

Interaction through Asynchronous Audio-Based Computer Mediated Communication in the  
Virtual Foreign Language Classroom

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**Abstract**

Because distance learning (DL) programs provide students educational opportunities with minimal restrictions on location and/or time, the number of institutions that provide DL courses has grown at a tremendous rate over recent years and is projected to increase in the future. Foreign language courses through DL, however, have been criticized for limited opportunities to engage in speaking activities and to develop oral proficiency. While previous research consistently reports no significant differences, the focus of those studies has been the comparison of outcomes assessments between face-to-face and DL courses. This study analyzed the types of interactions that occurred in the virtual foreign language classroom while using asynchronous audio-based CMC, known as voice boards, to learn Spanish at a rural community college located in Southwestern Virginia, Patrick Henry Community College (PHCC). An embedded multiple-case study design and computer mediated discourse analysis were applied with activity theory to analyze the interactions holistically. During a 10-year period, the amount of students enrolled in on-line only courses or in the virtual campus at PHCC increased from 97 students in the summer 2001 session to 655 students in the summer 2011 session. These results showed a 575.3% ( $n = 558$ ) increase of students enrolled in DL. Only 37.7% ( $n = 507$ ) of the students attending the community college during the summer 2011 session were enrolled in only FTF courses. These increases were a result of students' needs to pursue degrees of higher education while working and taking care of family and other personal obligations. Students enrolled in the SPA 101: Beginning Spanish I course explained that employment schedules, family obligations, and financial reasons motivated their decisions for taking a DL course. When completing audio-based discussion board assignments, experimentation with the language was observed and participants took advantage of opportunities to listen to recordings multiple times before submitting responses. Forty-seven percent of the utterances were categorized as containing questions to encourage continued discussion. However, lexical chains for those utterances showed that only 11.6% ( $n = 11$ ) of the utterances followed a three link chain of initial post-response-response (IRR) that represented extended conversations in the voice boards.

### **Dedication**

I dedicate this dissertation to my family, living and deceased, and to my friends. Thank you all for supporting me over the years, listening to me discuss my dreams and research interests, and accepting my apologies for not being able to spend time with you. I also dedicate this dissertation to the many individuals who have placed small stones in the river of my life. Those stones, while painful at the time, changed the currents that have guided me to help shape who I am today.

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## Chapter One: Introduction

According to the *Standards for Foreign Language Learning in the 21<sup>st</sup> Century* (NSFLEP, 2006), communication is “at the heart of the human experience” (p. 7) and is defined as “*knowing how, when, and why, to say what to whom*” (p. 11, italics in original). This experience is also mentioned in Pinker’s (1994) work on the biological development of language ability in humans. He believed that language and communication were so interwoven into the human identity that “when there is no one to talk with, people talk to themselves, to their dogs, even to their plants” (p. 3). If communicating and interacting are part of the human identity, one could assume that learning languages would be a natural and easy process.

For children, learning to communicate in their native language develops with relative ease during childhood through continuous interaction with other children, family, and friends. Parents and children interact in a natural environment without the stress to learn specific skills in a preplanned order. Interactions occur while completing daily activities. By contrast, an adult learning a second or foreign language in a formal classroom setting does not yield the same results (Bush, 2008). This discrepancy in outcomes demonstrates the complexity of language learning and has become the focus of research and governmental funding over the years.

A federal Interagency Language Roundtable (ILR) was established in 1955 to implement technology for language learning, language use, and language testing (Interagency Language Roundtable, 2010). As an outgrowth of the ILR and the proficiency guidelines used by the United States Foreign Service Institute, the American Council on the Teaching of Foreign Languages (ACTFL) developed the *ACTFL Provisional Proficiency Guidelines* (1982) to define what language proficiency looks and sounds like (ACTFL, 2001). Since then, ACTFL revised the proficiency guidelines for all four skills: *ACTFL Proficiency Guidelines: Speaking, Writing, Listening, and Reading* (2012). In 1996, the National Standards in Foreign Language Education Project (NSFLEP) began to develop the standards for what students should know and be able to do in foreign language study. The *Standards for Foreign Language Learning in the 21<sup>st</sup> Century [SFLL]* (2006) describe five goal areas for language learning: communication, culture, connections, comparisons, and communities. While all five goal areas are interconnected, “*communication, or communicating in languages other than English, is at the heart of second language study, whether the communication takes place face-to-face, in writing, or across centuries through the reading of literature*” (NSFLEP, 2006, p. 31, italics in original). With the

development of various electronic devices and Internet software, technologically enhanced modes of communication are also being implemented successfully in foreign language classrooms (Ducate, Lomicka, & Lord, 2012; Lomicka & Lord, 2012). Communication among learners provides opportunities to learn and to explore the culture, to make connections with other bodies of knowledge, to make comparisons between the native and the target languages, and to participate in multilingual communities.

This emphasis on communication promotes language learning supported by sociocultural theory (SCT), which “maintains that language learning is a social process rather than one that occurs within the individual” (Shrum & Glisan, 2010, p. 24). Lantolf and Thorne (2006) also described SCT as “a psycholinguistic theory which assigns concrete communicative activity a central role in mental development and functioning” (p. 17). While SCT explains the importance of interactions and the process of learning and mental development, the *SFLL* and the *ACTFL Proficiency Guidelines* provide educators with structured guides to promote interactive opportunities and with a description of characteristics of the development process through which students in a foreign language classroom progress. Support for communicative-enriched foreign language pedagogy has been evident for many years through SCT and the *SFLL*.

### **The Development of Distance Learning**

Communicative experiences can span temporal and physical distances. The methods and means for communication throughout history have constantly developed and changed in response to various situations and societal demands. Through literature, music, letters, telegraph, and the telephone, communication has occurred for centuries without the need for face-to-face (FTF) interaction. In the 1800s, the first major correspondence program in the United States was established at the University of Chicago (Gunawardena & McIsaac, 2004). These courses were the beginning of contemporary distance learning (DL) programs commonly available today. In the past, DL primarily consisted of delayed interaction between individuals through handwritten documents delivered by mail.

However, with the development of technology, methods of communication and learning environments evolved as educators understood the potential of devices seen often in everyday society, such as iPods, MP3 players, and Podcasts (Blake, 2008; Bush, 2008; Lambert, 1991; Young, 2007) that could replace handwritten documents previously used. In addition to adapting tools, computer programs and devices were also designed specifically to improve language

instruction in and out of the classroom and are considered tools for computer-assisted language learning (CALL). Among these tools are electronic workbooks, tutorials, and activities for listening, writing, and speaking practice (Bush, 2008). Technology also enhanced opportunities to interact synchronously in real time, or asynchronously in delayed time at a distance. Communication was made possible through text-based, video, or other digital methods using computer software and hardware that enable individuals to communicate using computer mediated communication (CMC) via a computer over the Internet (Goertler & Winke, 2008a, 2008b; Romiszowski & Mason, 2004). CMC is the process of using computers in one form or another as a method to communicate. In contemporary society, CMC can be associated with computers, portable phones, and other electronic devices. As a result of these advancements in technology, DL has become an important concept in mainstream education (Gunawardena & McIsaac, 2004). The next section describes the presence of DL in K-12 and higher educational institutions.

### **Prevalence of Distance Learning**

Because DL provides educational opportunities with minimal restrictions on location and/or time, the number of institutions offering DL courses has grown at a tremendous rate over the years and is projected to increase in the future. At the national level, according to the National Center for Education Statistics (NCES, 2008a), 66% of all 2-year and 4-year Title IV degree-granting postsecondary institutions offered DL courses during the 2006-2007 academic year. In the same study, 70.6% (n = 1,060) of the two-year institutions and 64% (n = 1,539) of the four-year institutions reported offering DL courses. This presence is not limited only to higher education. In another study analyzing DL in the K-12 environment during the 2004-2005 academic year, the NCES (2008b) reported that 37% (n = 5,670) of the 15,190 public school districts had students enrolled in technologically-enhanced DL courses. Forty five of the 50 states, plus Washington, DC, have state virtual schools or online initiatives (International Association for K-12 Online Learning [iNACOL], 2010). In the Commonwealth of Virginia, during the 2009-2010 academic year 5,940 students were enrolled in courses through Virtual Virginia with 1,314 students enrolled in world languages (Virginia Department of Education, 2010). Of those world language students, 64 students were studying Advanced Placement (AP) French Language, 36 students were studying AP Latin Literature, and 90 students were studying

AP Spanish Language. The use of DL for advanced-level language courses demonstrates the growing prevalence of DL as a means for foreign language instruction.

Similar to the K-12 data, enrollment in DL courses in the Virginia Community College System (VCCS) has also shown increased student interest in taking DL courses at the community college level. Between the 2000/2001 and 2007/2008 academic years, there was a 129.90% increase in VCCS students taking DL courses with 32.01% of the total VCCS student population enrolled in at least one DL course during the fall 2007 semester (Virginia Community College System Institutional Research [VCCSIR], 2008). Of the DL courses being offered, seven different foreign languages were available during the fall 2010 semester including Arabic, Chinese, French, German, Japanese, Russian, and Spanish. The community college participating in the current study, Patrick Henry Community College (PHCC), is one of the 23 colleges forming the VCCS. Of the 23 community colleges in the system, PHCC had the highest percentage of the total student body enrolled in at least one DL course. Of the total student population enrolled during the fall 2007 semester, 58.0% were registered for at least one DL course (VCCSIR, 2010). While the use of DL provides opportunities for learning through flexible scheduling, this increase in DL enrollment is not solely a result of providing students with more opportunities to learn.

Supporters of DL instruction state that by carefully creating a virtual learning environment, technology

helps to make students responsible, independent learners; it allows students to tailor their practice to their own needs and pace; it provides immediate feedback for learners and student progress tracking for the instructor; it increases student motivation and confidence; it offers important teaching resources; and it is multisensory and multidimensional, appealing to different learning styles and increasing student exposure to a variety of authentic texts and cultural information. (Scida & Saury, 2006, p. 521)

Instruction, however, should not depend primarily on the type of technology being applied to create DL courses. Knowlton (2000) believed that if the focus is placed on managing the learning and not the technological devices, then the online environment will become a student-centered atmosphere that allows students to travel through the virtual realm of knowledge and become active participants who share and collaborate.

## **Defining Distance Learning**

Although forms of DL have existed since the 1800s, defining the vast varieties of DL courses becomes complex with varied descriptions depending on the focus researchers have chosen for their studies and the specific forms of DL being used. Gunawardena and McIsaac (2004) and Kraemer (2008) surveyed DL research and provided a historical overview of DL by compiling several definitions that have been widely cited and accepted throughout the years. Their analysis of these definitions for DL demonstrates the prominent use of definitions originating over twenty years ago.

During the World Conference of the International Council for Correspondence Education, Moore (1972) defined DL as “the family of instructional methods in which the teaching behaviors are executed apart from the learning behaviors...so that communication between the learner and the teacher must be facilitated by print, electronic, mechanical, or other device” (p. 76). Garrison and Shale (1987) emphasized two-way communication between the teacher and the student or students “for the purpose of facilitating and supporting the educational process” (p. 11). To emphasize an environment that focuses on interactions, Hiltz (1994) described a *virtual classroom* as a course management system that provides “interaction space like a classroom, where the ‘teacher’ or others may ‘lecture’ and where group discussions may take place; a communication structure like ‘office hours,’ where student and teacher may communicate privately,” and provides the instructor the ability to grade assignments and to divide a larger class into smaller groups for collaborative tasks (p. 6). As a general description, Moore and Kearsley (1996) defined DL as planned learning taking place in a separate location from the teaching that requires special techniques and methods to present the material through computer mediation. As these various definitions demonstrate, the basic concept of DL has not changed drastically in the past forty years.

## **Summary of the Development of Distance Learning**

Developments in technology have modified the means of communication from FTF interactions or handwritten documents to the ability to connect with each other through computers and other electronic devices with relative ease. Many educators apply CMC and CALL to FTF instruction as a method to enhance traditional tasks such as workbooks and listening and speaking assignments. Because CMC also enables instructors and students to interact with minimal restrictions on location and/or time, DL course offerings in K-12 and

institutions of higher learning have increased drastically over the years. With these increases projected to continue in the future, questions regarding the quality of DL instruction have been an ongoing topic of research (Richtel, 2012, January 3). The next section describes a concern about foreign language study as DL and explains the statement of the problem for the current research study.

### **Statement of the Problem**

In a study interviewing DL foreign language instructors and students, Sánchez-Serrano (2008) described three concerns shared by foreign-language educators when developing DL versions of traditional FTF courses. The educators participating in her study focused on (a) the need for an increased amount of oral practice tasks in the online class, (b) the need for improved professional development for faculty when developing a DL course for the first time, and (c) the student's expectation to have a 24-hour instructor. While all three concerns warrant further research, the first concern expresses the premise for this study, that is, the need for oral practice in the online class. In response to the first concern, Sánchez-Serrano explained that in order to develop speaking skills, "the teaching-learning process cannot be limited to the transmission of knowledge through written text" (p. 153). One method to increase oral practice in the DL course would be to require students to participate in synchronous speaking activities through video conferencing or audio chat that would provide students with opportunities for oral practice. This requirement would simulate online interaction with activities typically used in traditional FTF foreign language classrooms.

However, as a DL educator, scheduling times for synchronous speaking activities became a difficult challenge when attempting to meet the needs of my students' varied schedules (Shrewsbury, 2008). As a result, using asynchronous text-based and audio-based communicative activities has become a necessity in order to meet the needs and expectations of students taking DL courses (Berge, 2000). Because of this need to use asynchronous CMC, research documenting and analyzing the observed interactions in existing DL foreign language courses is essential to create a pool of studies with descriptions of virtual foreign language classrooms that will enable DL faculty to improve future courses.

## **Pilot Studies**

In 2005, while discussing my class schedule for the upcoming fall semester, my dean recommended offering Spanish as DL in response to students' needs to fulfill a foreign language requirement and to accommodate their hectic schedules. I reluctantly began modifying activities to create my first DL course for the fall 2005 semester. Similar to the experiences of other novice DL instructors (Sánchez-Serrano, 2008), I was familiar with technology and felt comfortable using computer applications, but had not been trained on using a course management system to create a DL course. I also did not understand all the components available with the course management system nor was I aware of other programs available. At that time, my DL course consisted of written grammatical explanations, audio files to aid with pronunciation, and a web-based workbook that accompanied the textbook. As I continued to teach Spanish through DL over the years, I attempted to improve my DL courses by searching for literature and attending workshops regarding techniques to improve them. During that time, my research interest developed with my desire to become a more informed DL instructor, to find answers to my questions regarding DL foreign language courses, to increase student involvement, and to create a virtual foreign-language-learning environment.

### **Summer 2008**

Since that beginning immersion into DL foreign language instruction in 2005, I have now spent 19 semesters teaching Spanish through DL. Over that time period, I became curious about how community college students used online resources while studying Spanish in my courses. During the summer 2008 semester, I conducted research to analyze the study habits of 17 rural community college students by documenting times of day students reported studying and completing assignments, the completion rate of assignments, the length and frequency of study sessions, and the frequency of repeating online workbook activities. The data showed that the times of the day students reported studying and completing activities fluctuated throughout the summer session. This fluctuation demonstrated the use of the flexible scheduling afforded through DL. Students also repeated electronic workbook activities and used the online software. The completion rates of some of the assignments, on the other hand, were lower than desired. Assignments that required students to perform or create with the language, such as text-based discussion boards or written essays, were at times not completed. Of the 17 students enrolled, 88.2% (n = 15) completed the first text-based discussion board assignment, 82.3% (n = 14)

completed the second, and 70.5% (n = 12) completed the third assignment. At the end of the summer session, 64.7% (n = 11) of the students completed the final speaking assignment that required students to speak to me in Spanish. After reviewing the data, I wondered why students did not complete the activities designed to provide them opportunities to create and to enjoy the language. Because of these results, my developing research interests became more focused on the use of text-based and audio-based discussion board assignments to promote language interaction in the DL Spanish course.

