo siento pero no comprendo! ... exactamente que sobre hablamos? <i>I'm sorry, but I don't understand!... Exactly what are we talking about?</i>
15 Elicit of Language Help	Que es orgullo <i>what is orgullo</i>
16 Adversarial (Harassment, Crude, Insult, Sarcasm)	(Name) es muy tonto <i>(Name) is really foolish</i>
17 Exclude	es entre mi y (name) <i>it's between (name) and me</i>
18 Apology	lo siento <i>I'm sorry</i>
19 Agree	si, estoy de acuerdo con (name) yes, I agree with (name)

20 Disagree	no es verdad (name)! <i>that's not true, (name)!</i>
21 Evaluative	(Name)- es muy interesante <i>(Name) – that's very interesting</i>
22 Humor and Teasing	Me siento muy romantico esta manana... lol <i>I feel very romantic this morning...lol</i>
23 Help	nosotros hablando sobre "las cartas de amor" en pagina 87 <i>we are talking about" love letter"s on page 87</i>
24 Topic Shift	debemos escribir el paragrapho ahora <i>we should write our paragraph now</i>
25 Follow Assignment	en el libro, necesitamos hablar con las preguntas <i>in the book, we need to talk with the questions</i>
26 Topic Saving	¿Tienen hermastros o padastros Uds? <i>Do you have step-siblings or step-parents?</i>
27 Command	Por favor, describan sus familias. <i>Please, describe your families</i>
28 Paralinguistic	Jaja <i>ha ha</i>
29 Reprimand	(name)- no es nice <i>(name) that's not nice</i>
30 Correctives	Oprah es muy rico ... *rica <i>Oprah is very rich...rich</i>
31 Closing	adios companeros <i>goodbye classmates</i>

In order to understand better the way in which students work together to build a virtual learning community and construct meaning through digital text, it is important to focus on those speech actions that indicate the way in which the learners go about this process. The degree to which a learner utilizes certain speech actions can reveal the speech role a learner has assumed in the activity. For example, the frequency of use of discussion maintenance actions can indicate if a learner has assumed a teacher-like speech role in the discussion. In the chat transcripts, there are clearly distinguishable speech roles that are realized by certain speech actions: discussion maintenance; socializing; promoting ideas;

resisting; and team-building. Table 3-3 presents these speech roles and their corresponding speech actions.

**Table 3-3: Categories of Primary Roles realized by Speech Actions**

<b>Discussion Maintenance</b>
Topic Initiation Topic Shift Reprimand Follow Assignment Topic Save Command
<b>Socialize</b>
Greeting Closing Share Personal Information/Preference Elicit Personal Information/Preference
<b>Promote Ideas</b>
Opinion-Marked Opinion-Unmarked
<b>Resist</b>
Disagree Exclude Adversarial (Harassment, Crude, Insult, Sarcasm)
<b>Team-Building (Emotive)</b>
Apology Evaluative Humor and Teasing Agreement Help

### ***3.5.1.3.1 Speech Roles and Participation***

In order to determine which speech roles are most closely associated with high participation rates, the total number of occurrences of each speech action per learner in each of the synchronous discussions was counted. These sums were then divided into the total number of e-units for the team in each chat to obtain the

percentage of each type of speech role per learner. In order to measure the relationship between the speech roles and participation, a bivariate correlations procedure was performed to compute Spearman's Rho correlation coefficients and their significance levels. These correlations measure how variables are related. Correlation coefficients range in value from  $-1$  (a perfect negative relationship) and  $+1$  (a perfect positive relationship).

#### ***3.5.1.3.2 Speech Roles and Gender***

In order to understand more fully the social dynamics of a team-based computer-mediated discussion activity, a Pearson Chi Square test was performed to determine what percentage of the leaders in number of each of the speech actions for each team and each chat was male and what percentage was female.

#### ***3.5.1.3.3 Speech Roles and Floor Holds***

Another indication of dominance is the degree to which a learner holds the floor and whether or not floor holds have a close association to any of the different speech roles. When learners submit many e-units in a row without waiting for their teammates to submit an e-unit in response, they are seen to be holding the floor. Example 3-5 presents an example of floor holding from a chat excerpt.

### **Example 3-5: Excerpt from Team A, Chat 1: Floor Hold**

1	A3: si, recomendaciones	<i>yes, recommendations...</i>
2	A1: Debemos hablar a cereveza	<i>We should talk about beer</i>
3	A4: Yo peleaba con mi hermano	<i>I used to fight with my brother</i>
4	A3: recomendaciones para se lleve bien	<i>recommendations for getting along well</i>
5	A3: no, la professora lee este despues	<i>no, the professor reads this later</i>
6	A3: no beer	<i>no beer</i>

Learner A3 has a very high percentage of floor holds overall in the chat discussions for team A. She holds the floor in lines 4 – 6.

In order to measure the association between the different speech roles and the use of floor holds, Spearman's Rho correlation coefficients and their significance levels were computed for each of the identified speech roles and the percentage of floor holds.

#### **3.5.1.3.2 Speech Roles and Topics of Discussion**

For each chat discussion, the learners were required to choose from a list of assigned topics. An examination of the chat transcripts reveals that learners also spent some part of the discussions talking about the assignment itself, e.g., assignment rules, choosing the different topics. Example 3-6 provides an example of a discussion about the assignment.

### Example 3-6: Excerpt from Team H, Chat 2: Assignment

1	H3: escribamos el paragrapho sobre nos familias	<i>let's write the paragraph about our families</i>
2	H2: que?	<i>what?</i>
3	H1: (Name), yo recomiendo que tu no pelee con tu hermana.	<i>(Name), I recommend that you don't fight with your sister</i>
4	H3: escribamos el paragrapho sobre este conversacion	<i>let's write the paragraph about this conversation</i>
5	H1: Cuando? ahora?	<i>When? now?</i>
6	H3: si ahora	<i>yes now</i>
7	H1: Quien?	<i>who?</i>
8	H1: todos?	<i>everyone?</i>
9	H3: todos	<i>everyone</i>

In addition, learners also took the discussion off-topic and, to a small degree, discussed the target language, as well as the technology that was used to mediate the chat discussions. Example 3-7 presents an off-topic discussion.

### Example 3-7: Excerpt from Team A, Chat 1: Off-Topic Discussion

1	A4: me gusta beber margarhtias	<i>I like to drink margaritas</i>
2	A5: cervezas de Mexico con lime es muy bien	<i>Mexican beer with lime is very good*</i>
3	A3: si, son buenos tambien	<i>yes, they're good too</i>
4	A1: Me gusta Pinacoladas y jack Daniels	<i>I like Pina coladas and jack Daniels</i>
5	A4: si si	<i>yes, yes</i>
6	A3: si, me gusta coronas	<i>yes, I like coronas</i>

Keeping to the assigned topic during the discussion indicates that a learner places importance on following rules and on building knowledge, both in general and with regard to the target language, because the discussions offered a lot of opportunities to practice using new vocabulary and grammar. By contrast, learners who engage in frequent off-topic discussion show that they may have other goals, not all of which are related to language learning. If these off-topic actions engage others in personal discussions, it indicates that the learners' goal for the chat activity is to get to know their teammates.

In order to see how many e-units the learners devoted to each of these topic areas, the e-units were coded for each participant; these e-units were counted and divided into the total number of e-units. Spearman's Rho correlation coefficients and their significance levels were computed to measure the relationship between for speech actions and topics of discussion.

#### ***3.5.1.3.3 Speech Roles and Elicits***

An elicit serves the purpose of requesting something, in the form of information or assistance from others. Therefore, an elicit automatically keeps a discussion moving forward. The presence of an elicit does not by itself indicate that a learner's goal is to keep the discussion moving. It is of interest, however, to determine whether or not a relationship exists between certain types of elicits and the identified speech roles in order to shed more light on these roles and their purpose in the discussions. In order to measure the relationship between speech roles and the different types of elicits, Spearman's Rho correlation coefficients were computed. A Spearman's Rho correlation was computed to measure the relationship between the different types of elicits and each of the different speech roles.

#### ***3.5.1.3.4 Speech Roles and Statements***

The types of statements employed by learners can offer more clues as to the goals of the learners as they assume certain roles in the discussions. Each type of statement for each learner was counted and these sums were then divided into



the total number of statements for the learner's team. These percentages were used to calculate Spearman's Rho correlation coefficients in order to measure the relationship between each type of statement and the speech actions.

### ***3.5.1.3.5 Speech Roles and Direct Address***

In the chat medium, many different topic strands and interactions can be carried out simultaneously. A participant can receive multiple responses to different previous turns at the same time. In this way, chats are not sequential, and learners are forced to manage turn-taking and turn-giving in ways that are different from oral discussions. The use of direct address, in which one learner directs an e-unit to another learner by naming that learner explicitly, helps to reconnect the sequence of turns and serves as a type of internal turn-taking organization. With regard to forms of address, each elicited found in the chat transcripts was coded according to address. An example of the use of direct address from the chat transcripts is provided in the following excerpt.

#### **Example 3-8: Example of Direct Address from Chat 2 Excerpt, Team A**

- |   |                                      |                                       |
|---|--------------------------------------|---------------------------------------|
| 1 | A3: (Name of A4), eres de plano, no? | <i>A4, you're from Plano, right?</i>  |
| 2 | A4: mi hermano vive en california    | <i>my brother lives in California</i> |
| 3 | A4: si, soy de plano                 | <i>yes, I am from Plano</i>           |

In example 3-9, learner A4 asks a question in the 2nd person singular using the pronoun *tú* (*you*). In her subsequent entry, she quickly adds the name of A1, the learner to whom her question is addressed.

**Example 3-9: Example of Direct Address from Chat 3, Team A**

- |   |   |  |
|---|---|--|
| 1 | A4: pero una relacion danina no es con tu esposa, verdad? | <i>but the harmful relationship isn't with your wife, right?</i> |
| 2 | A4 : (Name of A1)?  | <i>(Name of A1)?</i>   |

There were also questions whose verb was conjugated in the 2<sup>nd</sup> person singular. At times the pronoun *tú* was also included. Two examples of each from the chat transcripts are provided in the following excerpts.

**Example 3-10: Example of 2nd Person Sg. Address from Chat 1, Team D**

- |   |   |   |
|---|---|---|
| 1 | D4 : Siempre hablan sobre la infidelidad y hay mucha verguenza. | <i>They always talk about infidelity and there is a lot of shame</i>  |
| 2 | D3 : rosie es muy encanta                                       | <i>rosie is very enchanting*</i>                                      |
| 3 | D2 : ?tu Creees Jerry Springer es falso?                        | <i>Do you (2<sup>nd</sup> singular) think Jerry Springer is fake?</i> |

The next excerpt is an example of the use of the 3<sup>rd</sup> person singular form of the verb. The 3<sup>rd</sup> person pronoun, *Usted* (you, formal) is absent. These examples were problematic because, due to the high number of typographical errors, it is unclear if this learner simply omitted the final -s ending to mark the verb for the 2<sup>nd</sup> person singular.

**Example 3-11: Example of 3rd Person Singular Address from Chat 1, Team I**

- |   |                 |   |
|---|-----------------|---|
| 1 | I3 : Como esta? | <i>How are you (3rd person singular)?</i> |
| 2 | I2 : MUY BIEN   | <i>Very well</i>                          |

The 1<sup>st</sup> person plural form (-mos) of the verb was also used in questions such as example 3-12 from Chat 2.

**Example 3-12: Example of 1st Person Plural Address from Chat 2, Team A**

- |   |                               |                               |
|---|-------------------------------|-------------------------------|
| 1 | A4 : que debemos escribir?    | <i>what should we write?</i>  |
| 2 | A4 : quien quiero ir primero? | <i>who wants to go first?</i> |

Only one learner, E4, used the 2<sup>nd</sup> person plural form (-is) of the verb in only two instances. The following example 3-13 from Chat 3 shows one of these cases.

**Example 3-13: Example of 2<sup>nd</sup> Person Plural Address from Chat 3, Team E**

- |   |   |   |
|---|---|---|
| 1 | E4 : hola   | <i>hi</i>   |
| 2 | E1 : pienso que las familias grandes son muy interesante. | <i>I think that big families are very interesting</i>     |
| 3 | E4 : teneis familias muy grandes?                         | <i>do you (2nd person plural) have very big families?</i> |

The 3rd person plural form (-n) of the verb was also used in questions such as example 3-14 from Chat 1.

**Example 3-14: Example of 3rd Person Plural Address from Chat 1, Team B**

- |   |  |  |
|---|--|--|
| 1 | B4 : hola                              | <i>hi</i>  |
| 2 | B1 : me gusta mira la "Amigos" Friends | <i>I like to watch "Friends"</i>                           |
| 3 | B4 : bien                              | <i>fine</i>  |
| 4 | B3 : ¿quieren que sobre "talk shows"?  | <i>do you( 3rd plural)want to talk about 'talk shows'?</i> |

At times the 3rd person plural pronoun *Ustedes* was used alone as in example 3-15.

**Example 3-15: Example of 3rd Person Plural Address from Chat 1, Team A**

- |   |                                   |                                     |
|---|-----------------------------------|-------------------------------------|
| 1 | A3: tiene orgullo en nuestra pais | <i>I* have pride in our country</i> |
| 2 | A3: y uds?                        | <i>and you (3rd person plural)?</i> |

Also, the 3<sup>rd</sup> person plural pronoun *Ustedes* was used in addition to the matching form of the verb, as example 3-16 presents.

**Example 3-16: Example of 3rd Person Plural Address from Chat 1, Team F**

- |   |                                   |  |
|---|-----------------------------------|--|
| 1 | F3: udstedes ven otras talk shows | <i>do you (3<sup>rd</sup> plural) watch other talk shows</i> |
| 2 | F3: o solo Jerry Springer         | <i>or only Jerry Springer</i>                                |

In order to measure the relationship between the use of direct address and the speech roles identified above, Spearman's Rho correlation coefficients were computed.

#### ***3.5.1.3.6 Speech Roles and L1 Use***

In addition to the TL, the L1 is an artifact that mediates the activity of the computer-mediated synchronous discussion. Therefore, the use of the L1 must be examined. The quantitative analysis reveals the degree to which the learners use the L1 in order to carry out the chat discussion. The average number of words produced in the L1 by each learner in the three chat discussion sessions was computed. The sums of L1 words produced by each learner were divided into the total number of words for each team for each chat. A Spearman's Rho correlation coefficient was obtained for the percentage of L1 words produced and the speech roles.

#### ***3.5.1.4 Interactional Features***

Due to the fact that the presence of negotiation routines in interaction is assumed to affect output, the final section of the quantitative analysis examines the negotiation of meaning that takes place in the chat discussions. Negotiation is identified by the presence of certain interactional features. The classification of these features developed by Long (1983) forms the basis for the set of interactional features considered in this study. Long identified the following features: clarification requests, confirmation checks, comprehension checks, self

repetitions, and other repetitions. In each chat, these features were identified and the sum of each type of feature per learner was counted. The main interactional features as described in Ellis (1990: 108-109)<sup>6</sup> and examples of each feature in the data from the current study are presented in Table 3-4.

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<sup>6</sup> There were no comprehension checks or preventive self repetitions found in the data. A comprehension check is an expression that serves to establish whether a speaker's own prior utterance has been understood correctly. A preventive self-repetition is when speakers repeat or paraphrases a part of their previous utterance in order to prevent a communication problem for the addressee (Ellis 1990).

**Table 3-4: Interactional Modifications in the Negotiation of Meaning**

Clarification Request	Any expression that elicits clarification of the preceding utterance	A: Que es orgullo <i>What is "orgullo"</i>
Confirmation Check	Any expression immediately following the previous speaker's utterance intended to confirm that the utterance was understood or heard correctly	A: Darth es mi prima. <i>Darth is my(female) cousin.</i> B: Tu prima? Darth es una mujer? <i>Your(female) cousin? Darth is a woman?</i>
Self Repetition		
(1) Repairing	The speaker repeats/paraphrases some part of her own utterance in order to help the addressee overcome a communication problem	A: no, tienen problemas cuando se casan <i>No, they had problems when they (got) married</i> B: lo siento <i>I'm sorry</i> C: por que? <i>Why?</i> A: no! NO tienen problemas! <i>No! They did NOT have problems.</i>
(2) Reacting	The speaker repeats/paraphrases some part of one of her previous utterances to help establish or develop the topic of the conversation.	A: Que recomienden para los presentadores <i>What do you recommend for the hosts</i> ... A: que recomienden??! <i>What do you recommend??!</i>
Other Repetitions		
(1) Repairing	The speaker repeats/paraphrases some part of the other speaker's utterance in order to help overcome a communication problem.	A: Si me esposos le gusta recibir las cartas <i>Yes(my) husbands likes to receive letters</i> B: esposos? Mas que uno esposo? <i>Husbands? More than one husband?</i>
(2) Reacting	The speaker repeats/paraphrases some part of the other speaker's utterance in order to help establish or develop the topic of conversation.	A: yo estoy rabiosa <i>I am furious</i> B: rabiosa? es una palabra muy fuerte <i>furious? that's a strong word</i>

### **3.5.2 Descriptive Analysis**

Because there are many aspects of the activity of computer-mediated team-based learning that the quantified data do not reveal, the quantitative analysis of learner production in the chat discussions seen in Chapter 4 is followed by a qualitative description in Chapter 5 of computer-supported collaboration from the perspective of both the researcher and the learner. The descriptive analysis of the activity in a computer-mediated team-based learning environment includes the observation, description, and interpretation of the participants and processes of the activity of computer-supported collaboration.

The chat transcripts and the interviews are examined and described in great detail with regard to the presence of each of the following Activity Theoretical notions: learner roles; goals; the division of labor; artifacts (languages and technology); rules; and community. The way in which each of these notions is manifested in the chat discussions is described. At the heart of the descriptive portion of the study are the statements made by the learners themselves in the chat discussions, and the in-depth interviews, which reveal the learners' perspectives on chatting and team-based foreign language learning.

The first section of the descriptive analysis examines learner perspectives on the nature of chatting as they are revealed in the synchronous chat discussions and in the in-depth interviews. Similarly, in the second section of Chapter 5, learner goals, motives, and attitudes that come to light in the synchronous chat discussions as well as in the interviews are examined. Next, the division of labor, the notion of community, the presence and effect of rules, and the way in which

artifacts mold and affect the activity of computer-mediated team-based learning are examined as manifested in the various data sources.

### ***3.5.2.1 Validity, significance, and reliability***

Socioculturally-based research addresses questions of validity, significance, and reliability in different ways than in traditional scientific research. In this project, the term "valid" retains its ordinary meaning of "well-grounded" and "supportable," which distinguishes it from two narrower meanings. In one narrower understanding from the context of formal logic, the term "valid" is used to describe a conclusion that has been correctly drawn from the premises and that follows the rules of logic. In the second, drawn from measurement theory, the term "validity" "refers to the relationship between the measuring instrument and the concept it is attempting to measure" (Polkinghorne 1988: 175). Although some conclusions may be based on measurement data, a "valid" finding in this study is based on the more general understanding of validity as a well-grounded conclusion.

Polkinghorne (1988: 175) argues that "people often interpret statistical significance to mean that the finding is important, without considering the limited idea that the finding probably resulted from the chance drawing of sample elements from the population." The term "significance," for the purposes of this study, retains its more general meaning, which points to the notion of "meaningfulness" or "importance."



In the context of scientific quantitative research, "reliability" refers to the consistency and stability of measuring instruments. Reliability in qualitative research usually refers to the dependability of the data where the focus is on the trustworthiness of field notes and interview transcriptions (Kirk & Miller 1986).

The results of the quantitative analysis described above are presented in Chapter 4. Chapter 5 presents the results of the descriptive analysis described in the present chapter. Finally, Chapter 6 discusses the implications of these results with regard to the findings of previous investigations and current SLA theory and pedagogy.

## CHAPTER FOUR

### Quantitative Results

#### 4.0 INTRODUCTION

The results of the quantitative analysis described in Chapter Three are presented here. The goal of the present chapter is to present a quantitative description of the language (symbolic artefact) produced in team-based synchronous computer-mediated discussions in which the instructor is entirely absent. In the foreign language literature on teacher-fronted classrooms, the teacher has been found to dominate oral in-class discussions (e.g., Sinclair & Coulthard 1975; Cazden 1988; Chaudron 1988). In the majority of CMC foreign language studies, teacher participation has been found to decrease overall (Kern 1995; Warschauer 1997) and yet teachers are still found to control the discussions (Kern 1995; Thorne 1999). In contrast, the current study seeks to describe learner-controlled computer-mediated discussions. A descriptive numerical analysis of the synchronous computer-mediated discussion transcripts provides one dimension of the detailed description of the activity. A qualitative description, which reveals a second dimension, is presented in Chapter Five.

In keeping with Activity Theory tradition, this analysis of the activity in a CSCL environment involves the observation, description, and interpretation of the participants and processes of the activity, which include *subject*, *object*, and

*outcomes, mediating artifacts, community, division of labor, and rules.* Therefore, the quantity of target language speech was examined in order to describe the degree to which learners participate and the distribution of that participation in the team-based chat discussion activities. In addition, the quantity and type of speech actions produced were examined. The distribution of participation and the language and speech actions used by the learners are used to reveal learner goals, the roles learners assume, the way in which they divide the labor, and the relations of power and status that develop among teammates as they collaborate in the computer-mediated synchronous discussions. Findings from the descriptive analysis in Chapter Five support many of the quantitative findings. At the heart of the descriptive portion of the study are the statements made by the learners themselves, which reveal the learners' perspectives on chatting and team-based foreign language learning.

#### **4.1 QUANTITY OF SPEECH: WORDS AND E-UNITS**

In order to measure the quantity of speech produced by individual learners in the chat discussions, and to establish a pattern of participation of a team of learners in each of the three chat sessions, the total number of words and e-units produced by each learner in each team-based chat discussion was counted. Following Ruberg *et al's* (1996) use of 'Interchange Analysis' to describe the participation in computer-mediated discussions, the percentage of words (referred to as a "volume ratio" by Ruberg *et al*) for each individual learner was obtained by dividing the total number of words produced by each learner into the total number of words per team per chat session. Next, the percentage of e-units (called

a “participation ratio” in Ruberg) was obtained for each individual learner by dividing the total number of e-units per learner per chat into the total number of e-units per team per chat. Finally, an average turn length was obtained for each individual learner by dividing the number of words per learner per chat into the learner’s total number of e-units per chat.

It is well documented that synchronous computer-mediated discussion settings can increase the level of participation. Many studies comparing face-to-face and CMC discussions find an increase in participation rates in the CMC sessions (Kelm 1992; Chun 1994; Kern 1995; Freiermuth 1998; Patterson 2001). Beauvois (1998), Kern (1998), Pratt and Sullivan (1994), and Warschauer (1996) have all found that learners produce more language, submit more turns at talk, and participate at higher levels in electronic conferencing sessions than in face-to-face discussions. Although, the present study does not attempt to compare face-to-face and CMC discussions, the data presented in Table 4.1 does confirm that there is 100 % participation in the team-based computer-mediated sessions. Whether or not participation is equally distributed is discussed in the following section.

**Table 4-1: Quantity of Speech per Learner**

Learner	Chat 1					Chat 2					Chat 3				
	words	e-units	% words	% e-units	e-unit length	words	e-units	% words	% e-units	e-unit length	words	e-units	% words	% e-units	e-unit length
A1	70	24	9.8	12.4	2.9	74	22	9.6	13.3	3.4	70	15	11.9	12.6	4.7
A2	114	24	16.0	12.4	4.8	79	13	10.3	7.9	6.1	53	7	9.0	5.9	7.6
A3	262	62	36.8	32.1	4.2	331	61	43.0	37.0	5.4	175	34	29.8	28.6	5.1
A4	164	53	23.0	27.5	3.1	172	42	22.3	25.5	4.1	270	55	46.0	46.2	4.9
A5	102	30	14.3	15.5	3.4	114	27	14.8	16.4	4.2	19	8	3.2	6.7	2.4
B1	60	21	12.0	17.5	2.9	136	20	18.8	17.4	6.8	61	21	9.0	19.4	2.9
B2	91	24	18.3	20.0	3.8	118	25	16.3	21.7	4.7	143	21	21.1	19.4	6.8
B3	131	30	26.3	25.0	4.4	154	24	21.3	20.9	6.4	204	33	30.1	30.6	6.2
B4	123	30	24.7	25.0	4.1	214	31	29.6	27.0	6.9	150	21	22.2	19.4	7.1
B5	93	15	18.7	12.5	6.2	102	15	14.1	13.0	6.8	119	12	17.6	11.1	9.9
C1	41	11	20.3	20.4	3.7	83	9	16.4	10.5	9.2	111	15	19.5	19.2	7.4
C2	27	11	13.4	20.4	2.5	98	19	19.3	22.1	5.2	109	18	19.2	23.1	6.1
C3	18	6	8.9	11.1	3.0	86	12	17.0	14.0	7.2	168	18	29.5	23.1	9.3
C4	52	12	25.7	22.2	4.3	77	13	15.2	15.1	5.9	66	7	11.6	9.0	9.4
C5	64	14	31.7	25.9	4.6	163	33	32.2	38.4	4.9	115	20	20.2	25.6	5.8
D1	92	31	17.6	23.1	3.0	111	24	18.0	18.2	4.6	115	26	23.0	27.4	4.4
D2	103	24	19.7	17.9	4.3	132	28	21.4	21.2	4.7	72	15	14.4	15.8	4.8
D3	68	19	13.0	14.2	3.6	95	21	15.4	15.9	4.5	60	14	12.0	14.7	4.3
D4	89	20	17.0	14.9	4.5	162	29	26.3	22.0	5.6	118	21	23.6	22.1	5.6
D5	171	40	32.7	29.9	4.3	117	30	19.0	22.7	3.9	135	19	27.0	20.0	7.1
E1	88	17	19.7	18.1	5.2	87	20	22.4	20.4	4.4	57	7	15.7	16.7	8.1
E2	73	16	16.4	17.0	4.6	111	24	28.6	24.5	4.6	44	8	12.1	19.1	5.5
E3	121	28	27.1	29.8	4.3	80	23	20.6	23.5	3.5	97	12	26.7	28.6	8.1
E4	164	33	36.8	35.1	5.0	110	31	28.4	31.6	3.5	165	15	45.5	35.7	11.0
F1	172	35	27.8	25.7	4.9	119	27	28.8	28.4	4.4	109	12	25.2	14.8	9.1
F2	206	40	33.3	29.4	5.2	89	16	21.6	16.8	5.6	148	29	34.2	35.8	5.1
F3	100	26	16.2	19.1	3.8	89	23	21.6	24.2	3.9	74	19	17.1	23.5	3.9
F4	140	35	22.7	25.7	4.0	116	29	28.1	30.5	4.0	102	21	23.6	25.9	4.9
G1	60	13	23.3	19.4	4.6	98	9	23.3	20.5	10.9	71	22	22.6	24.7	3.2
G2	57	19	22.1	28.4	3.0	104	13	24.8	29.6	8.0	69	20	22.0	22.5	3.5
G3	82	17	31.8	25.4	4.8	145	9	34.5	20.5	16.1	79	25	25.2	28.1	3.2
G4	59	18	22.9	26.9	3.3	73	13	17.4	29.6	5.6	95	22	30.3	24.7	4.3
H1	62	19	30.4	45.2	3.3	93	26	27.4	37.7	3.6	107	15	25.3	31.9	7.1
H2	109	18	53.4	42.9	6.1	101	15	29.7	21.7	6.7	166	17	39.2	36.2	9.8
H3	33	5	16.2	11.9	6.6	146	28	42.9	40.6	5.2	150	15	35.5	31.9	10.0
I1	125	35	38.2	34.3	3.6	150	33	38.1	37.9	4.5	187	41	41.5	36.9	4.6
I2	91	35	27.8	34.3	2.6	101	27	25.6	31.0	3.7	93	34	20.6	30.6	2.7
I3	111	32	33.9	31.4	3.5	143	27	36.3	31.0	5.3	171	36	37.9	32.4	4.8

Table 4-1 presents the total number of words and e-units produced by each learner in each chat discussion. Also presented are the percentage of words and e-units for each learner per chat in addition to each learner's average e-unit length. In order to get a general idea of how many words and e-units learners produced on average, group size was ignored, and measures were obtained for average words and e-units per person and the average e-unit length. These variables are presented in Table 4-2.

**Table-4-2: Average Quantity of Speech per Chat per Person**

	<b>words/person</b>	<b>e-units/person</b>	<b>e-unit length</b>
<b>Chat 1</b>	99.7	24.8	4.1
<b>Chat 2</b>	120.3	23.4	5.6
<b>Chat 3</b>	113.6	20.3	6.1

The number of words per learner increased with each chat while the number of e-units decreased. The explanation for this pattern lies in the fact that the e-unit length increased with each chat. From Chat 1 to Chat 2, the average number of words per e-unit increased by 37%. From Chat 1 to Chat 3, there was a 47% increase in e-unit length. E-unit length has been cited as a measure of learner involvement (Bearden 2003). Many SLA Interactionist researchers working within a Vygotskian framework have discussed the importance of learner involvement in target language interaction (van Lier 1996; Swain & Lapkin 1998). The increase in e-unit length, then, suggests an increase in overall learner involvement across the chats.

### **4.1.1 Participation Equality**

In addition to increasing participation levels, the findings in past research show a tendency toward more equal participation in the computer-mediated discussion settings. Beauvois (1992), Kelm (1992), and Kern (1995) claimed that CMC was an equalizer of participation for the FL classroom. For the ESL classroom, Sullivan & Pratt (1996) and Warschauer (1996a) made similar claims.

Following Warschauer (1996a), the Lorenz Curve construction was used in the present study to give a rough measure of the degree of inequality in the participation distribution. The specific measure used is called the Gini Coefficient. Recall from Chapter 3 that in order to compute the Gini Coefficient, the area between the Lorenz Curve and the 45 degree equality line is measured. This area is divided by the entire area below the 45 degree line, which is always exactly one half. The quotient is the Gini coefficient, a measure of inequality.

For a perfectly equal participation distribution, there would be no area between the 45 degree line and the Lorenz curve, or a Gini coefficient of zero. For complete inequality, in which only one person participates, the Lorenz curve would coincide with the straight lines at the lower and right boundaries of the curve, so the Gini coefficient would be one.

Table 4.3 shows the Gini coefficient of participation inequality that was calculated for the individual learners in each of the team sizes based on the percentage of words per learner.