### **Summer 2009**

As I developed my research protocol for the summer 2009 pilot study for this dissertation, three questions guided the research. I wanted to know:

1. How do instructors provide communicative opportunities that promote and assess oral competency?
2. What types of interactions occur in the virtual classroom between students?
3. How does a student's oral competency develop while taking a beginning foreign language course in the virtual classroom?

I used questionnaires to find out about students' previous experiences with DL courses and foreign language, archival demographic data to obtain entrance exam scores and age of students, and observations of interactions in text-based and audio-based discussion boards when students posted assignments. The audio-based discussion board enabled students to record, to submit, and to listen to audio messages similar to the more commonly used text-based discussion board.

During the summer 2009 session, 16 students were enrolled in my SPA 101-W1: Beginning Spanish I course. After collecting and analyzing the data, I chose three students who completed all audio-based discussion board assignments. I categorized four types of interactions that occurred in the audio-based discussion board posts and classified them as 1) asking for clarification, 2) requesting more information, 3) providing humorous responses or comments, and 4) showing encouragement. The student's use of interaction as negotiation for meaning was not observed in the assignments. I concluded that students might have used dictionaries to look up words before responding to posts instead of using the audio-based discussion board for negotiation for meaning.

Even though a portion of the grade for each assignment was based on the number of comments and the quality of responses, many students waited until the last few hours before the

due date to submit their first audio-based discussion board posts. As a result, students were not able to reply to or to comment on other posts. As a modification for future course design, I realized that students needed to have several days after the due date for the initial audio-based discussion board submission to continue discussion and to encourage conversation.

### **Summary of Pilot Studies**

To accommodate students' hectic schedules while enabling them to fulfill course requirements, I have offered Spanish as a DL course since the fall 2005 semester. Since my initial DL course, I have conducted two pilot studies in preparation for the current research. The results of those studies supported previous research (Berge, 2000) explaining students' need of flexible scheduling when taking DL courses. The first pilot study also documented the low completion rates of assignments that required students to interact with each other or create with the language. In preparation for this dissertation, a second pilot study showed that students interacted when using the audio-based discussion board, but a more detailed study was needed to analyze how students prepared assignments when studying Spanish as DL. The following section describes the purpose and research questions for the current study.

### **Purpose of the Current Study and Research Questions**

As DL course offerings are expected to continually increase (Gunawardena & McIsaac, 2004; Kraemer, 2008; VCCSIR, 2008), understanding the use of technology and the type of interaction occurring in the virtual classroom are essential to effective DL course development (Blake, 2008; Bush, 2008; Warriner-Burke, 1990). Comparative studies analyzed outcome differences between traditional FTF courses with technologically enhanced and DL courses and resulted in no significant differences (Chenoweth, Ushida, & Murday, 2006; Cubillos, 2007; Echávez-Solano, 2003; Schida & Saury, 2006; Zhao, Lei, Yan, & Lai, 2005). While these studies provide data to dissipate the fears that learners taking technologically enhanced or DL courses are at a disadvantage because of limited FTF contact, the studies provide limited documentation of the interaction among students and teachers in the virtual foreign language classroom. Twigg (2001) advised institutions to go beyond the no-significant-difference and comparative studies to study specific components of DL courses that will provide data to improve DL as well as traditional FTF experiences.

Following Twigg's (2001) recommendation, the main objective of this study was to specifically describe and analyze how students interacted when using asynchronous audio-based

CMC while learning Spanish as DL. To answer this overarching objective, three supporting questions guided the research.

1. What are characteristics of students studying Spanish through DL?
2. How do students complete audio-based CMC assignments?
3. What types of interactions are observed in audio-based CMC assignments?

To understand the interactions occurring in the virtual foreign language classroom, the literature review consists of three specific research areas: sociocultural theory (SCT), interactions in the foreign language classroom, and distance learning.

### **Definition of Terms and Acronyms**

I will use the following definitions of specific terms and acronyms during the study.

These terms are listed in alphabetical order for ease of reference.

1. *American Council on the Teaching of Foreign Languages (ACTFL)*: A national organization dedicated to the improvement and promotion of foreign language instruction.
2. *Asynchronous communication*: This term refers to the interaction between individuals in delayed time and does not require the immediate or instant response (Goertler & Winke, 2008).
3. *Community college*: a two-year degree institution honoring an Associate degree as the highest degree.
4. *Computer-assisted language learning*: Computer software or online program that provides students with independent practice through written activities, speaking prompts, visuals, and/or audio files.
5. *Computer management system*: Online software used to provide access to course-related materials (Lomicka & Lord, 2009)
6. *Computer-mediated communication*: Communication that is facilitated by the use of computers to provide synchronous and asynchronous interaction (Goertler & Winke, 2008a).
7. *Discussion board*: This is similar to a bulletin board commonly found in public buildings to post information or to facilitate communication between individuals. The posts are saved electronically on the Internet and are commonly used in formal educational settings.

8. *Distance learning*: A teaching and learning environment that enables students and teachers to interact without the restriction of time and space. Distance learning is typically facilitated by the use of computers and the Internet and allows students to complete 90% of the work without meeting the instructor face-to-face (Goertler & Winke, 2008a).
9. *iPod*: This is a portable media device developed by Apple to play music and video files.
10. *Mediation*: The use of tools such as language, physical objects, or technology to interact in society or the environment (Lantolf & Thorne, 2006).
11. *MP3 file*: This is a file format for digital audio recordings that is commonly used for music files and can be saved on mp3 players to listen to music or other types of audio recordings.
12. *Podcasts*: Podcasts are digital audio or video recordings that are sent periodically to individuals that have subscribed to the service. Podcasts are typically used to provide news updates but have been used for other purposes such as education.
13. *Sociocultural theory (SCT)*: This theory emphasizes the individual development through interaction with others as part of a society and a culture instead of an individual process (Lantolf & Thorne, 2006).
14. *Synchronous communication*: Communication that occurs simultaneously or in real time (Goertler & Winke, 2008a).
15. *Virtual Virginia*: Virtual Virginia is the state-supported distance learning option for K-12 students that provides educational opportunities to students in the Commonwealth of Virginia (Virginia Department of Education, 2010).
16. *Voice board*: This is similar to a bulletin board commonly found in public buildings to post information or to facilitate communication between individuals. Voice board enables individuals to record and submit audio recordings by using the Internet and is typically used in formal educational settings (Wimba, 2009).
17. *Voice e-mail*: An electronic-mail service that incorporates audio and text to provide communication similar to the more commonly used e-mail (Wimba, 2009).

### **Organization of the Dissertation**

This research study consists of five chapters. Chapter One, Introduction, explains the development of the research topic and introduces the study. The chapter includes the

introduction, statement of the problem, pilot studies, purpose of the study and research questions, and definition of terms.

Chapter two, Literature Review, consists of a review of relevant literature of previous research studies. The chapter is divided into the following headings: sociocultural theory, interactions in the foreign language classroom, and distance learning. In the first section, I explain SCT and the theoretical framework that will guide the study. In this section, I will also include examples of the various components of SCT have been applied to other contexts. In the remaining sections of the literature review, relevant literature regarding interactions in the foreign language classroom, and distance learning with the use of CMC are discussed. The chapter concludes with a summary of the review of literature.

Chapter three, Methods, consist of the research protocol for the study. This chapter provides the rationale for selecting an embedded multiple-case study design. I also provide a description of my background and my position in this study. Since the context for this study will be in a virtual environment instead of a traditional FTF setting that required the use of the Internet and specialized software, I also describe methodology specifically designed for online research and data analysis. This chapter also includes a description of the coding process and the strategies to validate the findings of the current study. The chapter concludes with a summary of the methods.

Chapter four, Analysis and Interpretation of the Findings, contains an explanation of the theoretical foundation for the study and presents the results of the data. These data are discussed and interpreted by using the research questions as headings in the chapter: applying modern activity theory to the current study, characteristics of students using distance learning, completing audio-based computer mediated communicative assignments, and types of interactions observed in audio-based computer mediated assignments. This chapter concludes with a summary.

Chapter five, Conclusions, implications, and future research, restates the statement of the problem and reviews the research questions that guided the current study. Then a review of the methodology contains the research protocol, the sources of data collection, and the procedures used to analyze the data. The discussion section provides conclusions of the data analysis from chapter four and links the findings to the section on implications for practice. This chapter

concludes with implications for practice and recommendations for further research based on the findings from the current study.

## Chapter Two: Review of Literature

The focus of this study was to examine interactions when using asynchronous audio-based computer mediated communication (CMC) while studying Spanish through distance learning (DL). This review of literature consists of three main sections: sociocultural theory (SCT), interactions in the foreign language classroom, and distance learning (DL). The first section contains a description of the origins of SCT and the development of modern activity theory. Section two contains an overview of research regarding interactions in the foreign language classroom and includes a description of a standards-based approach to language instruction. Section three focuses on the general use of DL, the overall benefits and limitations as a means for instruction in foreign language courses, and the use of CMC in the virtual classroom. The chapter concludes with a summary of the review of literature.

### Sociocultural Theory

For this study, SCT originating from Vygotskian cultural-historical psychology (Lantolf & Thorne, 2006; Wells, 1999) provided the theoretical foundation. More specifically, a component of SCT that has developed into what is known as *activity theory* influenced the type of activities designed for this research study, the methodology, the interpretation of the data, and the development of the conclusions while analyzing the data. This section then continues with a description of the origins of SCT and a definition of various components of SCT. These components are genetic method, mediation, and the zone of proximal development (ZPD). This section proceeds with a discussion of the development of activity theory development with various examples of research applying this theory at various stages of development. This section concludes with a summary of SCT.

Influenced by the work of the Russian psychologist Vygotsky and cultural-historical psychology, SCT is a theory of the mind “that recognizes the central role that social relationships and culturally constructed artifacts play in organizing uniquely human forms of thinking” (Lantolf, 2004, p. 30-1). Because SCT has been used as a general description of human activity in a social or cultural context, second language researchers have adopted SCT as “heavily focused on the impact of culturally organized and socially enacted meanings on the formation and functioning of mental activity” (Lantolf & Thorne, 2006, p. 2). Saville-Troike (2006) also supported the use of SCT for language researchers and explains the causative force that interaction plays in language learning and acquisition. While Vygotsky’s (1978, 1986) writings

focused on the cognitive development and analysis of higher-level thinking and not specifically on second language acquisition, Lantolf and Thorne “argue that because SCT is a theory of mediated mental development, it is most compatible with theories of language that focus on communication, cognition, and meaning rather than formalists’ positions that privilege structure” (p. 4). SCT will be defined through three fundamental concepts: the genetic method, mediation, and the zone of proximal development. Following the explanation of the theoretical makeup of SCT, the development of modern activity theory is elaborated.

### **The Genetic Method**

As a reaction to psychological research methodology of his time, Vygotsky (1978) explained the need for new techniques to analyze learning and thinking as a process instead of as a product. Vygotsky (1986) prescribed psychological research on thought and language that focuses on the interfunctional relations of thought and language. Until his time, methods of research on consciousness used modes of analysis that treated mental processes in isolation. In contrast to the trend of his time, Vygotsky advocated that scientists analyze thought and language as a whole. Vygotsky’s proposed strategy for research, known as the *genetic method*, “focuses on process instead of product; it seeks to uncover the dynamic relations at work in the development of higher mental functions. Its concern is with the genetic origins of these functions rather than the external appearances” (Lantolf & Thorne, 2006, p. 29). The genetic method consists of four domains: phylogenesis, sociocultural history, ontogenesis, and microgenesis (Lantolf & Thorne, 2006; Wells, 1999). The current research focused on the third and fourth domains, but a general description of all domains will provide an overall understanding of SCT’s holistic emphasis on research.

Phylogenesis focuses on the development of a species or a group of organisms. Even though Vygotsky (1986) did not conduct empirical studies on primates, he was interested in the unique ability in humans to use language abstractly. Pinker (1994) and Deacon (1997) supported this claim through their comparison of the biological makeup and environmental conditions between humans and other species. The second domain, sociocultural history, studies the longitudinal development of a particular culture. Like phylogenesis, sociocultural history was not directly investigated by Vygotsky in his research (Lantolf & Thorne, 2006; Wells, 1999). Influences of phylogenesis and sociocultural history are necessary to understand higher-level thinking and cognitive development. The third domain, ontogenesis, consists of the development

of an individual during his lifetime. Ontogenesis includes the previous experiences, the biological development, and the cultural development of the individual (Lantolf & Thorne, 2006). After understanding the above three domains, research can occur in the microgenetic domain to analyze the development of mental functions and processes during a shorter period of time and during a specific activity (Lantolf & Thorne, 2006; Wells, 1999). The genetic method, therefore, acknowledges the complexity of thought and learning by prescribing a holistic approach to psychological development.

Even though ontogenesis and microgenesis have been the methods applied in foreign and second language research (Lantolf & Thorne, 2006), according to Wells (1999), “In any domain, the present state can be understood only by studying the stages of development that [preceded] it” (p. 5). After understanding the other domains, one then is able to study the microgenetic domain and the specific activities and interactions that occur. Under this domain, a central concept of SCT known as *mediation* plays a very important role in cognitive development.

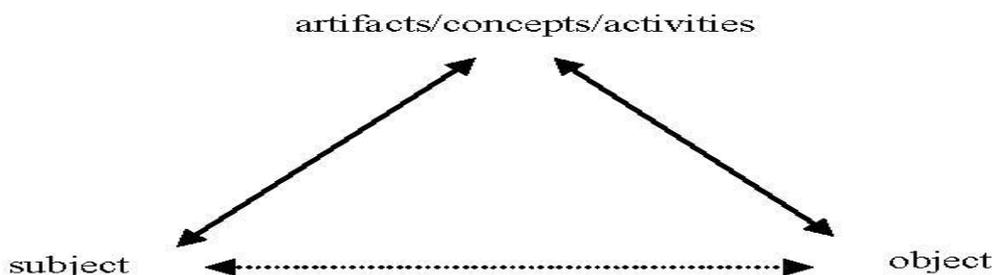
### **Mediation**

Lantolf (2000) stated that mediation is the most fundamental concept of SCT in that cognitive development is shaped through physical and psychological tools. In SCT, mediation explains how “humans relate to their world *psychologically* in much the same way as they do *physically*” (Poehner, 2008, p. 26, italics in original). Poehner described this process as similar to building a table by using an axe to chop down a tree and using other physical tools such as a tape-measure, hammer, nails, paint, and a paint brush to finish the job. The use of language as a tool with mediative qualities can be seen in Vygotsky’s (1978) observations of children completing tasks. While completing a task, Vygotsky noticed that children talked to themselves, not only to describe what they were doing, but also to search for possible solutions to the problem. As the tasks increased in difficulty, there was also an increase in talking, or self-talk. When not able to use self-talk, some children were unable to complete the assigned task.

Vygotsky explained:

These observations lead me to the conclusion that *children solve practical tasks with the help of their speech, as well as their eyes and hands*. This unity of perception, speech, and action, which ultimately produces internalization of the visual field, constitutes the central subject matter for any analysis of the origin of uniquely human forms of behavior. (1978, p. 26, italics in original)

Figure 1 shows the mediative nature of self-talk and shows the relationship between people and the world.



*Figure 1.* The mediated nature of human/world relationship. Adapted from Sociocultural theory and the genesis of second language development, by J. P. Lantolf and S. L. Thorne, p. 62. Copyright 2006 by Oxford University Press. Reprinted with permission.

As seen in Figure 1, the subject, also known as the person or individual, interacts with the object directly and indirectly. When interacting indirectly, the individual uses tools as mediation shown with the solid double arrows, which demonstrate the voluntary or conscious effort characteristic of higher-level thinking in this mediative interaction (Lantolf & Thorne, 2006). The dotted double arrow showing a direct interaction between the individual and the object or environment demonstrates the involuntary nature of the interaction and is characteristic of lower-level thinking. An example of this concept would be someone requesting that another person pick up a glass and give it to him or her. Requesting that someone do something requires the speaker to think of the proper sequence of steps to take in order to complete the action and how to explain the steps to the individual. Indirectly, the speaker is interacting with the object, or in this example, the glass. The speaker could also interact directly with the object by picking up the glass. For most individuals, picking up a glass has become a procedure that requires limited conscious effort and acknowledgement of each step in the process and could be classified as lower-level thinking.

The above example describes Vygotsky's blending of a manual labor activity with a language or speaking activity known as the *dialectic approach* (Lantolf & Thorne, 2006). The dialectic approach recognizes the role that biology plays in mental activity while also recognizing the empowerment physical and psychological tools provide humans. This approach refutes the idea that humans are solely a byproduct of biological makeup or environmental

forces. Instead, the dialectic approach focuses on the bidirectionality that enables the brain to affect the world and the world to affect the brain (Lantolf & Thorne, 2006). Vygotsky believed that the mediative use of physical and psychological tools should be studied in a manner that reveals the interconnected relationship in the development of thinking and learning. Lantolf and Thorne described one form of mediation as *regulation*. Depending on the level of cognitive development and the specific situation, this mediative relationship occurs at three distinct stages of regulation or a form of mediation: object-regulation, other-regulation, and self-regulation.

Forms of mediation can be demonstrated through actions observed with children. When children are mediated through *object-regulation*, they are controlled by objects located in their immediate environment. For example, when told by a parent to pick up the red ball, a child might pick up another object that is more colorful or closer (Lantolf & Thorne, 2007). Object-regulation is also observed when a student uses a physical tool such as a calculator or dictionary to complete a task. When performing at the next stage, *other-regulation*, mediation occurs implicitly and explicitly through the interactions with parents, peers, and teachers. When working in the third stage, *self-regulation*, individuals are able to internalize the mediation that was occurring through external means. While performing in the third stage, children might use audible self-talk to complete an activity or find a solution. Even though self-regulation is the third and most advanced stage, performing at this stage does not mean that the other stages are no longer used. Depending on the activity, an individual might have to regress to the object or other-regulation stages in order to complete the task. Other activities might never fully become internal. For example, advanced mathematical calculations are typically mediated through the use of paper and pencil, even though assistance from a peer or teacher is not needed (Lantolf & Thorne, 2007).

The interconnected nature of the various levels of regulation exemplifies the dialectic approach (Lantolf & Thorne, 2006) to understand cognitive development through interactions between the physical and psychological. Mediation explains how humans relate to the world psychologically by indirectly or directly interacting with the physical tools. Depending on the task involved, mediation can be described as object, other, or self-regulation. Vygotsky (1978) described a specific method of mediation known as the zone of proximal development (ZPD) that will be explained in more detail in the next section.

## Zone of Proximal Development

While describing the cognitive development of children with mental disabilities, Vygotsky (1978) rejected assessments designed to determine ability using the child's independent performance as a tool. His response to this form of assessment was:

If we naively ask what the actual development level is, or, to put it more simply, what more independent problem solving reveals, the most common answer would be that a child's actual developmental level defines functions that have already been matured, that is, the end products of development. (p. 86)

Since he believed learning and thinking developed through a process of mediation, Vygotsky's interests were the relationships between what a child can do alone and what can be accomplished with assistance, known as the ZPD. He defined the ZPD as "*the distance between the actual development 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, p. 86, italics in original).

In the ZPD, what one can currently do with assistance provides evidence of those skills in the process of development (Vygotsky, 1978). The interaction between an expert and a novice can include, but is not limited to, parent-child, teacher-student, and student-student interactions. This does not mean, however, that the expert should constantly provide the novice with assistance or the same level of support throughout the learning process. Assistance should be *graduated*—with no more help provided than is necessary, for the assumption is that over-assistance decreases the student's agentive capacity. At the same time, a minimum level of guidance must be given so that the novice can successfully carry out the action at hand. (Lantolf & Thorne, 2006, p. 277, italics in the original)

Wells (1999) also documented the flexibility of the ZPD while observing first and second grade students and teachers. During his study, the teacher addressed the entire class and assessed the collective ZPD. After providing the students with instructions, the teacher then provided individual attention when students were struggling. Wells noted that the teacher-student interaction during the study was reactionary or that the teacher reacted to the students' needs. At the end of the lesson, the teacher guided the students in a peer-to-peer ZPD session. This flexibility in assistance depends on the task, the context, and the participants involved.

Similar to research by Wells (1999) analyzing the context of the ZPD, Tharp and Gallimore (1988) stated that “without analyses of the context of teaching and schooling, we can never hope to achieve that ideal of teaching we seek” without considering the social context (p. 71). According to Tharp and Gallimore, the ZPD can only take place in a social context that “provides for joint activity by expert and apprentice, parent and child, teacher and student” (p. 72). In addition to the interaction between individuals, Lantolf and Thorne (2006, 2007) also explained a student’s use of resources such as a dictionary, a thesaurus, or a genre-specific text as a source of mediation. When defining what would be considered evidence of development or progress through the ZPD, Lantolf and Thorne (2007) believed

development in the ZPD is not just about performance per se; it is also about where the locus of control for that performance resides—in someone else or in the learners themselves. As learners assume greater responsibility for appropriate performances of the L2 [foreign or second languages], they can be said to have developed, even when they exhibit little in the way of improvement in their overt performance. (p. 212)

This description of development means that evidence of progress can be identified by two distinct methods: through overt independent performance and through the performance mediated by someone else or other resources.

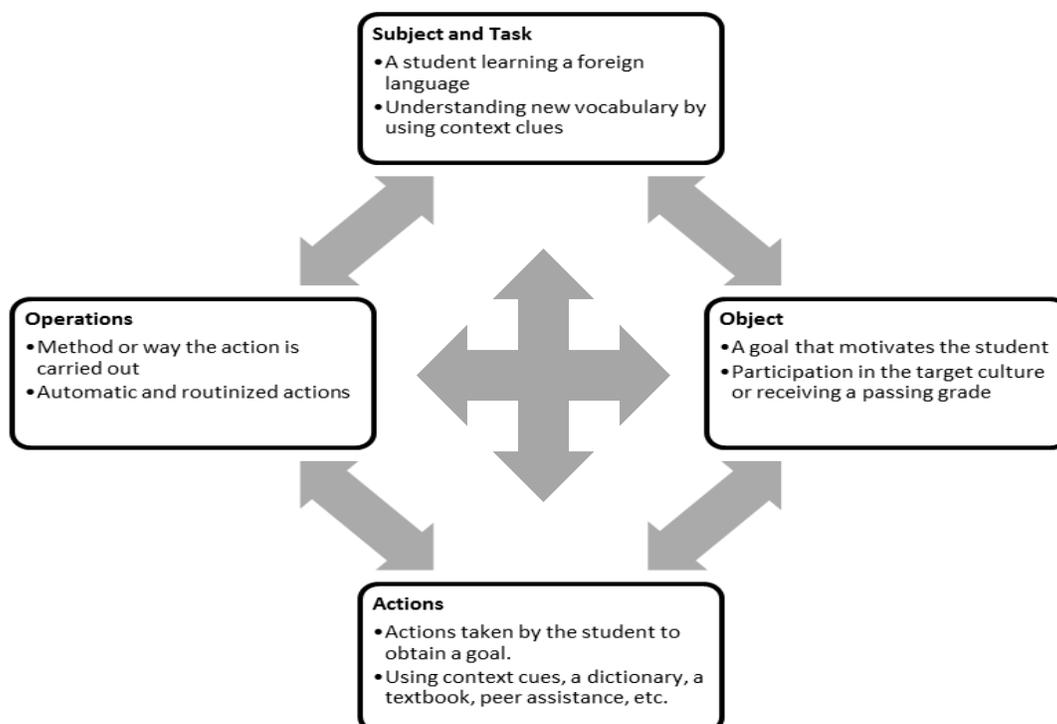
The ZPD provides insight on the actual level of development (Vygotsky, 1978) with the use of a specific form of graduated mediation. The context where the ZPD occurs is also relevant to understanding cognitive development (Tharp & Gallimore, 1988; Wells, 1999). Another component of SCT, activity theory, explains the relationship between context and mediation. The next section contains a description of activity theory and its various stages of development.

### **Activity Theory**

Activity theory has evolved in a dynamic way since the 1920s (Engeström, 2001; Lantolf & Thorne, 2006). As a result of this evolution, activity theory has been divided into three generations (Engeström, 2001; Lantolf & Thorne, 2006) beginning with Vygotsky’s work on mediation as the first generation. With each sequential generation, ideas from the previous generation are modified by contemporaries of previous researchers in a quest to understand learning through SCT.

**Development of activity theory.** Engeström (2001) and Lantolf and Thorne (2006) characterized the first generation of activity theory with Vygotsky’s work. During the first generation, activity theory focused on (a) the individual as the unit of analysis, (b) the mediative use of language to develop higher level thinking, and (c) learning as a process instead of a product. For the second generation, Leont’ev (1978) applied Vygotsky’s ideas to study the activities that occur in everyday society. Leont’ev believed the focus of analysis is the activity itself, instead of the individual as characteristic of the first generation of the theory. Leont’ev’s work also focused on the development of a theoretical concept of activity that contains four components: subject, object, actions, and operations.

Activity, or an activity setting, is the context in which collaborative interaction, intersubjectivity, and assisted performance” and teaching occur (Tharp & Gallimore, 1988, p. 72). Activity settings incorporate the cognitive and physical action, or *activity*, as well as the environmental and external features, known as the *setting*. To understand each component of his work during a language activity in a formal classroom setting, Donato and McCormick’s (1994) description of an activity is seen in Figure 2. Figure 2 shows each component with a brief explanation and an example provided by Donato and McCormick.



*Figure 2.* Description of task completion applying activity theory based on Donato and McCormick’s (1994) interpretation. Figure created by author of the dissertation.

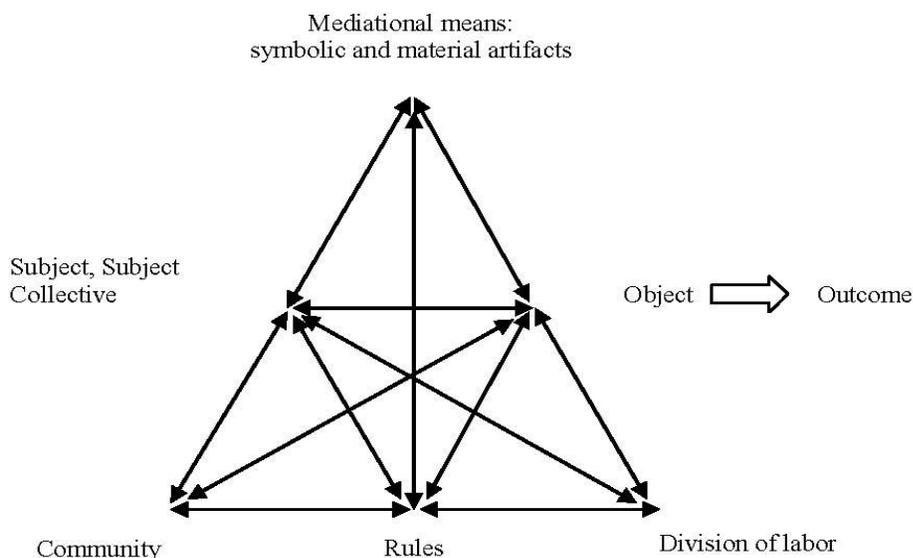
As indicated in Figure 2, each component is influenced by the others, while at the same time, it influences the others. Even though activity theory can be applied to any context, the examples provided by Donato and McCormick (1994) relate to second and foreign language learning. In the classroom setting, the *subject* is the student but the task will vary depending on the lesson. While the specific task is selected by the instructor and will typically apply to the entire class, the *object* or the goal that motivates the student is individualized and can be contradictory to the original motives for planning the lesson. The object will vary among students and depend on the specific task assigned. *Actions* involve the goal-oriented actions taken by the student. Various actions, however, may be used by several students to obtain the same goal.

To improve reading comprehension, students might read a newspaper in the target language, use a bilingual dictionary, or guess meaning from context (Donato & McCormick, 1994). Continuing with the above example, when students reach their goal to become proficient in contextual guessing during reading, this goal no longer requires a conscious effort. At this stage, the action is automatic and considered an *operation* as students use the process of guessing in context. Later, while reading more difficult texts, students may consciously have to modify their operations in order to obtain a new or modified goal and consciously focus on looking for contextual clues (Donato & McCormick, 1994). This regression from the operational level to the action level is indicated by the double arrow in Figure 2.

The third generation of activity theory is still under development and should provide conceptual tools to understand dialogue, multiple perspectives, networks with a minimum of two interacting activity systems, and the concept of boundary crossing (Engeström, 2001). Engeström (2001) believed the second generation of activity theory still has limitations. First, he identified the theoretical focus of the second generation on learning processes where the content or skill has already been identified. In these types of learning scenarios, there is usually a more knowledgeable peer, parent, or teacher to provide guidance or mediation to the novice. Engeström directed his research to situations that involve corporations or organizations as they learn by creating something that has not yet been defined.

**Modern activity theory.** In the classroom, activities are typically designed by educators to guide and mediate student learning. To apply activity theory as a theoretical framework for research in the classroom, Lantolf and Thorne (2006) defined a modern activity theory labeled as

a late second generation of activity theory. In Figure 3, Lantolf and Thorne's adaptation showed the interconnected relationship of three factors: (a) the tools and artifacts, (b) the community and its rules, and (c) the division of labor in the community settings.



*Figure 3. Modern activity theory. Adapted from Sociocultural theory and the genesis of second language development, by J. P. Lantolf and S. L. Thorne, p. 222. Copyright 2006 by Oxford University Press. Reprinted with permission.*

As seen in Figure 3, the base contains community, rules, and division of labor. This connection provides “a conceptual framework that brings together local human activity and larger social-cultural-historical structures” (Lantolf & Thorne, 2006, p.222). Before explaining Figure 3, it is important to understand the interpretation of *task* and *activity* in the modern activity theoretical framework. In the classroom setting, a task is defined as what the teacher or educator has assigned and would like the learner to do. The activity is how the learners complete the task, which actually varies depending on the learner's interpretation of the task and personal history or previous experiences and goals.

The relationship between task, activity, and other components of modern activity theory is demonstrated in Lantolf and Thorne's (2006) description of a peer review activity using e-mail as a means of communication between novice and intermediate-level students seen in Figure 4.

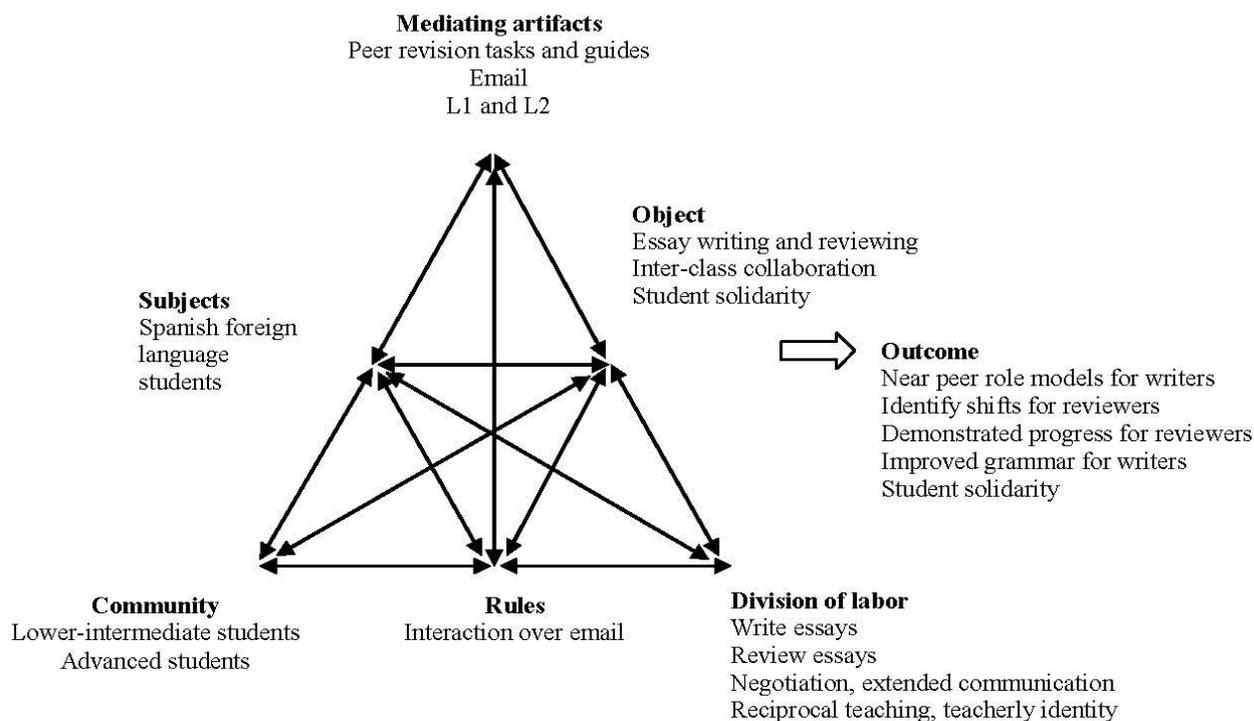


Figure 4. Modern activity theory applied to peer review based on Zapata and Jiménez-Jiménez's (2000) research. Adapted from *Sociocultural theory and the genesis of second language development*, by J. P. Lantolf and S. L. Thorne, p. 259. Copyright 2006 by Oxford University Press. Reprinted with permission.