**Table 4-3: Gini Coefficients of Participation Equality**

Team	Chat 1	Chat 2	Chat 3
A	0.25	0.32	0.43
B	0.14	0.14	0.19
C	0.23	0.15	0.15
D	0.17	0.1	0.16
E	0.17	0.07	0.28
F	0.14	0.07	0.13
G	0.07	0.13	0.07
H	0.25	0.1	0.09
I	0.07	0.08	0.14

For perfectly equal participation distribution, the Gini Coefficient would be zero. All teams, with the exception of Team A, had very low values overall. In particular, Teams B, D, F, G and I all had values under 0.2 for all three chat discussions. Teams C and H showed a tendency to more equal participation in Chats 2 and 3, whereas Team E's participation was more equal in Chat 2, but more unequal in Chat 3. In Chat 1, for both Teams C and H, several learners were preparing for another assignment during the chat and did not participate as much as the others learners. This situation did not arise again in any of the teams in the subsequent chats. In Chat 3 for Team E, one learner, E4, produces 45.5% of the words and 35.7% of the e-units. Her average e-unit length, which was 5 words per e-unit in Chat 1, and 3.5 words per e-unit in Chat 2, has increased to 11 words per e-unit in Chat 3. Team A had the least equal participation for all three of the chats due to the consistent domination in the chats of 2 of the learners, A3 and A4. Overall, however, these findings indicate a tendency toward equal participation.



### 4.1.2 Participation Leaders

Although participation was found to be equalized, a pattern emerges in the participation distribution, revealing that certain learners consistently produce a higher percentage of words and e-units than the other learners in the team. This piece of information represents one of several that help to identify learner goals and the roles the learners assume in the chat discussion, to be examined later.

For each team, the percentage of words and the percentage of e-units for each learner were ranked. A value of 1 was assigned to the highest percentage and values of 2 for the next highest, and so on, respectively, for both words and e-units. For example, in teams consisting of 5 learners, a value of 5 indicates that the learner produced the lowest percentage of words or e-units for the team. Table 4-4 shows the learners with the highest number of words and e-units for each team in each chat.

**Table 4-4 Word and E-unit Leaders per Chat**

Chat 1		Chat 2		Chat 3	
Words	E-units	Words	E-units	Words	E-units
A3	A3	A3	A4	A4	A4
B3	B3, B4	B4	B4	B3	B3
C5	C5	C5	C5	C3	C5
D5	D5	D4	D5	D5	D1
E4	E4	E2	E4	E4	E4
F2	F2	F1	F4	F2	F2
G3	G2	G3	G2, G4	G4	G3
H2	H1	H3	H3	H2	H2
I1	I1, I2	I1	I1	I2	I1

### 4.1.3 Gender and Participation

Studies on the social dynamics of CMC have found that computer-mediated communication fosters more balanced participation between women and men (Sproull & Kiesler 1991; McGuire, Kiesler and Siegel 1987). The results of the present study also support these findings.

In the current study, a Pearson Chi Square test was performed to determine what percentage of the leaders in number of e-units and number of words for each team and each chat was male or female. The result was a consistent pattern in which females were the leaders in e-unit and word production more often than males. In addition, the results for the test for e-units in Chat 2 were found to be significant with a *p*-value of .030. The results of the chi square tests are presented in Tables 4-5 and 4-6.

**Table 4-5: Pearson Chi Square results of Percentage of E-units by gender**

	Chat 1	Chat 2	Chat 3
Female	40%	46.7%	33.3%
Male	21.7%	13.0%	17.4%
p-value	.285	.030 (**)	.436

**Table 4-6: Pearson Chi Square results of Percentage of Words by gender**

	Chat 1	Chat 2	Chat 3
Female	33.3%	40%	33.3%
Male	17.4%	13.0%	17.4%
p-value	.436	.115	.436

In addition to the participation analysis, an analysis of the quantity and type of speech action for each individual learner and the correlations between these speech actions can shed more light on the way in which learners share the floor and divide the labor as they construct digital text, as discussed in the following section.

#### **4.2 SPEECH ACTIONS: DIVISION OF LABOR AND LEARNER ROLES**

Participation patterns indicate the degree to which the labor is divided among the learners as they construct discourse in the computer-mediated discussions. It also is an indication of the divisions of power and status that emerge among the members of each team. As Eggins (1994) points out, “the most striking indication of power is in who gets to be speaker in an exchange and for how long” (p. 193). Therefore, it follows that the learners identified in Table 4-5 wield the most power in the discussions. It is the division of labor, however, that mediates the relationship between the object and the community and refers to the organization of the community as it functions to transform the object (Nardi 1996). With regard to the division of labor, it is especially important for the purposes of the present study to note once again the absence of instructor turns. The absence of the instructor in the discussions marks a major variation in the traditional whole-class oral discussion dynamic in which the teacher largely organizes participation and the distribution of knowledge. Therefore, this absence upends traditional roles enacted by teachers and students in classrooms: without the instructor, the maintenance of the discussion becomes the job of the learners.

The analysis of the participation distribution has identified the learners who assume a more dominant role in the discussions in terms of the quantity of words and e-units produced. Due to the fact that the teacher has been found to dominate classroom discussions, higher participation levels are one factor that can be used to determine if a learner has taken on some sort of teacher or expert role or, in Vygotskian terms, the role of a more capable peer. As the following sections on speech actions makes clear, however, dominance in sheer volume of words and e-units does not, by itself, clearly indicate that a learner has become the *de-facto* teacher in the synchronous discussion activity. Furthermore, it must be taken into account that the fact that one learner participates more and more frequently can be the result of various factors. For instance, it can indicate that the learner is more linguistically proficient, a more efficient typist, a more seasoned user of the synchronous computer-mediated discussion format, or that the learner has more expertise with regard to the topic being discussed. The question at hand, then, is what types of speech actions and speech roles are the most closely aligned with high participation rates?

In order to identify the roles taken on by learners and to interpret the relations between the learners in the synchronous discussions, the speech actions produced in the chat discussions were identified and counted. The following sections present the results of an analysis of interpersonal relations reflected in learner use of speech actions, an analysis of their dynamics, and an interpretation of their frequencies.

### **4.2.1 Speech Roles**

Sacks, Schegloff, and Jefferson (1974) described turn-taking as a “prominent type of social organization” (p. 696). As learners work together to build digital text in the computer-mediated synchronous discussions, their interactive and linguistic behaviors revealed in their choice of speech action allow them to take on certain roles and to position themselves within the community of the team. Thus, determining which speech actions are the most commonly used, by whom, and to what purpose, can supply more information about the relations between the learners as they communicate with each other, and about the chat discussion activity. In particular, learners’ choice of speech action can provide information about their individual goals and motives, the roles they adopt, and the way in which the labor is divided to collaborate, build camaraderie, and co-construct meaning through digital text.

To these ends, each e-unit from the computer-mediated synchronous discussion transcripts was analyzed and classified according to its speech action in the discourse (see Chapter 3 for a complete listing of the speech actions). These speech actions were then grouped according to the speech role they realized.

#### ***4.2.1.1 Discussion Maintenance***

A teacher-like speech role, referred to in the present study as discussion maintenance, includes such speech actions as topic initiation and shift, assistance, commands, behavior regulating actions such as reprimands, and actions that keep learners on task (here called “Follow Assignment” and “Topic Saving” actions). Normally corrective actions would appear under this heading. The corrective

actions that occur, however, are 100% self-directed where learners restate their e-unit with a corrected form or word. There was no incidence in any of the chat discussions of a learner's correction of a teammate's grammar or lexical choice. This pattern may signify that although learners in a team may take on the management role of a teacher, they do not take on the intellectual authority of the teacher. Research on Conversation Analysis shows that the correction of others is avoided due to its face-threatening nature (Sacks, Schegloff, & Jefferson 1974).

Mehan (1979) stresses the importance of "interactional competence," which includes the ability to manage discussions in relevant ways. Hall points out the significance of interactive practices, "recurring episodes of purposeful, goal-directed talk," in the establishment and maintenance of a community (Hall 1995: 38). Competent participation in these practices requires the development of interactional competence. Thus, the fact that learners utilize discussion maintenance actions suggests that the team-based chats may facilitate interactional competence.

#### ***4.2.1.2 Socialization and Resistance***

A socializing role includes such speech actions as greetings and closings in addition to elicits and statements of personal information and preference. These types of actions show a learner's interest in becoming acquainted with and being courteous of teammates. Speech actions that work against team solidarity realize a resisting role and are also present in the chat transcripts, although they are limited to one or two teams and will be discussed separately. These include adversarial actions such as insults, debasing and crude comments, as well as sexist and

misogynistic language. Also included are actions in which one learner attempts to exclude a teammates.

#### ***4.2.1.3 Promotion of Ideas***

Promoting roles are realized by speech actions in which a learner states an opinion, either marked or not. These types of speech actions are another indication that a learner's object might be directed toward knowledge construction.

#### ***4.2.1.4 Emotive Roles***

Emotive roles are realized by actions that serve to encourage or support a teammate, such as evaluative statements, expressions of sympathy, empathy, and apologies. E-units in which learners tease each other in a playful way are also included. These types of speech actions are another indication that a learner's object might be to build solidarity within the team rather the management of the discussion, socializing, or the promotion of ideas.

To gain a broad view of the distribution of speech actions, the sums of all speech actions in each category were calculated for each chat. These figures were then divided into the total number of e-units for each chat. The results are presented in Table 4-7.

**Table 4-7: Overall Distribution of Speech Actions per Chat**

	Chat 1	Chat 2	Chat 3
Social	0.30	0.40	0.40
DMA	0.25	0.34	0.30
Promote	0.27	0.15	0.20
Elicits	0.16	0.17	0.16
Answers	0.11	0.13	0.11
Emotive	0.06	0.07	0.08
Resist	0.04	0.01	0.03
Corrective	0.02	0.04	0.02
Paralinguistic	0.02	0.02	0.03

In Table 4-7, the speech actions are ordered in terms of frequency of occurrence. Socializing actions account for the majority of learner speech actions, followed by discussion maintenance actions, with the exception of Chat 1 in which promoting actions are more frequent. Next are promoting actions, followed by elicits and answers. Emotive actions accounted for fewer than 10% of all speech actions followed by resistance, paralinguistic, and corrective actions respectively, which each accounted for less than 5% of the speech actions. Therefore it appears that overall learners are most interested in socializing, but many are also concerned with managing the discussions according to the assignment guidelines.

For each team in all 3 chats the learner with the highest percentage of speech actions for each speech role was identified and the results are presented in Table 4-8. An asterisk denotes learners that also were found to be participation leaders in Table 4-5.



**Table 4-8 Speech Role Leaders**

DMA Leaders	Socializing Leaders	Promotion Leaders	Emotive Leaders
A3*	A4*	A3*	A4*
B3*	B3*	B2, B3*,B4	B2
C5*	C5*	C5*	C1, C2, C5*
D2	D5*	D4*	none
E4*	E3	E4*	E4*
F2*	F1, F2*, F3	F4	F2*
G4*	G2, G3, G4*	G3	G3
none	none	H2*	H1, H2*
I3	none	I3	II *

The results of Table 4-8 indicate that the learners that were found to be participation leaders were also found to be leaders in other areas as well, and that there was often more than one leader in a team in a given area. For example, in Team A, recall from Table 4-5 that learner A3 and A4 were found to be participation leaders. As Table 4-8 presents, A3 also was found to have the highest number of DMAs in the chats. This finding indicates that, in addition to being dominant with respect to participation, her use of DMAs allowed her to position herself in a teacher-like role within her team. In Vygotskian terms, A3 has assumed the role of the more capable peer. In team H, no overall DMA leader was found because all three team members shared equally in the maintenance of the discussion. An observation of the results also shows that DMA leaders also tended to promote ideas more often than their teammates in 6 out of the 9 teams, whereas in only 4 out of the 9 teams do DMA leaders also assume leadership with regard to socializing.

The main focus of the following section is on those speech actions that occur most frequently. These speech actions realize the roles of discussion

maintenance, socialization, and the promotion of ideas. The relationship between these speech roles and participation as well as the relationship between the speech roles themselves are presented. In addition, the use of floor holds and the degree to which learners stayed on-topic during a discussion also will be examined. Also, elicits and statements, and the relationship between them and the speech roles, will be examined followed by a discussion of the use of direct address, and the use of the L1.

#### **4.2.2 Participation and Speech Roles**

In order to determine which speech roles are most closely associated with high participation rates, the total number of occurrences per learner of the speech actions that make up each role in each of the synchronous discussions was counted. These sums were then divided into the total number of e-units for the team in each chat to obtain the percentage of each speech role per learner. Next, a bivariate correlations procedure was performed in order to compute Spearman's Rho correlation coefficients and their significance levels. These correlations measure how variables are related. Correlation coefficients range in value from  $-1$  (a perfect negative relationship) and  $+1$  (a perfect positive relationship). The results are presented in Table 4-9. Correlation coefficients significant at the 0.05 level are identified with a single asterisk, and those significant at the 0.01 level are identified with two asterisks.

**Table 4-9: Spearman’s Rho of Participation and Speech Actions**

	Chat 1		Chat 2		Chat 3	
	words	e-units	words	e-units	words	e-units
DMA	.570(**)	.493(**)	.656(**)	.756(**)	.629(**)	.630(**)
Socializing	.461(**)	.613(**)	.661(**)	.814(**)	.815(**)	.862(**)
Emotive	0.311	.463(**)	.349(*)	.500(**)	.433(*)	0.194
Promoting	.716(**)	.601(**)	.487(**)	.460(**)	.594(**)	.473(**)

In Chat 1, significant correlations at the 0.05 level are found for participation in volume of words and the following speech roles in order of the strength of the correlation obtained: promotion of ideas; discussion maintenance (DMAs); and socializing. Significant correlations at the 0.05 level are also obtained for participation in e-units and the following speech roles in order of the strength of the correlation obtained: socializing; promotion of ideas; DMAs; and emotive.

In Chat 2, significant correlations at the 0.05 level are found for participation in volume of words and the following speech roles in order of the strength of the correlation obtained: socializing; DMAs; and promotion of ideas. A significant correlation at the 0.01 level is also obtained for emotive. Significant correlations at the 0.05 level are also obtained for participation in e-units and the following speech roles in order of the strength of the correlation obtained: socializing; DMAs; emotive; and promotion of ideas.

In Chat 3, significant correlations at the 0.05 level are found for participation in volume of words and the following speech roles in order of the strength of the correlation obtained: socializing; DMAs; and promotion of ideas.

A significant correlation at the 0.01 level is also obtained for emotive. Significant correlations at the 0.05 level are also obtained for participation in e-units and the following speech roles of ideas. No significant correlation is obtained for emotive actions. The finding that there is a significant correlation between word production and the use of emotive speech actions, but no significant correlation between e-unit production and emotive speech actions indicates that learners that have assumed an emotive role in the discussion tend to have fewer longer e-units.

Table 4-10 presents the speech actions in order of the strength of the correlation with participation in both words and e-units.

**Table 4-10: Speech Roles in Order of Strength of Correlation to Participation**

Words			E-units		
Chat 1	Chat 2	Chat 3	Chat 1	Chat 2	Chat 3
Promoting	Socializing	Socializing	Socializing	Socializing	Socializing
DMA	DMA	DMA	Promoting	DMA	DMA
Socializing	Promoting	Promoting	DMA	Emotive	Promoting
	Emotive	Emotive	Emotive	Promoting	

A clear pattern that emerges in Chats 2 and 3 is that socializing roles are those most strongly correlated to participation, followed by DMAs. It is also observed from the data presented in Table 4-10 that from Chat 1 to Chat 3, the strength of the association between socializing actions and participation consistently increases. This observation suggests that from the onset, a goal of primary importance among learners was socializing. As the learners became accustomed to the chatting format over the course of the semester, they got to

know their teammates better, and the importance placed on socializing also increased.

DMAAs have the second strongest association for Chats 2 and 3 and, therefore, maintaining the discussion appears to be the second most important goal of those learners with high participation rates. The fact that the learners were unfamiliar with exactly what was expected of them in the first chat could account for the variation in the correlations in Chat 1. By Chat 2, however, the learners knew what to expect and what was expected of them. The strength and the pattern across chats of the correlations for promoting roles also suggest the promotion of ideas was an important goal for learners.

With regard to the emotive role, it is difficult to find a consistent pattern. Emotive actions are employed by learners in order to support and encourage one another, promoting camaraderie within the team. For Chat 1, no significant correlation exists between participation and words, but a correlation significant at the 0.01 level does exist between emotive actions and participation in e-units. This finding suggests that e-units that realize emotive speech actions are short, with few words. For Chat 2, a correlation significant at the 0.05 level is obtained for participation in words and a much stronger correlation significant at the 0.01 level is obtained for e-units. The results obtained for Chat 3 are puzzling. There is a correlation at the 0.05 level for words, but no significant correlation exists for e-units.

By determining what other types of speech actions are closely associated, it may be possible to identify and further differentiate the roles learners assume in

the chat discussions. Table 4-11 shows the correlations that exist between speech actions.

**Table 4-11: Spearman’s Rho, DMAs, Socializing, Emotive and Promoting**

		DMA	Socializing	Emotive	Promoting
Chat 1	DMA	1	0.249	0.174	.501(**)
	Socializing	0.249	1	.406(*)	.381(*)
	Emotive	0.174	.406(*)	1	0.102
	Promoting	.501(**)	.381(*)	0.102	1
Chat 2	DMA	1	.763(**)	.325(*)	.342(*)
	Socializing	.763(**)	1	0.216	0.209
	Emotive	.325(*)	0.216	1	0.132
	Promoting	.342(*)	0.209	0.132	1
Chat 3	DMA	1	.580(**)	0.114	.593(**)
	Socializing	.580(**)	1	0.267	.385(*)
	Emotive	0.114	0.267	1	0.24
	Promoting	.593(**)	.385(*)	0.24	1

In Chat 1, the DMAs and promoting actions have a significant correlation at the 0.01 level. Promoting actions are also correlated with socializing actions, though not as significantly, at the 0.05 level. Socializing actions and emotive actions have a correlation significant at the 0.05 level.

A significant correlation between DMAs and the promotion of ideas in Chat 2 again is obtained, but the significance is weaker, at the 0.05 level. Interestingly, a correlation significant at the 0.01 level is obtained for DMAs and

socializing. DMAs are also shown to correlate with emotive actions in Chat 2, though only at the 0.05 level.

In Chat 3, the strongest correlation for DMAs is obtained for the promotion of ideas, followed by socializing; both correlations are significant at the 0.01 level. Socializing actions also correlate with promoting actions, but not as strongly as they correlate with DMAs.

These results suggest that the strongest association exists between the roles of discussion maintenance and socializing. Next, maintaining the discussion is more closely associated with the promotion of ideas overall than is socializing. These findings indicate that learners do not adopt one role or the other, but that they may adopt several roles at the same time. Assuming a teacher-like role is not mutually exclusive to assuming a socializing role.

#### 4.2.3 Gender and Speech Roles

A Pearson Chi Square test was performed to determine what percentage of the leaders in number of each of the speech roles for each team and each chat was male and what percentage was female. The results of the chi square test are presented in Tables 4-12 - 4-15.

**Table 4-12: Chi Square, Percentage of DMAs by gender**

	Chat 1	Chat 2	Chat 3
Female	20%	46.7%	40%
Male	26%	13%	13%
p-value	1.00	.030	.115

In Chat 1, males and females tended to be about the same with regard to DMAs. There was a consistent pattern in Chats 2 and 3, however, in which females were the leaders in DMA production more often than males. In addition, the results for the test for e-units in Chat 2 were found to be significant with a *p*-value of .030.

**Table 4-13: Chi Squares, Percentage of Socializing Actions by Gender**

	Chat 1	Chat 2	Chat 3
Female	26.7%	60%	26.7%
Male	26.1%	43%	34.8%
p-value	1.00	.000	.728

Males and females in Chat 1 tended to use about the same frequency of socializing actions. In Chat 2, however, females were the leaders in socializing action production more often than males. These results were found to be highly significant with a *p*-value of .000. Males in Chat 3 were the leaders for socializing slightly more often than females, without any significance.

**Table 4-14: Chi Squares, Percentage of Promoting Actions by Gender**

	Chat 1	Chat 2	Chat 3
Female	33.3%	33.3%	33.3%
Male	17.4%	30.4%	39.1%
p-value	.436	1.00	1.00

With regard to promoting actions, there was no clear leader among males or females and no consistent pattern observed.



**Table 4-15: Chi Squares, Percentage of Emotive Actions by Gender**

	Chat 1	Chat 2	Chat 3
Female	57.1%	26.7%	38.5%
Male	31.6%	34.8%	35.0%
p-value	.173	.728	1.00

Females tended to be the leaders in Chat 1 with regard to emotive actions, but no statistical significance was found. In Chats 2 and 3, no clear or consistent pattern is observed.

Overall, these findings suggest that the speech roles are shared more or less equally by males and females and that neither gender group tends to be dominant. The results for the DMAs in Table 4-13 suggest that this type of setting could serve to empower women, or it could also indicate that women are more likely to take an interest in the maintenance of the discussion. These observations contribute to the research that cites a strong equalizing effect with regard to the social dynamics of CMC.

#### **4.2.4 Holding the Floor**

In addition to high rates of participation, another indication of discussion dominance is the degree to which a learner holds the floor (submits many e-units in sequence without interruption) and whether or not floor holds are closely associated with other speech actions.

**Table 4-16: Spearman’s Rho, Floor Holds and Speech Roles**

	DMA	Promoting	Socializing	Emotive
Chat 1	0.276	.346(*)	.522(**)	.492(**)
Chat 2	.630(**)	.457(**)	.689(**)	0.31
Chat 3	.393(*)	0.286	.613(**)	0.232

In Chat 1, the strongest significant correlation obtained was with socializing actions, followed by emotive actions and promoting actions, respectively. The strongest significant correlation was again obtained in Chat 2 for socializing moves. The next strongest correlation was found for DMAs and next, promoting actions. In Chat 3, socializing actions were the most strongly correlated, followed by DMAs.

These results indicate that floor holds are usually performed with socializing actions. In addition to the fact that socializing actions are the most closely associated to high participation, this information shows that those learners that take on a more social role in the discussion are the ones that tend to be the most dominant overall.

#### **4.2.5 Topics of Discussion**

For each chat discussion, the learners were required to choose from a list of assigned topics. An examination of the chat transcripts reveals that learners also spent some part of the discussions talking about the assignment itself, such as assignment rules and the selection the different topics. Learners also took the discussion off-topic and, to a small degree, discussed the target language, as well as the technology that was used to mediate the chat discussions. Keeping to the

assigned topic during the discussion not only can indicate interest on the part of the learner, but also that a learner feels a certain responsibility and places importance on following rules and on building knowledge, both in general and with regard to the target language because the discussions offered a lot of opportunities to practice using new vocabulary and grammar. By contrast, learners who engage in frequent off-topic discussion show that they may have other goals; for example self-promotion or rebellion against the assignment itself, which may not be beneficial for team solidarity. If these off-topic moves engage others in personal discussions, however, it can indicate that the learners' goal for the chat activity is to get to know their teammates.

The e-units were also coded for each topic area; these were counted and divided into the total number of e-units. The results are presented in Table 4-17.

**Table 4-17: Topics of Discussion, Percentage**

	Chat 1	Chat 2	Chat 3
Assigned Topic	0.46	0.49	0.51
Off Topic	0.31	0.21	0.17
About Assignment	0.11	0.13	0.08
About Language	0.06	0.03	0.02
About Technology	0.01	0.01	0.02
About Other Assignment	0.06	0.01	0.00

Learners spent almost half of each chat discussing the assigned topic. For Chat 1, learners on average took the discussion off-topic for 31% of the chat. The number of off-topic e-units decreased with each chat session. Very little time was spent talking about the target language directly, or about the technology in use.

The fact that learners dedicated over half of the chat discussions to the assigned topics not only reveals that learners found the activity fun and useful, but it also shows that an important learner goal was to fulfill the requirements of the discussion assignment and thus follow the rules set down by the instructor. In this way, the symbolic presence and the authority of the instructor is revealed in the chats. This issue will be discussed more in Chapter 5 with regard to the findings from the interviews.

As a teacher would be interested in keeping the team on task, it would seem likely that a learner with a high number of DMAs would also have a high number of on-topic e-units. Therefore, a discussion-oriented learner would be expected to have a higher percentage of moves that deal with the assigned topic of discussion and a lower percentage of off-topic moves. Table 4-18 presents the correlations for DMAs and on- and off-topic moves.

**Table 4-18: Spearman’s Rho, On- and Off-topic Moves and DMAs**

	On-Topic	Off-Topic
Chat 1	.508(**)	0.19
Chat 2	.637(**)	.350(*)
Chat 3	.485(**)	.499(**)

For each of the three chats, the DMAs and on-topic moves were strongly correlated at the 0.01 level. For Chat 1, there was no significant correlation between DMAs and off-topic moves. There was a significant correlation for Chat 2, however, although not as strong (at the 0.05 level), between DMAs and off-

Topic moves. In addition,, the strength of the correlation increased in Chat 3 and significance was achieved at the 0.01 level.

With regard to socializing actions and the degree to which learners stayed on-topic, the following correlations were obtained:

**Table 4-19: Correlations of On- and Off-topic Moves and Socializing Actions**

	On-Topic	Off-Topic
Chat 1	.457(**)	.562(**)
Chat 2	.766(**)	.489(**)
Chat 3	.588(**)	.552(**)

For each of the 3 chats, the socializing moves were strongly correlated with both on- and off-topic moves. For Chat 1, the correlation between socializing and off-topic moves was stronger than that between socializing moves and on-topic moves. In Chats 2 and 3, however, the correlations are stronger between the socializing and the on-topic moves.

With regard to promoting moves and the degree to which learners stayed on-topic, the following correlations were obtained:

**Table 4-20: Correlations of On- and Off-topic Moves and Promoting Moves**

	On-Topic	Off-Topic
Chat 1	.607(**)	0.214
Chat 2	0.307	.398(*)
Chat 3	.412(*)	.395(*)

A significant correlation is obtained for on-topic moves in Chats 1 and 3. In Chat 1 the correlation is significant at the 0.01 level. Significant correlations

are also obtained for off-topic moves in Chats 2 and 3; however, these correlations are found to be slightly less significant, at the 0.05 level.

Overall, these results indicate that on-topic moves have the closest association with socializing actions, followed by DMAs and then promoting actions. For off-topic moves, there is an overall stronger correlation with socializing and promoting actions than with DMAs. This pattern suggests that learners who assume the teacher role in the discussions also show a tendency to stay on-topic to a greater extent than those learners who have assumed a more social role. For example, in Team A, Learner A3 has the highest percentage of discussion maintenance actions overall and has taken on the discussion maintenance role for her team. Example 4-1 presents an excerpt from Chat 2 in which Learner A3 utilizes a Follow Assignment speech action in lines 4 and 10 in order to get the discussion back on-topic.

#### **Example 4-1: Chat 2 Excerpt, Team A**

1	A3: si, recomendaciones	<i>yes, recommendations</i>
2	A1: Debemos hablar a cereveza	<i>we should talk about beer</i>
3	A4: Yo peleaba con mi hermano.	<i>I used to fight with my brother</i>
4	A3: recomedaciones para se lleve bien!?	<i>recommendations for getting along!?</i>
5	A3: no, la professora lee este despues	<i>no, the professor reads this afterwards</i>
6	A3: no beer	<i>no beer</i>
7	A1: que lastima	<i>what a pity</i>
8	A4: jaja	<i>ha ha</i>
9	A2: cerveza es bueno, esta viernes.	<i>beer is good, it's Friday.</i>
10	A3: no!! recomendaciones!!!	<i>no!! recommendations!!!</i>

#### **4.2.6 Elicits**

The type of speech action utilized can reveal learner goals. Similarly, the use of elicits can suggest that a learner's goal is to keep the discussion moving.

Based on the type of information elicited, learner roles and goals can be revealed. Table 4 -21 provides a general view of the quantity and type of elicits present in the discussion transcripts. For Chat 1, the most common type is of general information, in which learners elicit information that is not of a personal nature from their teammates. An example is presented in Example 4-2.

**Example 4-2: Chat 1 Excerpt, Team H**

- |   |  |  |
|---|--|--|
| 1 | H1: Donde esta (Name)?   | <i>where is (Name)?</i>                              |
| 2 | H2: No se.   | <i>I don't know.</i>                                 |
| 3 | H2: Necesitamos que hacer nuestras presentaciones todavia, o no? | <i>We still need to do our presentations, right?</i> |
| 4 | H1: si   | <i>yes</i>   |

This type of elicit is followed closely in Chat 1 by the personal information and the preference elicit, presented in Examples 4-3 and 4-4.

**Example 4-3: Chat 2 Excerpt, Team A**

- |   |  |  |
|---|--|--|
| 1 | A3: (Name of A4), tienes una familia grande? | <i>(Name of A4), do you have a big family?</i> |
|---|--|--|

Both of these elicit types have the goal of eliciting personal details from a teammate. In that case, elicits of a personal nature are the most common for Chat 1. As the semester progresses and the learners come to know each other better, the personal elicits increase as the general information elicits decrease. Example 4-4 presents elicits of clarification and elaboration. In line 7, Learner A4 is trying to clarify what has been said by A1. A1 does not understand that he has just informed the others that he had a harmful relationship with his wife when what he is really trying to say is that he had a long distance relationship with her before he married her. He translated the term *dañina* as *long distance* instead of *harmful*.

#### **Example 4-4: Chat 3 Excerpt, Team A**

1	A1: yo tuvo un relacion danina y hoy soy casado con ella	<i>I had a harmful relationship and now I am married to her</i>
2	A4: lo siento (name of A1)	<i>I'm sorry (name of A1)</i>
3	A1: porque	<i>why</i>
4	A2: si lo siento.	<i>yes, I'm sorry</i>
5	A3: is su relacion sano hoy	<i>is your relationship healthy today</i>
6	A3: ?	<i>? (corrective)</i>
7	A4: pero una relcion danina no es con tu esposa, verdad?	<i>but a harmful relationship isn't with your wife, right?</i>
8	A4: (name of A1)?	

These types of elicits also increase across the chats, perhaps indicating that learners become more interested in understanding what is being discussed, or they realize and become used to the idea that the other persons can handle this type of elicit. There are very few elicits for language help, as shown in Table 4-21.



**Table 4-21: ElicitType and Distribution, Percentage of Frequency**

Chat 1	%
Personal Info.	22
Preference	19
Opinion	9
General Information	26
Clarification/Explanation	12
Language Help	12

Chat 2	%
Personal Info.	38
Preference	10
Opinion	8
General Information	14
Clarification/Explanation	28
Language Help	2

Chat 3	%
Personal Info.	35
Preference	20
Opinion	9
General Information	10
Clarification/Explanation	24
Language Help	2

In order to determine which speech actions were the most closely associated with elicits, Spearman's Rho correlation coefficients were computed and are presented in the following section. Because elicits of personal information and preference are already included among the speech actions that realize a socializing role in the chat discussions, they were removed from the Spearman Rho calculations for the correlation obtained for socializing roles.