In Figure 4, all components of the modern activity theory are instrumental in accomplishing the object of the task and obtaining the desired outcome. The students worked with other learners through e-mail and the use of L1 and L2 in order to write and review the essay. Zapata and Jiménez-Jiménez's (2000) assignment encouraged the use of L1 during interactions via e-mail as the students discussed the essays and strategies to improve writing skills. The advanced students worked collaboratively with the lower-intermediate students and worked toward the same object or task assigned by the instructor, which was writing and reviewing an essay.

**Summary of activity theory.** Activity theory is a dynamic and evolving theory that has been divided into three generations depending on the primary focus of analysis (Engeström, 2001; Lantolf & Thorne, 2006). The first generation began with Vygotsky's (1978) work on analyzing cognitive development within the individual. Leont'ev (1978) shifted the analytical focus to the activity setting. The third generation focused on multiple activity settings in corporations when developing new products (Engeström, 2001). Lantolf and Thorne (2006)

defined modern activity theory as a late second generation version that interconnects various components of previous generations. Modern activity theory identifies the roles the subject plays when interpreting a task, the actions taken to complete the task, and the result of those actions.

### **Summary of Review of Literature on Sociocultural Theory**

Wertsch (1998) believed “the task of sociocultural analysis is to understand how mental functioning is related to cultural, institutional, and historical context” (p. 3). As tools to guide researchers undertaking a holistic approach to analyzing mental functioning, Vygotsky provided several components of SCT. The genetic method describes the connection between a particular species, its historical influences, and the processes taken to complete specific tasks. These processes might occur through interactions between parents and children, peers, or teachers and students. At the microgenetic level of the genetic method, mediative interactions as object, other, and self-regulation can be observed and analyzed. A specific type of mediative interaction through the ZPD plays an important role in cognitive development. If interactions are graduated and modified to assist the learners rather than completing the task for them, then the students are able to gradually complete tasks on their own without assistance. In conjunction with the ZPD, activity theory specifically focuses on the process or action taken to complete a task and the personal background and motivations learners have for completing such tasks. Actions can then be studied through the forms of regulation used when completing tasks. By analyzing these forms of regulation over a period of time, states of cognitive development can be observed and the level of learning or one’s ZPD can be documented.

### **Interactions in the Foreign Language Classroom**

This section contains a brief description of the development of foreign language pedagogy and how contemporary foreign language methodologies complement SCT. Next follows a description of a standards-based foreign language instruction. This section also contains characteristics of standards-based instruction and proficiency guidelines used by educators to monitor language performance. The characteristics of a standards-based approach to instruction have been included in this section to demonstrate the importance that has been placed on interaction by the foreign language educational community. Because this study focused on beginning or first semester foreign language students, a section containing the anticipated performance levels for students taking foreign languages based on years of study has

also been included. This section concludes with a summary of interactions in the foreign language classroom.

Similar to Vygotsky's (1986) discussion of the traditional psychological testing that analyzed thought and language as two autonomous entities, the traditional psychological perspective studied language as "a discrete set of linguistic systems external to the learner, whereas learning is viewed as the process of assimilating the structural components of these systems into preexisting mental structures" (Hall & Verplaetse, 2000, p. 1). In a historical compilation of second and foreign language acquisition studies, Firth and Wagner (1997) criticized language research for being "imbalanced in favour of cognitive-oriented theories and methodologies" (p. 286) that treated language acquisition as a phenomenon performed and obtained independently in the individual's mind. Theories explaining the process of foreign language acquisition have been modified depending on research during the specific time period and/or as reactions to previous methodologies (Chastain, 1971). These changes demonstrate the complexity of defining foreign language acquisition and the difficulty theorists have had describing the learning process (Ruiz, 1985). Some foreign language methodologies have focused on direct translation, input, output, or a combination of selected approaches.

Instead of focusing on one specific methodology, a standards-based approach to foreign language instruction focuses on educating "students who are equipped linguistically and culturally to communicate successfully in a pluralistic American society and abroad" (NSFLEP, 2006, p. 7). In the past,

most teaching in foreign language classrooms concentrated on the *how* (grammar) to say *what* (vocabulary). While these components of language remain crucial, the current organizing principle for language study is communication, which also highlights the *why*, the *whom*, and the *when* (the sociolinguistic and cultural aspects of language). The approach to second language instruction found in today's schools is designed to facilitate genuine interaction with others, whether they are on another continent, across town, or in the neighborhood. (p. 11, italics in the original)

Firth and Wagner (1997) also discussed the early approaches of communication research that were still preoccupied with the foreign language learner as a defective communicator struggling to "overcome an underdeveloped L2 [target language] competence, striving to reach the 'target' competence of an idealized NS [native speaker]" (p. 295-296). Their recommendations were to

analyze language learning and development through holistic methodologies that incorporate cognitive and social components of the acquisition process. Through the lenses of SCT and a standards-based approach to foreign language instruction, the language and language learners are interconnected through interactions.

### **Standards-Based Foreign Language Instruction**

A standards-based approach refers to foreign language instruction that applies *ACTFL Proficiency Guidelines* (1986) and the goal areas presented in the *SFLL* (2006) to assess student performance and to create curricula. A standards-based approach focuses on five goal areas: communication, culture, connections, comparisons, and communities (see Appendix A). This section of the review will describe what oral proficiency looks and sounds like, depending on specific levels of ability according to the *ACTFL Proficiency Guidelines*. An explanation of the *SFLL* relating to communication and interaction will also be contained in this section.

**ACTFL proficiency guidelines.** To provide the foreign language teaching community with a guide for discussing curriculum development and assessment strategies, the American Council on the Teaching of Foreign Languages (ACTFL) released proficiency guidelines for speaking and writing that incorporated oral proficiency testing in governmental institutions and the proficiency levels used by the Interagency Language Roundtable (ILR). The *ACTFL Proficiency Guidelines* (1986) were an adaptation of the ILR proficiency levels for the academic use at colleges and universities in the United States. This collaborative work between ACTFL, the Interagency Language Roundtable, as well as the Educational Testing Service, ensured governmental funding and has provided support for national recognition of the *ACTFL Proficiency Guidelines* (Liskin-Gasparro, 2003). As a resource, the guidelines were revised to make “the document more accessible to those who have not received recent training in ACTFL oral proficiency testing, to clarify the issues that have divided testers and teachers” (ACTFL, 1999, para. 2) and to correct any misinterpretations in the descriptions of each level. These guidelines were divided into four categories ranging from the most advanced to the least advanced performance abilities: Superior, Advanced, Intermediate, and Novice. The categories Advanced, Intermediate, and Novice were also divided into sublevels: High, Mid, and Low. Even though asynchronous audio-based communication is the focus of the current study, the nature of the delayed response using asynchronous audio-based CMC enables participants to plan or write out responses before recording and submitting the assignment. Because of this

similarity, this section will include a description of speaking and writing as a baseline to analyze the interaction in the virtual foreign language classroom.

**Average proficiency levels depending on years of study.** After publishing the *Proficiency Guidelines*, ACTFL (2006) published the *ACTFL Performance Guidelines for K-12 Learners* for the first time in 1998 in an attempt to “alleviate the pressure experienced by many foreign language educators to achieve unrealistic goals in short periods of instructional time” (p. 2). The *ACTFL Performance Guidelines for K-12 Learners* categorize the expected proficiency outcomes for students depending on the grade in which they begin foreign language study. Even though these guidelines focus on K-12, the predictions are relevant to the general foreign language learner in the formal classroom setting at any level.

The anticipated performance outcomes for students studying a foreign language after four years of instruction, grades 9-12, is Novice-High and beginning to reach Intermediate-Low. These expected performance levels are similar to research conducted before the *ACTFL Performance Guidelines for K-12 Learners* were developed. Magnan (1986) studied students at a four-year university assessing students (N = 4) with no prior foreign language experience. They scored between Novice-Mid to Intermediate-High, with a mean proficiency level of Intermediate-Low/Mid. Dugan (1988) evaluated 32 students enrolled in a first-semester French language course with the mean proficiency level at 2.3 (Novice-Mid).

While the sample sizes for these studies are small, data collected from the Standards-Based Measurement of Proficiency (STAMP) test developed by Avant Assessment (2010) during the 2008-2009 academic year show comparable levels of proficiency. During the 2008-2009 academic year, a total of 862 tests for speaking and 1,339 tests for writing were administered to 7-12 grade students studying Spanish, French, German, and Italian after four years of instruction. In speaking, 57% (n = 495) performed at the Novice level and 38% (n = 325) performed at Intermediate-Low. In writing, 43% (n = 575) performed at the Novice level and 45% (n = 603) performed at the Intermediate-Low level.

For students in higher education, the sample sizes were smaller and the results were higher for students after four years studying Spanish, French, German, and Italian. In speaking, 109 tests were administered in the 2008-2009 academic year with 7% (n = 8) performing at Novice, 58% (n = 63) performing at the Intermediate-Low, and 28% (n = 31) performing at the Intermediate-Mid levels. In writing, 160 tests were administered with 20% (n = 32) of the

students performing at Novice, 39% (n = 62) performed at Intermediate-Low, and 31% (n = 49) at Intermediate-Mid levels. While these data show higher performance levels after four years of study than for those data obtained from the 7-12 grade students, the sample sizes are smaller and interests in language learning might influence the performance outcomes.

Since the current study focused on participants taking a first semester foreign language class, the STAMP (Avant Assessment, 2010) data regarding proficiency levels after one year of foreign language study were of particular interest. To evaluate the proficiency level after the first year of study, 414 tests were administered in the 2008-2009 academic year in speaking with 83% (n = 344) performing at the Novice level. In writing, 568 tests were administered with 79% (n = 450) of the students performing at the Novice level. Since the participants in the current study were first-semester students learning Spanish, characteristics of Intermediate-Low through Novice-Low proficiency performance levels for speaking and writing are discussed. Even though the STAMP data show that the majority of students would be expected to perform at the Novice level, understanding the characteristics of Intermediate-Low should facilitate data analysis for any students performing higher than expected in the proposed study.

**Speaking.** According to the *ACTFL Proficiency Guidelines: Speaking, Writing, Listening, and Reading* (2012, see Appendix B), students performing at Intermediate-Low are able to discuss predictable topics necessary for survival in the target culture related to immediate needs. These students are also able to express meaning by combining known grammatical structures and vocabulary or by recombining what is being asked or stated by the speaker. Intermediate-Low speech is characterized by self-corrections, hesitations and pauses, and incorrect pronunciation and vocabulary choice. Novice-High speakers are able to produce at the same level as the Intermediate-Low, but are unable to maintain this level of performance for long periods of time. Novice-High speakers use incomplete sentences in the present tense and rely on memorized phrases relating to personal information. Because these speakers rely primarily on memorized content, Novice-High speakers may appear to perform at higher levels of proficiency until asked unrehearsed questions. By contrast, Novice-Mid speakers communicate with isolated words and respond to direct questions. Frequent pauses to think of appropriate vocabulary and phrases are characteristic of proficiency at this level. Novice-Mid speakers may not be understood because of the difficulty with pronunciation and the limitation of vocabulary and failure to respond appropriately. Novice-Low speakers have no functional ability in the target

language, but are able to provide identity and name familiar objects with hesitation and memorized content.

**Writing.** The *ACTFL Proficiency Guidelines: Speaking, Writing, Listening, and Reading* (2012, see Appendix C) characterize writers at the Intermediate-Low level with the use of language for basic needs and statements created with a recombination of familiar or previously learned material. Typical content is described in the present tense with incorrect usage of past or future tenses. Vocabulary is limited to familiar objects and writing is mechanical and limited in expression. Writers performing at the Novice-High level rely on creating lists, short messages, and simple notes that apply learned and practiced material. Writing is typically writer-centered and describes daily and concrete events or topics. Even though performers at this level might show similarities of the Intermediate-Low writers, Novice-High performers are unable to maintain the higher level of performance for extended periods of time. Writers performing at the Novice-Mid level demonstrate little functional use of language and depend on memorized or practiced phrases and sentences. Orthographic and grammatical errors are also evident throughout writing. Novice-Low writers are characterized by the ability to reproduce the writing system and produce rehearsed material if they have extended time.

**Standards of foreign language learning.** The *Standards for Foreign Language Learning in the 21<sup>st</sup> Century* [SFLL] (NSFLEP, 2006) were designed as a guide to focus the instructor's "attention to the broader view of second language study" and "provide the broader, more complete rationale for foreign language study" (p. 15). Foreign language education standards are divided into five goal areas (see Appendix A): communication, cultures, connections, comparisons, and communities. These five goals represent specific content standards that provide a description of the knowledge and abilities that all students should achieve by the end of a course of study. The language classroom, traditional or virtual, should provide an atmosphere that promotes experimentation and learning through the use of language. The interconnected nature of the five goal areas allows students to learn about the culture, to make connections to other content areas, to make comparisons between one's native and target languages, and to apply what is being learned in the classroom to the community as a whole. Since the premise of this study was to describe interaction, only communication will be described in detail.

The focus of the communication goal is to promote *communicative competence*. According to *SFLL*, “when individuals have developed communicative competence in a language, they are able to convey and receive messages of many different types successfully. These individuals use language to participate in everyday social interactions and to establish relationships with others” (2006, p. 40). The communication goal contains three related standards.

Standard 1.1: Students engage in conversations, provide and obtain information, express feelings and emotions, and exchange opinions.

Standard 1.2: Students understand and interpret written and spoken language on a variety of topics.

Standard 1.3: Students present information, concepts, and ideas to an audience of listeners or readers on a variety of topics.

Each of the above standards emphasizes one of three modes of communication: *interpersonal*, *interpretive*, and *presentational*. The interpersonal mode emphasizes the direct interaction between two or more individuals through FTF communication, telephonic communication, or CMC (NSFLEP, 2006). By interacting, speakers request additional information or clarification of a message. Since the interpersonal mode of communication focuses on the interaction, speakers may apply productive skills, such as speaking and writing, and receptive skills, such as listening and reading. The interpretive mode, however, is a receptive mode of communication that does not permit a direct interaction between the producer and recipient of the message. Recipients must interpret the message based on previous content and cultural knowledge without the assistance of the producer of that message. The presentational mode is the productive stage of communication and pertains to the production of a message for an audience without the ability on the part of the speaker to check for understanding.

**Summary of standards-based foreign language instruction.** A standards-based approach demonstrates the collaboration between ACTFL, the ILR, and the Educational Testing Service to develop guidelines that describe performance levels expected for students learning foreign languages and content areas for foreign language instruction. The *SFLL* (2006) emphasize communication to interact with other speakers of the target language and as a means to learn about communities and to make comparisons between cultures and languages. The *ACTFL Proficiency Guidelines* (2012) divides proficiency levels into five categories:

Distinguished, Superior, Advanced, Intermediate, and Novice. Student performance levels after one year of foreign language study in grades 9-12 and at institutions of higher learning show that the majority of students are performing at the Novice-High and beginning to reach Intermediate-Low. The next section describes research focusing on communication and interaction in the foreign language classroom.