#### ***4.2.6.1 Elicits and Speech Roles***

For each chat, correlation coefficients were computed for the percentage of elicits for each team and each chat and the percentage of each of the speech actions under examination. The Spearman's Rho correlations for Chat 1 are presented in Table 4-22. With regard to elicits in Chat 1, correlations significant at the 0.01 level were obtained for socializing actions and promoting actions according to the strength of the correlation. Correlations significant at the 0.05 level are obtained for emotive actions. No significant correlation is found for DMAs and elicits.

**Table 4-22: Spearman's Rho Correlations for Elicits & Speech Actions in Chat 1**

	Elicits
Social	0.051
Emotive	.372(*)
Promote	.477(**)
DMA	0.259

With regard to elicits, correlations significant at the 0.01 level are obtained for socializing actions and DMAs in Chat 2 in order of the strength of the correlation:. No significant correlations are found for emotive or promoting actions.

**Table 4-23: Spearman’s Rho, Elicits & Speech Actions, Chat 2**

	Elicits
Social	-0.007
Emotive	0.313
Promote	0.144
DMA	.483(**)

**Table 4-24: Spearman’s Rho, Elicits and Speech Actions, Chat 3**

	Elicits
Social	-0.216
Emotive	0.107
Promote	.415(**)
DMA	.733(**)

These results indicate that DMAs are the most closely associated to elicits. A significant correlation for DMAs was not obtained in Chat 1 (0.259), but in Chat 2 a strong and significant correlation was obtained (.483(\*\*)). There is a very strong and significant correlation in Chat 3 for DMAs (.733(\*\*)). These findings suggest that learners who assume a teacher role also tend to have the goal of keeping the discussion moving by eliciting responses from teammates. Recall that it was observed earlier that the correlation between participation and DMAs became stronger as the semester progressed and learners became more comfortable with the chat medium and the target language. It is likely that the same rationale applies here: as learners became more comfortable with their teammates and with the chatting format, they became more comfortable with eliciting information from their teammates. In the next section, the relationship

between these speech actions and the different types of information elicited are examined.

#### ***4.2.6.2 Elicit Type and Speech Roles***

It has been observed that DMAs have the closest association with high quantities of elicits. In order to describe further the nature of the speech roles, the association between the different types of elicits and the different speech actions were measured for each chat. Six different types of elicits were found in the chat transcripts. They are elicits of personal information, preference, opinion, general information, clarification and explanation, and language help.

Each type of elicit for each learner was counted and these sums were then divided into the total number of elicits for the learner's team. These percentages were used to calculate Spearman's Rho correlation coefficients for each type of elicit and the speech actions.

For Chat 1, as seen in Table 4-25, no significant correlation is obtained for DMAs and any of the elicit types. This pattern is also seen for promoting actions. A correlation significant at the 0.05 level is obtained for socializing actions and elicits of general information as well as elicits of personal information, but recall that this result must be ignored because elicits of personal information are included among the speech actions that make up the socializing role. A correlation significant at the 0.05 level is obtained between emotive actions and elicits of clarification or explanation.

**Table 4-25: Spearman’s Rho, Elicit type & Speech Actions, Chat 1**

	Personal Info.	Preference	Opinion	Info.	Clarify, explain	Language Help
DMAs	-0.244	0.279	0.282	0.012	0.291	0.024
Promotion	0.059	0.284	0.273	0.212	0.302	0.268
Social	.338(*)	0.287	-0.025	.440(*)	0.25	0.183
Emotive	0.12	0.221	0.041	0.269	.407(*)	0.2

For Chat 2, as shown in Table 4-26, a correlation significant at the 0.05 level is obtained for DMAs and elicits of personal information. No significant correlation is obtained for promoting actions and any of the elicit types, and a correlation significant at the 0.01 level is obtained between emotive actions and elicits of opinion.

**Table 4-26: Spearman’s Rho, Elicit type & Speech Actions, Chat 2**

	Personal Info.	Preference	Opinion	Info.	Clarify, explain	Language Help
DMAs	.384(*)	0.301	0.329	-0.102	-0.069	0.335
Promote	0.212	-0.072	0.183	0.314	-0.112	-0.287
Social	.462(**)	0.309	0.158	-0.055	-0.017	0.224
Emotive	0.198	0.015	.672(**)	-0.244	0.171	0.412

For Chat 3, as presented in Table 4-27, a correlation significant at the 0.01 level is obtained for DMAs and elicits of personal information. In addition, a correlation significant at the 0.05 level is obtained for DMAs and elicits of preference. A correlation significant at the 0.01 level is obtained for promoting actions and general information elicits. A correlation significant at the 0.05 level is obtained for promoting actions and elicits of personal information and preference elicits. A correlation significant at the 0.05 level is obtained for

socializing actions and elicits of general information. A correlation significant at the 0.05 level is obtained for emotive actions and elicits of preference.

**Table 4-27: Spearman’s Rho, Elicit type and Speech Actions, Chat 3**

	Personal Info.	Preference	Opinion	Info.	Clarify, explain	Language Help
DMAs	.416(**)	.407(*)	-0.008	0.333	0.037	-0.136
Promote	.390(*)	.378(*)	0.227	.581(**)	0.207	0.019
Social	.376(*)	.425(*)	0.081	.397(*)	0.042	-0.29
Emotive	0.248	.418(*)	0.063	0.304	0.301	-.701(*)

No clear pattern emerges from these results except that a significant correlation is obtained in each chat for elicit of personal information and socializing moves. Overall, socializing moves appear to be the most closely associated with preference elicits. Also, socializing moves are the least closely associated with elicits of opinion. Clearly, promoting actions are the most closely linked to elicits of general information. The remainder of the speech actions shows no clear or consistent relationship with the different types of elicits.

#### ***4.2.6.2.1 Percentages of Types of Address***

The sums of all elicits that were counted for each category of address and the results were then divided into the total number of elicits for each chat to get a very broad view of the distribution of the different types of address. The results are presented in Table 4-27.

**Table 4-27: Type and Percentage of Address**

	<b>Chat 1</b>	<b>Chat 2</b>	<b>Chat 3</b>
<b>None</b>	0.44	0.49	0.48
<b>2nd S.</b>	0.22	0.22	0.16
<b>3rd S.</b>	0.02	0.00	0.03
<b>3rd P.</b>	0.10	0.06	0.09
<b>1st P.</b>	0.10	0.06	0.04
<b>2nd P.</b>	0.00	0.01	0.00
<b>Direct</b>	0.11	0.16	0.19

As Table 4-28 indicates, the majority of elicits had no form of address or the address was too unclear to code confidently and accurately. For elicits in which address could be clearly identified, the second person plural was the most common, followed by direct address. As the semester progressed, the number of elicits with direct address increased, indicating that the teammates were getting to know one another better.

In order to determine if there was a significant relationship between the use of direct address and the speech actions examined above. Spearman’s Rho correlation coefficients were obtained and are presented in Table 4-28.

**Table 4-28: Spearman’s Rho for Direct Address and Speech Actions**

	<b>Chat 1</b>	<b>Chat 2</b>	<b>Chat 3</b>
DMA	-0.046	.488(**)	0.241
Promote	.435(*)	0.274	0.225
Social	.475(**)	.565(**)	.413(**)
Emotive	0.161	.372(*)	.508(**)

The results indicate that direct address is most strongly correlated with socializing actions. There is a significant correlation obtained for socializing actions in all three chats. It is interesting to see, however, that a correlation

develops for emotive actions as the semester progresses. In Chat 3, the correlation between direct address and emotive actions is stronger than the correlation between direct address and socializing actions. Chapter 5 provides a qualitative description of the way learners used different types of address to combat coherence problems in the chat discussions.

### **4.3 LEARNER STATEMENTS**

The type of speech action utilized can reveal learner goals. Similarly, the types of statements employed by learners also can indicate learner goals. Table 4-29 provides a general view of the quantity of each type of statement present in the discussion transcripts.



**Table 4-29: Percentage of Statement Type by Chat**

Chat 1	%
Information	17
Personal Information	20
Preference	24
Opinion-Marked	6
Opinion-Unmarked	23
Recommend/Suggest	5
Clarification/Explanation	5

Chat 2	%
Information	7
Personal Information	54
Preference	10
Opinion-Marked	5
Opinion-Unmarked	11
Recommend/Suggest	2
Clarification/Explanation	12

Chat 3	%
Information	7
Personal Information	44
Preference	13
Opinion-Marked	10
Opinion-Unmarked	17
Recommend/Suggest	5
Clarification/Explanation	4

For Chat 1, the most common type is preference, in which learners state their preferences. Unmarked opinion is a close second, followed by personal information, and general information. In Chat 1, fewer than 10% of learner statements are made up by marked opinions, recommendations, and clarifications. It seems natural for a situation in which learners are first meeting each other on-

line, that they would shy away from bold statements, such as opinions, recommendations.

In Chat 2, statements of personal information comprise over 50% of learner statements. This pattern clearly suggests that an overarching goal for most learners is to get to know teammates and share information about themselves. In Chat 2, the use of clarification statements increases, indicating learners are more interested in making themselves understood or in helping others understand a teammate. The frequency of statements of general information decrease in Chat 2 and, as in Chat 1, marked opinions and recommendations comprise 10% or fewer of the statements.

In Chat 3, statements of personal information are most frequent at 44%. Unmarked opinions and preferences comprise fewer than 20% of statements. Marked opinions increase slightly in number. Statements of general information are seen at 10%, recommendations at 5% and clarifications at 4%. Table 4-30 presents the on- and off-topic percentages for each type of statement.

**Table 4-30: On- and Off-topic Percentages of Statement Type by Chat**

	General Info.		Personal Info.		Preference		Marked Opinion		Unmarked Opinion		Recommend /Suggest	
	On	Off	On	Off	On	Off	On	Off	On	Off	On	Off
Chat 1	0.65	0.35	0.51	0.49	0.80	0.20	0.83	0.17	0.94	0.06	1.00	0.00
Chat 2	0.71	0.29	0.93	0.07	0.77	0.23	0.84	0.16	0.85	0.15	1.00	0.00
Chat 3	0.81	0.19	0.76	0.24	0.95	0.05	0.97	0.03	0.87	0.13	1.00	0.00

For all three chats, 100% of recommendations and suggestions were on-topic. Over 80% of marked and unmarked opinions were on-topic for all three

chats. Statements of preference also showed a strong tendency to be on-topic and this tendency increased to 94% by Chat 3. Statements of general information were mostly on-topic and became increasingly so by Chat 3 at 81%. In Chat 1, statements of personal information were split almost evenly with 51% on-topic and 49% off-topic, perhaps because learners were attempting to get to know each other on a more personal basis that discussion of the assigned topics did not afford. In Chat 2, only 7% of statements of personal information were off-topic. In Chat 3, however, 24% of these statements were off-topic. Therefore, the overall tendency is for statements to be on-topic.

Each type of statement for each learner was counted and these sums were then divided into the total number of statements for the learner’s team. These percentages were used to calculate Spearman’s Rho correlation coefficients for each type of statement and the speech actions. The results for Chat 1 are presented in Table 4-31.

**Table 4-31: Spearman’s Rho, Learner Statements & Speech Actions, Chat 1**

	Info.	Personal Info.	Preference	Opinion-marked	Opinion-unmarked	Recommend	Clarify/Explain
DMA	0.252	0.061	0.185	.478(**)	0.219	0.097	0.127
Promote	.624(**)	0.323	0.195	.430(*)	.412(*)	.454(*)	0.028
Social	0.146	.787(**)	.498(**)	-0.186	0.184	0.021	-0.271
Emotive	0.246	0.068	0.285	-0.222	-0.015	-0.193	0.219

In Chat 1, use of DMAs correlate with marked opinions at a level of significance of 0.01. Socializing actions are closely associated, as expected, with

both personal information statements and preference statements. There is an insignificant negative correlation between socializing actions and marked opinions as well as between socializing actions and clarifications. The strongest and most significant correlation for promoting actions is with general information statements. Promoting actions also are closely linked to both types of opinions, though at the 0.05 level of significance. In addition, promoting actions are correlated with recommendations (at 0.05). No significant correlation is obtained for emotive actions, although a negative, though insignificant, correlation exists for both marked opinions and recommendations. Table 4-32 presents the data for Chat 2.

**Table 4-32: Spearman’s Rho for Learner Statements & Speech Actions in Chat 2**

	Info.	Personal Info.	Preference	Opinion-marked	Opinion-unmarked	Recommended	Clarify/Explain
DMA	-0.054	.394(*)	.371(*)	-0.019	0.329	0.244	0.156
Promotion	.391(*)	-0.026	.353(*)	0.304	.494(**)	0.342	0.095
Social	0.046	.608(**)	.480(**)	-0.112	0.07	0.019	0.17
Emotive	0.161	0.097	0.165	-0.094	-0.19	0.242	.405(*)

In Chat 2, correlations significant at the 0.05 level were obtained only for DMAs. The strongest correlation is obtained for personal information, followed by preference. Socializing actions again are closely associated with both personal information statements and preference statements, as expected. As in Chat 1, there is an insignificant negative correlation between socializing actions and marked opinions as well as between socializing actions and clarifications. The strongest and most significant correlation at the 0.01 level for promoting actions is with unmarked opinions. Promoting actions are linked to general information

statements and preference, though at the 0.05 level of significance. For emotive actions, in contrast to Chat 1 in which a negative correlation was found, a correlation significant at 0.05 was obtained for clarifications. Nevertheless, as in Chat 1, a negative, though insignificant, correlation still exists for marked opinions. Table 4-33 presents the data for Chat 3.

**Table 4-33: Spearman’s Rho, Learner Statements & Speech Actions, Chat 3**

	Info.	Personal Info.	Preference	Opinion-marked	Opinion-unmarked	Recommend	Clarify/Explain
DMA	.570 (*)	0.196	0.115	0.347	-0.031	.616(**)	0.22
Promotion	.522 (*)	0.121	0.12	.486(**)	.411(*)	.625(**)	0.145
Social	0.027	.607(**)	0.283	.379(*)	0.061	.369(*)	0.136
Emotive	0.154	0.026	.383(*)	.519(**)	-0.111	0.176	-0.245

In Chat 3 a strong correlation significant at the 0.01 level is obtained for DMAs and for the sub-category of recommendations. A less significant correlation is obtained for general information. Socializing actions are closely associated with personal information, but no significant correlation is found for preference. In contrast to Chats 1 and 2, a highly significant correlation is obtained for recommendations. In sharp contrast to Chats 1 and 2, in which a negative though insignificant correlation was found for marked opinions, a significant correlation at the 0.05 level is found to exist in Chat 3. The strongest and most significant correlation, at the 0.01 level, for promoting actions is with recommendations, followed by marked opinions. In Chat 3, promoting actions also are linked to unmarked opinions and to general information statements. For emotive actions, in sharp contrast to Chats 1 and 2, in which a negative

correlation was found, a correlation significant at 0.05 is obtained for marked opinions. Emotive actions are also correlated with preferences in Chat 3 and, in contrast to Chat 2, in which a significant correlation was found for clarifications, a negative, though insignificant, correlation exists.

Across chats, promoting actions appear to be the speech actions most closely associated with statements of general information, both in types of opinion as well as recommendations. Socializing actions are the most closely linked to statements of personal information and preference and are the least associated with either type of opinion. This pattern is understandable because it would not be expected that learners would prefer to listen to someone give opinions all the time. DMAs are the most closely linked to statements of general information overall and with clarifications. They are also correlated with both types of opinions.

The strongest overall relationship for emotive actions is with preference statements, followed by statements of general information. Like socializing actions, the relationship between emotive actions and opinions overall appears to be very weak.

The negative correlations, though insignificant, for socializing actions and marked opinions for 2 out of the 3 chats are of interest. It seems natural for learners who are interested in socializing and getting to know teammates to shy away from bold statements, such as marked opinions.

#### 4.4 L1 USAGE

In addition to the TL, the L1 is also a mediating artefact in the synchronous chat discussion activity. Therefore, the use of the L1 must be examined. The quantitative analysis reveals the degree to which the learners use the L1 in order to carry out the chat discussion. The average number of words produced in the L1 by each learner in the three chat discussion sessions was computed.

To gain a rough idea of the percentage of L1 use for each chat, these numbers were summed and divided into the total number of words for each chat. The results for the individual learners are presented in Table 4-34.

**Table 4-34: Percentage of L1 Words Per Chat**

<b>Chat 1</b>	<b>Chat 2</b>	<b>Chat 3</b>
0.08	0.04	0.02

The table shows that the overall use of the L1 was low and decreased as the semester progressed. A learner's choice to use the L1 instead of the target language can mean several things, including motivation to learn the TL and what importance a learner places on the rules of the assignment. Chapter 5 demonstrates the different ways in which the L1 is used in the chats.

The sums of L1 words produced by each learner were divided into the total number of words for each team for each chat. A Spearman's Rho correlation coefficient was obtained for the percentage of L1 words produced and the speech

actions that have been the focus of the present chapter. The results are presented in Table 4-35.

**Table 4-35: Spearman’s Rho for L1 Words and Speech Actions**

	Chat 1	Chat 2	Chat 3
DMA	0.13	0.048	0.219
Promote	0.298	0.211	0.265
Social	0.272	0.203	0.112
Emotive	0.199	-0.114	.425(*)

There is no significant correlation for L1 word use and any of the speech actions, with the exception of emotive actions (.425) in Chat 3. The strongest correlations on average are with promoting actions (.258), followed by socializing actions (.195). This pattern seems to indicate that learners that tend to assume a teacher-like role in the discussion also tend to use English the least. In addition, these results indicate that no matter the role a learner assumes (teacher, socializer, etc.) there is a tendency to avoid use of the L1 and to follow the rules of the assignment.

#### **4.5 NEGOTIATION OF MEANING**

Negotiation was found to take place in the chat discussions very infrequently. In order to examine the frequency of negotiation, the total number of occurrences of each interactional feature in each of the three chats was counted. The results are summarized in Table 4-36.



**Table 4-36: Interactional Features per Chat**

	<b>Chat 1</b>	<b>Chat 2</b>	<b>Chat 3</b>
Clarification Reqs.	21	19	6
Confirmation Cks.	2	7	4
Repetitions	3	5	4
<b>Total</b>	<b>26</b>	<b>31</b>	<b>14</b>
<b>Percentage out of Total e-units</b>	<b>3%</b>	<b>3%</b>	<b>2%</b>

The total number of negotiations comprises only a small fraction of overall conversational turns. Of all the interactional features, clarification requests, in which learners directly request a translation of a lexical item, are the most common. In addition, the majority of the repetitions found are not used to make input more comprehensible; instead they serve the purpose of reacting, either through the repetition of one's own e-unit or that of another learner. Perhaps this result is due to the fact that the communication is written and, thus, all previous e-units produced by the learners are visually accessible on the computer screen. For this reason, phonological factors do not intervene to create obstacles for understanding and thus repetitions are unnecessary. Similarly, Bearden (2003), in a comparison of CMC and oral dyadic discussion formats, found the overall use of various interactional features in the CMC minimal (7.3%) in comparison to the use of these features in the oral discussions (30.1%).

Of course, it could also be argued that the free discussion task, as opposed to a jigsaw or information gap type task, would not be expected to foster as much negotiation. As noted earlier, however, dyadic jigsaw or information gap types of tasks were not found to be appropriate for a study of language in the team community because they were found to oppose community building (LeMond 2002). In addition, Bearden (2003) found very little significant difference between two-way information gap, information-exchange, and free discussion tasks. She identified a strong tendency on the part of the learners involved in her study to avoid negotiation in CMC discussions.

In Chapter 5, the results of the descriptive analysis of the interactions are presented in order to determine what, if any, effect the chat interaction had on target language acquisition.

#### **4.6 SUMMARY OF THE FINDINGS**

Chapter Four has provided a quantitative analysis of the quantity of speech and speech actions and their distribution and relationship in synchronous computer-mediated team-based discussions. Participation was found to be equalized among learners in each team. A majority of the teams had very low Gini Coefficient values, indicating a tendency toward equal participation. In addition, the findings on participation suggest that this type of learning environment may empower women. The participation leaders identified for each team tended to be female. A consistent pattern was found in which females were

the leaders in e-unit and word production more often than males, was found. For one chat session these results were found to be highly significant.

With regard to the division of labor in the chat discussions, the learners were found to adopt several different speech roles according to the different types of speech actions they employed. The primary speech roles that were identified included such roles as discussion maintenance, socialization, and the promotion of ideas. The role of socialization was found to have the strongest and most significant correlation with high rates of participation. Maintenance of the discussion was found to be the second most important role assumed by learners with high participation rates.

The distribution of these speech roles was found to be fairly equal overall between males and females. For discussion maintenance roles, however, females were found to assume this role more often than males and, in Chat 2, at a highly significant level. The socializing role was shared equally among males and females. Although again in Chat 2, females were found to assume the socializing role more often than males, at a highly significant level.

The use of floor holds was found to correlate with those speech actions that realized a socializing role. These results, in addition to the results found earlier in which high participation and socializing were found to be closely associated, indicated that those learners that took on a socializing role in the discussion also tended to be the most dominant overall.

Learners that assumed a discussion maintenance role tended to avoid off-topic moves to a greater extent than those learners that assumed a socializing role.

It was also found that learners who assumed a discussion maintenance role also tended to produce a high number of elicits, suggesting that their goal might be to keep the discussion going by eliciting responses from teammates. A highly significant correlation was obtained for the use of direct address and the socializing role in all three chat discussions.

With regard to different types of statements made in the chat discussions, the role of promotion of ideas was closely associated with statements of general information and recommendations. The relationship for both the socializing and the emotive roles was very weak with either type of opinion statement. It is expected that learners interested in socializing and getting acquainted with teammates will avoid these types of bold statements.

The overall use of the L1 was found to be very low and to decrease over the course of the semester. A tendency to avoid the use of the L1 and to use the TL for the duration of the chat was clearly identified. In addition, negotiation of meaning was found to take place in the chat discussions, though infrequently

#### **4.7 OVERVIEW OF THE SUBSEQUENT CHAPTER**

Chapter Five presents the information gleaned from the learner statements made in the chat discussions themselves as well as from the learner interviews.

## **CHAPTER FIVE**

### **Learner Perspectives**

#### **5.0 INTRODUCTION**

Chapter Four presented a quantitative description of the language used in the computer-mediated synchronous discussions. In addition to varied data collection techniques, Activity Theory emphasizes a commitment to understanding activities from the subjects' points of view (Nardi 1996). In keeping with this commitment, the present chapter examines the statements made by the learners themselves in the chat sessions as well as in the interviews.

#### **5.1 THE NATURE OF CHATTING**

Section 2.5 presented the current literature on computer-mediated synchronous communication and its characterization of the medium as a hybrid oral-written genre (Ferrara, Brunner, & Whittemore 1991; Wilkins 1991; Beauvois 1992; Negretti 2000; Tudini 2002, 2003; Gastaldi 2002). The goal of the present section is to present learner perspectives on the nature of chatting as revealed through an examination of the statements made by the learners in the chats and the interviews.

### 5.1.2 Learners Describe Chatting

A feature of the *subject* component of the activity is the way in which the activity is described by the learners. In general it seems that learner perception of the nature of chatting matches that described by researchers that chatting is both talking and writing. In the discussions, the learners repeatedly use the Spanish words *hablar* (*talk*) and *conversación* (*conversation*) to refer to the chat activity. They also use the English words “talk” and “say.” In the following excerpts, in which the learners are choosing a topic for their discussion, they use the word *hablar* to refer to the activity.

#### Example 5-1: Team A, Chat 2

- |   |  |  |
|---|--|--|
| 1 | A4: no quiero hablar sobre el exilio           | <i>I don't want to talk about exile</i>                |
| 2 | A3: A4, quieres hablar sobre familias grandes? | <i>(Name), do you want to talk about big families?</i> |
| 3 | A4: Si, quiero hablar sobre familias grandes.  | <i>Yes, I want to talk about big families.</i>         |

#### Example 5-2: Team F, Chat 2

- |   |                                       |  |
|---|---------------------------------------|--|
| 1 | F3: es necesario a hablar en espanol? | <i>Is it necessary to talk in Spanish?</i> |
|---|---------------------------------------|--|

In the following exchanges, in English, the learners use the word “talk”:

#### Example 5-3: Team A, Chat 1

- |   |  |
|---|--|
| 1 | A2: Which topic do we want to talk about?    |
| 2 | A2: I think we should talk about talk shows. |

Example 5-4 presents another excerpt in English in reference to a previous turn in Spanish that the learner felt was incomprehensible.

#### Example 5-4: Team C, Chat 2

- |   |   |
|---|---|
| 1 | C2: I don't even know if I said anything just then... |
|---|---|

In an out-of-class chat, also in English, one learner remarks of her attitude and anxiety about the chat, stating she feels she is not skilled at “speaking on the fly.” In example 5-5, learner, I3, expresses anxiety about his lack of confidence in Spanish.

**Example 5-5: Team I, Chat 1**

- |   |   |   |
|---|---|---|
| 1 | I3: Necesitamos hablar en espanol.          | <i>We need to speak in Spanish.</i>             |
| 2 | I3: No I3: No estoy confidente              | <i>I don't like it.</i>                         |
| 3 | me gusta                                    | <i>I'm not confident</i>                        |
| 4 | I2: QUE VAMOS A IR EN LA CLASE HOY          | <i>WHAT ARE WE GOING (TO DO) IN CLASS TODAY</i> |
| 5 | I3: En mi otras clases estoy muy confidente | <i>In my other classes I am very confident</i>  |

On only a few occasions, learners express a negative attitude about the chats as in example 5-6.

**Example 5-6: Team A, Chat 3**

- |   |                                      |   |
|---|--------------------------------------|---|
| 1 | A1: no quiero hablar en español hoy. | <i>I don't want to talk in Spanish today.</i> |
|---|--------------------------------------|---|

As evidence that the learners acknowledge the written nature of the chatting medium, the Spanish word *escribir* and its English equivalent *write* are also used, though to a lesser degree than *hablar*. For example, in the second and third chat sessions, the assignment requires the learners to reflect back on the chat and provide a summary of what had been discussed. When the learners discuss the task, the Spanish word *escribir*, in addition to the English equivalent *write*, are used, as in the following examples:

**Example 5-7: Team A, Chat 2**

- |   |   |
|---|---|
| 1 | A1: We should write our paragraph soon. |
| 2 | A3: We each write one?                  |

**Example 5-8: Team F, Chat 2**

- |                                      |                                |
|--------------------------------------|--------------------------------|
| 1 F3: nosotros escribamos el paraje. | <i>we write the paragraph.</i> |
|--------------------------------------|--------------------------------|

**Example 5-9: Team E, Chat 2**

- |   |  |
|---|--|
| 1 E4: quien quiere escribir la<br>paragraph en el Blackboard? | <i>Who wants to write the paragraph on<br/>Blackboard?</i> |
| 2 E1: OK, la escribo.   | <i>Okay, I'll write it.</i>                                |

In a few instances, the word *escribir* and *conversación* occur in the same turn:

**Example 5-10: Team E, Chat 2**

- |   |   |
|---|---|
| 1 E2: nosotros escribemos summary<br>de la conversación | <i>we write a summary of the conversation</i> |
|---|---|

When the learners write the actual summary, however, the word *escribir* rarely appears. There is only one instance of it in any of the summaries:

**Example 5-11: Team A, Chat 2**

- |   |   |
|---|---|
| 1 A3: Escribimos sobre las ventajas<br>y desventajas de un familia<br>grande. | <i>We wrote about the advantages and<br/>disadvantages of big families.</i> |
|---|---|

In all other summaries, only the words *hablar* and *conversación* appear as in example 5-12:

**Example 5-12: Team A, Chat 2**

- |   |  |
|---|--|
| 1 B4: Nosotros hemos hablado<br>sobre las familias grandes. | <i>We have talked about big families.</i>  |
| 2 B2: Hoy hablamos sobre nuestras<br>familias.              | <i>Today we talked about our families.</i> |

In example 5-13, a learner acknowledges the written medium of the chat by noting that she cannot “spell” as she is participating in the chat discussion.

**Example 5-13: Team A, Chat 2**

- |                          |                      |
|--------------------------|----------------------|
| 1 A3: y no puedo “spell” | <i>I can't spell</i> |
|--------------------------|----------------------|



### 5.1.3 Learner Perspectives from the Interviews

In the interviews, the learners discussed the CMC chats. Their responses provide further evidence that the learners consider the computer-mediated discussion medium to be a mixture of oral and written communication, thereby contributing a learner (*subject*) perspective on the classification of this medium to the research discussed in Chapter 2. In addition to descriptions of the activity of chatting, learners also discussed their attitudes about chatting. Examples 5-14 – 5-16 present learner responses to a request in the interviews to describe chatting and to compare it to in-class discussions.

**Example 5-14: Interview Excerpt: A3 describes chatting**

A3: It was like talking but slower because I had to type what I said. I got better at typing!

**Example 5-15: Interview Excerpt: B3 compares CMC and in class discussions**

B3: No different. Except for typing and reading.

**Example 5-16: Interview Excerpt: I1 describes chatting**

I1: It was hard to keep up. I'm a slow reader, I guess, especially in Spanish, and a slow 'typer'.

In many of the interview responses, the learners offer up some additional details of learner perceptions of chatting in the foreign language classroom. In particular, they note that the chats are a less threatening setting than the classroom. Many note that chatting seems more authentic, as in the following responses:

**Example 5-17: Interview Excerpt: I2 describes chatting**

I2: I liked the chats a lot. It's not as intimidating as talking in front of everybody.  
Interviewer: When you say "talking in front of everybody" do you mean in class?  
I2: What? Oh! Yeah, in class. That's why I dread Spanish.  
Interviewer: Can you tell me more about why you liked the chats?  
I2: Um, sure, no problem. The chats were cool, everyone was talking and, uh, not like in class where we all just sit there and pray the professor doesn't ask us a question.

**Example 5-18: Interview Excerpt: A4 describes chatting**

A4: The on-line chats were fun. I always chat with my friends. It was like, in the other classes, everything was kind of fake – you know, like, pretend you are having a conversation with someone about um like your major, blah blah blah. It could get really boring. Here, we really were having a conversation and so even if the questions came from the book and stuff, but, it was like, we really were talking in Spanish about something real. I liked talking in the chat rooms.  
Interviewer: And did you have conversations like that in the classroom?  
A4: No way. Nobody wanted to talk and the professor was always asking all these questions.  
Interviewer: What about in small groups? Did you ever have conversations in small groups without the professor?  
A4: Yeah, all the time.  
Interviewer: And did you talk a lot?  
A4: When the professor was looking at us. (Laughs) Sorry...  
Interviewer: (Laughs). That's okay – so why do you think you talked more in the chats?  
A4: Um. Well. I don't know. Maybe it had to do... we had our team and there was an assignment and maybe because the professor could see our chats on the computer. I never really thought about it – that's just a wild guess. And when you're looking at the computer screen and reading and responding there're no ...it's not as scary. Am I saying anything here?

These chat excerpts and interview responses present a description of the chatting medium in the words of the learners themselves and contribute a learner perspective to the researcher perspectives about the classification of this medium provided in the foreign language literature (Ferrara, Brunner, & Whittemore 1991; Wilkins 1991; Beauvois 1992; Negretti 2000; Tudini 2002; Gastaldi 2002). The

learners in the present investigation perceive chatting to be a hybrid between spoken and written discourse, but they emphasize the spoken nature of the medium to a greater degree. Additionally, learners find that this type of team-based computer-mediated communication provides a more authentic and less intimidating setting for discussion than that provided in in-class face-to-face discussions.

## **5.2 COHERENCE AND ADDRESS**

In face-to-face oral interaction, the use of the second person pronoun, turn adjacency, and visual paralinguistics (e.g., facial expressions and gestures) are communicative tactics employed by the interactants to build and recognize coherence within the discussion. Lack of adjacency is a common problem in computer-mediated synchronous discussions. E-units that address or respond to other e-units may be separated from each other by both time and space on the computer screen. In addition, the presence of multiple and concurrent conversational strands, especially in whole class CMC discussions, make coherence problematic. It can be very difficult to discern an e-unit's relevance to the discussion topic. In order to interact, learners need to know what is being discussed and if they are being addressed directly. Similarly, they need to convey a response to a specific person(s) and find a way to solicit the continuation of a topic.

Most SLA CMC studies deal with whole class discussions in which each member of the class is engaged in the same discussion at the same time. Furthermore, in these studies, the instructor is almost always a participant and

leader of the discussion. The instructor, therefore, is in charge of managing the discussion, keeping learners on topic, and maintaining a cohesive discussion. Due to the absence of an instructor during the computer-mediated synchronous discussions in the present study, the interaction is 100% student-to-student. Therefore, it is up to the learners alone to manage the discussion topic and be aware of to whom the e-units are directed. Another important difference between the present study and the research cited above is that with team-based discussions, where there are only 3 to 4 learners involved in the interaction at one time, there are fewer conversational threads to follow. Nevertheless, cohesion is not maintained and the directional focus of the e-units is often unclear. In particular, due to the use of the second person informal reference, the target of the e-unit is unclear when there are more than two interactants, because it is often unclear whether the learner is addressing the team as a whole or a specific teammate.

Many cohesion mechanisms or strategies are found in the chat transcripts of this investigation. Turn relevance is indicated through such markers as direct address where a learner will mention another learner by name. When there is no direct address, cohesion is marked by the repetition of lexical elements of a prior message. Other cohesion mechanisms are the use of discourse markers such as *sí* or *no* and explicit expressions of agreement or disagreement such as *Estoy de acuerdo*. The chat excerpt in 5-19 provides examples of each of these mechanisms.

### Example 5-19: Chat 2 Excerpt, Team A

1	A4: yo pienso que una desventaja en una familia grande es que no puedes usar el bano cuando quieres.	<i>I think that a disadvantage of a big family is that you can't use the bathroom when you want to.</i>
2	A5: hehe	
3	A3 : si, unless, tienes muchas banos	<i>yes, unless you have a lot of bathrooms</i>
4	A3 : brady bunch	
5	A4 : si si	<i>yes yes</i>
6	A3 : tiene solo un bano para 8 personas	<i>it has only one bathroom for 8 people</i>
7	A1 : Familias grandes pelean mucho	<i>Big families fight a lot</i>
8	A2 : si ellos tienen un bano por seis ninos	<i>yes they have one bathroom for six children</i>
9	A4 : yo me siento muy mal para ellos.	<i>I feel really bad for them</i>
10	A4 : ocho personas?? aiya	<i>eight people?? wow</i>
11	A5 : hablamos sobre La "Generacion X" ??	<i>are we talking about Generation X?</i>
12	A2 : Alice va al bano?	<i>Does Alice go to the bathroom?</i>
13	A3 : si, pero, siempre tuvieron una persona se habla con	<i>yes, but they always had someone to talk with</i>
14	A3 : we are only supposed to do one topic	
15	A4 : si, yo estoy de acuerdo con A1.	<i>yes, I agree with A1</i>

In this excerpt the team of learners is discussing the advantages and disadvantages of big families. A4 begins the discussion by stating her opinion in line 1. A5 laughs in response in line 2. In line 3, A3 uses a discourse marker *sí* to show that she agrees and repeats the word *baño* (bathroom) to connect it with A4's prior turn. A4 also uses this discourse marker in line 4 and repeats it perhaps to add emphasis. As A3 and A4 are discussing bathrooms, A1 attempts to shift the topic slightly in line 7 by stating that big families fight a lot. In line 2, A2 stays on the bathroom topic and A1's utterance goes ignored until in line 15, in which A4 explicitly states that she agrees with A1. The lack of adjacency between these two

statements makes it very difficult to connect them. The researcher of the present study had to review the text of the conversation to understand the referent of A4's utterance. It would have been impossible to connect it with line 7, had A4 not used A1's name. Although this exchange is not an example of "direct address," as the term is used in the present study, it provides a useful example of a way in which learners strive to maintain coherence.

With regard to forms of address, each elicited found in the chat transcripts was coded according to address. These categories include direct address in which a question is directed at another teammate who is named explicitly by the speaker. An example from the chat transcripts is provided in the following example.

**Example 5-20: Example of Direct Address from Chat 2, Team A**

- |   |                                      |                                       |
|---|--------------------------------------|---------------------------------------|
| 1 | A3: (A4), eres de plano, no?         | <i>A4, you're from Plano, right?</i>  |
| 2 | A4: mi hermano vive en<br>california | <i>my brother lives in California</i> |
| 3 | A4: si, soy de plano                 | <i>yes, I am from Plano</i>           |

**Example 5-21: Example of Direct Address from Chat 2, Team A**

- |   |  |  |
|---|--|--|
| 1 | A3 : (A4), quieres hablar sobre<br>familias grandes? | <i>A4, do you want to talk about big families?</i> |
| 2 | A4 : si  | <i>yes</i>   |

In example 5-22, learner A4 asks a question in the second person singular using the informal pronoun *tú* (*you*). In her subsequent entry, she quickly adds the name of A1, the learner, to whom her question is addressed, signaling that she wants a response from him.

**Example 5-22: Example of Direct Address from Chat 3, Team A**

- |   |   |  |
|---|---|--|
| 1 | A4: pero una relacion danina no es con tu esposa, verdad? | <i>but the harmful relationship isn't with your wife, right?</i> |
| 2 | A4 : A1?  | <i>(Name of A1)?</i>   |

There were also questions in which the verb was conjugated in the second person singular as in example 5-23.

**Example 5-23: Example of 2<sup>nd</sup> Person Sing. Address from Chat 3, Team G**

- |   |                                 |  |
|---|---------------------------------|--|
| 1 | G4 : tienes una familia grande? | <i>do you (2<sup>nd</sup> person singular)have a big family?</i> |
| 2 | G1 : Mi familia es muy grande   | <i>My family is very big</i>                                     |

At times the pronoun *tú* was also included as in example 5-24.

**Example 5-24: Example of 2<sup>nd</sup> Person Sing. Address from Chat 1, Team D**

- |   |   |   |
|---|---|---|
| 1 | D4 : Siempre hablan sobre la infidelidad y hay mucha verguenza. | <i>They always talk about infidelity and there is a lot of shame</i>    |
| 2 | D3 : rosie es muy encanta                                       | <i>rosie is very enchanting*</i>  |
| 3 | D2 : ?tu Crees Jerry Springer es falso?                         | <i>Do you (2<sup>nd</sup> singular) believe Jerry Springer is fake?</i> |

The next excerpt is an example of the use of the third person singular conjugation of the verb. The third person pronoun is absent. These examples were problematic because, due to the high number of typographical errors, it is unclear whether this learner simply omitted the final –s ending to mark the verb for the second person singular. In addition, there were no instances of the third person singular pronoun *Usted* in any of the chat transcripts.

**Example 5-25: Example of 3rd Person Singular Address from Chat 1, Team I**

- |   |                 |   |
|---|-----------------|---|
| 1 | I3 : Como esta? | <i>How are you (3rd person singular)?</i> |
| 2 | I2 : MUY BIEN   | <i>Very well</i>                          |

The first person plural form of the verb was also used in questions such as the following from Chat 2.

**Example 5-26: Example of 1st Person Plural Address from Chat 2, Team A**

- |   |                               |                               |
|---|-------------------------------|-------------------------------|
| 1 | A4 : que debemos escribir?    | <i>what should we write?</i>  |
| 2 | A4 : quien quiero ir primero? | <i>who wants to go first?</i> |

Only one learner, E4, used the second person plural form of the verb in only two instances. Example 5-27 from Chat 3 shows one of these cases.

**Example 5-27: Example of 2<sup>nd</sup> Person Plural Address from Chat 3, Team E**

- |   |   |   |
|---|---|---|
| 1 | E4 : hola   | <i>hi</i>   |
| 2 | E1 : pienso que las familias grandes son muy interesante. | <i>I think that big families are very interesting</i>     |
| 3 | E4 : teneis familias muy grandes?                         | <i>do you (2nd person plural) have very big families?</i> |

The third person plural form of the verb was also used in questions such as the following from Chat 1.

**Example 5-28: Example of 3rd Person Plural Address from Chat 1, Team B**

- |   |  |  |
|---|--|--|
| 1 | B4 : hola                              | <i>hi</i>  |
| 2 | B1 : me gusta mira la "Amigos" Friends | <i>I like to watch "Friends"</i>                           |
| 3 | B4 : bien                              | <i>fine</i>  |
| 4 | B3 : ¿quieren que sobre "talk shows"?  | <i>do you( 3rd plural)want to talk about 'talk shows'?</i> |

At times the third person plural pronoun, *Ustedes*, 'you' (formal) was used alone, as in example 5-29.

**Example 5-29: Example of 3rd Person Plural Address from Chat 1, Team A**

- |   |                                   |                                     |
|---|-----------------------------------|-------------------------------------|
| 1 | A3: tiene orgullo en nuestra pais | <i>I* have pride in our country</i> |
| 2 | A3: y uds?                        | <i>and you (3rd person plural)?</i> |

Also, the third person plural pronoun *Ustedes* was used in addition to the matching form of the verb, as example 5-30 presents.

**Example 5-30: Example of 3rd Person Plural Address from Chat 1, Team F**



- |   |                                   |  |
|---|-----------------------------------|--|
| 1 | F3: udstedes ven otras talk shows | <i>do you (3<sup>rd</sup> plural) watch other talk shows</i> |
| 2 | F3: o solo Jerry Springer         | <i>or only Jerry Springer</i>                                |

### **5.3 ARTIFACTS**

The purpose of this section is to understand the ways in which the learners themselves view the artifacts. As discussed in previous chapters, the artifacts that mediate the relationship between the subject and the object are both material (technology) and symbolic (language). The technology includes the computers, the internet, and the Blackboard coursewares. The languages are both the Spanish and English used by the learners. Learner perspectives on artifacts will be ascertained by an examination of their statements in the chat discussions and in the interviews.

#### **5.3.1 Technology**

Learners make little reference in the chat transcripts to the use of technology or the operations involved in communicating through this medium. In the interviews, however, more details of the learners' past histories with technology in general and in a learning environment were uncovered.

##### ***5.3.1.1 In the Chats: References to Technology***

In the chat logs, the presence and effect of technology is evidenced when learners make reference to it in statements. These types of statements, however, are rare. As discussed in Chapter 4, learners talked about the computers on average less than 2% of a chat. Most often, learners directly discussed the

technology only when there was a problem such as a slow computer, or when learners made reference to the operations involved in communicating through the chat medium such as logging out or typing, as in examples 5-31 to 5-33.

**Example 5-31: Team A, Chat 1**

- 1 A3: how do we logout?
- 2 A5: ok....
- 3 A4: adios
- 4 A5: "el window"

**Example 5-32: Team A, Chat 2:**

- |                     |                     |
|---------------------|---------------------|
| 1 A3: lo puedo type | <i>I can't type</i> |
|---------------------|---------------------|

**Example 5-33: Team H, Chat 2**

- |   |   |
|---|---|
| 1 H3: Hola, lo siento                   | <i>Hi, I'm sorry</i>                    |
| 2 H1: no problema                       | <i>no problem</i>                       |
| 3 H3: mi computadora no quiere trabajar | <i>my computer doesn't want to work</i> |
| 4 H1: lo siento                         | <i>I'm sorry</i>                        |

For the first five minutes of Chat 3, there were problems with the computers that resulted in a slowed response time. It was noted by many learners in examples 5-34 and 5-35, but forgotten once the discussion began and the problem was resolved.

**Example 5-34: Team A, Chat 3**

- |   |                                    |
|---|------------------------------------|
| 1 A5: mi computadora es rote                | <i>my computer is broken</i>       |
| ...   |                                    |
| 2 A1: mi computadora tambien                | <i>my computer also</i>            |
| 3 A4: hahha....lol                          |                                    |
| 4 A3: lo siento                             | <i>I'm sorry</i>                   |
| 5 A4: lo siento (name of A1) y (name of A5) | <i>I'm sorry (name) and (name)</i> |
| 6 A4: mi computadora es muy slow            | <i>my computer is very slow</i>    |
| 7 A3: mi computadora es muy slow            | <i>my computer is very slow</i>    |

**Example 5-35: Team H, Chat 3**

- |  |   |
|--|---|
| 1 H2: Bien gracias, pero me odio estas computadoras! | <i>fine, thanks, but I hate these computers</i> |
| 2 H2: Estan muy despacio!                            | <i>They're very slow!</i>                       |

- |   |                     |   |
|---|---------------------|---|
| 3 | H1: chistoso        | <i>funny</i>  |
| 4 | H1: me odio tambien | <i>I hate myself too (meaning: I hate them too)</i> |

A learner's past history with technology and with on-line chatting is evidenced to a degree in the learner's use of paralinguistics such as the abbreviation "LOL" for "laughing out loud" and emoticons, for example, ";-)" . As discussed in Chapter Four, on average, paralinguistics were reflected in only 2-3% of learner e-units. Some examples are provided below. The first example is interesting because it shows a learner translating the paralinguistic laugh into Spanish. Later on, this catches on with the other team members. One learner also uses the abbreviation LOL.

**Example 5-36: Team A, Chat 1**

- |    |   |   |
|----|---|---|
| 1  | A3: pienso que ryan stiles es muy guapo                             | <i>I think Ryan Stiles is very handsome</i>             |
| 2  | A5: jaja  | <i>haha</i>   |
| 3  | A4: ryan stiles es muy chistoso                                     | <i>Ryan Stiles is funny</i>                             |
| 4  | A5: yo prefiero el original   | <i>I prefer "The Original"</i>                          |
| 5  | A3: jaja??? que es eso  | <i>"jaja"? what's that?</i>                             |
| 6  | A4: he meant "haha"   |   |
| 7  | A3: oh  |   |
| 8  | A3: lo siento   | <i>sorry</i>  |
| 9  | A5: "h" is silent in espanol, las personas de Mexico escribe "jaja" | <i>...people in Mexico write "jaja"</i>                 |
| 10 | A5: Rosie tiene un bigote   | <i>Rosie has a moustache</i>                            |
| 11 | A4: jajaja  | <i>hahaha</i>   |
| 12 | A3: pienso que Rosie's show no es estúpido y degradable             | <i>I think Rosie's show is not stupid and degrading</i> |
| 13 | A5: LOL   |   |

Examples 5-37 – 5-39 show the use of emoticons and the popular on-line abbreviation "lol."

**Example 5-37: Team A, Chat 3**

1	A4: yo estoy rabiosa	<i>I am furious</i>
2	A3: rabiosa? es una palabra muy fuerte	<i>furious? that's a really strong word</i>
3	A4: si....	<i>yes</i>
4	A4: :)	<i>(emoticon)</i>

**Example 5-38: Team E, Chat 1**

1	E3: oh, porque mi abuela piensa que mi abuelo sea un player	<i>oh, because my grandmother thinks that my grandfather is a 'player'</i>
2	E4: lol, es chistoso (name of E3)	<i>lol, that's funny (name of E3)</i>

**Example 5-39: Team F, Chat 2**

1	F3: yo tengo un medio hermano	<i>I have a half brother</i>
2	F3: el no protector	<i>he is not protective</i>
3	F4: porque	<i>why</i>
4	F3: no le vea mucho	<i>I don't see him much</i>
5	F1: lo siento	<i>I'm sorry</i>
6	F3: no	<i>no</i>
7	F1: :(	<i>(emoticon)</i>
8	F1: ;)	<i>(emoticon)</i>
9	F1: :\	<i>(emoticon)</i>

**5.3.1.2 In the Interviews: References to Technology**

Interestingly, the interviews reveal that the learners themselves were not acutely aware of a teammate's use of these features. Although a couple of the learners interviewed saw this use as an indication of a teammate's level of computer experience, most said that they were not really aware of who was a "seasoned chatter" and who was not. According to what was said in the interviews, this awareness did not appear to affect power and status divisions within the team.

**Example 5-40: Interview Excerpt: A4 on prior computer experience**

A4: Of our team, I use chat rooms the most. I know the most about chatting and gaming and that stuff. I don't think the others on my team even had chatted before.

**Example 5-41: Interview Excerpt: C3 on prior chat experience**

C3: I could totally tell who had never chatted before. There were three of us on my team that had – and a lot – and there were two that probably never did it before.

Interviewer: How could you tell?

C3: They were slower – they just weren't as fast with responding. You know... it wasn't that they couldn't speak Spanish either. I guess they were just more formal - complete sentences and punctuation and that sort of thing.

Interviewer: How else could you tell who did have chat experience?

C3: Well, I ... we...I noticed who used emoticons for one thing. And also we talked about it.

**Example 5-42: Interview Excerpt: B1 on prior chat experience**

B1: I had never done a chat before this class. I don't know if some of the other kids do it or not. I was more nervous about my Spanish, but by the end of the first chat, I was really into it.

**Example 5-43: Interview Excerpt: A2 on prior chat experience**

A2: There were two on my team that totally hogged the discussion.

Interviewer: Were they pretty computer savvy?

A2: Um, not, not that I could tell ... but (Name A4) always used those smiley faces and those abbreviations. (Name A3) had to ask how to log out.

Interviewer: What kind of abbreviations?

A2: Like "lol" for "laughing out loud."

Interviewer: Did you participate a lot?

A2: Not really. Definitely not as much as (A3) and (A4).

Interviewer: Why not?

A2: Oh, I'm lazy I guess. No, it's my ... my Spanish isn't there.

These responses reveal that learners were aware of teammates' levels of computer experience due to the use of paralinguistic emoticons or abbreviations. None of the learners interviewed, however, stated in any way that learners that appeared more or less astute at chatting were viewed differently, as either superior or inferior. These were hints that a learners' level of Spanish proficiency did have an effect on the way learners participated in the chats. This issue is taken up in the following section.

### **5.3.2 Language**

The purpose of this section is to understand the ways in which the learners themselves view the symbolic artifacts. As discussed in previous chapters, the symbolic artifacts that mediate the relationship between the subject and the object are the Spanish and English language used by the learners. Learner perspectives on artifacts are ascertained by an examination of their statements in the chat discussions and in the interviews.

#### ***5.3.2.1 Spanish***

The primary focus of this investigation is the Spanish produced in the chat discussions. In Chapter Four, the amount of speech and the amount and type of speech actions were counted and analyzed. Here the statements about the TL made by the learners in the chat discussions as well as in the interviews are presented and discussed.

##### ***5.3.2.1.1 In the Chats: References to the Target Language***

The statements made in the chat discussions in which the learners discuss the target language itself are rare. Most often these statements involve questions about word meanings, either about a word in Spanish that one learner uses and another does not understand, or a request for someone to translate from English to Spanish or from Spanish to English. Learners rarely discuss the grammar itself (meta-grammar), but they do discuss the meanings and translations of words. More information on the use of English is provided in the subsequent section. The first example, seen in 5-44, was examined in the previous section and is repeated

here for a different purpose. In this excerpt, a learner has not understood her teammate's use of "ja ja", the Spanish equivalent of the English "ha ha" to indicate that something is humorous, and she asks for an explanation. Learner A4 gives a quick translation to English in line 5. Next, in line 8, A5 explains it to her and makes direct reference to Spanish pronunciation rules, when he states, "'h' is silent in espanol".

**Example 5-44: Team A, Chat 1**

1	A5: jaja	<i>haha</i>
2	A4: ryan stiles es muy chistoso	<i>Ryan Stiles is funny</i>
3	A5: yo prefiero el original	
4	A3: jaja??? que es eso	<i>I prefer "The Original"</i>
5	A4: he meant "haha"	<i>"jaja"? what's that?</i>
6	A3: oh	
7	A3: lo siento	<i>sorry</i>
8	A5: "h" is silent in espanol, las personas de Mexico escribe "jaja"	<i>... people in Mexico write "jaja"</i>
9	A3: pienso que jerry springer hacer nuestra pais parecer muy estúpido	<i>I think Jerry Springer makes our country look stupid</i>
10	A3: (name of A5)- es muy interesante	<i>(name of A5) – that's very interesting</i>

In the chats, most of the references to language are indirect and deal with lexical issues. In example 5-45, the word *sueño* used by learner I3 is not understood by I1. I1 signals that she does not understand in line 4 by repeating the word as a question. I3 answers with the English equivalent "sleepy" and there is no explanation or further mention of the word.

**Example 5-45: Team I, Chat 3**

1	I1: hola!	<i>hi!</i>
2	I3: Tengo much sueno.	<i>I'm very sleepy.</i>
3	I1: que quieres hablar sobre?	<i>what do you want to talk about?</i>
4	I1: sueno?	<i>(unknown word)?</i>
5	I3: pagina 87.	<i>page 87.</i>
6	I3: sleepy	<i>(translates unknown word)</i>

Other instances in which direct reference is made to the target language are when one learner reprimands another for using the L1 instead of the TL. In the example, Team A is just beginning the second chat and learner A3 uses English while her teammates use Spanish. A5 finally reprimands her in line 12 and says *en español* which is the equivalent of “in Spanish.” These types of statements are discussed in section 5.4 also because they provide evidence for the presence and effect of rules in the chat discussions.

**Example 5-46 Team A, Chat 2**

1	A3: hello (A5)	<i>Hi A3</i>
2	A5: hola (A3)	
3	A5: las discotecas	<i>discoteques</i>
4	A3: i think she is talking about us	
5	A3: we talked about beet	
6	A3: beer	
7	A1: hola	<i>hi</i>
8	A3: hola	<i>hi</i>
9	A5: hola	<i>hi</i>
10	A3: no puedo type	<i>I can't type</i>
11	A3: i think we should talk about big families	
12	A5: en espanol	<i>in Spanish</i>

In only a very few statements do the learners address the issue of how they perceive their comfort with and ability to use Spanish.

**Example 5-47: Team I, Chat 1**

1	I3: Necesitamos hablar en espanol.	<i>We need to talk in Spanish.</i>
2	I3: No me gusta	<i>I don't like it.</i>
3	I3: No estoy confidente	<i>I'm not confident.</i>

**Example 5-48: Team C, Chat 1**

1	C3: cual haceras con espanol en el futuro	<i>what will you do with Spanish in the future</i>
---	--	--



### 5.3.2.1.2 In the Interviews: Power and Status Divisions

The interviews reveal that the learners were aware of the level of their teammates' Spanish. Only a few learners said they felt intimidated to participate in the chats because of a self-perceived weakness in their level of proficiency in Spanish. These same learners, however, contrasted chat discussions with in-class oral discussions and noted feeling much more uneasy in the latter. According to what was said in the interviews, the perception that teammates were better or worse at Spanish than themselves did not appear to affect power and status divisions within the team.

#### **Example 5-49: Interview Excerpt: A2 on level of Spanish**

A2: I think I was the worst at Spanish in our team. I was a little embarrassed to participate.

Interviewer: Did you participate more in the classroom discussions?

A2: Oh! No way! That was way more worse, um, I mean, talking in the class was *much* worse than the chats.

Interviewer: Why?

A2: Um. Well... in class our instructor was always after us and everyone was staring at you.

#### **Example 5-50: Interview Excerpt: H2 on level of Spanish**

H2: My poor team had to put up with me. I was always lost in those chats.

Interviewer: Can you explain what you mean by "lost"?

H2: I had a hard time understanding what we were talking about and I always had to ask the other two guys to explain it to me.

Interviewer: Did they help you?

H2: Oh yeah. They were so sweet about it.

#### **Example 5-51: Interview Excerpt: F2 on level of Spanish**

F2: One thing about the chats – if you wanted to take it easy and zone out you couldn't.

Interviewer: Do you prefer to "zone out" in class?

F2: No ma'm. What I mean is ... you know...in some classes you can sort of hide in the back like when you're tired and you don't feel like it. Man, am I getting

myself in trouble here or what! Uh, what I am trying to say is that in the chats the others know you are there and you have to participate.

### 5.3.2.2 *Negotiation of Meaning*

Although negotiation was found to take place in the chat discussions, the total number of negotiations comprises only a small fraction of the overall e-unit production, and primarily consists of clarification/translation requests regarding lexical items. Recall Example 5-44, reproduced here in Example 5-52, from Chat 1, in which a question in the form of a clarification request (in line 4) arose about a learner's use (in line 1) of "ja ja" to denote the way in which laughter is presented in writing in Spanish. The negotiation routine ended abruptly, however, with A5's explanation of "ja ja" in English.

#### **Example 5-52: Team A, Chat 1**

1	A5: jaja	<i>haha</i>
2	A4: ryan stiles es muy chistoso	<i>Ryan Stiles is funny</i>
3	A5: yo prefiero el original	<i>I prefer "The Original"</i>
4	A3: jaja??? que es eso	<i>"jaja"? what's that?</i>
5	A4: he meant "haha"	
6	A3: oh	
7	A3: lo siento	<i>sorry</i>
8	A5: "h" is silent in espanol, las personas de Mexico escribe "jaja"	<i>... people in Mexico write "jaja"</i>
9	A3: pienso que jerry springer hacer nuestra pais parecer muy estúpido	<i>I think Jerry Springer makes our country look stupid</i>
10	A3: (name of A5)- es muy interesante	<i>(name of A5) – that's very interesting</i>

Based on A4's response in line 5 in which she explains the meaning of A5's e-unit in line 1, it is apparent that she, at least passively, understood the meaning of "ja ja." In all of her prior e-units that involve paralinguistic laughter, she never used the Spanish form. The fact that, only a few e-units later, in line 1

of Example 5-53, A4 uses “ha ha” shows that she has not fully acquired the feature. A3, however, immediately responds in line 3 with “ja ja.” It is almost as if A3 is reprimanding A4’s use of the English paralinguistic form. Because A3 does this action so soon after A4’s use of the English, it places the Spanish and the English versions of the feature in stark contrast to one another. Right away, in line 5, A4 uses this feature.

**Example 5-53: Team A, Chat 1**

- |   |                           |                              |
|---|---------------------------|------------------------------|
| 1 | A4: haha...lo siento      | <i>haha...I'm sorry</i>      |
| 2 | A4: (name of A3)          | <i>(name of A3)</i>          |
| 3 | A3: jaja                  | <i>Haha</i>                  |
| 4 | A2: Rosie tiene un bigote | <i>Rosie has a moustache</i> |
| 5 | A4: jajaja                | <i>hahaha</i>                |

It is very possible that A3’s clarification request about “ja ja” in line 4 of Example 5-52 caused this pragmatic feature to become salient to the learners. Although the negotiation broke off at that point, A3’s subsequent use of the feature, so soon after A4’s use of the English version, highlighted it even further. Perhaps for this reason, this feature was incorporated by the learners into their interlanguage as evidenced by its use in a later chat presented in Example 5-54.

**Example 5-54: Team A, Chat 2**

- |     |                                      |                                    |
|-----|--------------------------------------|------------------------------------|
| 1   | A1: que lastima                      | <i>what a shame</i>                |
| 2   | A4: jaja                             | <i>haha</i>                        |
| ... |                                      | ...                                |
| 3   | A4: y termina a las seis de la noche | <i>and it ends at six at night</i> |
| 4   | A1: jaja                             | <i>haha</i>                        |

In the current study, in addition to the incorporation of a pragmatic feature, there is also evidence of the incorporation of a lexical feature as a result of negotiation. In Example 5-55, in line 7, learner A4 is trying to clarify what has

been said by A1. A1 does not understand that he has just informed the others that he had a harmful relationship with his wife when what he is really trying to say is that he had a long distance relationship with her before he married her. He translated the term *dañina* that was used in the discussion assignment questions as *long distance* instead of *harmful*.

**Example 5-55: Team A, Chat 3**

1	A1: yo tuvo un relacion danina y hoy soy casado con ella	<i>I had a harmful relationship and now I am married to her</i>
2	A4: lo siento (name of A1)	<i>I'm sorry (name of A1)</i>
3	A1: porque	<i>why</i>
4	A2: si lo siento.	<i>yes, I'm sorry.</i>
5	A3: is su relacion sano hoy	<i>is your relationship healthy today</i>
6	A3: ?	<i>? (corrective)</i>
7	A4: pero una relencion danina no es con tu esposa, verdad?	<i>but a harmful relationship isn't with your wife, right?</i>
8	A4: (name of A1)?	
9	A1: i had a long distance relationship with her before i hot married	
10	A5: en espanol	<i>in Spanish</i>
11	A3: su relacion fue danina? o sano?	<i>was your relationship harmful or healthy</i>
12	A1: que es danina	<i>what is "danina"</i>
13	A3: fue muy dificial , no?	<i>it was very hard, right?</i>
14	A3: harmful	
15	A1: i thought it meant long distance	
16	A3: that's kind of funny	
...	...	...
17	A1: pienso que las relaciones <u>daninas</u> son muy mal, pero no tengo uno	<i>I think that harmful relationships are very bad, but I don't have one</i>

In line 1, A1 states that he had a harmful relationship and that today he is married to “her.” A4 responds appropriately in line 2 with an expression of sympathy. A4’s apology does not make sense to A1, and he asks why she is sorry. A2 then also says he is sorry, and A3 asks if his relationship is healthy today. A4

seems to suspect there has been a communication problem and seeks confirmation that the harmful relationship is not with his wife. At this point, A1 repeats his prior e-unit from line 1 in English in an attempt to clear up the misunderstanding. After A5 reprimands him for using English, A3 attempts to clarify if his relationship was harmful or healthy. She still does not realize that he mistakenly used the word for “harmful.” In the next line, line 12, A1 seems to have gotten to the root of the problem and uses a clarification request to ask for a translation of the word in question.