### **Characteristics of Interactions in the Foreign Language Classroom**

Interactions, according to Oxford (1997), are interpersonal communications and relate to types of language tasks, learners' willingness to communicate with each other, learning study dimensions affecting interaction, and group dynamics. Devitt (1997) supplemented this definition of interaction with (a) the means of communication that include oral and written communication between two or more individuals through FTF, over the phone, and written exchanges over the Internet; (b) the interaction between the reader and the text or the various sub-processes of reading that include phonemic and lexical awareness and cognitive processing; (c) the interaction between the native and target languages; and (d) the interaction between the language learner and the data or the input. The interpersonal mode of communication, therefore, can be used to describe interactions.

The *SFLL* (2006) explain the complementary nature of the presentational and interpretive modes with the interpersonal mode of communication. In an educational setting, in the presentational mode, the student creating the message is thinking about past conversations as well as possible responses to his message being created at that time. A student reading or listening to a text will also think of possible responses or comments depending on the task assigned by the instructor (Lantolf & Thorne, 2006). Interactions in the foreign language classroom can take many forms such as role-play activities, simulations, games, or may include the use of computers and technology. In a comparative study of research on the interactive use of language in the classroom, Oxford (1997) explained that depending on the application of these types of tasks and the student's personality and personal history, interaction promotes vast amounts of authentic language, causes active student involvement, and engages students' motivation and interest. Gass, Mackey, and Pica (1998) reiterated the complexity of language acquisition and stressed that "interaction should not be seen as a cause of acquisition; it can only set the scene for potential learning" (p. 305). The following sections contain a general overview

of research specifically discussing the use of interactions in the target language for foreign language acquisition.

**Long's Interaction Hypothesis.** To understand interactions and the roles of input and output during conversations, Long (1981) studied characteristics of discourse between native speakers and between native speakers and non-native speakers. Long analyzed the output of pairs of native–native, native–non-native, and non-native–non-native speakers. He observed that typically native speakers were less likely to modify their output during the conversation. When non-native speakers were paired with native speakers who did not modify output to assist with comprehension, the non-native speakers demonstrated difficulty understanding. Pairs with non-native speakers and native speakers applying modified output resulted in non-native speakers demonstrating higher rates in understanding and language acquisition. This modified input and output to facilitate understanding is known as *negotiation for meaning* and is characteristic of native speakers, or more advanced non-native speakers, who use a variety of strategies to avoid breakdowns in communication or to assist with understanding something that has been misunderstood (Gor & Long, 2009). Examples of strategies applied during negotiation for meaning are reduced length of utterance, clearer articulation, greater regularity and predictability in word order, and a slower rate of speaking (Gor & Long, 2009). As a result, negotiation for meaning enables two speakers of different abilities to continue interacting in the target language while assisting with comprehension.

**Krashen's theoretical beliefs on language acquisition.** In 1985, Krashen published a collection of essays summarizing his theories of language acquisition. For language acquisition, Krashen (1985) explained that learners need comprehensible messages or *comprehensible input* (p. 9). The application of comprehensible input is part of his Input Hypothesis that supports the use of pictures and other realia to assist the learner with understanding the message. Another component of this hypothesis relates to speaking and to conversations.

Krashen explained that speaking in itself does not promote language acquisition and rejects the idea that speaking to oneself will help one learn more of the target language. When speaking becomes a conversation that includes comprehensible input, then acquisition occurs. He continued, “the ability to speak ‘emerges’ on its own, as a result of language acquisition, as a result of obtaining comprehensible input” (1985, p. 9). The idea of the emergence of the ability to speak, according to Krashen, explains the silent period children and foreign language learners

experience as they listen to input before they begin to speak. He believed that during this silent period, learners are acquiring and building language competence. He also stated that grammatical lessons or instruction are not necessary because learners are acquiring correct grammatical structures during the silent period. After the silent period, when the appropriate level of competence is achieved, one begins to speak.

Educators, according to this theory, should not force learners to produce with the language until they are ready to do so. Being forced to produce in the target language before the appropriate level of competence has been achieved may cause stress and anxiety that hinders language acquisition and performance. This idea relates to Krashen's Affective Filter hypothesis. The Affective Filter explains the difficulty students encounter when they are not motivated, are stressed or anxious, and/or have low self-esteem. Forcing students to produce language in the classroom increases stress levels and anxiety, which in turn, inhibits the language acquisition process. A high level of Affective Filter hinders input comprehension and can prevent students from producing with the language. Krashen points out that difficulty in output production under stressful conditions are a result of the Output Filter. The effective language classroom, according to Krashen's theories, would be a nurturing and non-stressful environment with plenty of comprehensible input. Other researchers (Swain, 1995) explained that comprehensible input is necessary, but that other components were also essential for language acquisition.

**Swain's Output Hypothesis and beyond.** While acknowledging the necessity of comprehensible input, Swain (2000) pointed out that it is not entirely sufficient for acquisition to occur. She suggested the need for interaction and output production. In 1985, Swain's research of French immersion students after six to seven years of comprehensible input demonstrated that input was insufficient for complete language acquisition. The results of her study showed that even though students received comprehensible input, their performance in written and spoken French contained grammatical and syntactical errors not typically found with native speakers of French. Later, Swain (1995) continued her discussion of the importance of output and explained several benefits of output production. If learners were required to produce with the language, then they were being pushed to process the language more deeply. Swain also argued that by producing with the language, students would realize the limitations of their knowledge and notice language formations that they had yet to acquire.

When approaching language analysis holistically, the combination of input and output, the discussion of language acquisition begins to refocus on the role of interaction. Swain (2000) discussed the use of interactions through collaborative dialogue “in which students are engaged in problem solving and knowledge building” (p. 102). Swain analyzed interactions for adult advanced second language learners of English. The study analyzed interactions of three different groups and the processes used to solve a task that required them to look over various applications for a scholarship. While completing the task, the students were instructed to focus on any errors in grammar and to discuss the selection process. Two of the groups received training regarding the use of a metacognitive strategy while the control group did not receive the same instruction. One group was told to complete the task and to verbalize not only the steps to complete the task but the reasons for the grammatical choices during discussion. The second group was told to complete the task without the additional step of verbalizing the explanation for the grammatical choices. The control group was told to complete the task without additional training in the metacognitive strategy. All three groups demonstrated the use of negotiation for meaning that focuses on content, but the group that made significant gains in retaining the concepts four weeks after completion of the study was the group that verbalized the steps to complete the tasks and the reasons for grammatical choices. To summarize the study, Swain (2000) concluded “when a collaborative effort is being made by participants in an activity, their speaking (or writing) mediates this effort. As each participant speaks, their ‘saying’ becomes ‘what they said’, providing an object for reflection” (p. 113).

### **Summary of Review of Literature on Interactions in the Foreign Language Classroom**

Research on the instructional use of interactions in the foreign language classroom has focused on various components of communication and levels of mediation over the years. Research topics ranged from the emphasis on individual cognitive development (Firth & Wagner, 1997; Hall & Verplaetse, 2000) to current methodologies that demonstrate the holistic use of interaction as a socially mediated psychological tool to learn a foreign language (Devitt, 1997; Hall & Verplaetse, 2000; Lantolf & Thorne, 2006; Oxford, 1997; Swain, 2000). Activities designed to enable students to interact range from role-play to more complicated assignments requiring students to vocalize grammatical choices and to correct errors during discourse. Although interactions can provide students with valuable opportunities to use the language to

discuss a variety of topics and to improve understanding of grammatical structures, it is important to realize that interaction is a tool and not a cause for foreign language acquisition.

### **Distance Learning**

This section of the review of literature contains relevant literature focusing on various areas related to DL. The first heading focuses on the development of technology and DL. The development of technology and its application to DL courses is divided into five generations depending on various variables and is discussed under this heading. The section continues with an explanation of documented benefits and limitations of DL, followed by research demonstrating these benefits and limitations. The fourth heading provides results of studies focusing on interactions and the use of CMC in the foreign language classroom. This section concludes with a summary of DL.

### **Development of Technology and Distance Learning**

Since the 1980s, the goals of DL have been to create an alternative to traditional education, to offer degree granting opportunities, “to battle illiteracy in developing countries, to provide training opportunities for economic growth, and to offer curriculum enrichment in non-traditional educational settings” (Gunawardena & McIsaac, 2004, p. 356). DL provides students, for one reason or another not able to take traditional classes, alternatives to fulfill educational and employment goals (Goertler & Winke, 2008; Natriello, 2005; Ohler, 1991). Providing these students with additional opportunities has created pressure for colleges and institutions to develop courses and programs to satisfy growing student and economic demands (Cox, 2005; Goertler & Winke, 2008a, 2008b) or to modify course scheduling to accommodate increased enrollment and limited staffing (Goertler & Winke, 2008; Sanders, 2005).

The origin of DL courses dates to the 1890s with the use of printed, one-way communication through correspondence courses that provided slow, delayed feedback, and afforded no audio component (Kraemer, 2008). The development of the Internet has created an explosion of interest in DL (Natriello, 2005). Kraemer reviewed literature on the evolution of DL and created five generations of DL as seen in Table 1. For each of the five generations of DL, Kraemer listed the medium, the interaction type, the advantages, and the disadvantage of each. Kraemer did not list disadvantages for the fifth generation: intelligent, flexible learning. This should not be interpreted as a perfect means of instruction, but rather as an area for further development and research to understand the limitations of the technology.

Table 1

*Five generations of distance education technologies*

		Since	Medium	Interaction type	Advantages	Disadvantages
Second generation:	First generation: Correspondence	1840s	Print	One-way	Reaches large numbers of students easily/ Cost effective	Slow/ No immediate feedback/ No listening component/ High internal motivation necessary
	Multimedia	1950s	Print + multimedia	One-way (few opportunities for two-way)	Option of interaction (listening component)	Access to hardware
	Third generation: Telecommunications	1960s	Print + multimedia + broadcast media	Two-way (mainly asynchronous)	Quick/ Immediate feedback/ All four language skills/ More personalized	Large time-constraints/ Discontinuous (less flexible)/ Some travel may be necessary/ Higher costs depending on medium

Fourth generation: Flexible learning/Web 1.0 and Web 2.0	1990s	Print + multimedia + broadcast media + computer + internet	Two-way (synchronous and asynchronous)	Real-time/ Flexible/ Individualized/ Interactive/ Collaborative	High initial costs/ Maybe high maintenance costs/ Higher teacher involvement
Fifth generation: Intelligent flexible learning	On-going	Print + multimedia + broadcast media + computer + Internet + automated response systems	Two-way (synchronous and asynchronous)	Decrease in teacher involvement/ Significant decrease in costs	

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Note. Adapted from “Formats of Distance Learning,” by A. Kraemer, 2008, CALICO monograph series: Vol. 7. *Opening doors through distance learning language education: Principles, perspectives, and practice*, p. 20. Adapted with permission.

The limitations of one-way communication during the first and second generations of DL were a concern for foreign language educators focusing on communicative-based language instruction (Blake, 2008; Cox, 2005; Gunawardena & McIsaac, 2004; Sánchez-Serrano, 2008; Warriner-Burke, 1990). The availability, however, of two-way synchronous and asynchronous communication starting in the 1960s created new opportunities for interactive distance language learning (Kraemer, 2008). With the development of social networking sites and programs, a fifth generation of DL incorporates these technologies to provide intelligent flexible learning (Kraemer, 2008; Lomicka & Lord, 2009). Even though social networking sites and programs are available in contemporary society, the course design for most DL courses are classified as fourth

generation because of the use of computer and Internet access to a course management system, text-based and audio-based discussion boards, and requires a high level of teacher involvement (Kraemer, 2008). For this reason, the review of literature was limited to studies of learning a foreign language in higher education by using DL or hybrid courses using synchronous and asynchronous CMC.

### **Benefits and Limitations of Distance Learning**

Researchers (Blake, 2005, 2008; Draves, 2002; Palloff & Pratt, 1999; Sanders, 2005) support DL as an effective method of instruction that promotes active learning. Draves (2002) believed DL courses increased the ability to learn factual information because a learner (a) can learn during his or her peak learning times, (b) can learn at his or her own pace, (c) can focus on specific content areas, (d) can test comprehension daily through computer graded activities or quizzes, and (e) can interact more with the teacher. He also described the interactive nature and equitable opportunities afforded with DL:

The next time you are in a class, count the number of questions asked of the teacher during a one-hour time period. Because of the instructor's need to convey information, the time able to be devoted to questions is very short. In an online course, everyone can ask questions, as many questions as each learner wants or needs. (p. 11)

In addition to extended time for questioning, DL courses promote more discussion than traditional FTF courses because of the decreased constraints on time. In a class of 30 students, if six to eight students are actively engaged in the conversation the remaining students have little chance to comment during a typical one-hour class period. However, the instructor and the rest of the class might agree that it was an engaging class session. In the threaded text-based or the audio-based discussion boards, on the other hand, six to eight students actively participating in a discussion thread or topic of a DL course with 30 students would be labeled as lagging participation. Since asynchronous discussion provides students with the opportunity for more equitable participation among classmates than FTF environments that are restricted by time, it is expected that more students will participate in discussions (Draves, 2002; Kern, 1995; Palloff & Pratt, 1999; Warschauer, 1996).

The necessity to post and comment on other students' submissions to obtain credit or to participate requires students to be more active in discussion and activities without the ability to hide in the back of the classroom or to take advantage of other students' enthusiasm that might

dominate classroom discussion. Providing the possibility for equitable participation does not guarantee that every student will take advantage of the opportunity and participate or post assignments. Unlike DL courses, traditional FTF settings enable instructors to call on students not actively participating and encourage them to respond. In the DL classroom, sending e-mails to students urging them to respond might not yield the same effect.

As an overview of student satisfaction comparing distance education and traditional FTF classrooms in higher education, Allen, Bourhis, Burrell, and Mabry (2002) conducted a meta-analysis of the key words *distance learning*, *distance education*, and *satisfaction* to reevaluate the conclusions of studies regarding student satisfaction. From the initial search, approximately 450 manuscripts were considered for inclusion. A second screening of manuscripts was conducted based on a list of criteria. In the meta-analysis, the authors of the study included only those studies that (a) compared the student satisfaction with a distance learning course with a course using traditional FTF methods of instruction, (b) included a control group and that did not report a case study of DL, (c) reported sufficient statistical information that would permit the calculation of an effect size, (d) did not rely on surveys of administrators and teachers toward the use of DL, and (e) did not study persistence of students in the DL courses. Twenty-four studies in a 10-year period (1989 to 1999) were included in the meta-analysis. The conclusions showed a slightly higher level in student satisfaction with traditional FTF than with DL. The results also showed a slightly higher level in satisfaction in DL over traditional FTF when using video as the means for DL as opposed to written text as a means of communication. These results demonstrate the importance of matching student preferences with the desired mode of instruction.

While the “classroom delivery of instruction is *not* a gold standard against which all other educational delivery systems must be judged, it is still the most familiar to teachers and students” (Berge, 2000, p. 23, emphasis in the original). Developments in technology are providing educators with more tools and opportunities to modify DL courses to meet the various needs of DL students. In the following section, research focusing on foreign language study through DL and the development of technological tools that promote interaction among students and educators are discussed.