At the end of the chat when A1 is writing his summary of the chat, he uses the word *dañina* correctly and, although it does not prove that the learner has fully acquired the term, it certainly indicates that the form-meaning relationship was understood. It appears that the word *dañina* first became salient to the learner because it was used in the discussion assignment questions. Initially, when he encountered a communication problem, he did not realize that the problem was due to the fact that misunderstood the lexical item. Had learner A5 not demanded the use of Spanish, the problem probably would have been resolved in English. Instead, what resulted was a fairly labored negotiation that evolved through collaboration. Only after he attempted to solve the problem in collaboration with his teammates, did he come to understand its source.

It appears, then, that a different form of negotiation emerges in the team-based setting. When communication breaks down, learners work collaboratively to help other learners communicate effectively in order to overcome linguistic

deficiencies. This type of negotiation evolves through the collaborative efforts of the team members. Example 5-56 provides another example.

Again, there was a communication problem caused by lexical confusion. In this case, a learner used an incorrect lexical form. Learner F3 was telling her teammates about her problematic boyfriend. In response, learner F4 tries to use the expression *dejar plantado* which means *to stand up* in the sense of *to not show up for a date with another person*. Instead of the correct form, F4 uses *dar una planta*, which means *to give a plant*. In line 2, F3 immediately signals she does not understand, and, in the following line, F2 also questions what F4 has said and attempts to confirm his meaning by repeating the words and adding a related word *flores*. F4, realizing there is a problem, attempts the expression again and comes a little closer to the intended form. F3 seems to think that F4 really did mean *give a plant* evidenced by the fact that she now asks to whom she should give the plant. Thinking that his restatement in line 4 fixed the problem, F4 answers her affirmatively. F3 gives up and informs F4 that she does not understand. F2 suddenly comes up with the correct form, and F3 agrees but checks with F4 to make sure she has understood. What has occurred is not negotiation in the classical sense as defined by the use of interactional features such as clarification requests and confirmation checks. This kind of negotiation is a new kind that evolves through multi-party collaboration.

**Example 5-56: Team F, Chat 3**

- |   |                                      |                                    |
|---|--------------------------------------|------------------------------------|
| 1 | F4: tienes dar una planta            | <i>you *have to give a plant</i>   |
| 2 | F3: Que?                             | <i>what?</i>                       |
| 3 | F2: por que? dar una planta? flores? | <i>why? give a plant? flowers?</i> |
| 4 | F4: dejar una planta?                | <i>leave a plant?</i>              |
| 5 | F3: a quien? a mi novio?             | <i>to whom? my boyfriend?</i>      |

- |    |  |  |
|----|--|--|
| 6  | F4: si   | yes  |
| 7  | F3: lo siento, no entiendo                     | <i>I'm sorry, I don't understand</i>                     |
| 8  | F2: dejar plantado????                         | <i>to stand up?</i>                                      |
| 9  | F3: si es verdad, (F4), no?                    | <i>yes it's true, right (name of F4)?</i>                |
| 10 | F4: si, mi mal, tienes dejar plantado tu novio | <i>yes, my bad, you have to *stand up your boyfriend</i> |
| 11 | F4: dejar, lo siento. Estoy muy cansado.       | <i>(corrective), I'm sorry. I'm very tired.</i>          |

At the end of the chat, 3 out of the 4 learners use the term in question in their summary statements as shown in Example 5-57.

### Example 5-57: Team F, Chat 3

- |   |  |   |
|---|--|---|
| 1 | F2: En la clase ahora, nosotros hablamos sobre las relaciones multiculturales. Me gusta las relaciones multiculturales. (F1), (F4) y yo quiera salir con (F3). Pensamos que ella necesita <u>dejar plantado</u> a su novio y romper con el.          | <i>In the class now, we talked about multicultural relationships. I like multicultural relationships. (F1), (F4) and I want to go out with (F3). We think she needs to stand up her boyfriend and break up with him.</i>          |
| 2 | F4: En nuestra session, hablaban hay los relaciones multiculturales. (name of F3) no se gusta su novio y (name of F1) preferia los mujeres mexicanas mientras (F2) tenias mujeres todo el mundo. F3s novio es malo y tiene <u>dejar plantado</u> su. | <i>In our session they talked there are multicultural relationships. (F3) does not like her boyfriend and (F1) preferred Mexican women while (F2) had women all the world. F3's boyfriend is bad and she has to stand him up.</i> |
| 3 | F3: Relaciones intercultural es bueno. Hay menos problemas que otros relaciones. Yo pienso que relaciones intercultural son bueno.   | <i>Intercultural relationships is good. There are less problems than other relationships. I think that intercultural relationships are good.</i>  |
| 4 | F1: Yo pienso que todos los hombres un grupo (F) sean locos por las relaciones interculturales. Hablaron sobre los hombres saliendo con (F3) y ella tuvo que <u>dejar plantado</u> su novio.   | <i>I think that all of the men in group F are crazy for intercultural relationships. They talked about the men going out with (F3) and she had to stand up her boyfriend.</i>   |

Of course, the fact that a learner used a previously negotiated lexical item in a subsequent sample within the same chat session cannot be taken as proof that the item was acquired, neither can it be taken as proof that the item was not acquired. Although the term was not used in the assignment questions, it is possible that some of the learners already knew the lexical term. F4 obviously had

acquired the expression passively because he was able to attempt to use the item in the first place. F4's use of the term in his summary statement certainly indicates that the term had been made salient and was in the process of making its way into F4's interlanguage system at the time of the chat. This learner's final examination in the course provides further evidence that he, at least passively, learned the term. He did not produce this expression on the exam, but did answer a question correctly that would have been impossible had he not recognized and understood the term *dejar plantado*. On the exam, the learners had to complete sentences with an appropriate vocabulary word. The sentence is presented in Example 5-58.

**Example 5-58: Final Exam Question**

Melisa tenía una cita con Raúl, pero él la dejó plantada. Por eso, ella se puso (enfadada) (*Melissa had a date with Raul, but he stood her up. Because of this, she became (angry).*)

It is not possible to determine, however, if F4's knowledge of the term as presented on the exam is directly attributable to the use of chat discussions. What the chat could be doing is making a linguistic feature more salient so that it is noticed in a meaningful context and reinforced in written form.

**5.3.2.3 Other Evidence**

During the chat discussions, the learners were not allowed to use their textbooks or any notes. The use of new vocabulary items by the learners in the chat summaries they are required to write at the end of Chats 2 and 3 provides evidence that the chat discussions may promote the incorporation of lexical terms



by the learners. For example, in Chat 2, learner B3 wrote the summary statement presented in Example 5-59. The new vocabulary words are underlined.

**Example 5-59: Team B, Chat 2**

- |   |  |  |
|---|--|--|
| 1 | B3: Mi grupo es muy inteligente y <u>culto</u> . Ellos tienen las familias <u>carinosas</u> , y no tienen <u>hermanastros</u> . Yo tengo un <u>madastro</u> y un <u>padraastro</u> . Mi grupo es muy simpatico | <i>My group is very intelligent and educated. They have caring families and they do not have step-siblings. I have a stepmother and a stepfather. My group is very nice.</i> |
|---|--|--|

The words *hermanastro* and *padraastro* appeared in the discussion assignment questions. Prior to this learner's summary, he used these words on one occasion each. In contrast, the words *culto* and *cariñoso* were not present in the assignment questions, and this learner did not use them at any other time during the chat. Both words, however, were used often in the chat discussion by other learners. *Culto* was used by other learners 3 times and *cariñoso* was used 4 different times by other learners.

In Example 5-60, learner E4 uses the term *respeto* (*respect*). It almost seems contagious as it spreads throughout the learners' discourse in subsequent turns.

### Example 5-60: Team E, Chat 3

- |   |  |   |
|---|--|---|
| 1 | E4: Conozco muchas mujeres que siempre son en relaciones daninas. El hombre no tiene <u>respeto</u> para ella. | <i>I know many women that are always in harmful relationships. The man does not have respect for her.</i> |
| 2 | E1: Es verdad a veces, pero creo que (hombres) tenemos <u>respeto</u> para mujeres                             | <i>It's true sometimes, but I believe that (men) we have respect for women</i>                            |
| 3 | E3: La problema no es sobre <u>respeto</u> , la problema es mujeres quieren ser un centro de atencion          | <i>The problem is not about respect, the problem is women want to be the center of attention</i>          |
| 4 | E4: Mujeres y hombres necesitan ser individuals primero para dar <u>respeto</u> por otras personas.            | <i>Women and men need to be individuals first in order to give respect for other people.</i>              |
| 5 | E2: un relacion que no tiene <u>respeto</u> no es bueno  | <i>a relationship without respect is not good</i>   |
| 6 | E1: Decir que los hombres en general no tienen <u>respeto</u> no es verdad                                     | <i>To say that men in general do not have respect is not true</i>   |

In Example 5-61, the term *ajustarse*, though inappropriate in this context, is introduced by a learner and appears again in the e-units that immediately follow it.

### Example 5-61: Team G, Chat 3

- |   |  |   |
|---|--|---|
| 1 | G4: Necesitan <u>ajustarse</u> a los novios  | <i>They need to "adjust" to the boyfriends</i>  |
| 2 | G3: Las mujeres no tiene que <u>ajustarse</u> pero estan tranquilidad. Ellas estan muy emocionante durante discutir.             | <i>The women don't have to "adjust" but they are tranquility. They are very exciting during to argue.</i>   |
| 3 | G1: Esta dificil a veces <u>ajustarse</u> un persona en la relacion. Son mas problemas dentro persona diferentes in la relacion. | <i>It's difficult sometimes to "adjust" (to) a person in a relationship. There are more problems inside (between) different people in the relationship.</i> |

In Example 5-62, learners A3 and A4 attempt to use the imperfect subjunctive and the conditional in order to speak hypothetically. These grammatical forms were used in the discussion assignment question: *¿Qué haría Ud. si estuviera en unas relaciones dañinas?* (What would you do if you were in a harmful relationship?). In line 1, A3 appears to be formulating her answer by copying the forms used in the question. Her form of the imperfect subjunctive is

correct (*estuviera*), but she uses the future tense (*sentire*) instead of the conditional tense (*sentiría*). Several e-units later, as the discussion of harmful relationships continues, A4 uses the conditional correctly (*estaria*), though she avoids using the subjunctive. A few e-units later in line 3, however, A4 attempts to speak hypothetically. She uses the conditional correctly (*estaria*), but she uses the preterite tense (*tuve*) instead of the imperfect subjunctive (*tuviera*). In her summary of the chat discussion in line 4, A3 attempts the hypothetical again. She uses both the conditional and the imperfect subjunctive, but she switches them; where she should have used the imperfect subjunctive (*tuviera*) she uses the conditional (*tendria*), and where she should have used the conditional (*sentiria*) she uses a slightly incorrect form of the imperfect subjunctive (*sientiera* instead of *sintiera*).

**Example 5-62: Team A, Chat 3**

1	A3: si estuviera en una relacion danina, yo me sentire muy mal	<i>if I were in a harmful relationship, I will* feel very bad</i>
...		
2	A4: yo estaria asustada.	<i>I would be frightened</i>
...		
3	A4: yo estaria muy apenada si yo tuve una relacion danina.	<i>I would be very sad if I had* a harmful relationship</i>
...		
4	A3:Si tendria una relacion danina, me sientiera muy mal	<i>If I would have a harmful relationship, I were to feel very bad</i>

Example 5-62 suggests that the chat discussions, in addition to offering opportunities for learners to notice vocabulary gaps, also provide opportunities for learners to attend to and practice grammatical features.

#### **5.3.2.4 In the Interviews**

In the interviews, almost every learner, with the exception of D2 (discussed in section 5.4.2.2 below), noted feeling more proficient in Spanish, and identified the computer-mediated team-based format as the cause. All learners noted feeling more confident about their ability to use Spanish for communication in both an oral and a written medium. The following excerpts were responses to the interview question, “Can you ascertain any positive or negative effects from Blackboard use on how well you did in Spanish?” In Example 5-63, learner I1 states that the use of the chats was beneficial because it made her aware of her own linguistic deficiencies.

#### **Example 5-63: Interview Excerpt: Learner I1 on Language Learning**

I1: Um. Did using Blackboard help me in Spanish?

Interviewer: Yes, The question is a little um hard to understand. Sorry. Yes. Did you feel using Blackboard affected your Spanish?

I1: Okay. Well. Yeah I really liked it. I think all the practice was good.

Interviewer: In what way was it good?

I1: Well when you are speaking Spanish out loud in class you are so nervous and I can't remember anything about it. In the chats, it's all right there. I see my words and all the problems I have.

Interviewer: When you saw these problems, were you able to fix them?

I1: Well, I think I was the worst one in our group. I always had to stop and ask the others what we were talking about.

In Example 5-64, in response to the same question, learner G3 states that the chats helped him practice and retain vocabulary.

**Example 5-64: Interview Excerpt: Learner G3 on Language Learning**

G3: The chats really helped my Spanish. They were fun, too. I really tried to use the new vocabulary in the chats. It was a great way to practice it because the chats were ...the chat topics had to do with the vocabulary we had to learn for that chapter. (Name of G4) said that she used the chats for this. I really noticed that she used a lot of the new vocabulary words. ... I was impressed.

In Example 5-65, learner A3 states that she used the chats to practice grammar. In particular she notes that she attempted to use the past subjunctive in the chats.

**Example 5-65: Interview Excerpt: Learner A3 on Language Learning**

A3: The chats on Blackboard were great ways to practice new grammar too. I was really trying hard to learn that H Punto Clave.<sup>7</sup>

These chat and interview excerpts reveal that the learners perceived the chat sessions to be beneficial for language practice and learning.

**5.3.2.5 English Usage**

Chapter Four described the quantity of L1 words used by learners for each of the chat discussions. As discussed in Chapter Four, the learners used English the most in the first chat that took place in the third week of the semester. By the third chat, which took place in the second to last week of the semester, they rarely used English at all. The goal of the present section is to present the ways in which the L1 was used in the chats and the learner perception of L1 use as revealed through the learners' statements made in the interviews. In contrast to the preceding sections in which chat excerpts and interview excerpts were separated into two different sections, this present section combines them into one section

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<sup>7</sup> In the textbook, there are 7 communicative goals called Puntos Clave (*key points*). "H" refers to "Hipótesis" (*Hypothesis*) and requires the use of the imperfect subjunctive and conditional tenses.

because many of the comments made by the learners in the interviews reflect statements they made in the chats.

In the computer-mediated discussions, it appears that the L1 was used for the following purposes: (1) communication, in lieu of Spanish, when (a) the learners perceived that the actual chat session per se had not begun, or (b) when the learners talked about the instructions of the chat assignment; (2) to fill in the gaps in learner vocabulary either by (a) the use of a single English word in a statement, or (b) an elicit for the meaning of a particular English word; (3) to clear up a misunderstanding; and (4) in an isolated yet interesting case, to emphasize a reaction to being ignored by teammates. Examples of each of these uses are provided below.

For communication:

In Example 5-66 the team spends approximately 10 minutes communicating in English at the beginning of the first chat in a discussion of an off-line team project:

**Example 5-66: Team A, Chat 1**

- 1 A4: you ready for the presentation?
- 2 A2: I guess\
- 3 A4:)
- 4 A1: whats up
- 5 A4: im not
- 6 A1: in not either
- 7 ...
- 8 A4: man, this presentation ha to be memorized
- 9 A4: i just asked her
- 10 A3: you can use notes, you just can't read it verbatim

At this point Learner A2 shifts the conversation to the assigned topic and the team turns its attention to understanding what they need to do for the chat discussion:

- 11 A2: which topic do we want to talk about
- 12 A4: whichever
- 13 A3: i think the topic is assigned
- 14 A2: no of the ones on the board
- 15 A3: huh?
- 16 A2: we have to have a group discussion about the four topics on the board
- 17 A3: oh. yeah, i thought they said they would assign different topics throughout the 30 min
- 18 A4: hey (name of A3)...do you have another notecard for (name of A5)?
- 19 A3: sure
- 20 A4: cool
- 21 A2: I think we should talk about talkshows, it is the easiest
- 22 A4: yeah
- 23 A4: i agree
- 24 A1: sounds good to me

Now that they have agreed on the choice of assigned topic, they begin the discussion in Spanish:

- 25 A2: me gusta pardon the interruption      *I like Pardon the Interruption* (name of TV talk show)

The interviews confirm that the learners in Team A used English when they came into the lab and were waiting for their teammates to arrive. Other learners were still trickling into the lab and getting settled in. They did not feel that the chat or even the class had begun yet. They also indicated that they used English to make sure everyone understood, especially in cases when they were talking about team projects, or the actual assignment rules. In her interview, when shown the transcript from Chat 1 from her team, learner A3 states that she uses English because she did not think that the class had begun since not everyone in the class had arrived. Her team had already logged into the team virtual classroom

and was continuing to prepare for an in-class presentation that was due in class the following day.

**Example 5-67: Interview Excerpt: A3 on use of English**

A3: we all logged on before everyone else and needed to talk about our presentations. And I thought we could use English, just not for the actual discussion.

She said that for the second chat session, they knew not to use English. In the following excerpt from Chat 2, however, learner A3 uses English again, but is reprimanded in line 12 by learner A5, who has been using the TL throughout:

**Example 5-68: Team A, Chat 2**

- |    |  |                     |
|----|--|---------------------|
| 1  | A3: hello (A5)                                   |                     |
| 2  | A5: hola (A3)                                    | <i>Hi A3</i>        |
| 3  | A3: i think she is talking about us              |                     |
| 4  | A3: we talked about beet                         |                     |
| 5  | A3: beer   |                     |
| 6  | A5: las discotecas                               | <i>discoteques</i>  |
| 7  | A1: hola   | <i>hi</i>           |
| 8  | A3: hola   | <i>hi</i>           |
| 9  | A5: hola   | <i>hi</i>           |
| 10 | A3: no puedo type                                | <i>I can't type</i> |
| 11 | A3: i think we should talk about<br>big families |                     |
| 12 | A5: en espanol                                   | <i>in Spanish</i>   |

This same learner continues to violate the no-English rule at the end of Chat 2. She resorts to English to discuss how to write the summary part of the assignment:



### Example 5-69: Team A, Chat 2

- |    |   |  |
|----|---|--|
| 1  | A1: We should write our paragraph soon                                      |  |
| 2  | A3: hijos y sus padrastros deben hablar mucho para que conocen los muy bien | <i>children and their stepfathers should talk a lot to get to know each other well</i> |
| 3  | A3: ok. paragraph   |  |
| 4  | A3: we each write one?  | <i>what should we write?</i>   |
| 5  | A4: que debemos escribir?   | <i>who wants to go first?</i>  |
| 6  | A4: quien quiero ir primero?  | <i>what did you say?</i>   |
| 7  | A5: se dice?  | <i>who wants to go first?</i>  |
| 8  | A4: quien quiere ir primero?  |  |
| 9  | A3: just each write it all together and then hit return                     | <i>we write one sentence</i>   |
| 10 | A5: escribamos uno sentence   |  |
| 11 | A4: bien  | <i>okay</i>  |
| 12 | A3: i think we can do it at the same time                                   |  |

When asked about this in the interview, she stated that she did not even realize she was using English, as follows:

### Example 5-70: Interview Excerpt: A3 on use of English

A3: I used English? I didn't even realize it. Weird. Maybe I'm just programmed to use English for some stuff like talking about what to do."

Learner A4 uses Spanish until finishing her summary entry in line 1. In Line 3, she switches to English. It appears she feels she has completed her part of the assignment and is no longer bound to the no-English rule:

### Example 5-71: Team A, Chat 2

- |   |   |   |
|---|---|---|
| 1 | A4: Hoy, hablamos sobre las familias grandes. | <i>Today, we talked about big families.</i> |
| 2 | ...   |   |
| 3 | A4: OK, i already wrote the first sentence    |   |

#### (2) Vocabulary Gaps:

English was also used to fill in gaps in learner vocabulary by the use of a single English word or an elicit for the meaning of a particular English word.

(a) The Use of a Single English Word

A single English word is often used when the learner does not know the Spanish equivalent. Interestingly, at no time does one learner reprimand another for this type of English usage. The English words used by the learner in each excerpt are underlined.

**Example 5-72: Team A, Chat 1**

- |   |  |   |
|---|--|---|
| 1 | A3: tejas es le peor en <u>welfare</u> y <u>healthcare</u> | <i>texas is the worst in welfare and healthcare</i> |
| 2 | ...  |   |
| 3 | A3: pero, tejas no give dinero a la gente pobre            | <i>but Texas doesn't (give) money to the poor</i>   |

At times, the learners mark the English words they use with parentheses or quotation marks. In this example this method becomes widespread and all teammates, with the exception of E1, opt to use the English word:

### Example 5-73: Team E, Chat 1

1	E4: (name of friend) es de mi "hometown"	<i>(Name) is from my hometown</i>
2	E1: Chulo!	<i>Cool!</i>
3	E4: (name of friend) fue a mi "highschool"	<i>(Name) went to my highschool</i>
4	E3: donde es su "hometown"	<i>where is your hometown</i>
5	...	
6	E4: gainesville is mil "miles" away	<i>Gainesville is a thousand miles away</i>
7	E3: visite florida durante "spring break"	<i>I visited florida during spring break</i>
8	...	
9	E4: mi amiga que "dives" para universidad de florida va a ft. lauderdale tambien	<i>my friend that dives for the university of florida goes to ft. lauderdale also</i>
10	...	<i>but I don't like earthquakes</i>
11	E3: pero no me gusta "earthquakes"	<i>I hate myself earthquakes</i>
12	E4: cierto, me odio earthquakes	
13	E3: (name of E1), te gusta earthquakes	<i>(Name of E1), do you like earthquakes? what?</i>
14	E4: que?	<i>how do you say shark attack in Spanish</i>
15	E2: como se dice "shark attack" en espanol.	<i>I don't like shark attack</i>
16	E1: No.	
17	E3: no me gusta "shark attack"	

### (b) An Elicit for the Meaning of a Particular English Word

As discussed earlier in section 5.2.2.1.1, learners will elicit their teammates' help in understanding the meaning of a word in the TL. In the following example, learner A3 simply translates the word in question to English:

### Example 5-74: Team A, Chat 1

1	A4: que es el presentador?	<i>what is "host"?</i>
2	A3: host?	
3	A4: ahhhh	
4	A3: i think	
5	A1: si	<i>yes</i>
6	A5: pienso	<i>I think</i>
7	A4: bien	<i>OK</i>

In the following example, learner A1 asks for the meaning of the word *orgullo* (“pride”) and again A3 simply translates the word in question to English in line 6:

**Example 5-75: Team A, Chat 1**

- |   |   |   |
|---|---|---|
| 1 | A3: tiene orgullo en nuestra pais               | <i>has pride in our country (probable meaning: I have pride in our country)</i> |
| 2 | A3: y uds:?                                     | <i>and you (3<sup>rd</sup> person plural)?</i>                                  |
| 3 | A5: Tejas es el mejor estado de todos           | <i>Texas is the best state of all</i>   |
| 4 | A1: Que es orgullo                              | <i>what is “pride?”</i>   |
| 5 | A3: pero, tejas no give dinero a la gente pobre | <i>but Texas doesn’t (give) money to the poor</i>                               |
| 6 | A3: pride                                       |   |

Team H handles these instances of lexical query in the same way as team A. In the example 5-76, in line 5, learner H1 asks for the meaning of the word *mejarlo* (should be *mejorarlo* which means “to improve”) and H2 simply translates the word in question to English:

**Example 5-76: Team H, Chat 1**

- |   |  |   |
|---|--|---|
| 1 | H2: Que recomiendas que haga David letterman para mejarlo? | <i>What do you recommend that David Letterman do to improve it?</i> |
| 2 | [H3 has entered].  |   |
| 3 | H1: hola (name of H3)                                      |   |
| 4 | H3: Hola! Como estas?                                      | <i>hi</i>   |
| 5 | H1: Que es mejarlo en ingles?                              | <i>Hi! How are you?</i>   |
| 6 | H2: to make better...hey (name of H3)!                     | <i>What is “mejarlo” in English?</i>                                |

In the following example from team B, learner B4 does not know the word for “plastic surgery” in Spanish. Instead of asking for the translation, she uses Spanish to circumlocute, and says *muchos rostro cambiar* which means something like “many face to change.” In order to assure that her teammates understand what she means, she also provides the English word “plastic surgery”:

**Example 5-77 Team B, Chat 1**

- |   |  |   |
|---|--|---|
| 1 | B4: Jenny Jones ha recibido muchas rostro cambiar (plastic surgery?) | <i>Has Jenny Jones received much face to change</i> |
|---|--|---|

In example 5-78, learner F2 who seems more proficient in Spanish than his teammates, translates the Spanish words he uses for the others, as in line 1.

**Example 5-78: Team F, Chat 1**

- |   |  |  |
|---|--|--|
| 1 | F2: que es la nombre de un guardaespaldas (bodyguard) de Jerry? Steve, no? | <i>What is the name of Jerry's bodyguard? Steve, isn't it?</i> |
| 2 | F4: Y Jerry no hace un peridoico   |  |
| 3 | F1: si steve   | <i>And Jerry doesn't do a newspaper</i>                        |
| 4 | F1: Si jerry no es un (como se dice) sellout                               | <i>yes, steve</i>  |
| 5 | F2: sellout = vendido (at least in slang)                                  | <i>Yes, Jerry isn't a –how do you say – “sellout”</i>          |

Example 5-79 shows how the learners use English to clarify a word meaning, but it also shows that the translations provided are not always accurate. A1 uses the English word in parentheses to indicate that he does not know the word in Spanish. A5 offers a translation, but the fact that he offers it in a question form shows that he is unsure if it is correct. He clarifies in line 5 and asks if “in-law” is said *en ley* in Spanish. A2 answers him and incorrectly confirms that he is using the correct word.

**Example 5-79: Team A, Chat 2**

- |   |   |  |
|---|---|--|
| 1 | A1: no tengo dos hermanas (in-law)                    | <i>I don't have two sisters (in-law)</i>               |
| 2 | A5: en ley?   | <i>in-law?</i>   |
| 3 | A1: Que?  | <i>what?</i>   |
| 4 | A3: en el libro, necesitamos hablar con las preguntas | <i>in the book, we need to talk with the questions</i> |
| 5 | A5: se dice (in law) (en ley) en espanol?             | <i>do you say “in –law” “en ley” in Spanish?</i>       |
| 6 | A2: si  | <i>yes</i>   |

### (3) To Clear Up a Misunderstanding

One teammate misunderstood the word *dañina* as “long distance” instead of its meaning in English “harmful”. Despite several attempts to negotiate A1’s meaning, A1 finally resorts to English to clear up the misunderstanding:

#### Example 5-80: Team A, Chat 3

18	A1: yo tuvo un relacion danina y hoy soy casado con ella	<i>I had a harmful relationship and now I am married to her</i>
19	A4: lo siento (name of A1)	<i>I'm sorry (name of A1)</i>
20	A1: porque	<i>why</i>
21	A2: si lo siento.	<i>yes, I'm sorry.</i>
22	A3: is su relacion sano hoy	<i>is your relationship healthy today</i>
23	A3: ?	<i>? (corrective)</i>
24	A4: pero una relcion danina no es con tu esposa, verdad?	<i>but a harmful relationship isn't with your wife, right?</i>
25	A4: (name of A1)?	
26	A1: i had a long distance relationship with her before i hot married	
27	A5: en espanol	<i>in Spanish</i>
28	A3: su relacion fue danina? o sano?	<i>was your relationship harmful or healthy</i>
29	A1: que es danina	<i>what is “danina”</i>
30	A3: fue muy dificial , no?	<i>it was very hard, right?</i>
31	A3: harmful	
32	A1: i thought it meant long distance	
33	A3: that's kind of funny	

(4) In an isolated case, to emphasize a reaction to being ignored by teammates

On several occasions, Learner A3 would use English when her teammates ignored her and she could not get a response. In example 5-81, she is using English as a type of reaction.

### Example 5-81: Team A, Chat 1

1	A2: los talk shows en EEUU son bruto y cursi.	<i>talk shows in the US are stupid and tasteless</i>
2	A5: las personas en Jerry Springer es muy stupido, pero Jerry is muy inteligente	<i>the people on Jerry Springer are stupid, but Jerry is very intelligent</i>
3	A3: si, pero Rosie es muy agradable	<i>yes, but Rosie is very pleasant</i>
4	A4: si, estoy de acuerdo con (name of A2).	<i>yes, I agree with (A2)</i>
5	A5: no le gusta Rosie	<i>you don't like Rosie</i>
6	A1: no gusta Rosie para nada	<i>I don't like Rosie at all</i>
7	A4: no me gusta Rosie tambien	<i>I don't like Rosie *also</i>
8	A2: el fue mayor de Cincinnati	<i>he was mayor of Cincinnati</i>
9	A4: tambien	<i>also (corrective)</i>
10	A3: well fine then	
11	A4: haha...lo siento	<i>laughs, I'm sorry</i>
12	A4: (name of A3)	
13	A3: jaja	<i>haha</i>
14	A2: Rosie tiene un bigote	<i>Rosie has a moustache</i>
15	A4: jajaja	<i>hahaha</i>
16	A3: pienso que Rosie's show no es estupido y degradable	<i>I think that Rosie's show is not stupid or *unpleasant</i>

In this learner's interview, however, she was surprised to see that she used English in this way. She seemed to be using English on these occasions without realizing it. Recall her interview excerpt presented in example 5-70 above in which she stated that she was not aware that she was using English. As she reread the above excerpt from the transcript from this chat, she said:

### Example 5-82: Interview Excerpt: A3 on use of English

A3: There I go again with English! God! ... Too wild! I didn't know I did that.

## 5.4 OBJECTS

According to Activity Theory, learners consciously and deliberately generate the activities or contexts via their own objects (goals, motivations, and purposes) (Nardi 1996). Therefore, in order to understand more thoroughly the activity of computer-mediated synchronous chatting, it is important to identify

and examine the objects of the learners. In Chapter 4, the quantity of speech produced by learners as well as the speech roles realized by their speech actions helped identify the learners' objects. In order to understand the objects more fully, however, the context in which these speech actions are produced and the perspectives of the learners themselves also must be examined.