## Foreign Languages and Distance Learning

Sánchez-Serrano (2008) acknowledged various challenges of creating and implementing DL courses for foreign languages and stated that “the teaching–learning process cannot be limited to the transmission of knowledge through written text. In the case of teaching a foreign language at a distance, the oral component presents an array of complex issues” (p. 153) that the instructor or course designer must overcome. Even though traditional FTF classrooms provide students with interpersonal opportunities, a teacher-led classroom with 25 or more students limits the amount of one-on-one time available to speaking or listening activities during a single class session (Hokanson, 2000). Some students may also feel intimidated or timid during FTF courses but show a higher rate of participation during online chat sessions (Beauvois, 1992; Kern, 1995; Warschauer, 1996). Niño (2009) summarized Sayers’ (1993) list of advantages for language learning through DL:

- Experimental learning: Students are enabled to learn by doing, thus becoming the creators in addition to being the receivers of knowledge.
- Motivation: Computers are usually associated with fun, games, and a wide spectrum of activities, which make students feel more independent.
- Enhanced student achievement: The technology positively affects students’ attitudes toward learning, helps them build self-instruction strategies, and promotes their self-confidence.
- Authentic materials for study: Students can access authentic reading resources from anywhere at any time.
- Greater interaction: Students can send e-mails, join social networking sites or virtual worlds, and receive immediate feedback on their online exercises.
- Individualization: Both shy and less inhibited students can become engaged in student-centered collaborative learning.
- Independence from a single source of information: Students are presented with opportunities to escape from “canned” knowledge and discover multiple information sources, thus promoting interdisciplinary learning in a multicultural world.
- Global understanding: Multicultural communication can be practiced on a comprehensive level via the Internet. (p. 24)

Sayers' (1993) study focused on the use of distance team teaching projects to enhance intercultural instruction by teaming classes from different cultures with each other. Sayers reported "students' written communications become more meaningful to their faraway colleagues when supplemented by audiovisual or mixed media" (p. 19). Another benefit observed in his analysis, "the very face of having a partnership with a distance class encourages local students to look more closely at their own communities and at the diverse perspectives that may be found right before their eyes" and continues by describing how "they develop insights into how reading and writing can mediate intercultural communication" (p. 19). The program discussed by Sayers is *Orillas: An Intercultural Distance Team Teaching Network* with more than 100 schools using Chinese, French, Haitian Creole, English, Japanese, Portuguese, Spanish, and American and French Canadian Sign Languages to communicate between different communities. When used appropriately, CALL and CMC enable students and instructors to interact with each other and computer software in an engaging and stimulating intellectual environment (Beauvois, 1992; Draves, 2002; Kern, 1995; Niño, 2009; Palloff & Pratt, 1999; Warschauer, 1996). The next section provides an overview of how the use of CMC has enabled students to interact.

### **Interactions and CMC**

With a standards-based approach to foreign language instruction, providing students opportunities to interact with the target language is essential to communicative competence. Romiszowski and Mason (2004) stated:

The potential for interaction in the CMC environment is both more flexible and potentially richer than in other forms of computer-based education. The textual aspects of CMC, and in particular of asynchronous CMC, support the possibility of greater reflection in the composition of CMC than is seen in many forms of oral discourse, with implications for levels of learning. (p. 398)

As a general description of oral proficiency development through the use of text-based synchronous CMC, Hokanson (2000) provided characteristics of chatroom use that may enhance oral proficiency:

- (a) the student-centered nature of the interaction, mimicking that of the classroom but with more social pressure to write something, since, unlike the face-to-face situation, a student is only "present" when saying something;
- (b) the greater opportunity for each

student to comment because all can write at once without appearing rude, unlike speaking when sitting nearby a partner; (c) the greater amount of time available to think through one's sentences before submitting them, contributing to practicing correct verb conjugation and correct sentence formation; (d) the subvocalization or even vocalizing aloud that goes on during keyboard use, which contributes to correct pronunciation and intonation; and (e) the immediacy of feedback because the teacher can monitor more conversations at once than is possible when physically cruising a classroom of students conversing. (p. 87)

Another study by Payne and Whitney (2002) study supports previous research (Kern, 1995; Warschauer, 1997) that showed higher oral performance levels for students participating in the chat sessions instead of the FTF discussions. For the study, the two experimental groups participated in chat sessions twice per week instead of FTF discussions. Payne and Whitney also explained that 16 of the 23 participants (69.5%) were conscious of sub-vocalization production during chat sessions. More than 50% of the participants also explained that they read other comments aloud while participating in the chat session.

Hirotani's (2009) study analyzed Japanese oral proficiency levels of students engaged in synchronous text-based CMC, asynchronous text-based CMC, and FTF discussions. The participants for the study were fourth-semester university students studying Japanese. Each group met five days per week, with Friday devoted to using Microsoft Network (MSN) Instant Messenger chat for the synchronous group, text-based discussion boards for the asynchronous groups, and FTF classroom discussions for the control group. The study focused on language output, linguistic complexity, accuracy, and cohesiveness. Data results supported other studies (Chenoweth, Ushida, & Murday, 2006; Cubillos, 2007; Echávez-Solano, 2003; Kost, 2004; Schida & Saury, 2006; Zhao, Lei, Yan, & Lai, 2005) showing no significant difference in gains between CMC and FTF sessions. The synchronous group performed significantly better in language output with an increase in the number of sentences produced, while the asynchronous group performed better in syntactic complexity.

In a study using bimodal synchronous CMC that included the simultaneous use of text-based and audio-based discussions for a DL Spanish class at a four-year institution, Blake (2005, 2008) analyzed the use of bimodal synchronous CMC sessions compared to traditional FTF sessions. Participants were required to meet for one hour per week with the instructor and with

assigned teams to complete individual tasks using software that enabled the use of audio and text. Blake's data showed positive results of synchronous CMC when compared to FTF oral proficiency. Even though Blake's study showed positive results, requiring extended periods of synchronous CMC would create scheduling conflicts for many DL students needing flexible scheduling.

### **Summary of Review of Literature on Distance Learning**

Throughout the history of DL, the format of DL changed as technology developed and provided more opportunities for individuals to interact through two-way synchronous and asynchronous CMC. Developments in technology provided students with opportunities to attend classes and overcome temporal and physical distances. When used correctly, DL courses also promoted an active and equitable learning environment. Concerns regarding opportunities for student interaction for skill-based courses such as foreign languages have not only been alleviated through the use of CMC, but also have provided some results with higher performance levels than traditional FTF foreign language courses. While these results are promising for DL, more research on using asynchronous audio-based CMC and on the types of interactions that occur while using this technology is essential for improving DL foreign language courses.

### **Summary of Review of Literature**

This review of literature included relevant research from several areas in order to provide a holistic theoretical foundation of learning a foreign language as DL. Foreign language proficiency is considered a process requiring many years of instruction and study; it consists of more than the knowledge of grammatical structures and vocabulary. The *SFLL* (2006) promote the use of language through interactive activities as a mediational psychological tool for language acquisition. Because of the holistic approach to foreign language instruction, SCT provides a logical theoretical lens and research methodology to analyze the interactions between students learning Spanish through DL. The review of literature also described the development of technology and its application to DL courses. Audio-based CMC has provided students and educators opportunities to interact synchronously and asynchronously to improve DL foreign language courses. Documentation of the types of interactions occurring when using asynchronous audio-based CMC is limited, however, and would provide an important tool in understanding how students complete these assignments. This study provides data to help fill this gap in literature regarding foreign language learning through DL.

### **Chapter 3: Methodology**

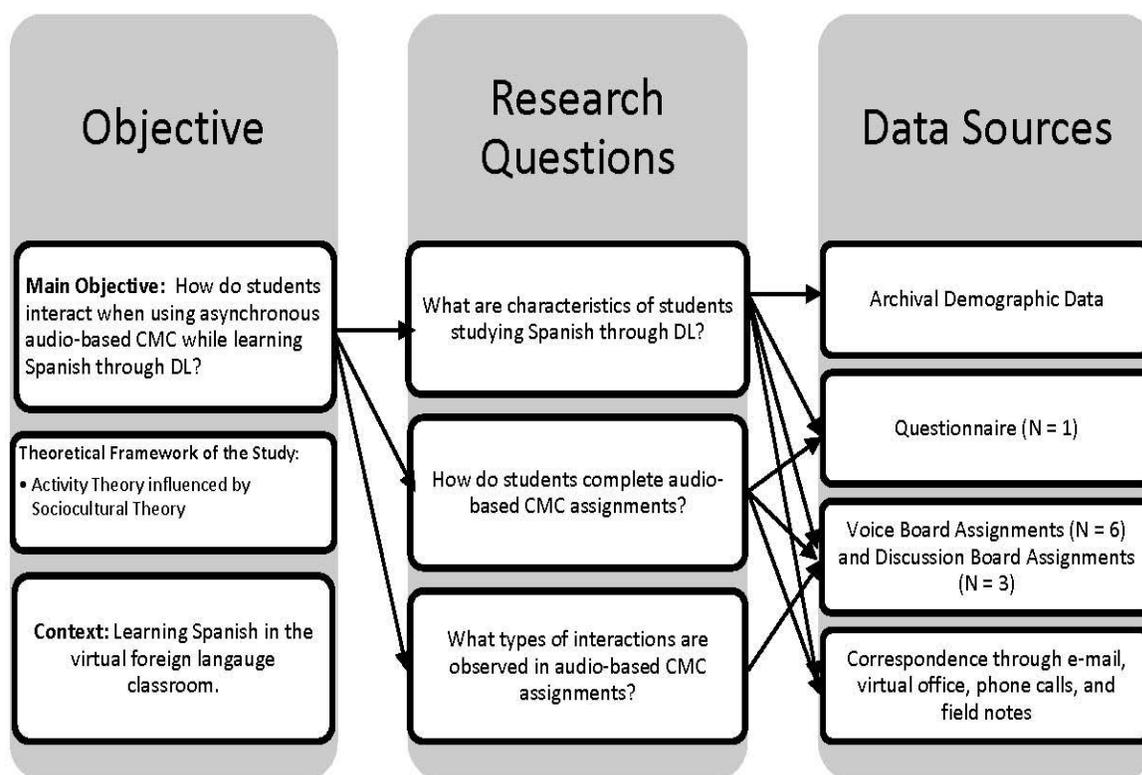
In keeping with the tenets of sociocultural theory (SCT), this research study focused on a holistic approach that emphasized learning as a process with complex individual and societal components. To accomplish this task, an embedded multiple-case study design with quantitative and qualitative data was used for the current study. This chapter begins with a review of the overall objective, the guiding research questions, the design chart for the proposed study, the definition of the specific audio-based computer mediated communication (CMC) used for the study, and an explanation of the theoretical framework guiding this case study. Next, I describe who I am as a researcher and my position in the study. The third section explains online methods for conducting online research and computer mediated discourse analysis that was used to analyze audio-based CMC utterances. The fourth section includes the research protocol, the justification for selecting a case study design, a graphic demonstrating the various components of the case study, the context, the participants and the selection of the case, the procedures, and the data analysis. This chapter concludes with a summary of the methodology.

#### **Research Questions**

The overall objective of this study was to describe and analyze how students interacted when using asynchronous audio-based CMC while learning Spanish as DL. Three supporting questions guided my research:

1. What are characteristics of students studying Spanish through DL?
2. How do students complete audio-based CMC assignments?
3. What types of interactions are observed in audio-based CMC assignments?

Figure 5 shows the overall objective for the current study and how the research questions are aligned with the various data sources.



*Figure 5. Design Chart for Study*

For the study, I used an audio-based CMC designed by Wimba (2009) known as a voice board. A voice board is a threaded discussion board that allows users to record and submit audio posts as seen in Figure 6. The voice board provides users with the ability to interact through asynchronous text and audio recordings. Since the focus of this study was audio-based communication, students were instructed not to use the text feature and to use only the audio-based feature during the assignments.

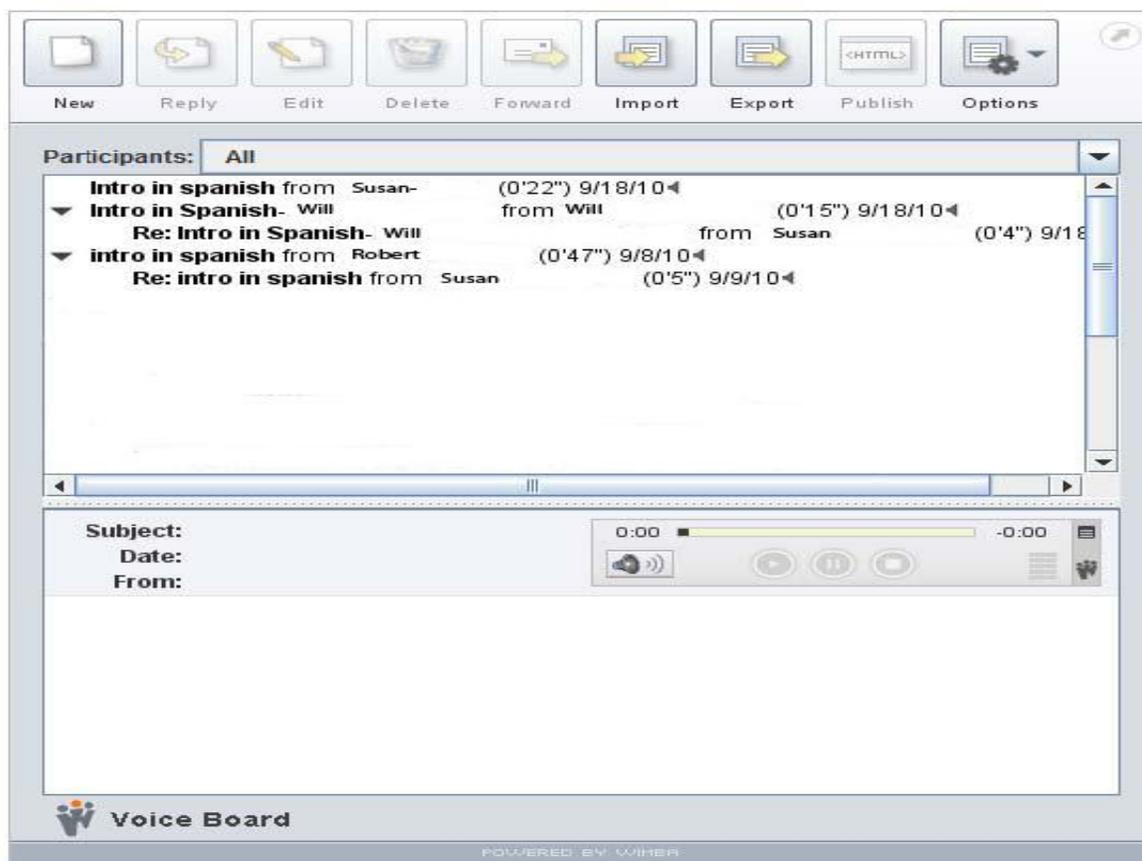
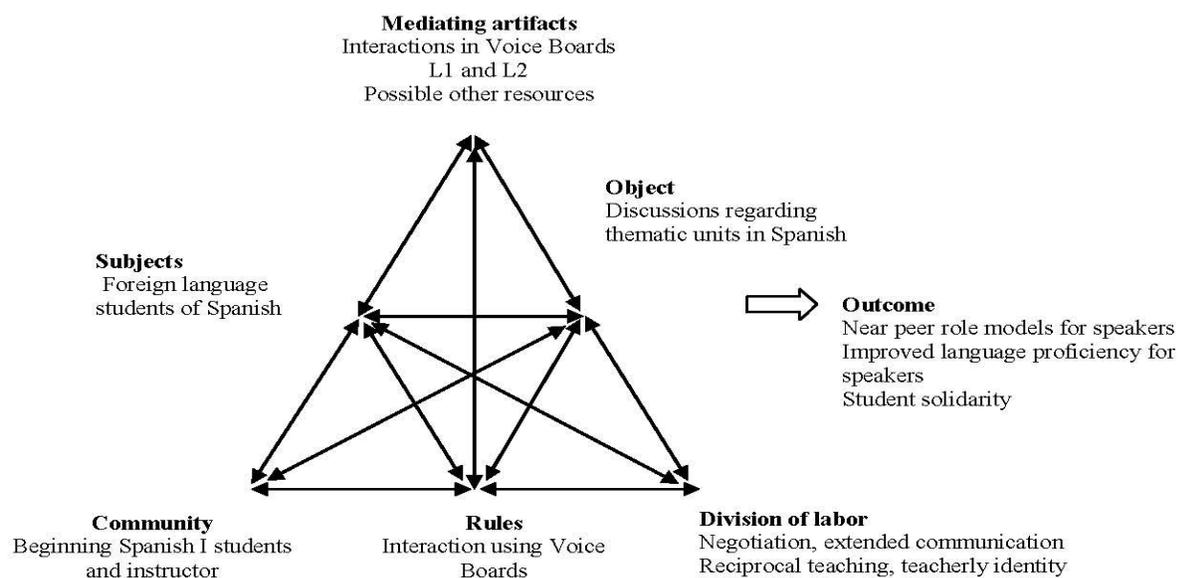


Figure 6. Voice board snapshot showing interaction among students

As seen in Figure 6, students post an initial audio recording that starts a threaded discussion. Other students are able to reply to the previous recording and interact through audio recordings instead of a text-only discussion board.

### Theoretical Foundation

For the study, modern activity theory as influenced by SCT was applied as the theoretical framework. A modified graphic of Lantolf and Thorne's (2006) modern activity theory visually represents the study with this framework as seen in Figure 7.



*Figure 7.* Modern activity theory applied to the current study. (See Figure 3 and Figure 4 for Lantolf & Thorne's (2006) representation of modern activity theory.) Adapted with permission.

The community consisted of Beginning Spanish I students and me as teacher–researcher. The students used discussion topics based on chapter themes that were created for the voice board assignments. For the purposes of the study and to facilitate discussion, the term *assignment* and *task* are used interchangeably. For this study, students had access to the rubrics for each assignment and sample posts to familiarize them with the procedures for using the voice board. For the mediating artifacts, I included voice boards, native and target languages, and the possibility of other genre-specific resources such as dictionaries and textbook. Since the students completed these assignments through DL, I did not have direct access to the types of artifacts and resources that they used to complete the assignments. Because of this, students could have also used electronic translators to assist them in preparing the text for the recordings. The expected outcome of the voice board assignments was that students would have improved language proficiency.

### **My Position in the Study**

Because I am the instructor for the course, I also became the subject in an activity setting as a researcher applying activity theory. My personal history was relevant and influenced my interpretation of the data and the overall research study. In this section, I explain my *worldview* (Creswell & Plano Clark, 2007) and how it applies to me as a teacher–researcher and participant–observer. According to Creswell and Plano Clark (2007), a worldview describes how one views the world, one’s philosophy through personal experiences, culture, and personal history. Even though these concepts may change at specific times during a lifetime, currently I would classify myself as pragmatic because (a) I focus on consequences of actions, (b) I am problem centered, (c) I am pluralistic, and (d) I am real-world practice oriented (Creswell & Plano Clark, 2007). In the following paragraphs, I describe several personal experiences that have influenced my life and, as a result, my worldview.

While reading Markham’s (1998) ethnographic research “to explore how users create, negotiate, and make sense of their social experiences in computer mediated contexts” (p. 9), I was quickly reminded of several friends who relied on virtual communities instead of attempting to interact socially face-to-face (FTF) or to enhance their FTF interactions. Similar to Markham’s conversation with other users regarding the selection of a username for an Internet community, one friend in particular carefully selected his usernames for various sites depending on which personality attribute he wanted to emphasize. For him, virtual communities became the network where he shared his ideas and his dreams with others through discussion boards, chat rooms, and e-mails. Another friend, while not completely disconnecting himself from FTF communities, used his virtual interactions to enhance his non-virtual reality, and vice versa, as topics of discussion in both communities. Personally, I have improved my Spanish sociocultural awareness of pragmatic issues while teaching English through text messages to a friend from Honduras. These examples directly relate to my current research interests and are essential components of what the Internet has to offer in educational and non-educational contexts. Through these experiences, I have witnessed the ability of the Internet and virtual communities to become living social networks.

During this study, I played two dichotomous and complementary roles: teacher–researcher and participant–observer. This study can also be classified as *teacher research* (Cochran-Smith & Lytle, 1993) because the participants were my students and I analyzed my

classroom. My primary role, therefore, was that of the teacher or instructor. Since my first experience in the classroom in 1998, I have “felt discrepancies between intention and reality, theory/research and practice,” (Cochran-Smith & Lytle, 1993, p. 12) and have had a desire to grow and develop into a professional educator. I became a reflective practitioner and realized that separating the teacher–researcher roles was not an easy task. Because of my teaching role, it was essential to actively participate during assignments and provide guidance and mediation during the study instead of solely observing my students. For me, teaching is a constant cycle of instructing, participating, observing, and reviewing. During the study, I documented this process in order to apply the critical lens of a researcher. I was aware of the difficulty of these multiple roles and took precautions to account for and to document my experiences. An example of these precautions was to ask myself the purpose of sending an e-mail or making a comment to a student in an assignment: to assist the student or to manipulate the situation to obtain specific results. This pause before acting provided me with an opportunity to analyze my actions and categorize those actions into the appropriate role. As described in SCT, individuals are a complex mix of genetics and societal influences that should be studied holistically.

My worldview also extends beyond a desire to become a better instructor and a better researcher. I realized that my drive to understand and to attempt to improve the educational environment at the community college level originates from my family and the hardships we have experienced. Both of my parents are children of West Virginia coal-miners. My father did not complete high school, but enlisted in the Navy to provide for us and to learn valuable skills. I remember him saying that he was not able to stay in school as a young man because he was not smart enough and that he needed to find a job. Even today he often comments on his lack of *book smarts* even though he has had a successful career with the skills he learned in the military. My mother graduated high school and has worked primarily in factories and various department stores. Years ago I remember her describing her dream of becoming a radiologist. When she was younger, she had been accepted into a program and had already paid her tuition. Because of several family obstacles and responsibilities, however, she was unable to attend courses and could not fulfill that dream. My brother dropped out of high school and later attended classes through his current employer to obtain his GED. Unhappy with his job, he has taken steps to register for classes at a local community college on several occasions, but decides he is unable to afford neither the time nor the money to attend classes while taking care of his family. After

teaching in middle and high schools, as well as private colleges and universities, I have realized that at times I see the faces of my family and friends in my students.

While allowing my personal experiences to motivate me, I acknowledge my roles in this study. As the teacher–researcher, I wanted my students to be successful and I wanted to interact with them and to assist them in their progress to obtain their individual and course goals. As the participant–observer, I wanted to understand why certain actions occurred or did not occur and to develop procedures and recommendations to improve FTF and DL instruction. Through this process, by combining these two dichotomous roles, I reflected on my approaches to teaching and also revealed and made public who I was during this study. I was also aware that these results might encourage methodological changes to my future DL courses.

### **Online Methods**

As developments in technology continue to provide more opportunities to communicate and to interact with each other, social scientists increasingly become interested in exploring and understanding new forms of communities and social networking through mediation (Hine, 2005; Kozinets 2010). According to Hine, “mediated interactions have come to the fore as key ways in which social practices are defined and experienced” (p. 1). To assist researching online or virtual activity and/or communities, researchers (Hine, 2005; Kozinets, 2010; Mann and Stewart, 2006) have modified research methods accepted and used in FTF settings to accommodate the various differences in virtual or online settings and observational techniques. This section describes variations of traditional FTF research methods that are important to understand when conducting online research and a specific method of discourse analysis also applicable for studying online activity.

### **Virtual Setting or Field**

In FTF research studies, the researcher will typically locate a physical place to conduct research that would include FTF interactions to conduct fieldwork. When conducting research online, however, the setting or the field becomes online or virtual without physical walls (Hine, 2005; Kozinets, 2010; Mann and Stewart, 2006; Sanders, 2005). To describe the virtual space, Mitchell (1996) says the Internet

is ambient—nowhere in particular but everywhere at once. You do not go *to* it; you log *in* from wherever you physically happen to be. In doing this you are not making a visit in

the usual sense; you are executing an electronically mediated speech act that provides access—an ‘open sesame.’ (pp. 8-9, italics in the original)

According to Schaap (2002), this virtual space can be described as a *textual world* that has already been created by an online community. The task for online researchers, according to Kozinets (2010), is to not solely study texts, “but people’s interactions through various technologically-mediated means” (p. 113). He continues comparing FTF research settings with online settings by explaining that researchers “do not merely study the movements of bodies and vibrations in air—they study the meanings of acts and utterances” (p. 113). This concept continues in the next section with a description of virtual or online observations.

### **Virtual Observations**

Online researchers (Hine, 2005; Kozinets, 2010; Mann & Stewart, 2006; Markham, 1998; Rutter & Smith, 2005; Sanders, 2005) refer to *online observations* and *participant observations* when reading, listening, or watching interactions online through CMC. Even though direct observation of individuals is not occurring unless video software is being used to project synchronous or asynchronous images, what is being observed could be classified as artifacts created and left by individuals or programs. As a guide to classify these observations, Kozinets (2010) refers to three distinct types of data collection: archival data, elicited data, and fieldnote data. In this context, he defines *archival data* as anything that the researcher copies directly from preexisting CMC created by the online community. Examples of archival data in this context would be information from preexisting websites and posts in discussion boards or online forums. The main characteristic of archival data is that the researcher does not solicit information directly from the participants. When the researcher or teacher directly interacts with participants, these data are classified as *elicited data*: postings and comments, e-mail, chat records, and instant messages (Kozinets, 2010). For this study, elicited data included audio-based CMC. Kozinets’s third classification, *fieldnote data*, describes the researcher’s notes of observations of an online community, interactions and meanings, and personal reflection while collecting data. To maintain consistency with other online researchers and to limit confusion, the term *observation* was used when referring to the elicited data that occurred in the audio-based CMC assignments of the virtual foreign language classroom.

## Computer Mediated Discourse Analysis

This section contains a description of computer-mediated discourse analysis (CMDA) as a tool to analyze interactions through CMC. This section also contains the adaptation of previously used transcription conventions that were used when analyzing utterances. Similar to FTF observational and research techniques that have been modified for the online environment, Herring (2004a, 2004b) has modified discourse analysis to include technologically-enhanced discourse. To explain how CMDA can be used to enhance more traditional forms of discourse analysis, Herring's definition and the specific variables that distinguish CMDA from other forms of discourse analysis are provided. This section also contains a description of each variable in relation to this study.

Herring (2004a, 2004b) did not suggest creating a new form of discourse analysis. She recommended applying an additional component to traditional discourse analysis to analyze technologically-enhanced communication. According to Herring (2004b), CMDA

differs from other forms of discourse analysis in that its descriptive and interpretive apparatus crucially takes into account the technological affordances of CMC systems. Moreover, its methodological "toolkit" is customized to address common phenomena in CMC, and its analyses are socially, culturally, and historically situated in the larger Internet context. (p. 66)

CMDA explains the importance of acknowledging and accounting for the technological tools when analyzing CMC. In addition to linguistic analysis, CMDA also incorporates technological and situational variables. *Technological variables* may include: (a) synchronicity, (b) message-by-message versus keystroke-by-keystroke transmission, (c) size of message buffer, (d) persistence of transcript, (e) channels of communication such as text, audio, video, graphics; (f) anonymous messaging, and (g) automatic filtering. *Situational variables* may be (a) whether messages are private or public, (b) participant characteristics, (c) setting and purpose, and (d) norms of behavior. Several of the above technological and situational variables of CMDA were important when analyzing the utterances in the voice board assignments. To explain the characteristics in relation to the specific variables, two tables showing the technological and situational variables as they related to the current study are explained. Table 2 shows the technological variables for this study and Table 3 shows the situational variables.

Table 2

*Technological variables for current study*

Technological Variables According to CMDA	Variables for Proposed Study
Synchronicity	Asynchronous communication
Message-by-message or key-by-key	Message-by-message
Size of message buffer	Maximum time for audio is three minutes
Persistence of transcript	Cannot be deleted by student
Channels of communication	Voice board-audio
Anonymous	Identifiable
Automatic filtering	None

Several variables were of particular interest. In the voice board, students communicated asynchronously and submitted their recordings as one audio file per submission. This means that the assignments were received and accessed as a whole or message-by-message as shown in Table 2. Since each recording was submitted at one time, each voice board submission or recording was considered an utterance (Bakhtin, 1986). Each recording was submitted as a completed utterance. The recipient of the utterance was not able to interrupt the producer to ask for clarification. This also means that students producing a recording had the ability to rerecord, to make corrections, or to make other changes before submitting the assignment. When listening to the audio submissions, the recipient was also able to pause and replay the message as needed.

Table 3 shows the situational variables for the current study. Only the students enrolled in the course and I had access to the voice board submissions. Because of the restricted access, the voice boards were classified as private.

Table 3

*Situational variables for current study*

Situational Variables According to CMDA	Variables for Proposed Study
Private or public	Private-students and instructor only
Participant characteristics	Will vary depending on what students disclose during assignments
Setting and purpose	DL course with teacher lead voice board assignments
Norms of behavior	Respect all students as would be expected in a FTF classroom

The participant characteristics for each student varied depending on what each particular student chose to disclose. Even though this study focused on voice board submissions, all students enrolled in SPA 101-W1: Beginning Spanish I had access to all text-based discussion board assignments.

**Transcription conventions.** For this study, an adaptation of several transcription conventions was applied when transcribing all voice board recordings. After transcribing the audio and during the primary analysis of the text, I noted particular aspects of the audio of particular interest for my study. I reviewed Schiffrin's (1994) work and selected several of her recommended conventions that helped describe the observed behavior. These conventions are seen in Table 4.

Table 4

*Transcription Conventions Used for Current Study*

Convention Used	Description of Convention
CAPS	indicate emphatic stress
:	colon following a vowel or consonant indicates elongated sound
::	extra colon following a vowel or consonant indicates elongated sound
/words/	in slashes show uncertain transcription
/?/	indicates inaudible utterance
...	long pause of more than a two seconds
..	medium pause, longer than typical pause between sentences.
.	short pause typically used in writing
(H)	audible inhalation
(HH)	very loud inhalation
(Hx)	audible exhalation
(words)	researcher's comments

During transcription, I also attempted to recreate mispronunciations of words in Spanish as closely as possible using the English alphabet. Mispronounced words will be identified when discussing the results and analyzing the utterances in chapter four.

### **Research Design**

This section begins with the rationale for using a case study. Then, continues with a detailed description of the various components of the case study including the type of case study design, the context, the cases, and the units of analysis. Next, a description of data collection and data analysis procedures are discussed.

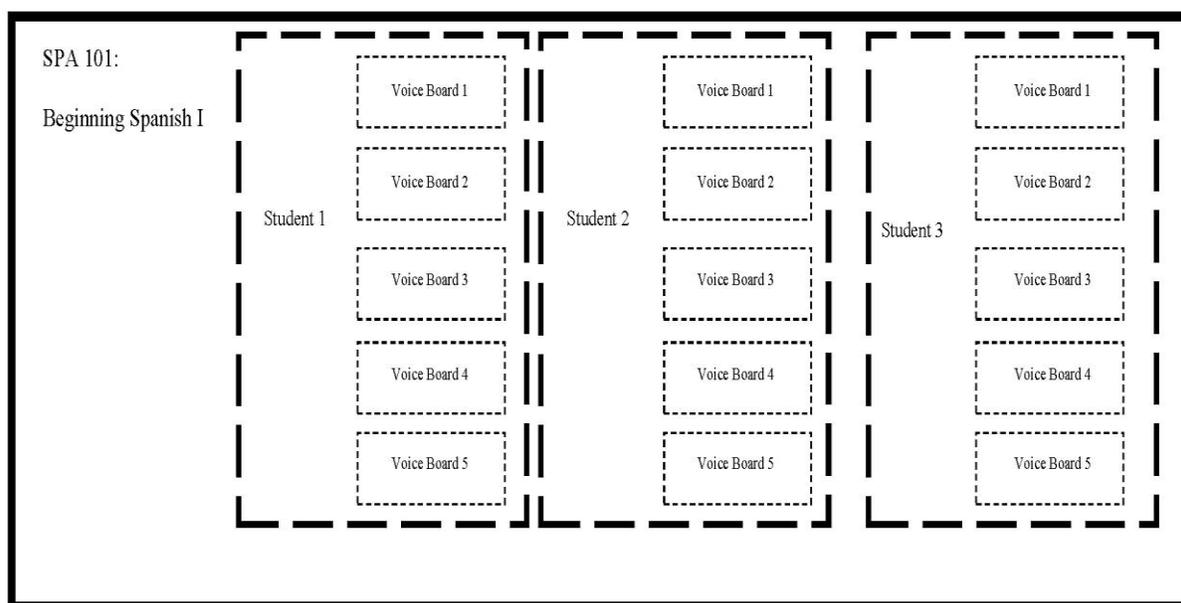
### **Case Study**

Stake (1995) described the case study as a method to explore a program, an event, or a process that is bounded by time and activity. Mackey and Gass (2005) supported the use of case studies “to provide a holistic description of language learning or use in a specific population and setting” (p. 171). Yin (2003) provided a two-part definition of a case study:

- A case study is an empirical inquiry that (a) investigates a contemporary phenomenon in its naturally occurring environment and (b) when the boundaries between the phenomenon and the context are not clearly evident.
- The case study inquiry (a) copes with a situation that may contain many variables of interests, (b) relies on multiple sources of evidence with data needing to be converged with triangulation, and (c) benefits from the prior development of theoretical propositions to guide data collection and analysis.