The way in which learners interact, the statements they make, and the emphasis they place on certain aspects of a discussion can reveal their individual objects. For example, the following chat excerpt reveals that learner B2 is concerned about grades. He inquires about whether or not the chat session will be graded. This excerpt is the only direct reference to grades and their relationship to the chat activity found in the chat transcripts. More information about learners' perspectives with regard to the importance of grades is provided by the learner interview responses and is discussed in the following section.

**Example 5-83: Team B, Chat 1**

- |   |                               |  |
|---|-------------------------------|--|
| 1 | B2: Sacamos una nota por hoy? | <i>Are we getting a grade for today?</i> |
| 2 | B2: o para .. no se           | <i>or "para"... I don't know</i>         |
| 3 | B4: No se                     | <i>I don't know</i>                      |

Example 5-84 shows that learner F3's objective is to choose an "easy" topic.

**Example 5-84: Team F, Chat 1**

- |   |                                |                               |
|---|--------------------------------|-------------------------------|
| 1 | F3: Que hacemos                | <i>What are we doing</i>      |
| 2 | F1: me gustan numeros 1 y 3    | <i>I like numbers 1 and 3</i> |
| 3 | F4: prefiero el numero 3       | <i>I prefer number 3</i>      |
| 4 | F2: solo hacemos uno?          | <i>we only do one?</i>        |
| 5 | F3: numero cuatro parece facil | <i>number 4 looks easy</i>    |

After an examination of the chat transcripts, community building or group solidarity was found to be among the most prevalent objects. The opposite of



solidarity—resistance--was also found, but mostly was confined to one team. Resistance represents an undesirable outcome of team-based learning. Evidence of other such objects as knowledge building, assignment completion, and positioning in the community was also found. As the learners engage together in the chat discussions, what is apparent is that they do not share the same single object, but rather the objects may be multiple and conflicting and the objects can also be transformed in the course of an activity (Kuutti 1991).

#### **5.4.1 Community Building: Solidarity**

In contemporary Activity Theory, the community is considered not only a learning environment, but also a component of the activity itself (Engeström 1996; Kuutti 1996). Dörnyei and Malderez (1997) and Clémont, Dörnyei, and Noels (1994) recognize the importance of group cohesion and solidarity for group cooperation and learning. Levine and Moreland (1990) find that members of cohesive groups are more likely than others to participate actively in conversation.

##### ***5.4.1.1 In the Chats: Evidence of Solidarity***

Chapter Four provided a numerical description of computer-mediated synchronous discussions and a quantitative analysis of learner interaction in terms of the quantity and types of speech actions. The numbers revealed which teams and individual learners exhibited more community-building behavior in their high number of social and emotive moves. While the quantitative data are important, in order to complete the analysis, it is also important to examine actual learner statements within the context of the chat activity. The chat transcripts were

examined in order to discover patterns or recurring themes in the learners' statements. In addition, the statements made by the learners themselves in the interviews provide additional information and confirmation of the findings.

Solidarity and group cohesion among teammates may be seen in the words and expressions they use with one another. Team B was found to produce the highest number of social and emotive moves out of all of the teams. In the second chat for Team B, for example, there is a high occurrence of direct address and many attempts to include all learners in the discussion, as evidenced by the data presented in Chapter 4 and by the following excerpt:

**Example 5-85: Team B, Chat 1**

1	B2: (Name of B1), cuantos personas tienes in tu familia?	<i>(Name), how many people do you have in your family?</i>
2	B1: cinco	<i>five</i>
3	B2: y tu (Name of B5)?	<i>and you, (name)?</i>
4	B4: Mi familia es muy pequeno. espero que mi familia estaba mas grande	<i>My family is very small. I hope(wish) that my family was bigger.</i>
5	B1: y tu (Name of B2)	<i>and you, (Name)</i>
6	B5: Mi familia tiene seis personas	<i>My family has six people</i>
7	B2: Cuatro	<i>Four</i>

In addition to a high number of directly addressed e-units, team B shared personal information often. There were also occasions of friendly teasing as in examples 5-86 to 5-87.

### Example 5-86: Team B, Chat 1

1	B1: Mi familia son intimo	<i>my family is close</i>
2	B4: si tambien	<i>yes (me?) too</i>
3	B5: ah si, ha diez anos entre de mis hermanos y yo	<i>yes, there are ten years between my brothers and me</i>
4	B4: Ay! (Name of B5)hay seis anos entre de mi hermano y yo	<i>Wow! (Name) there are six years between my brother and me</i>
5	B2: Son amigos (name of B4)?	<i>Are you friends, (Name)?</i>
6	B4: con mi hermano?	<i>with my brother?</i>
7	B2: si	<i>yes</i>
8	B1: Tengo dos hermanos	<i>I have two brothers</i>
9	B3: hay ocho anos entre mi hermana y yo!	<i>there are 8 years between my sister and me</i>
10	B3: Mi hermana es la benjamina	<i>my sister is the youngest</i>
11	B4: cuando eran los ninos NO, pero aqui son amigos	<i>when we were kids, NO, but here (now) we are friends</i>
12	B4: soy la benjamina de mi familia y el chica solamente	<i>I am the youngest in my family and the only girl</i>
13	B5: Mi familia de me padre es muy grande. El tiene diez hermanos.	<i>My father's family is very big. He has 10 brothers</i>
14	B4: todos mis sobrinos son chicos!	<i>all of my nephews (cousins?) are boys!</i>
15	B2: Yo soy el benjamin de mi familia, pero mi hermano es pequeno.	<i>I'm the youngest in my family, but my brother is small</i>
16	B3: (Name of B4) estaba mimada!!	<i>(name) is spoiled!</i>

In example 5-86, the learners share a great deal of personal information. Learner B4 shares that she is the youngest in a family of all males. In line 16, B3 gently teases her and says she is *mimada* (spoiled).

In example 5-87, also from team B, learner B3 reveals that he is 29 years old. In line 7, learner B4 kindly tells B3 that he does not look like he is 29. B3 then thanks her directly and thanks her again to add emphasis. In line 8, learner B2 comments on what learner B3 shares about her family. B2 encourages her to share more in line 8. According to Tracy (1997) the recognition and respect upon which a community is built is demonstrated in gestures of support and feedback.

### Example 5-87: Team B, Chat 2

1	B3: Tengo veinte y nueve anos!!! Ah CARAMBA!!!!!!!	<i>I'm 29 years old! Oh my!</i>
2	B5: es probable	<i>it's probable</i>
3	B4: cuantos anos tienes?	<i>how old are you?</i>
4	B4: (Name of B3)	<i>(name of B3)</i>
5	B2: Tienes diez anos mas que mi (name of B3).	<i>You are 10 years older than I am, (name)</i>
6	B3: Tenia muchos hermanastros cuando ere un nino	<i>I had a lot of step-brothers when I was a child</i>
7	B4: no miras veinte y nueve	<i>you don't look 29</i>
8	B2: Interesante, como era eso?	<i>Interesting, what was that like?</i>
9	B3: Tengo un padastro ahora, y tengo un madaastro tambien	<i>I have a step-father now, and I have a step mother too.</i>
10	B3: Gracias (name of B4)	<i>Thanks, (name)</i>
11	B3: Muchas gracias	<i>Thanks a lot</i>
12	B4: de nada	<i>you're welcome</i>

In their summary statements, teammates express their affection for their teammates, as in examples 5-88 and 5-89:

**Example 5-88: Team B, Chat 2**

1	B3: Mi grupo es muy inteligente y culto. Ellos tienen las familias carinosas, y no tienen hermanastros. Yo tengo un madaastro y un padastro. Mi grupo es muy simpatico.	<i>My group is very intelligent and educated. They have loving families, and they don't have step- siblings. I have a stepmother and a stepfather. My group is very nice.</i>
2	...	
3	B1: Mis amigas familia son muy interesante. Ellos tienen las familias muy cultos y carinosos.	<i>My friends' families are very interesting. They have very educated and loving families.</i>
4	...	
5	B2: Hoy hablamos sobre nuestras familias. Estamos acuerdo que sea bueno tener una familia grande. Todavía, espera que hayan hablado mas sobre nuestras mascotas. Mi grupo es excelente.	<i>Today we talked about our families. We agree that it is better to have a big family. Still, I wish we had talked more about our pets. My group is excellent.</i>

Other teams expressed affection for their teammates as well. A chat excerpt from Team I, another very cohesive team, is presented in example 5-89.

**Example 5-89: Team I, Chat 1**

1	I3: Necesitamos ir	<i>We need to go</i>
2	I2: sabo	<i>I know</i>
3	I1: asi!	<i>Yes!</i>
4	I3: Es tiempo por nos hablamos sobre nos presentations	<i>It's time for us to talk about our presentations</i>
5	I2: adios companeros	<i>good-bye classmates</i>
6	I1: se divierto!	<i>I have fun</i>
7	I3: aidos	<i>good-bye</i>
8	I1: adios	<i>good-bye</i>
9	I2: me divieto	<i>I have fun</i>

In example 5-78, in her closing in line 5, learner I2 addresses her teammates by calling them *compañeros* (mates). Next, in line 6, I1 says he has had a good time. This sentiment is echoed in line 9 by I2. In example 5-90 from Chat 3, one learner shares some very personal information and the other learners respond with expressions of sympathy and support.

### Example 5-90: Team I, Chat 3

1	I3: mi mediahermana tiene 18 anos.	<i>my half sister is 18</i>
2	I1: si	<i>yes</i>
3	I2: bueno mi amigo	<i>good, my friend</i>
4	I3: su cumpleaños es en proximo semana	<i>her birthday is next week</i>
5	I3: ella es embarazada (pregnant)	<i>... she is pregnant</i>
6	I3: 8 mesas	<i>eight months</i>
7	I1: si!!!! hablamos sobre relaciones interculturales	<i>Yes! let's talk about cross-cultural relationships</i>
8	I2: Genial mi amigo	<i>cool, my friend</i>
9	I3: Ha salido tu novio porque su es un sea malo gente.	<i>She left her boyfriend because he is a bad person</i>
10	I1: es mal!	<i>it's bad!</i>
11	I1: o bien	<i>or good</i>
12	I3: si muy mal.	<i>yes, very bad</i>
13	I1: si	<i>yes</i>
14	I2: mal	<i>bad</i>
15	I3: No me gusto su.	<i>I don't like him(?)</i>
16	I2: por qué	<i>why</i>
17	I3: Mi mediahermana se mudo a Dallas para de Sur Tejas.	<i>my half-sister moved to Dallas from south Texas</i>
18	I2: si	<i>yes</i>
19	I3: Ella se mudo lejos de su exnovio porque el es muy malo	<i>she moved far from her ex-boyfriend because he is very bad</i>
20	I3: muchos abusivo.	<i>very abusive</i>
21	I2: estoy apenada	<i>I am sad</i>
22	...	
23	I1: lo siento sobre su hermana	<i>I'm sorry about your sister</i>
24	I1: que bien que salia el!	<i>How good that she left him</i>
25	I2: si	<i>yes</i>
26	I3: muchas gracias.	<i>thanks a lot.</i>
27	I3: si es la verdad.	<i>yes, it's true.</i>

On some occasions, when there is disagreement among teammates, there can be a showing of support for the “odd-person out” as in example 5-91. F3 is the only female in the group and, in this excerpt, the team is discussing Talk Shows. The males in the group have all agreed that the talk show, “The Man Show” is great when F3 disagrees and states that she does not care for it. The males tease her in a friendly way. She counters that “Oprah” is the best show. F2

recognizes F3's marginalized status in line 13, and states *pobrecita* (name). *Solo mujer* ("poor (name). The only woman"), and she responds *Yo se* ("I know").

**Example 5-91: Team F, Chat 1**

1	F3: no me gusta el man show	<i>I don't like the man show</i>
2	F1: Que!!!!	<i>What!!!</i>
3	F4: noooo!!!!!!	<i>Nooo!!!!!!</i>
4	F1: !QUE LASTIMA!	<i>What a pity!</i>
5	F4: El Show de los Hombres es muy bien	<i>The Man Show is very good</i>
6	F2: Man Show es el Dios de Talk Shows!!!!	<i>The Man Show is the God of Talk Shows!</i>
7	F1: Si es el mejor show del todo el mundo	<i>Yes, it is the best show in the world</i>
8	F4: todo el tiempo	<i>of all time</i>
9	F3: no mejor show del todo el mundo	<i>(it is) not the best show in the world</i>
10	F3: Oprah es mejor show del todo el mundo	<i>Oprah is the best show in the world</i>
11	F4: te quieres Rosi tambien?	<i>Do you love Rosie also?</i>
12	F2: ok muchachos (y muchacha)... que recomiendan que haga el Jerry? Pregunta 2	<i>OK boys (and girl)... what do recommend that Jerry do? Question 2.</i>
13	F2: pobresita (name of F3). Solo mujer.	<i>Poor (name). The only woman.</i>
14	F3: Yo se	<i>I know</i>

**5.4.1.2 In the Interviews: Evidence of Solidarity**

According to Levine and Moreland (1990) one of the best ways to measure group cohesion is to ask group members to evaluate and to describe their personal feelings about the group. One interview question asked the learners what they thought about their team and requested that they describe their personal feelings about their teammates. Overall, learners in the course considered their teammates as friends. Most learners in this study reported that they felt comfortable with the group, and that they did not feel anxious or embarrassed

when they made a mistake in their usage of the target language. Interviewees reported feeling confident during the chats. Many also noted that they felt the chat sessions were a safe place where they could practice their Spanish. None of the learners interviewed described the environment as competitive.

When asked about participation and motives for participation, most stated that they participated because they enjoyed learning about their teammates and making new friends.

**Example 5-92: Interview Excerpt: B3**

Discussion board assignments helped us get to know each other better. It was cool to learn about my teammates' interests and hobbies and stuff outside of school. In all my other Spanish classes, and in any class, for that matter, you don't know so much about each other and it's scarier. After the first chat with my team and after reading about each other on the discussion board, I felt way more comfortable.

**Example 5-93: Interview Excerpt: C3**

My teammates relied on me because they thought my Spanish was better. That totally blows my mind because I have always been super shy in the classroom and no one even knew I was there. I get decent grades on my tests, but never was really sure it wasn't just a fluke, you know? The chat and discussion board were much more fun and comfortable. I felt like I could really express myself – it was safer or something.

**Example 5-94: Interview Excerpt: B1**

I started calling Spanish my group therapy class.

Example 5-84 is from the one learner that was interviewed that expressed a strong dislike for her team. The following section reveals why and discusses examples of resistance in the chats and the interviews.

**Example 5-95: Interview Excerpt: D2**

My team sucked and I hated it.



## 5.4.2 Resistance

Not all speech actions were positive and not all teams were cohesive, however. Although disagreements and adversarial actions did occur, these occasions overall were very rare with the exception of one team. Team D produced the highest number of adversarial moves of all of the teams and displayed a very negative group dynamic. For the other teams, only one or two instances of resisting actions occur.

### 5.4.2.1 In the Chats: Evidence of Resistance

Example 5-96 presents a disagreement that occurred in team A's first chat.

#### Example 5-96: Team A, Chat 1: Disagreement

1	A5: Tejas es el mejor estado de todos	<i>Texas is the best state of all</i>
2	A1: Que es orgullo	<i>What is "orgullo"</i>
3	A3: pero, tejas no give dinero a la gente pobre	<i>but, texas doesn't give money to poor people</i>
4	A3: pride	<i>"pride"</i>
5	A3: y tejas se muerte muchas personas	<i>and Texas kills(?) many people</i>
6	A4: verdad?	<i>really?</i>
7	A5: no es verdad	<i>it's not true</i>
8	A1: Si	<i>yes</i>
9	A5: sobre el dinero	<i>about the money</i>
10	A3: tejas es le peor en welfare y healthcare	<i>texas is the worst in welfare and healthcare</i>
11	A3: el peor	<i>(corrective)</i>
12	A5: Alcoholico is muy mal	<i>Alcoholic (probably, alcoholism) is very bad</i>

In example 5-96, line 1, learner A5 expresses his opinion about his home state of Texas. In line 3, A3 disagrees and gives reasons for her position. In line 5, A3 continues with more reasons to refute A5's statement. A4 inquires as to the validity of A3's statement and A5 responds by saying "it's not true" in line 7 and

in line 9 clarifies that what he is referring to as untrue is what A3 said about money. A3 continues to cite more statistics about Texas in line 10 that further support her opinion. A5 changes the subject in line 12, which could indicate several things. It could indicate that he wishes to avoid conflict, or that he does not feel that he can continue the discussion either due to lack of information or lack of proficiency in the TL to express and support his opinions. Overall, team A is a cohesive group. Other than an occasional disagreement, usually initiated by learner A3, who participated the most and was the floor hold leader for the team, this team never uses insults or any other type of adversarial action.

Another adversarial action is exclusion. Members of Team G occasionally exhibit exclusive behavior in the chats. Example 5-97 presents evidence from chat 3. It was discovered later in an interview with learner G3 and from statements made on the team's discussion board that learners G2 and G4 knew each other previously from a extra-curricular group to which they belonged.

**Example 5-97: Team G, Chat 31: Exclusion**

1	G2: tu amiga tiene divertidoyayer	<i>your friend had* fun yesterday</i>
2	G4: si	<i>Yes</i>
3	G2: me gusta mi familia	<i>I like my family</i>
4	G4: vamos a comprar	<i>we go (went) shopping</i>
5	G2: a la old navy	<i>at Old Navy</i>
6	G4: si	<i>Yes</i>
7	G2: how pathetic	<i>how pathetic</i>
8	G1: si	<i>yes</i>
9	G3: Que uds hablan?	<i>What are you talking (about)?</i>
10	G1: no se	<i>I don't know</i>
11	G4: es entre mi y (name of G2)	<i>it's between me and (name of G2)</i>
12	G2: (name of G4) ha una amiga visitiando	<i>(Name of G4)has a friend visiting</i>

In line 1, G2 asks G4 a personal question. The presence of this question indicates that G2 and G4 share information that no one else on the team shares

and suggests that they have a type of exclusive relationship relative to the rest of the team. Here, it is apparent that G2 knew that G4 had a friend visiting. This is information that he obtained outside of the chat discussion. After G4 responds in line 2, G2 then attempts in line 3 to return to the assigned topic. G4 elaborates her previous answer, however, and draws G2 back into their private conversation. In line 9, G3 attempts to participate in their conversation by asking what they are talking about. G4 rudely responds that “it is between G2 and her”; in other words, it is none of his business. G2, however, explains to G3 what their conversation was about.

Two of the teams in the study ended up with only one female. Team D had 1 female and 4 males, and Team F had 1 female and 3 males. Originally, these teams each had one more female that dropped the course after the teams were established. This imbalance created an unbearable situation for D2, the lone female in team D, as evidenced by her behavior in the chats and her statements in the interviews. The sexist and crude remarks were not directed at her; another male learner in the group suffered more insults. Crude statements were expressed in her presence in the chat, however. For each chat session, team D exhibits the highest occurrence of resisting actions out of all the teams in the study, with much crude language and sexist statements. Example 5-98 presents an example of both insults and crude content.

### Example 5-98: Team D, Chat 1: Insults

1	D5: Me gusta cuando los diotes arrojaron las sillas!	<i>I like it when the idiots throw chairs</i>
2	D4: Jerry Springer es muy tonto.	<i>Jerry Springer is very foolish</i>
3	D5: (Name of D3) es muy tonto.	<i>(Name of D3) is very foolish.</i>
4	D5: (Name of D3) , cuando es tu madre en Jerry Springer? Este semana, o proximo?	<i>(Name of D3), when is your mother on Jerry Springer? This week, or next?</i>
5	D5: (Name of D3) es un hermafrodita.	<i>... (Name of D3) is a hermafrodite</i>
6	D3: despues tu todo familia	<i>after your whole family</i>
7	D5: Si, Si.	<i>yes, yes</i>
8	D1: Tu madre es un hermafrodita	<i>your mother is a hermaphrodite</i>
9	D3: si	<i>yeah</i>
10	D5: No pienso.	<i>I don't think.</i>
11	D2: ? y tu? tu eres un hermafrodita	<i>And you, are you a hermaphrodite</i>
12	D3: yo se, ella esta	<i>I know she is</i>
13	D5: Hay muchas pacotilla blanca en los talk shows.	<i>There is a lot of "white trash" on talk shows.</i>
14	D4: "Esta semana en Springer: ilegítima, embarazada hijas y los gente que encantanles."	<i>"This week on Springer: illegitimate, pregnant daughters and the people that love them."</i>
15	D5: (Name of D3) es una pacotilla blanca tambien.	<i>(D3) is white trash also.</i>
16	D2: que es 'pacotilla'	<i>what is 'pacotilla'</i>
17	D1: Tengo 10 hijos ilegítima.	<i>I have 10 illegitimate children</i>
18	D5: Pacotilla es "trash".	<i>Pacotilla is "trash".</i>
19	D1: Me gusta 'The Man show'.	<i>I like the Man Show</i>
20	D3: si	<i>yes</i>
21	D2: si, a veces	<i>yes, sometimes</i>
22	D3: me gusta los "juggies"	<i>I like the "juggies"</i>
23	D1: Las chicas en la trampoline	<i>The girls on the trampoline</i>
24	D4: Si!	<i>Yes!</i>
25	D5: Juggies??? Es espanol?	<i>Juggies??? Is it Spanish?</i>
26	D5: No pienso.	<i>I don't think.</i>
27	D4: Desnuda chicas en las trampolinas!	<i>Nude girls on the trampolines!</i>
28	D2: Pechos?	<i>Chests?</i>
29	D1: Juggies es un lengua internacional.	<i>Juggies is an international language.</i>
30	D3: las titas	<i>tits*</i>
31	D5: Si.	<i>Yes.</i>
32	D3: no se	<i>I don't know</i>
33	[D2 has left]	

Learner D5 relentlessly insults learner D3, although D5 manages to stay on-topic for the most part. In the latter part of this excerpt they become crude. D2

leaves abruptly in line 33. The crude language used in this chat is mild in comparison to Chat 3 for this team, which is dominated by crude and disgusting talk, more insults, and sexist and obscene commentary. It would not be appropriate to present it here. In Chat 3, D2, the lone female, again leaves the chat room in protest. Excerpts from her interview will reveal her perspective on this issue.

The lone female in team F, learner F3, did not express a negative attitude about her team's gender imbalance. In example 5-99, the male learners in the team make comments about F3. They state that they would like to go out with her because she is "pretty" and "hot." Many females, the researcher of the present study included, would consider this kind of behavior to be a form of sexual harassment. This example is the only occasion in team F's chats in which this kind of talk occurs. F3 does not leave and does not appear to feel uncomfortable about the situation. Responses from her interview will be presented in the following section.

**Example 5-99: Team F, Chat 3: Sexual harassment?**

1	F1: yo quiero salir con F3 pero tengo una novia	<i>I want to go out with F3 but I have a girlfriend</i>
2	F2: Mi, tambien!	<i>Me, too!</i>
3	F2: F3 es bonita!	<i>F3 is pretty!</i>
4	F4: no es problema	<i>it's not a problem</i>
5	F3: gracias	<i>thanks</i>
6	F1: F3 es caliente	<i>F3 is hot</i>
7	F4: esta rica	<i>she is rich (delicious)</i>
8	F2: mmmmm.....	

**5.4.2.2 In the Interviews: Evidence of Resistance**

In example 5-84 above, recall that learner D2, the lone female in Team D, expressed her dislike for her group and stated "My team sucked and I hated it."

In example 5-100, she responds to a question that asked her to describe what she hated about her team.

**Example 5-100: Interview Excerpt: D2**

D2: Those guys were just ... so ... disgusting! And with me there! It didn't even occur to them that I might be offended. I mean, hello! It was like I was trapped with a bunch of... a bunch of immature...gross – and I mean gross - teenage boys.

Researcher: Did you talk to your instructor about it.

D2: No. I guess I should of. I just wanted to get out of there.

Researcher: Did you get together with your team outside of class and the chats?

D2: Yeah. We met a couple times to do the presentation.

Researcher: How was that?

D2: Better. But that one guy, (D5) was pretty much of a bully then too. He was always so rude to D3 and D3 just sat there. He was a pig to me.

Researcher: D5 or D3?

D2: D5.

Researcher: How was he a pig to you?

D2: He never listened to me when we met – to my suggestions or anything. He was so superior.

Researcher: Was he this way with everyone?

D2: Well. Yeah, but the most with me. I feel sorry for his girlfriend ... if he even has one.

Researcher: Do you think it would have been better if you had been in a different team.

D2: Definitely. My friend was in the other team and she loved it. At first, too, there was this other chick on my team, but she left...dropped. It might've been better with her there, you know, more girls.

Learner F3's description of her team is presented in example 5-101.

**Example 5-101: Interview Excerpt: F3**

F3: My team was great. We had a lot of fun.

Researcher: Did you ever feel outnumbered as the only female on the team?

F3: No. Not really. They were really sweet about it.

Researcher: Read this part of your chat from Chat 3 and tell me about it (shows her example 5-87).

F3: (Laughs). Yeah. They were so funny. I was very flattered.

Researcher: Did it offend you?

F3: Oh! Um .. hmm. No. They were just kidding around. (Laughs)

These interview excerpts represent two different possible outcomes to a situation in which the teams are not balanced with regard to gender and they provide evidence that the context of an activity is shaped by many factors. Contexts are defined by the actions of the people within them. These actions, in turn, depend on the actors themselves. As the examples, show, different learners react differently to different situations, and different personality types within each team can create very different situations and contexts. Therefore, it appears that a healthier group dynamic within the teams needs to be achieved in order for chat sessions to be an effective medium for interaction, in which the learners feel safe and encouraged to participate.

**5.5 DIVISION OF LABOR**

In Activity Theory, the relationship between the object and the community is mediated by the division of labor. The division of labor is the explicit and implicit organization of a community as related to the transformation process of the object into the outcome. In addition to the roles of discussion management and idea promotion identified in Chapter 4, the labor involved in the chat discussions

consisted of choosing a topic for discussion and ending the discussion. In Chats 2 and 3, this task involved writing a summary of the chat discussion.

### 5.5.1 In the Chats

#### 5.5.1.2 Choosing a Topic

One of the first tasks learners faced was the choice of a topic for the chat discussion. Learners went about the task of choosing a topic in different ways. Often, learners would initiate a topic by themselves and just begin discussing the topic without any prior discussion with their teammates, as in example 5-102.

#### Example 5-102: Team E, Chat 1

1	E4: hola	<i>hello</i>
2	E4: cuando conozco una persona por la primera vez, noto sus ojos	<i>when I meet a person for the first time, I notice their eyes</i>
3	E2: conoco una persona por la primera vez, sus manos	<i>I meet a person for the first time, his/her hands</i>
4	E2: y segundo el pelo	<i>and second, the hair</i>
5	E3: cuando conozco una persona por la primera vez, noto sus rostros.	<i>when I meet a person for the first time, I notice their faces.</i>

In example 5-102, learner E4 enters the chat room, greets her teammates and immediately begins discussing one of the topics. E2 in line 4 goes along with this, as does E3 in line 5. There is no democratic selection of a topic, as seen in example 5-103.



**Example 5-103: Team B, Chat 2**

1	B2: Que tema quieren hacer?	<i>what topic do you (3<sup>rd</sup> plural) want to do?</i>
2	B3: la primera tema?	<i>the first topic?</i>
3	B2: que es esa?	<i>what is that?</i>
4	B4: Las familias grandes	<i>big families</i>
5	B1: hola	<i>Hi</i>
6	B5: es bueso	<i>it's good</i>
7	B3: ¿Las familias grandes?	<i>Big Families?</i>
8	B4: si	<i>yes</i>
9	B4: las ventajas	<i>the advantages</i>

In example 5-103, B2 asks his teammates which topic they want to do. B3 then suggests topic 3. B5 agrees with this choice. B3 then confirms this choice in line 7. B4 agrees and in line 5, B4 initiates the discussion. Other teams are even more democratic. The selection of the topic takes longer and there is more negotiation about the topic choice, as example 5-104 presents.

**Example 5-104: Team F, Chat 1**

1	F4: hola F3	<i>hi F3</i>
2	F2: hola F3	<i>hi F3</i>
3	F3: hola	<i>hi</i>
4	F1: hola F3	<i>hi F3</i>
5	F3: Que hacemos	<i>What are we doing?</i>
6	F1: me gustan numeros 1 y 3	<i>I like numbers 1 and 3</i>
7	F4: prefiero el numero 3	<i>I prefer number 3</i>
8	F2: solo hacemos uno?	<i>we only do one?</i>
9	F3: numero cuatro parece facil	<i>number 4 looks easy</i>
10	F3: si, nosotros hacemos uno	<i>yes, we do one</i>
11	F2: me gusta numero 1	<i>I like number 1</i>
12	F1: numero uno es ok	<i>number 1 is ok</i>
13	F2: o 3 tambien	<i>or 3 too</i>
14	F4: me gusto 1 tambiem	<i>I like 1 too</i>
15	F2: 1? todos?	<i>1? Everyone?</i>
16	F3: si	<i>yes</i>
17	F1: si	<i>yes</i>
18	F2: esta bueno.	<i>it's good</i>
19	F4: si	<i>yes</i>
20	F4: Los Talk Shows	<i>Talk Shows (name of topic 1)</i>

Sometimes the process of selecting the topic becomes confusing, as in example 5-105. In this example the teammates disagree about the choice of topic. B3 proposes “talk shows” in line 4 and again in line 11. In line 12, B1 states that

she does not like the topic. In line 14, B5, who in line 2 said he did not care about the topic choice, states that he does not watch talk shows often, and explains in line 20 that he works late at night. These comments appear to be ignored by all except for B2. He agrees that he likes to watch talk shows, but then accommodates B1 and B5 and suggests they discuss the “legal drinking age.” B5 appears to agree with this suggestion in line 23, yet in line 24, B1 apparently has changed her mind and initiates a discussion of talk shows. This topic is then taken up by the rest of the team.

### Example 5-105: Team B, Chat 1

1	B2: Que tema tu quieres hablar sobre?	<i>What topic do you (2nd singular) want to talk about?</i>
2	B5: no me importa	<i>I don't care</i>
3	B3: Los Talk shows??	<i>Talk shows?</i>
4	B1: hola	<i>hi</i>
5	B3: Ahh... Las chicas estan aqui	<i>Ahh... The girls are here</i>
6	B2: muy bien	<i>good</i>
7	B4: hola	<i>hi</i>
8	B1: me gusta mira la "Amigos" Friends	<i>I like to watch " Friends"</i>
9	B4: bien	<i>good</i>
10	B3: ¿quieren que sobre "talk shows"?	<i>do you (3rd plural) want to talk about talk shows?</i>
11	B1: No me gusta "talk shows"	<i>I don't like " talk shows"</i>
12	B4: si, hablamos sobre Los talk shows	<i>yes, let's talk about talk shows</i>
13	B5: No miro talk shows con frecuencia	<i>I don't watch talk shows very often</i>
14	B3: ¿El David letterman, Jay Leno?	<i>David Letterman, Jay Leno?</i>
15	B3: No problema	<i>No problem</i>
16	B4: Me gusta mirar David letterman a veces y Conan O'Brien	<i>I like to watch David Letterman sometimes and Conan O'Brien</i>
17	B2: yo tambien, pero puedo hablar sobre .... ?? todo	<i>I (do) too, but I can talk about...?? all</i>
18	B4: como sobre Jerry Springer	<i>what about Jerry Springer</i>
19	B5: Trabaja mucha tarde de la noche	<i>I work very* late at night</i>
20	B2: La edad legal para tomar bebidas alcoholicas?	<i>The legal drinking age?</i>
21	B3: Bebo mucha cerveza anoche!!	<i>I drink a lot of beer last night (tonight?)!!</i>
22	B5: Es bueno	<i>It's good</i>
23	B1: Me gusta mirar Ricki Lake porque es mucho chistoso	<i>I like to watch Ricki Lake because she is very funny</i>
24	B4: Todos gente han mirado jerry Springer	<i>All people have watched Jerry Springer</i>

#### 5.5.1.3 Writing the Summaries: Chats 2 and 3

Recall that for Chats 2 and 3, the learners were required to write a summary of their chat discussion. A certain amount of coordination was involved in this endeavor and excerpts from the chats reveal the way in which the learners went about dividing the labor for this task. Examples 5-106 to 5-109 were

presented earlier as examples 5-8 to 5-11 to describe learner perspectives on the nature of the chat medium. They are presented again here to show how some learners coordinated the execution of the summary writing task.

**Example 5-106: Team A, Chat 2**

- 1 A1: We should write our paragraph soon.
- 2 A3: We each write one?

**Example 5-107: Team F, Chat 2**

- 1 F3: nosotros escribamos el paraje. *we write the paragraph.*

**Example 5-108: Team E, Chat 2**

- 1 E4: quien quiere escribir la paragraph en el Blackboard? *Who wants to write the paragraph on Blackboard?*
- 2 E1: OK, la escribo. *Okay, I'll write it.*

**Example 5-109: Team E, Chat 2**

- 1 E2: nosotros escribemos summary de la conversaci3n *we write a summary of the conversation*

### 5.5.2 In the Interviews

The interview responses revealed that learners felt more pressure in the team-based setting to complete assignments and participate because they felt a great deal of responsibility to their team. Responses also indicated that learners divided the labor equally. In a few responses, however, learners noted that some team members clearly contributed more than others. Example 5-110 presents A3's response to the question, "Did your team divide up the work evenly?"

**Example 5-110: Interview Excerpt: A3**

A3: As much as I'd let them! (laughs) I'm a very ...I've been told that I'm domineering... It's true, really. It's how I am – I like to be in charge....I was born bossy. Anyway, I think we all did our share. I know that I always do more than I need to. I didn't expect them to do that ... if they're totally slacking, though, I'll tell them.

Researcher: Were there any “slackers” in your team?

A3: No, not at all. They were great. They put up with me.(laughs)

**Example 5-111: Interview Excerpt: B2**

B2: I worked hard in that class! Everybody was counting on me.

**Example 5-12: Interview Excerpt: H2**

H2: I have never done so much work in my Spanish classes. But I've never learned as much Spanish either....

**Example 5-113: Interview Excerpt: G3**

G3: Yeah. I couldn't not do the work and let my team down. It was an extra push ... one that I needed. (laughs)

**Example 5-114: Interview Excerpt: A4**

A4: A3 and I did all the work. We were always telling the others what to do and how to do stuff.

## **5.6 RULES**

In Activity Theory, the relationship between the subject and the community is mediated by rules. Rules are explicit and implicit norms, conventions and social relations within a community or institution. For the most part, and with the exception of Team D, as discussed above, the learners adhered to the conventions and norms of proper student conduct. The rules for the chats were discussed with the learners and consisted of following the instructions for the activity (e.g., choose a topic and discuss with regard to questions posed for each), and not using English.

### 5.6.1 In the Chats: Evidence of Rules

In the chats, there were several references to rules, seen in examples of reprimands to use Spanish only (see example 5-47 above), and to stay on topic. Although the instructors did not participate in the chat discussions, the authority of the instructor is still in place in the chat discussions. In example 5-115, a learner advised her teammates in line 5 about the rules for the chat.

#### Example 5-115: Team A, Chat 2

1	A3: en el libro, necesitamos hablar con las preguntas	<i>in the book, we need to talk with the questions</i>
2	A5: hablamos sobre La "Generacion X" ??	<i>are we talking about Generation X?</i>
3	A2: Alice va al bano?	<i>Does Alice go to the bathroom?</i>
4	A3: si, pero, siempre tuvieron una persona se habla con	<i>yes, but they always had a person to talk to</i>
5	A3: we are only supposed to do one topic	<i>we are only supposed to do one topic</i>

In example 5-116, the same learner makes reference to the fact that the instructor reads the chat transcript later. She appears to be attempting to keep her teammates, who want to talk about beer, on topic.

#### Example 5-116: Team A, Chat 2

1	A3: si, recomendaciones	<i>yes, recommendations</i>
2	A1: Debemos hablar a cereveza	<i>We should talk about beer</i>
3	A4: Yo peleaba con mi hermano.	<i>I used to fight with my brother.</i>
4	A3: para se lleve bien	<i>in order to get along</i>
5	A3: no, la professora lee este despues	<i>no the professor reads this afterward</i>
6	A3: no beer	<i>no beer</i>
7	A1: que lastima	<i>what a pity</i>
8	A4: jaja	<i>haha</i>
9	A2: cerveza es bueno, esta viernes.	<i>beer is good, it's(?) Friday</i>
10	A1: si	<i>yes</i>
11	A3: she probably thinks we are	
12	alcholoics	
13	A4: oh well...	

Therefore, with the exception of the resistant team identified earlier, the learners adhered to the conventions and norms of proper student conduct. This adherence to the rules, coupled with the fact that learners directly acknowledged the authority of the instructor in the chats, and reprimanded teammates for L1 use, and for not following the assignment, provided evidence that the learners regarded the chats as a classroom situation even though the instructor was absent from the chats.

### **5.6.2 In the Interviews**

The influence of the instructor is also brought up in the interview responses, which are discussed in the following section. The interviews reveal that the learners regard the chats as a classroom situation even though the instructor does not participate or appear in the chats, even as an audience. Learners note a sense of freedom in the chats, however.

Responses to the interview question that asked learners to compare the chat discussions with face-to-face discussions led to comments about the teacher. Recall in example 5-52, learner F2 indicated that it was easier not to participate in the face-to-face discussions as opposed to the chat discussions. He stated, "... in the chats the others know you are there and you have to participate." In example 5-117 A4 acknowledges the absence of the instructor on the Blackboard and states that the learners were making their own class. This excerpt is evidence that the learning environment was learner-centered and that there was a great deal of learner autonomy, two characteristics that have been found to promote learning. In her second response in this example, she notes that a friend of hers in another

section had a bad experience in the class. Closer examination revealed that her friend was learner D2, the lone female in team D.

**Example 5-117: Interview Excerpt: A4**

A4: Sometimes - with the Blackboard stuff- I felt like there was no professor. It was like we were making our own class or something.

Researcher: Did you like that?

A4: Umm. Yeah. Yeah. I did. I don't know if ... not everyone liked it 'cause a friend of mine was in another section. Wow! She absolutely hated it. I think she had a bad group, though. They sounded really creepy.

Example 5-118 presents B3's response to the same question.

**Example 5-118: Interview Excerpt: B3**

B3: I really enjoyed the chat sessions ... I had a phenomenal team. It made me feel a little old though to be with all those young kids. I realized how young they really are, you know... And I also think they automatically looked to me to be in charge.

Researcher: Did you have in-class discussions?

B3: Yeah, a few.

Researcher: How would you compare them to the chat discussions?

B3: The in-class. Well the chats were more fun. In class the instructor talked a lot.

Researcher: Did you...Oh! Sorry to interrupt. Um. Did you have small group conversations or whole class conversations?

B3: We mostly would do "grupos de 2." (Laughs) But we had a few with the whole class.

Researcher: Can you compare them with the chats a little more?

B3: The pair work was pretty boring, unless I was with one of my teammates. When we talked as a class, it was slow. (Name of Instructor) had to keep pushing us and asked us questions the whole time.

Researcher: Did you wish the instructor had participated in the chats?

B3: No. No. It wouldn't have been the same. We were doing our own thing and it was helpful. Especially with having to respond quickly in Spanish. If she had been in there... in the chat room, we probably would have felt more inhibited.

In another interview response, the learner reveals that his instructor was not supportive of the Blackboard activities. This response is presented in example 5-119.



**Example 5-119: Interview Excerpt: C3**

Our Instructor thought the whole Blackboard thing was a crock... I didn't. A lot of the others sort of agreed um with him, but I actually, I really liked the chats and the stuff on the web site. I had a great team. Really, all the on-line stuff made him bearable.

Example 5-108 is evidence that an instructor's attitude can affect learner perceptions. This instructor never expressed any of this opposition to the researcher even when questioned directly. All other instructors expressed positive attitudes to the Blackboard-supported learning setting. Several of them requested instruction about how to set up the chat rooms and the group pages on the Blackboard.

**5.7 CHAPTER SUMMARY**

The present chapter has examined the statements made by the learners themselves in the chat sessions, as well as in the interviews. An analysis of the way in which the learners perceive an activity is a very important feature in Activity Theory and contributes to an understanding of the *subject* component of the activity.

These chat excerpts and interview responses have presented a description of the chatting medium in the words of the learners themselves. Learners were found to perceive chatting to be a hybrid between spoken and written discourse, although the spoken nature of the medium is emphasized to a greater degree. Additionally, learners found the type of team-based computer-mediated communication employed in this study to provide a more authentic and less

intimidating setting for discussion than that provided in in-class, face-to-face discussions.

With regard to the artifact component of the activity, there is very little mention of the material (technology) or symbolic (TL, L1) artifacts by the learners in the chat excerpts.

The L1, however, was found to serve several purposes: (1) to communicate, in lieu of Spanish, when (a) the learners perceived that the actual chat session per se had not begun, or (b) when the learners talked about the instructions of the chat assignment; (2) to fill in the gaps in learner vocabulary either by (a) the use of a single English word in a statement, or (b) an elicit for the meaning of a particular English word; (3) to clear up a misunderstanding; and (4) in an isolated yet interesting case, to emphasize a reaction to being ignored by teammates.

This study showed how learner objects were also revealed in the chat transcripts by the way in which they interacted, the statements they made, and the emphasis they placed on certain aspects of the discussions. Community building or group solidarity was found to be the most prevalent object. Recall that in Activity Theory, *community* is considered to be not only a learning environment but also a component of the activity itself. The opposite of solidarity--resistance--was also found, but mostly was confined to team D. Resistance represents an undesirable outcome of team-based learning. It did become clear that as the learners engaged together in the chat discussions, they did not share the same single object.

The way in which the learners divided the labor was also presented as well as the fact that rules, though peripheral, were present in the discussion and served to shape the discussions.

## **5.8 OVERVIEW OF CHAPTER 6**

Chapter 6 provides a summary of the important findings of the present study and discusses these findings in light of their theoretical and pedagogical implications.

## **CHAPTER SIX**

### **Discussion**

#### **6.0 OVERVIEW**

This final chapter discusses the contributions of the study to SLA research and pedagogy. The purpose of the present investigation was to describe the activity of computer-mediated team-based collaborative Spanish foreign language learning from a third-person (researcher) and a first-person (learner) perspective within an Activity Theoretical framework. At the heart of the study is the activity of synchronous computer-mediated discussions or “chat” carried out within a team-based collaborative learning setting.

The present chapter begins with a discussion of the contributions of the current study for SLA research and pedagogy in light of the findings regarding the nature of the *activity* of synchronous computer-mediated team-based communication in Spanish foreign language learning. Next, the opportunities for future research and, finally, the limitations of the present investigation are presented.

#### **6.1 SOCIOCULTURAL THEORY AS A PRODUCTIVE DESIGN FRAMEWORK**

The use of CMC in foreign language learning has helped to initiate a pedagogical shift from cognitive views to contextual, collaborative, and social approaches to language learning. An important contribution of the present study is

that it entails the design and application of a truly collaborative, on-line team-based learning environment. The computer-mediated team-based language learning environment presented here was designed in alignment with Vygotsky's emphasis on collaboration and interaction in human learning and development.

Sociocultural Theory has been cited extensively in CMC research in recent years as a new way to understand foreign language learners and a new way to view interaction. Vygotskian theory emphasizes that social interaction and collaboration are essential to the learning process because, in Vygotsky's view, learning is determined by social relationships and is mediated by language via social discourse. He states, "(t)he most significant moment in the course of intellectual development, which gives birth to the purely human forms of practical and abstract intelligence, occurs when speech and practical activity...converge" (1978:24). This approach, therefore, emphasizes the need for a collaborative rather than individualistic learning community where learners are empowered and encouraged to interact and give each other support with their language learning.

### **6.1.1 Team-Based CMC: An On-Line Community**

Perhaps one of the biggest contributions of the current study is the use of teams. The team-based synchronous computer-mediated discussion format designed for this investigation exemplifies an ideal environment for foreign language acquisition because it encourages the intense social interaction and textual meaning construction deemed crucial for human learning and the development of higher-order cognitive functions (Vygotsky 1978; Wertsch 1979).

The particular learning setting of the current study created a genuine community of learners that fostered learning the language, learning about the language, and learning through the language as a small group rather than an individual effort.

The fact that CMC promotes interaction and the creation of a virtual social space and an on-line learning community makes it a powerful tool with great potential for second language acquisition. The addition of a team-based format to this computer-supported learning environment further maximizes CMC's potential in the FL classroom.

A collaborative setting has been shown to have pedagogical benefits because it promotes higher level achievement, positive social relations, and greater motivation for learning than whole-class methods (Sharan 1990; Sharan & Schachar 1988; Sharan & Sharan 1976; Slavin 1990; Trottier & Greer 1992). Of particular importance for foreign language learning is the evidence that collaborative CMC leads to greater communication and exchange of information between learners (Johnson & Johnson 1993; Sharan 1990), and provides increased opportunities for interaction and negotiation of meaning among foreign language learners (e.g., Swain 1994; Bejarano 1987). To date, however, no research was conducted that documents the effects of a team-based setting, a specific type of collaboration, on foreign language learning. The majority of SLA CMC studies deal with whole class discussions in which each member of the class is engaged in the same discussion at the same time. The present research study fills this gap in the SLA CMC research.

One benefit of team-based learning in comparison with whole class discussions is that in the team-based discussions there are only 3 to 5 learners involved in the interaction at one time and, therefore, there are fewer conversational threads to follow. This feature affords stronger coherence than in whole class discussions and creates a better environment for language acquisition. Although some SLA CMC research has examined small group and dyadic discussions, this study makes clear the crucial difference between merely placing learners into small groups to work together on isolated activities and structuring a team-based collaborative learning environment in which learners work with the same team for the entirety of a semester. In unregulated small group work, where learners do not know each other, there may be little concern for being supportive and cooperative. In addition, learners that are grouped with others for isolated activities may be more fearful of taking risks with the language. Established teams offer an emotionally safe place to work and encourage greater participation and more frequent interaction. Ideally, team-based learning proponents recommend groups of 5 to 7 learners in order to ensure that the team will have ample resources (Fink 2002; Michaelsen 2002).

In contrast to the majority of SLA CMC studies, the team-based learning approach in the current investigation used small teams as the basis of a semester-long instructional strategy in which a sequence of small-group activities was designed and linked in such a way that student learning was deepened and team development was enhanced. Learners worked within the same team for the entirety of the semester in order to have sufficient time for the team members to

get to know each other well enough to function effectively as a team and strengthen team solidarity. Dörnyei and Malderez (1997) and Clémont, Dörnyei, and Noels (1994) recognize the importance of group cohesion and solidarity for group cooperation and learning. Levine and Moreland (1990) find that members of cohesive groups are more likely than others to participate actively in conversation.

This study has confirmed the importance and effectiveness of individual and group accountability to ensure input from all group members for all group assignments. An examination of the chat and interview transcripts revealed that the teams in the present investigation were characterized by a high level of individual commitment to the welfare of the team in addition to a high level of trust among team members. This study emphasizes the importance of the formation of effective learning teams in which members spend time interacting together, and pooling resources in order to meet common goals and complete challenging tasks.

This study contributes to research that cites a strong equalizing effect with regard to the social dynamics of CMC. The team-based learning setting was found to promote participation equality among learners, and, in particular, between males and females. In fact, this setting appears to empower women. Despite the fact that men outnumbered women, women tended to be the leaders in e-unit and word production. In fact, recall that in one of the chats, these findings were significant. Furthermore, the distribution of different types of speech actions was found to be fairly equal overall between males and females. Females were found



to employ discussion maintenance actions more often than males and, again, recall that in Chat 2, the findings were highly significant.

This study has demonstrated the importance of properly balanced teams, especially with regard to gender. Recall (Table 3-1) that team D was made up of 4 males and 1 female. This imbalance created an extremely uncomfortable situation for the female learner, who reported feeling insulted and offended by the crude language and behavior of her teammates.

#### ***6.1.1.1 Teams and Learner-centeredness***

Porter (1986) found that learners talk significantly more to other learners than to the teacher when given the opportunity. In the foreign language literature on teacher-fronted classrooms, the teacher has been found to dominate oral in-class discussions (e.g., Sinclair & Coulthard 1975; Cazden 1988; Chaudron 1988). Similarly, many SLA CMC studies deal with whole class discussions in which the instructor is almost always a participant and, often, the leader of the discussion. The instructor, therefore, is in charge of managing the discussion, keeping learners on topic, and maintaining a cohesive discussion. In some SLA CMC studies, however, CMC has been found to decentralize the instructor and to give learners a greater role in managing the discourse (Bump 1990; Kern 1995; Chun 1994; Warschauer 1996; Rankin 1997). Teacher participation has been found to decrease (Kern 1995; Warschauer 1997) and yet teachers are still found to control the discussions (Thorne 1999; Kern 1995).

In contrast, the use of teams in the current study presented a new type of learning environment for foreign language CMC interactions that was wholly learner-controlled. Due to the absence of an instructor during the computer-mediated synchronous chats in the present study, the interaction was 100% learner-to-learner. Therefore, it was up to the learners alone to manage the discussion topic. This “teacherless” approach has been found to generate more turn-taking, more questions, and a generally higher level of verbal and logical reasoning than when the teacher leads the discussion (Duff 1986). When the instructor is absent, as in the present study, learners communicate with each other only, and some learners were found to assume teacher roles in the chats. According to van Lier (2000), this type of learning environment fosters dynamic engagement with others instead of comprehensible input and information exchange.

The fact that learners in this study tended to avoid using the L1 refutes Kern’s (1995) study that found that the L1 was used frequently in the CMC sessions. Kern concluded that this increase was due largely to the fact that in CMC sessions where the role of the teacher was decentralized and learner-to-learner interaction was more frequent, the L1 was used more frequently. In the current study, however, where the teacher’s role in discussion is eliminated entirely, the use of the L1 is negligible. This finding suggests that a primary objective of learners in team-based CMC discussion is target language practice, and that learners feel obligated to conduct the interaction in the target language,

including discussion not related to the assigned topic, such as discussion management.

These findings are important for SLA because they indicate that team-based discussion settings in which the teacher is absent can provide the opportunity to develop the learners' pragmatic competence and ability to manipulate the social functions of the target language, thereby contributing to the more comprehensive skills development of foreign language learners. That learners can provide each other with the necessary input to develop target-like pragmatic and social competence has been disputed in previous research (Swain & Lapkin 1998). This conflict also suggests that only input from native or near-native speakers of the target language can provide the necessary information to foster this development.

#### ***6.1.1.2 Teams and Interaction***

The current study contributes to the large and important body of research that recommends increasing learner-learner interaction in the classroom (e.g., Long 1983; Kramsch 1987; Pica *et al.* 1996). The use of synchronous team-based CMC is valuable on many fronts. It offers: (1) a diversified group format for peer interaction and target language practice; (2) a new setting in which to study the interaction that occurs and to understand L2 production as it unfolds in real-time; and (3) the concept of a community of learners that generally offers a safe place in which to experiment with language, which potentially stimulates the development of the learners' interlanguage system toward the target language.

As mentioned earlier, the use of teams for language learning is aligned with Vygotsky's belief that all higher-order functions develop out of language-based social interaction and that collaborative learning is essential for traversing the "Zone of Proximal Development" (ZPD); that is, for bridging the gap between what learners can do alone versus what they can accomplish by collaborating with others (Vygotsky 1962). The use of teams provides opportunities for language learning that are socially based, differing greatly from a view of language learning as the accumulation of knowledge by an individual. In unregulated small group work, where learners do not know each other, there may be little concern for being supportive and cooperative. In addition, learners that are grouped with others for isolated activities may be more fearful of taking risks with the language. Established teams offer an emotionally safe place to work and encourage greater participation and more frequent interaction.

Research has shown the debilitating effect of anxiety on language learning (Young 1991; Scovel 1991). Anxiety has been shown to stem from fear of public speaking, especially in the target language, in addition to nervousness about making mistakes (Horwitz *et al.* 1991). SLA research on CMC describes it as a low-stress, relaxed setting for language learning (Beauvois 1992; Chun 1994; Kelm 1992; Kern 1995). The present study presents an even more optimal setting for foreign language practice by combining CMC with teamwork.

In the interviews, learner responses to requests to evaluate their teammates and to describe their personal feelings about the team showed that they considered their teammates to be friends and reported feeling comfortable with the group.

Only a few learners said they felt intimidated to participate in the chats because of a self-perceived weakness in their level of proficiency in Spanish. Most learners stated that they did not feel anxious or embarrassed when they made a mistake in their usage of the target language. In fact, they reported feeling confident about participation during the chats and had very positive attitudes toward team-based CMC overall, partly due to the camaraderie it engendered. Most learners stated that they participated in the chat discussions because they enjoyed learning about their teammates and making new friends. Similarly, many noted that they felt the chat sessions were a safe place where they could practice their Spanish. None of the learners interviewed described the environment as competitive, although learners did acknowledge being aware of the level of their teammates' Spanish. This perception that teammates were better or worse at Spanish did not appear to affect power and status divisions within the team. Learners also discussed the fact that they learned a great deal from their teammates. Of particular interest is that learners stated that they came to rely on the more competent learners in the team for assistance with the language and even noted that they would copy the other learner's language, which reflects the Vygotskian premise for an ideal learning context.

Similarly, although the learners noted being conscious of their teammates' levels of computer experience, this awareness did not appear to affect power and status divisions within the team. None of the learners interviewed stated that learners who appeared more or less astute at chatting were viewed as either superior or inferior.

Overall, learners stated that this type of small group interaction offered a more authentic and less intimidating setting for communication than that provided in in-class face-to-face discussions.

In summary, this study's contributions for SLA pedagogy include the conceptualization, design, and use of a unique learning environment. The team setting, in conjunction with computer mediation, does not offer only such conditions as comprehensible input and grammatically structured output that are deemed necessary for second language acquisition and mastery (Swain 1985; Long & Porter 1985). Instead, it can also include a distinctive CMC discussion format that promotes greater discursive cohesion through a reduction in group size typical in language classes, and afford a social support base for learners for the duration of the semester. Thus, in the current investigation, the role of the learner during social interaction has been recast, and the concept of small-group work in the foreign language classroom has been dramatically re-defined as a collective endeavor that offers more than just simple isolated opportunities for linguistic exchange.

## **6.2 ACTIVITY THEORY AS A PRODUCTIVE FRAMEWORK FOR ANALYSIS**

With regard to SLA theory, a significant contribution of the present study is its use of Activity Theory as an analytical framework. Generally, SLA studies of the application of CMC in foreign language learning have been aligned with the Interactionist framework, which focuses on language acquisition by

individuals and isolates them from the context of the interaction itself. Despite the enormous contributions of the Interactionist approach to the field of SLA, recently it has been strongly asserted that target language interaction studied within an individual and cognitive framework only superficially recognizes the influence of social factors on language use and development. As a result, the Interactionist framework does not adequately account for many of the sociolinguistic and communicative aspects of language use (Firth & Wagner 1997; Hall 1997; Liddicoat 1997; Rampton 1997; Thorne 2000). Because the study intended to examine the truly collaborative nature of the on-line team-based learning environment used in this investigation, it was absolutely critical to examine the importance of context and activity for language use and development. Activity Theory provided a means by which the learner and the language learning context could be fully integrated, and a way in which to account for and explain the rich fabric of the collaborative endeavor.

Because Activity Theory endorses the use of varied methods of research, including the combination of qualitative and quantitative methods, it allowed a contextualized understanding of the activity through the observation of both external and internal factors. In the present study, Activity Theory allows the identification and examination of such external factors as the use of artifacts (computers, Blackboard, and languages), and, the division of labor reflected in the quantity of participation and the quantity and type of speech actions produced. In addition, Activity Theory was particularly instrumental in the identification and analysis of such internal factors as the learners' particular history with the

artifacts in use, their feelings during the chat session and the team-based activities, their attitudes about the chat sessions and team work, their levels of and reasons for engagement, as well as their goals and motives. In this way, the dynamic relations among the different elements of the activity, which are largely ignored in other analytical frameworks (i.e., those that offer a purely quantitative analysis), were revealed.

Activity Theory, therefore, allows new aspects of the chat sessions to be revealed that other methods of analysis do not and provides an extremely valuable framework for mapping such important features of synchronous team-based CMC as subject, object, and community and the mutual relationships that exist between them. Each of these features of the discussion will be described in the following sections.

What Sociocultural and Activity Theory do not do is provide a predictive framework for how learners learn a language. According to Lantolf and Appel (1994), Vygotsky's stated purpose was to understand rather than to predict.

### **6.2.1 Subject, Object and Community**

Recall that a *subject* is the person or group engaged in the activity – here, the subjects were the learners. According to Activity Theory, subjects consciously and deliberately generate the activities or contexts via their own *objects* (goals, motivations and purposes) (Nardi 1996). The object is the “objective” held by the subject that motivates the activity. The *community* is considered not only a learning environment, but also a component of the activity itself (Engeström



1996; Kuutti 1996) that must be carefully examined. In this study, the community was the team nested within the communities of the foreign language classroom and the university (*the institution*). The function of the community was to regulate the interactions of subjects and object.

Activity Theory's commitment to understand activities from the subjects' points of view (Nardi 1996), requires that the subject involved in the interaction be carefully considered. In the present study, the use of learner interviews to provide a first-person account of the activity of synchronous team-based CMC allowed a more detailed description of team-based chatting by uncovering the socio-cultural and socio-historical context of the interaction for the learners, in addition to their objects and attitudes. In this way, the current investigation emphasizes the importance of the learners' own interpretation of their actions and the triangulation between the chat transcripts and the learners themselves after-the-fact allowed for a more complete understanding of the activity than a researcher perspective alone could provide.

For example, recall the two different contexts that resulted from a gender imbalance in two of the teams. This unequal situation created an unbearable situation for the lone female in one of the teams, while in the other team the lone female reported no such situation. These results underscore the way in which contexts are defined by the actions of the people within them, and that these actions, in turn, depend on the actors themselves. Different learners react differently to different situations, and different personality types within each team can create very different situations and contexts.

### ***6.2.1.1 Learner Attitudes***

In order to understand more thoroughly the activity of computer-mediated synchronous chatting, it was important to identify and examine the attitudes of the learners. An understanding of the attitudes of the learners greatly enhances the understanding of the activity itself. The quantitative examination of the words and expressions used by the learners presented clues about learner attitudes. Only through a descriptive analysis that emphasized the importance of learner perspectives that Activity Theory supports was the fact that learners generally had very positive attitudes with respect to their teammates and the use of chat discussions able to be discerned.

### ***6.2.1.2 Learner Goals and Motives***

In order to understand more thoroughly the activity of computer-mediated synchronous chatting, it was important to identify and examine the objectives of the learners. A quantitative examination of the words and expressions learners used with one another in the chats suggested that community building or group solidarity was the most prevalent objective for most teams. Through the gestures of support and feedback realized through speech actions, recognition and respect among teammates was evident.

This interest in socializing was not found to disrupt the completion of the discussion assignment, however. The quantitative analysis of the chat transcripts also showed that those learners that tended to socialize the most also tended to

stay on-topic, though not to the same degree as those learners that took a bigger interest in the discussion maintenance.

A purely quantitative analysis would have uncovered these associations that were found between high rates of participation, high numbers of socializing speech actions, and on-topic e-units among learners. This finding, however, would have suggested, but not confirmed, that a primary objective among learners was socializing and, therefore, solidarity. Only through a qualitative analysis that emphasized the importance of learner perspectives that Activity Theory supports was it substantiated that the learners' primary motivation to participate in the chat discussions was indeed the opportunity to socialize with their teammates.

### ***6.2.1.3 Learner Histories***

Although a quantitative examination of the chat transcripts provided hints of the learners' level of experience with chatting by identifying the paralinguistic devices employed by the learners, it cannot give a detailed account of a learner's past history with technology and with on-line chatting. Only through the use of a combination of quantitative and qualitative methods could this information be obtained.

An understanding of this aspect of the subject component of the activity revealed how learners benefited not only from their own experience but from that of their forebears (Cole & Engeström 1993) as they controlled the CMC activity through the artifacts of language and technology. Each learner brought a certain history to the interaction – the internal history of personal experience, in addition to the external history that shaped their own history.

All of the learners in the present study grew up engaging in cultural activities, for example, watching television, using the computer, listening to music, playing games, reading, and listening to stories about others and themselves. From their participation in these past activities the ‘signs’ from these activities were incorporated by the learners to be used to mediate the learners’ own relationships to the world around them. Many of these ‘signs’ were doubtless created by others, persons either from the present or the past. Thus, people from the present as well as from the past “play a crucial role in the formation of human cognitive capacities” (Cole & Engeström 1993:6).

Recognition in the present study of the fact that learner histories have an effect on the interaction that occurs in the team chat discussions has afforded a more in-depth understanding of the internal factors that help to shape the activity itself. In stark contrast to this type of Activity Theoretical analysis, an Interactionist focus that solely takes into account the language produced would not have supplied such a dynamic picture of the context of the activity of team-based chatting.

#### ***6.2.1.4 Learner Identity***

Another important factor that was revealed through the use of Activity Theory was the way in which learners presented themselves to their teammates during the team chat activities for the purpose of interacting with them. Through interaction, learners co-constructed and preserved their identities in cooperation with teammates. The identification of speech roles assumed by the learners, in

addition to the confirmation of these roles furnished by the learners in the interviews in the present study revealed the way in which the learners negotiated and authenticated their identities in the CMC interactions.

#### ***6.2.1.5 Learners Describe Chatting***

For Activity Theory, an important feature of the subject component of the activity is the way in which the activity is described by the learners. The findings of the current study contribute to one of the most perplexing issues with regard to synchronous CMC chatting in the foreign language literature: how to classify the medium. Most CMC studies offer only a researcher perspective on this issue. In the present investigation, the words of the learners from the chat discussions and the in-depth interviews provide a learner perspective on the nature of the CMC medium. The results confirm those of the classification of this medium provided in the foreign language literature (Ferrara, Brunner, & Whittemore 1991; Wilkins 1991; Beauvois 1992; Negretti 2000; Tudini 2002; Gastaldi 2002), in which chatting is found to be a hybrid between spoken and written discourse, with special emphasis on the spoken nature of the medium. Learners in the present study were found to view computer chatting as an oral and, though to a much lesser degree, a written genre.

#### ***6.2.1.6 Learners Describe Language Learning Outcomes***

Almost every learner interviewed, with the exception of D2 (from the unbalanced team), noted feeling more proficient in Spanish, and identified the computer-mediated team-based format as the cause. All learners also attributed

feelings of increased confidence in their ability to use Spanish for communication in both an oral and a written medium to the chat discussions.

#### **6.2.1.7 Rules**

In Activity Theory, the relationship between the subject and the community is mediated by *rules* covering explicit and implicit conventions and norms for acceptable and appropriate behavior and social relations within a community or institution. With the exception of the resistant team identified earlier, the learners adhered to the conventions and norms of cooperative and respectful student conduct. This adherence to the rules, coupled with the fact that learners directly acknowledged the authority of the instructor in the chats, and reprimanded teammates for L1 use and for not following the assignment, provided evidence that the learners regarded the chats as a classroom situation even though the instructor was absent from the chats. Thus, the use of Activity Theory allows a more thorough description of the relationship between the subject and the community by uncovering the effect of rules on the activity of team-based CMC and, thus, the way in which rules mediate the relationship between the subject and the community.

#### **6.2.1.8 The Division of Labor**

Another important feature of the CMC interaction that the use of Activity Theory described was the way in which the relationship between the object and the community was mediated by the *division of labor*. Recall that the division of labor refers to the organization of the community as it functions to transform the

object (Nardi 1996) and is represented here by the actions and interactions among the members of a team and the “division of power and status” that emerge within it (Engeström 1993:67).

Activity Theory allowed the observation of participation patterns in the team-based chats. These patterns indicated the degree to which the labor was divided among the learners as they constructed discourse in the computer-mediated discussions. An analysis of participation also revealed the divisions of power and status that emerged among the members of each team. An understanding of the division of labor was particularly important for this study because the absence of the instructor in the discussions served to upend traditional roles enacted by teachers and learners in classrooms and recast the learners as the organizers of participation and the distributors of knowledge. The maintenance of the discussion became the job of the learners, and it was found that the learners themselves became the teachers.

The use of Activity Theory allowed the observation of the way in which learners assumed certain roles and positioned themselves within the community of the team through the interactive and linguistic behaviors revealed by their choice of speech actions. The way in which learners’ choices of speech actions created tasks for their teammates could also be observed.

#### ***6.2.1.9 Artifacts***

Another important feature of the CMC interaction that the use of Activity Theory revealed was the way in which the artifacts mediated the synchronous computer-mediated team-based discussions. Recall that the artifacts were both

material (technology) and symbolic (language). The material artifacts were observed in the actions such as logging in, navigating the Blackboard site, typing, reading, using the computer mouse, and logging out. All of these actions became automatic operations and served to realize the chat activity itself. With regard to the symbolic artifacts, Activity Theory allowed for the detailed quantitative and qualitative description of the way in which both the target language and the L1 mediated the chat activities.

The target language, the L1, and the technology were not the only artifacts that mediated the activity of team-based chat discussions. The assignments, created by the instructor (in this case, the researcher), that promoted solidarity and team-building also served to mediate the activity, and, therefore, are themselves artifacts.

Therefore, one of the primary implications of the present research is that a purely quantitative analysis that simply counts the words, e-units, or speech functions produced by the learners does not provide a rich enough picture of the activity of synchronous team-based computer-mediated discussion in order to draw conclusions about the efficacy of a discussion format for promoting language acquisition through community scaffolding and pushed output.

### **6.3 LIMITATIONS**

A number of caveats must be recognized in an interpretation of the results of this study. Due to the small sample size and non-random selection procedure, in addition to the descriptive nature of the present investigation generalizations to



other similar settings should be made cautiously. A second limitation is that the study did not actually examine progress in Spanish proficiency because no pre- or post-test was performed. Another limitation is that the study focused on the time period of only one semester. One important feature of Activity Theory is its support of longitudinal research in a time frame that is long enough to understand learners' objects fully, including a study of the changes of the learners' objects over time. Therefore, to fully comprehend a foreign language learner's object, it would be extremely useful to study the activity of synchronous team-based CMC over the course of more than one semester.

With regard to the statistical methods of this study, the correlations found do not imply causation. Any relationships found could be in the opposite direction or could be the result of an intervening variable that was not measured in this study.

One of the main limitations of Activity Theory, however, is that it has not been fully operationalized as a precise set of methods for data analysis in foreign language learning research. Many of the techniques used in the present study had to be created *ad hoc*. For this reason, AT was found to be more useful as an analytic framework than a specific sequence of methods for categorizing and understanding data. AT supports an interpretive approach that reveals the complexity of the social context of the activity.

The chat discussions themselves pose their own limitations. Although the learners are given ample opportunities to interact and communicate in the chat discussions, they do not practice speaking the target language during the chats.

There was no opportunity to practice pronunciation. For this reason, the use of chat discussions cannot replace actual oral practice in the target language.

## **6.4 DIRECTIONS FOR FUTURE RESEARCH**

### **6.4.1 Linguistic Development in the Team-Based CMC Setting**

The current study has taken an important first step with regard to future sociocultural CMC interaction research by identifying and describing a useful setting that holds particular promise for the examination and understanding of L2 production. This study sets the groundwork for a comparison to be done between the CMC team-based context and traditional classrooms. In addition, the chat medium offers a digital record of L2 interlanguage, a convenient means by which to observe the evolution of L2 interlanguage over time. It can be used to seek more evidence to support the claim that collective scaffolding may result in linguistic development in the individual learner. Additionally, these chat records could provide an abundance of linguistic data that could shed more light on the order of acquisition of specific linguistic features.

The pilot study (LeMond 2002) provided some evidence that a team-based setting may promote learner autonomy (Sinclair, *et al.* 2000). In a discussion that took place subsequent to the completion of the pilot study, a learner from the pilot study stated that he continued to study and practice the target language with members from his team from the previous semester's course on a regular basis even though they were enrolled in different sections of the course. The learner's adoption of the team-based method as a learning strategy in his subsequent

Spanish course indicated that he had taken control over the way in which he learned Spanish, and had become a more autonomous learner. Learner autonomy has been shown to promote learning and retention (Slavin 1990). The effect of a team-based learning setting on the development of learner autonomy is an interesting issue that deserves further research.

#### **6.4.2 Voiced Chat**

Recent advances in programming, computer speed, and Internet bandwidth have brought the ability to talk with and see others anywhere in the world to millions of computer users at little or no additional cost (see Cziko 2003 for a summary and critique of available technologies). *Wimba*, for example, offers web-based voiced software that is specially designed for language learning and higher education. Blackboard is now offering a version of its courseware that includes *Wimba*.

#### **6.4.3 Cross-Cultural CMC**

The use of the team-based chat interactions as a means for foreign language learners to practice the language in team-based chat interactions with native speakers offers a wealth of research potential. In particular, initiatives like the International Tandem Network can help learners develop their linguistic and metalinguistic abilities through computer-mediated exchanges that include email exchange and chat interactions, in addition to the use of telephone and Internet audio to allow pairs of learners with different native languages to interact (see the Tandem Bibliography available at [www.slf.ruht-uni-bochum.de/learning/tandbib.html](http://www.slf.ruht-uni-bochum.de/learning/tandbib.html)).

This possibility of cross-cultural long distance communication would provide learning through interaction with a more capable peer (Vygotsky 1978) and would promote the development of the learners' sociocultural competence.

A very exciting possibility is the potential to set up a team-based computer-mediated cross-cultural learning environment that would connect a class of foreign language learners with a class of learners from the target language countries. The learners in different countries would share a digital learning space such as that offered by Blackboard, and would use the space to complete collaborative projects, engage in written and voiced chat discussions, and exchange e-mail, among other possibilities. This connection would add authentic cultural content to the setting and provide opportunities for authentic language use and practice as well as an understanding of native speakers in their cultural context (Kramsch 1993).

#### **6.4.4 Metalinguistic Awareness**

The fact that the chat transcripts can be saved and printed also offers an opportunity to boost learners' metalinguistic awareness. The transcripts could be used in the classroom as objects of observation and study. More research needs to be done in this area as well.

## 6.5 RESEARCH QUESTIONS

This section revisits and answers the research questions presented in Chapter 2. Each question is listed and addressed individually in the following paragraphs.

(1) From a research perspective, what is the nature of a computer-supported team-based foreign language discussion activity? What is the nature of the participants and processes (subject, object, artifacts, community, division of labor, and rules) of the activity and how are they revealed in the discussions?

The research perspective of this study included the quantitative and descriptive examination of such external features of the chat discussion as quantity of speech as well as the quantity and classification of the speech actions produced by the learners. Overall, the team-based discussion activity was characterized by equal participation among the learners in the teams with regard to the quantity of words produced. With respect to the production of both e-units and words, patterns were discerned that suggest that the activity may serve to encourage participation and the empowerment of women. The absence of the teacher in the team-based chat activities was found to encourage learners to take on teacher roles and to divide the labor in order to collaboratively construct knowledge. These roles were identified by an analysis of the type and quantity of speech actions produced by the learners. The roles were realized by the speech actions employed by the learners and served to position the learners within the team community. Despite the absence of the teacher in the chats, rules were found to influence the activity and were seen to be enforced by the learners themselves,

in particular by the learners that assumed the teacher roles in the chats. An analysis of the content of learner e-units and the frequency of use of the L1 showed that the learners tended to stay on topic and to avoid the L1. An analysis of the chat discussions also revealed that learners produced high percentages of socializing actions, suggesting that the team-based chat discussions generally fostered team solidarity and encouraged learners to get to know one another.

(2) From a learner perspective, what is the nature of a computer-supported team-based foreign language discussion activity? What is the nature of the participants and processes (subject, object, artifacts, community, division of labor, and rules) of the activity and how are they revealed in the interviews?

The learner perspective, gleaned from the statements made by the learners in the chat discussions and in the interviews, depicted how learners viewed the team-based computer-mediated discussion activity and confirmed the findings of the researcher perspective. In addition, an examination of the learner statements from the chat discussions demonstrated that learners provided emotional as well as linguistic support and guidance for each other in the chat discussions and created highly cohesive and supportive teams. The learner perspective also revealed learner attitudes about the team-based CMC setting. Learners noted feeling more confident and more proficient communicating in Spanish.

(3) How do learners' histories with computers and team work inform a description of computer-supported team-based foreign language learning?

Learners revealed their histories with technology and team work in their statements made in the chats and in the interviews. The findings did not suggest

that learner histories had an adverse effect on the interaction that occurred in the team chat discussions.

(4) What is the nature of the interaction that occurs in computer-mediated synchronous chat discussions in a team-based learning setting? What are the interactional dynamics and features that characterize it?

Team-based chat discussions are characterized by interactions that are highly social and collaborative. Very little evidence of the model of negotiation for meaning in which there is a *trigger*, which spurs the negotiation routine, a *signal* of nonunderstanding, a *response* to the signal, and a *reaction* to the response was found in the chats (Varonis & Gass 1985). Some evidence, however, of gains in pragmatic, lexical, and grammatical features by the learners was found in the chat discussion, in addition to evidence of a new form of negotiation. This negotiation was found to evolve through the collaborative and scaffolded efforts of team members, a direct result of the social context.

## 6.6 CONCLUSIONS

The present study makes clear that second language acquisition cannot be understood without considering the social context in which much of the practice and at least some of the learning occurs. Without this knowledge, the way in which teams of learners interacted and guided each other in the process of collaboratively co-constructing knowledge within the confines of their own particular individual goals and motives would not have been revealed. It would have been impossible to discern how this construction process resulted in linguistic modification among and within individuals during cooperative activity

if the relations between learners as they used language to generate and exchange meaning, position themselves in relation to their teammates, and construct collaborative text, had been ignored. The combination of both quantitative and qualitative methods, in keeping with Activity Theory, afforded a much richer understanding of the complex processes at work in interaction, and of how collaborative interaction among learners may have influenced their interlanguage system than previous CMC studies undertaken within the framework of the Interaction Hypothesis (Long 1985)..

The chat discussions examined in the present study appear to provide opportunities to develop interactional competence. Mehan (1979) stresses the importance of “interactional competence,” which includes the ability to manage discussions in relevant ways. While the language used in the discussion of the assigned topic itself can be viewed as artificial communication because it was generated in response to predetermined questions, much of the target language production in the chat sessions can be viewed as naturally occurring because it was generated in order to manage the discussion assignment. Learners had to use the target language in order to choose the topic of discussion, manage the discussion, and end the discussion. Hall points out the significance of interactive practices, “recurring episodes of purposeful, goal-directed talk,” in the establishment and maintenance of a community (Hall 1995: 38). Competent participation in these practices requires the development of interactional competence. Thus, the fact that learners utilize discussion maintenance actions suggests that the team-based chats may facilitate interactional competence.



This study takes us one step closer to understanding the linguistic elements in conjunction with the social factors that appear to foster a fertile environment for language production. The adaptation of individual and whole-class activities to fit the team concept and the effect those changes have, such as forcing the small group dynamic toward greater responsibility to each other and toward fostering a genuine learning community in which learners are afforded the opportunity to learn the language, learn about the language, and learn through the language as a small group rather than an individual effort presents a new medium for the development of the interlanguage.

This study has traced how far the use of Sociocultural and Activity Theory for experimental design and analysis can go with respect to SLA. These frameworks are shown in the present investigation to be tremendously valuable descriptive tools for an examination of language use. The fact that they do not make any predictions for language learning, however, illustrates their limitations with regard to an examination of language acquisition.

The design of the learning setting for the present study adhered to the premises set down by Vygotsky in that it provided opportunities for collaboration, scaffolding and social interaction. These interactions, however, provided very little evidence of the negotiation for meaning in the traditional sense. They did present a form of negotiation that did not adhere to the structure ascribed to negotiation in past research. This new form of negotiation evolved through the collaborative and scaffolded efforts of several team members and appeared to push learners to process and produce language with a great deal of collective

mental effort. Unfortunately, very little evidence of this potential new form of negotiation was found. Thus, these findings seem to suggest that perhaps negotiation may not be the only type of interaction that might lead to interlanguage development in the team-based chats.

Perhaps the team-based chat discussions are more than a source of comprehensible input; the social activity coupled with the written nature of the medium may provide learners with opportunities to focus on form as well as opportunities to produce and use the target language, that is, to “output.” Swain (1995; 2001) argues that output could be important to learning because it pushes learners to process language more deeply than does input. To output, learners need to create linguistic form and meaning. By doing this, they learn what they can and cannot do. According to Swain, output may stimulate grammatical processing, which is needed for accurate production. Moreover, output may promote ‘noticing.’ Several models of noticing levels have been proposed. Noticing can occur when something in the target language is salient or frequent, or learners may notice their own linguistic deficiencies (Schmidt & Frota 1986). A final type of noticing is that proposed by Swain (2001) in which, at the moment of attempting to produce a certain meaning, learners notice that they do not know how to express it. This final type of noticing may spur learners to seek help from other such sources as a dictionary, grammar book, or teacher, or by means of collaborative dialogue with a peer. Collaborative dialogue is an extended form of output, and is defined as “knowledge building dialogue” or “dialogue that constructs linguistic knowledge.” It serves to focus attention, and provides

opportunities to reflect on language use. Furthermore, the jointly constructed dialogue may exceed the learners' individual competencies (Swain 2001:97). Perhaps, then, the new form of negotiation found in the chat discussions in the present investigation is a form of collaborative dialogue or collaborative output as postulated by Swain. Further investigation is needed in order to identify and adjudicate its promise more extensively for the team-based medium.

Therefore, although, computer-mediated team-based learning studied within the framework of Sociocultural and Activity Theory has been shown to hold special promise as a window to the authentic world of the language being taught and to allow for a far richer interpretation of interaction and language use, it is not sufficient as a means by which language acquisition itself may be examined and predicted. A combination of an Activity Theoretical framework and the more predictive framework of the Pushed Output Hypothesis may prove more productive and fruitful for an examination of team-based computer-mediated interaction.

## **Appendix A: Computer-Mediated Collaborative Assignments**

After the first week, the class will be divided into teams. The purpose of these teams is to work together to create meaning, explore topics and improve skills. Studies have shown that when students work together in a cooperative environment, learning is maximized. In order that the groups be successful, it is important initially to develop a good group dynamic. The best way to do this is to get to know the other members in your team. The first team assignment is designed specifically to these ends.

### **Assignment 1A:**

Write a message to be posted in your team's Discussion Board that includes the following information:

1. Nombre, apellido y edad
2. La cantidad del tiempo que llevas aquí en UT
3. La especialización académica
4. Las actividades en que participas con frecuencia
5. Los intereses, por ejemplo, cuando lees el periódico, ¿Qué parte lees con más frecuencia? ¿Qué revistas lees? ¿Cuál es tu programa de televisión favorito?
6. ¿Cuáles son tus debilidades en cuanto al español? ¿Dónde debes mejorar?
7. ¿Cuáles son tus fuerzas en cuanto al español?
8. La pregunta más importante: ¿Cuál es la meta más importante para tu vida?

### **Assignment 1B:**

Respond to at least one of your teammates' messages. Post this response to the Discussion board also. Don't forget to include your name!

### **Assignment 2:**

1. Divide up the reading LOS SIETE PECADOS CAPITALES DE LA USA on page 34 of the textbook. For each section assign one "recorder" and one "monitor."
2. Read the section assigned to you. If you are the "recorder" for a section, post a summary of that section to your group's bulletin board. If you are the "monitor" for a section, read what the "recorder" has posted and add any other information you think important. Perhaps the recorder left out or misunderstood some crucial information. Don't forget to include your name!
4. Be ready to discuss the reading with the rest of the class on Monday, July 29.

**Assignment 3:**

1. In the documents section of Blackboard, download the word file “Soñar en cubano.”
2. This document contains a list of sentences from the reading on pages 59-61 of the textbook. The list is out of order.
3. Skim the story to figure out the correct order of the sentences and rearrange them accordingly. The best way might be to cut and paste a word file.
4. Turn them in to your instructor in class on August 6.

**Assignment 4A:**

1. Individually, go to <http://www.yupimsn.com/amor/piropos>.
2. Choose 3 piropos that you like.
3. Post them on your team's discussion board. Don't forget to include your name!

**Assignment 4B:**

1. After each member of the team has posted his/her 3 piropos, each member should vote on his/her favorite. Vote by posting your favorite on the bulletin board. Don't forget to include your name!
2. Post the winning piropo for your team along with your team name in the MAIN Discussion Board on Blackboard.
3. We will vote in class to determine a class favorite.

## Appendix B: Chat Topic List

### CMC Session 1

**In your group's blackboard chat room, select one of the topics listed below and, using the questions as a guide, IN SPANISH discuss the topic as a group. When you have nothing more to say about the topic, select another one and discuss.**

#### Los *TALK SHOWS*

- Describa un *talk show* que Ud. ha visto.
- ¿Qué recomienda que haga el presentador/la presentadora de ese programa para mejorarlo?
- Dé su propia opinión sobre los *talk shows* en los Estados Unidos. ¿Qué imágenes presentan del país y de los norteamericanos?

#### El Orgullo Regional

- ¿Qué aspectos de su estado o país le hacen sentirse orgulloso/a?
- ¿Qué le gustaría cambiar?
- En su opinión, ¿es su estado el mejor del país? Explique su respuesta.

#### La edad legal para tomar bebidas alcohólicas

- ¿Qué pasaría si se estableciera la edad de los 18 años como edad legal para tomar bebidas alcohólicas?
- ¿Cree que es una buena idea que los padres enseñen a sus hijos menores de 21 años a tomar bebidas alcohólicas en casa?

#### La apariencia física

- ¿Qué aspectos de la apariencia física nota Ud. cuando conoce a una persona por primera vez?
- ¿Alguna vez conoció Ud. a alguien que, por su aspecto físico, parecía ser de una manera, pero luego Ud. descubrió que él/ella era una persona totalmente distinta? Describa esa situación.
- ¿Qué opina Ud. de la gente que siempre va a la moda o de la gente que nunca se viste según la ocasión?

## **CMC Session 2**

**In your group's blackboard chat room, select one of the topics listed below and, using the questions as a guide, IN SPANISH discuss the topic as a group. When you have nothing more to say about the topic, select another one and discuss. In the last 5 minutes of class, each team member will enter a brief summary statement about the discussion.**

### **Las familias grandes**

- Hable sobre las ventajas y desventajas de criarse en una familia numerosa y multigeneracional.
- Haga recomendaciones para que la gente se lleve bien con los hermanastros y padrastros.

### **La "Generación X"**

- Explique por qué Ud. pertenece o no pertenece a la llamada "Generación X".
- Compare a los "hippies" con los miembros de la "Generación X".
- Si fuera miembro de otra generación, ¿qué opinaría de la "Generación X"?

### **El exilio**

- ¿Cómo influye el ambiente donde Ud. se crió en su visión del mundo?
- ¿Qué pasaría y cómo se sentiría si nunca pudiera volver al lugar donde nació o crió?

### **Conexiones Familiares**

- ¿Cree que la familia es más o menos importante ahora que hace veinte años?
- ¿Cómo podemos mantener las conexiones con la familia y nuestras raíces en este mundo moderno?

### **CMC Session 3**

**In your group's blackboard chat room, select one of the topics listed below and, using the questions as a guide, IN SPANISH discuss the topic as a group. When you have nothing more to say about the topic, select another one and discuss. In the last 5 minutes of class, each team member will enter a brief summary statement about the discussion.**

#### **Las relaciones interculturales**

- Describa los problemas que puede haber en las relaciones interculturales.
- ¿Cuáles son las ventajas y desventajas de casarse con una persona de otra cultura?

#### **Las cartas de amor**

- ¿Qué opina Ud. del efecto que tendrá el correo electrónico sobre el arte de escribir cartas de amor?
- ¿Cómo se sentiría Ud. si recibiera flores “virtuales” o una tarjeta de San Valentín a través de Internet en vez de flores o una tarjeta “reales”?

#### **Las relaciones dañinas**

- Describa unas relaciones dañinas y compárelas con las relaciones sanas.
- Imagínese que Ud. tiene un amigo / una amiga que está en unas relaciones dañinas. Convéncalo/la para que rompa con su pareja.
- ¿Qué haría Ud. si estuviera en unas relaciones dañinas?

#### **La crianza multicultural**

- ¿Cuáles son las ventajas y desventajas de criarse en una familia multicultural?
- Hay los que sugieren que la persona híbrida “perfecta” del futuro podría ser un hispano / una hispana que se críe en los Estados Unidos o un norteamericano / norteamericana que crezca en Latinoamérica. ¿Cómo sería esta persona? ¿Qué creería? ¿Cómo actuaría? ¿Sería más o menos romántica que los demás?



## Appendix C: Background Survey

1. Name: \_\_\_\_\_
2. Sex: female \_\_\_\_\_ male \_\_\_\_\_
3. Birth date: (mo/day/yr) \_\_\_/ \_\_\_/ \_\_\_
4. Native Language: \_\_\_\_\_
5. Language spoken at home: \_\_\_\_\_
6. **Years** of High School Spanish: \_\_\_\_\_
7. **Years** of College Spanish: \_\_\_\_\_
8. Family Members who speak Spanish: \_\_\_\_\_
9. Do you speak Spanish with that family member? \_\_\_\_\_
10. Have you ever studied another foreign language? \_\_\_\_\_
11. If **yes** to question 10, explain **which** language, **when**, and for **how long**:  
\_\_\_\_\_
12. Have you ever studied in another country? \_\_\_\_\_
13. If **yes** to question 12, explain **which** country, **when**, and for **how long**:  
\_\_\_\_\_
14. GPA: \_\_\_\_\_ (approximate if unknown)
15. Grades in previous Spanish classes \_\_\_\_\_
16. Do you enjoy speaking Spanish? (a) yes (b) no
17. Do you use a computer? (a) yes (b) no
18. Do you feel comfortable using a computer? (a) yes (b) no
19. Please state how often you use each of the following:  
Email (a) every day (b) several times a week (c) rarely (d) never  
Chat Rooms (a) every day (b) several times a week (c) rarely (d) never
20. Have you ever used Blackboard? (a) yes (b) no
21. Have you ever participated in group projects? \_\_\_\_\_
22. Do you enjoy working in groups? \_\_\_\_\_

## **Appendix D: Interview Topic Guide**

This topic guide was adapted from Thorne (2000).

Interviews were held over a two week period after the close of the semester. The duration of the interviews ranged between 30 and 45 minutes. Interviewees volunteered to be interviewed without remuneration.

### Starting Question:

**Can you tell me about your first experience in an on-line chat?**

**When did you first use a computer? What was the context? Did you have a computer at home when you were growing up?**

**How important do you think computers will be in your future career plans?**

**Have you ever participated in a Collaborative Learning course? A team-based course? Describe.**

**Do you think it is important to learn to collaborate?**

### Language Learning

**Can you ascertain any positive or negative effects from Blackboard use on how “well” you did in Spanish?**

**Could you specify any developmental gains in Spanish that you could attribute to interaction in CMC? If so, what types of things did you learn?**

### CMC:

**What did you notice about communication on-line in comparison to the face-to-face classroom?**

**Do you remember your first interaction in the chats in this class? What happened? Could you describe it?**

**How would you describe the ways conversations occur in the chats to someone who had never seen that kind of environment?**

Learning Environment:

**What did you think of the use of Blackboard and chats as a way of learning Spanish?**

**Would you take another language class like this one?**

**Did the absence of the instructor affect the chats?**

**What did you think about collaboration in your Spanish class? What did you think about your team. Please describe your personal feelings about our teammates.**

**How did your team complete assignments/projects?**

**Were any team members in charge of the assignments/projects?**

**Did all team members contribute equally to the assignments/projects?**

**How would you describe your team-based Spanish class to someone who was not familiar with a team-based environment?**

**Would you take another class using a team-based approach?**

Other Internet Usage:

**Have you been a participant in a digitally mediated community in the past (Chat, MOOs, listservs)?**

**If so, could you describe these past experiences?**

**Did your past experience as a regular participant in XX internet-based community prepare you for the Blackboard experience in Spanish? How do these experiences relate to one another?**

**Can you tell me what other internet activities you take part in? How are these different or the same as the on-line experience you had in Spanish? (e-mail, chat, discussion groups, MOOs, web use)**

**Did you present yourself differently (in each)?**

**You say that X% of your friends are on-line. Is that how you keep in touch with most of them?**

**(family, professors)**

**Are you more likely to use the telephone, letters, or email? Why? What's different about them?**

Winding up:

**Is there anything else about the CMC chat or your experience of the internet in general that you would like to talk about?**

**Is there anything else about the collaborative setting or your experience with collaboration in general that you would like to talk about?**

## Appendix E: Oral Presentations

### Graded Oral Activities – People, and Places & Events

Based on the topic assigned, each team will make a handout and a 7-10-minute presentation in class. The goal of this assignment is to teach yourselves and the other teams about your topic in an interesting and fun way. The end product will be used to help the class review the material for the Final Exam.

#### Procedure:

Before you begin work, you will need to have a candid discussion as a team to discuss expectations, team rules and norms, as well as division of work. Part of your grade will include a peer summary to be done after your presentation. You may want to put one team member in charge of monitoring the team's progress.

Read the information provided about your topic in the textbook. Use a search engine such as "google" and search the web to find out more. Expand your research to include more in depth information about your topic by answering the following questions (notice the Puntos Clave you will use):

**DESCRIBE** the place, people, or event as applicable and explain why they are famous.

If your topic involves 2 places, people or events, **COMPARE** them to one another.

**REACT** to the place, people or event.

Make a **RECOMMENDATION** for your audience about the place, people or event.

Talk briefly about the place, people or event in the **PAST**.

Talk briefly about the place, people or event in the **FUTURE**.

Talk briefly about the positive and negative aspects of the place, person or event using a **GUSTAR**-type verb.

Your final product should be a handout in the form of brochure or newsletter. Provide one copy per student in your class (25) and post your handout to the Documents section of the Blackboard. Your handout should include a map, and a related website. You may also want to include pictures or photographs. Keep the language used in your handout simple. Try to choose information that will be interesting to the class and promote class discussion. Grades will be based on content, fluency, accuracy (grammar, vocabulary, etc), organization, pronunciation, use of puntos clave and peer evaluations.

Sites of interest are the following:

<http://cnnespanol.com>

<http://www.bbc.co.uk/spanish/index.shtml>

<http://www.foxnews.com/spanish/index.sml>

<http://www.businessspanish.com/>

<http://www.espanol.yahoo.com>

<http://www.yupimsn.com>

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## Vita

Malia Michele LeMond was born in Honolulu, Hawaii on June 2, 1967, the daughter of Tom and Cornelia LeMond. After graduating from St. Stephen's Episcopal School in Austin, Texas in 1985, she entered Wellesley College in Wellesley, Massachusetts. During the academic year of 1987 and 1988, she attended the *Curso para Extranjeros* at the *Facultad de Filología* at the *Universidad de Sevilla* in Spain. She received the Bachelor of Arts from Wellesley College in June 1989. At that time, Wellesley College awarded her the *Justina Ruiz de Conde Prize* for excellence in Spanish Studies. In the Fall of 1990 she entered The University of Michigan in Ann Arbor where she completed a Master of Arts degree in Romance Linguistics in May 1992. In the Fall of 1992, she entered the graduate program in Spanish Philology at the University of Texas. After successful completion of coursework and doctoral exams her academic degree was interrupted for family reasons. Nevertheless, she remained very active in the profession as a foreign language teacher in various universities around the country. In the Fall of 2000 she returned to the University of Texas and entered the graduate program in Spanish Applied Linguistics to complete the doctorate in the area of Spanish Second Language Acquisition.

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