Since the overall objective of this study was to analyze and describe how students interacted in the context of a preexisting virtual foreign language classroom during the 2011 summer session, the case study was the most appropriate method for the current research. This case study can also be classified as an *instrumental case study* (Stake, 2000) because, in addition to describing the interaction, the ultimate goal was for this study to provide insight into the development of future DL foreign language courses.

When developing the case study protocol, Yin (2003) explained the importance of identifying the *context*, the *case* and the *units of analysis*. The context for this study was a SPA 101-W1: Beginning Spanish I course at a rural community college using DL as the means of instruction. The duration of the study was bounded by the predetermined dates for the 10-week summer 2011 session. The *cases* were three students taking the course and the *units of analysis* were the five voice board assignments as seen in Figure 8.



*Figure 8.* Units of analysis for embedded single-case design for current study.

The dashed lines surrounding each unit of analysis, as recommended by Yin (2003), demonstrate the individual structure of each voice board assignment. The dashed lines also demonstrate the interconnected nature of the individual assignments as a progressive theme of using language to interact with others. Since this study followed three cases or participants with multiple units of analysis, according to Yin's classification this research study is classified as an embedded multiple-case design.

In addition to identifying the case and the units of analysis, Yin (2003) explained the need to use multiple sources of evidence, to create a case study database, and to maintain a chain of evidence. According to Yin, "a major strength of case study data collection is the opportunity to use many different sources of evidence. Furthermore, the use of multiple sources of evidence in case studies far exceed the need in other research strategies, such as experiments, surveys, or histories" (p. 97). As seen in Figure 5, this study incorporated four sources of data to answer the guiding research questions. These data sources were archival demographic data, one questionnaire, voice board and discussion board assignments, and correspondence such as e-mails and phone calls with the three participants.

## Context

Before describing the virtual foreign language classroom (Hiltz, 1994; Hine, 2005; Kozinets, 2010; Mann and Stewart, 2006; Mitchell, 1996; Sanders, 2005; Schaap, 2002), I provide a general description of the area surrounding the college selected for this study, Patrick Henry Community College (PHCC). Unlike the four-year college or university, a two-year institution predominantly serves the surrounding community (Hodge, 2006/2007) and is directly affected by the changing demographics of the local service area because the majority of the students are local residents. Another important characteristic of most public two-year institutions is an open enrollment policy that ensures every applicant is accepted regardless of background. As a result, open enrollment creates a diverse student body, not only in age and personal experiences, but in academic abilities as well (Phillips, 2008). Because of these characteristics and because SCT explains the importance of sociocultural history and ontogenesis, a detailed description of the socioeconomic developments in PHCC's serving areas is essential for placing this study within context.

**Socioeconomic development in PHCC's service areas.** As a result of economic struggles in the surrounding areas, "Many employees who have spent decades in production work face special challenges when they attempt to re-enter the work force" (Adams, 2009, p. A14) with little or no training in other fields. Displaced workers as a direct result of international trade agreements may be offered financial assistance to return to the formal classroom in search of training and/or a college degree through a program called Trade Act. During the summer 2009 session, 13.4% (n=194) of the total student enrollment were attending PHCC through Trade Act funds. Students receiving these funds must be enrolled as full time, at least 12 credits, even during the accelerated summer sessions. During the summer 2011 session, 11.2% (n=168) of the students were using Trade Act funds to take classes (Virginia Community College System Institutional Research [VCCSIR], 2011). These statistics, however, do not provide the full picture of the economic struggles surrounding PHCC and do not indicate how many students were attending the college because of unemployment.

In February, 2009, the city's unemployment rate was 20.2% resulting in 1,301 city residents looking for work in Martinsville, 14.6% in Henry County with 3,945 residents looking for jobs, and 13.3% or 1,284 jobseekers in Patrick County (Powell, 2009). In December 2011, the unemployment statistics had improved, but still described a struggling economy. In

Martinsville, the unemployment rate was 16.7%, in Henry County, 10.4%; and in Patrick County, 7.9% (Bulletin Staff, 2012, February 2). During the Martinsville-Henry County Chamber of Commerce's State and City luncheon, Martinsville City Mayor Kim Adkins described the increasing influences of poverty in the area. According to her report, 70% or more of students in the Martinsville City schools qualified for free or reduced lunch, 21% of the households were classified as being below the poverty line, and 36% of the households in Martinsville and Henry County received public assistance (Powell, 2012, February 2). These statistics provide a detailed portrait of the physical context surrounding the virtual classroom. The proceeding section describes the virtual foreign language classroom and the students' actions taken to enter the virtual setting.

**Students' entry into the virtual setting.** The virtual foreign language classroom was accessed through the course management system Blackboard Suite 9.0 (2010) with Wimba Voice 6.0 (2009) audio components. Since a virtual classroom design can consist of unique qualities depending on the software and specific components used, this section describes the virtual classroom that was used for the current study. Several screenshots of various areas of Blackboard Suite 9.0 (2010) depict the steps students followed to access the virtual classroom. Other screenshots that explain the specific audio-based discussion board used for the current study also provide a description of the context for this study. My entry into the context of the study is also described following that of the students.

On the first day of the summer session, May 23, 2011, all students enrolled in courses at PHCC were granted access to their Blackboard Suite 9.0 (2010) courses. Students accessed these courses by going to the PHCC homepage and then clicking on the *myPHCC* icon. After clicking on the icon, students were directed to another screen, Figure 9, displaying the *myPHCC* icon and several links designed to assist students with finding usernames or accessing DL courses for the first time.

<p><b>You should change your password every 90 days.</b> Click <a href="#">here</a> for instructions on passwords or for changing password.</p>  <p>Troubleshoot Guide to solve your problem. <a href="#">Need Help?</a>. If you need further help please complete this form: <a href="#">Support Request</a> To find your username click <a href="#">here</a>.</p> <p><b>***To download instructions for the New Version SIS 8.9 click <a href="#">here</a> to download a pdf file.*** If you need Adobe reader you can download it for free from this <a href="#">website</a>.</b></p>		 <p>Chat online, in real-time with a reference staff member. Click <a href="#">here</a> for access</p>	<p>If you are new to <a href="#">Distance Learning</a> start <a href="#">here!</a></p>	<p><b>Smarthinking</b></p>  <p>Tutorial Services in Math, Economics, Spanish, Chemistry, Biology, Physics and English.</p>
<p><b>myPHCC</b> provides students, faculty and staff with a common point of entry to PeopleSoft, Blackboard and Student e-mail. The login process is new.</p> <p>If you have a Blackboard account at PHCC, that Blackboard ID is your username. Your password is your current SIS/ PeopleSoft password, and you may click on the <b>myPHCC</b> logo on the left now.</p> <p>If you do not have a current Blackboard account at PHCC, you must look up your username. Your password will be your current SIS/ PeopleSoft password or your birthdate (mmddyy).</p> <p><b>When you click <a href="#">here</a> or on the <b>myPHCC</b> logo on the left, the page below will appear.</b></p>				

Figure 9. Screenshot of myPHCC to access Blackboard Suite 9.0 through Patrick Henry Community College.

When students obtained their usernames and accessed *myPHCC*, they were then directed to another screen listing and providing access to all the courses in which they had enrolled during the summer 2011 session. When they clicked on the link for SPA 101-W1: Beginning Spanish I, they saw the main course page as seen in Figure 10.

My Places Home Help Logout learn.wvcc.edu

CVCC PHCC Teach My Files College Connect Research Help

[Summer 2011] SPA 101 W1: Beginning Spanish I PHCC Announcements Edit Mode: OFF

SYSTEM COURSE VIEW ALL

Announcements

¡Bienvenidos!

**¡Bienvenidos! Welcome!**

I am very happy that we will be working together this summer. Before we start learning Spanish, there are several tasks that you need to complete to make sure you understand what we will be doing this summer and to make sure you are ready.

**Please do the following tasks:**

1. Read everything listed under the Course Information button on the left of the screen. This will include the syllabus and other important information about the course.
2. Take the Syllabus and Consent form quiz. This is located under the Quizzes/Speaking Test button on the left.
3. Complete the Beginning-of-Semester questionnaire. This is also located under the Quizzes/Speaking Test button.
4. Go to the My Spanish Lab website and make sure you create an account.
5. We will start introductions and other assignments on Tuesday, May 24.

If you have any questions, please let me know. You can locate my e-mail on the syllabus or under the Communication button on the left of the screen.

Posted by: Eric-Gene Shrewsbury  
Posted on: Tue, Aug 2, 2011

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*Figure 10.* Main screen of the course management system Blackboard Suite 9.0 for SPA 101-W1 during the 2011 summer session.

The main course screen included a welcome and a list of tasks to begin the summer session that included reading the syllabus and consent form, completing the beginning-of-semester questionnaire, and creating a My Spanish Lab (2010) account. On the second day of the summer session, May 24, students were able to start working on introductions in English (Appendices F and G). To access the discussion boards and voice boards, students had to select the Communication button and locate the appropriate link.

For the current study, the audio-based discussion board used was a component of Wimba Voice 6.0 (Wimba, 2009) known as a voice board. After the students read the rubric for the introduction in voice board located under the Assignments button, see Appendix H, they accessed the voice board to tell the class why they were taking the course and what their plans for the future were. Figure 11 shows the voice board after students had recorded and submitted the introductions and made comments on posts. Since the voice board is the primary source for

data collection, a detailed explanation of how to use the voice board component is essential for understanding the asynchronous interactions that occurred during the study.

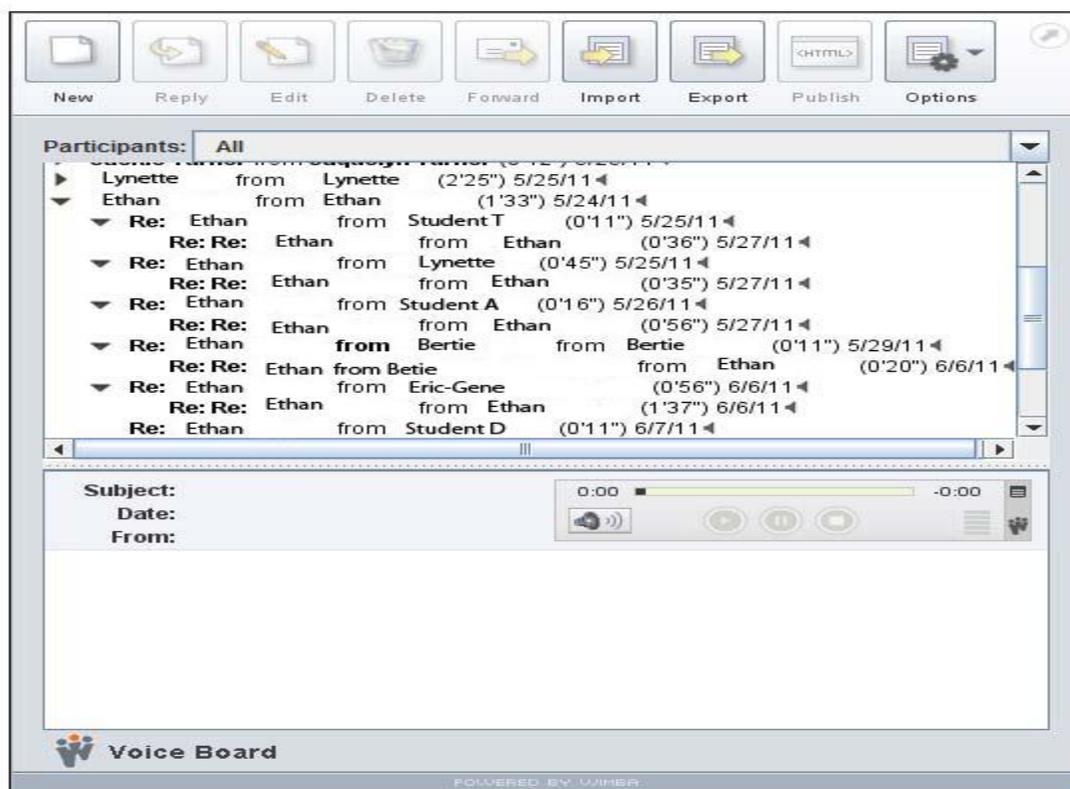


Figure 11. Voice board with interactions showing time stamps and length of audio.

The screenshot in Figure 11 primarily shows Ethan's initial post and the associated posts by other students and his responses. As participants recorded and submitted posts, the submissions were saved and displayed chronologically and linked to the appropriate thread or original message. The voice board also displayed the date of the submission and the length of each recording. Ethan recorded and submitted his initial post on May 24, 2011. His utterance was 36 seconds long.

At the top of the voice board screen several options are available. Students are able to create a new thread by selecting *New*. In order to activate the other icons, students have to select an audio post by clicking on the label for a particular submission. Figure 12 shows the voice board options available when Ethan selected Student T's post.

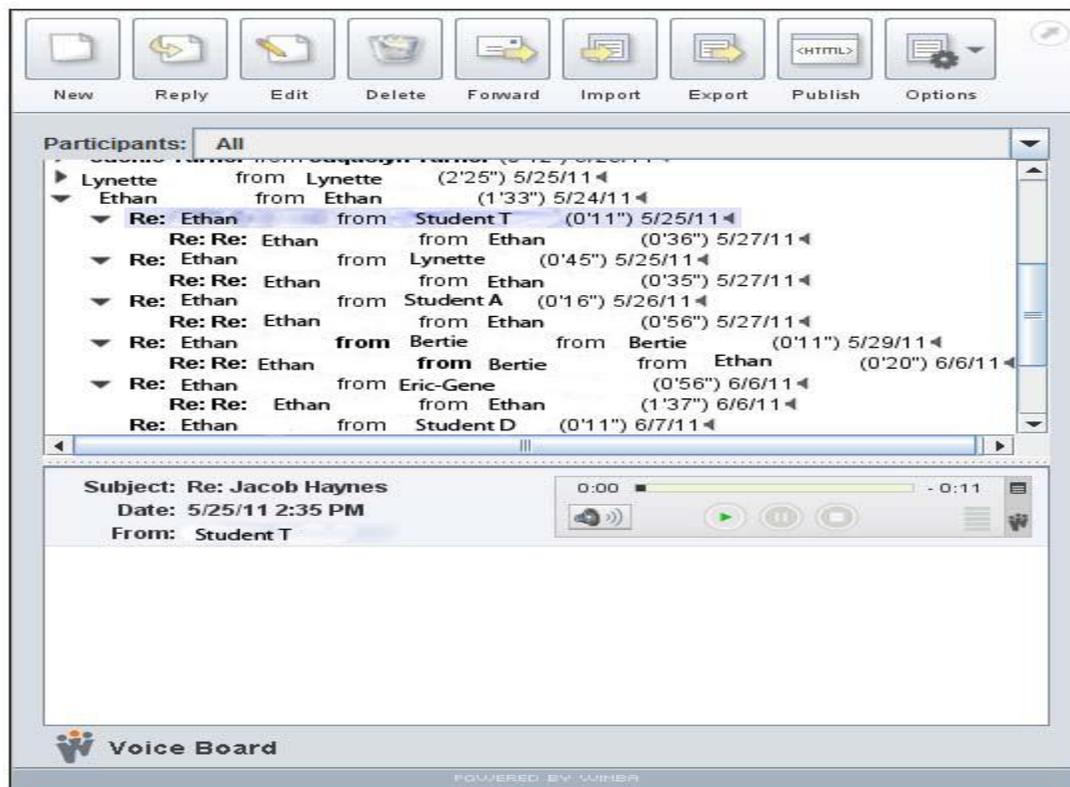


Figure 12. Voice board after Ethan selected post recorded and submitted by Student T.

With a recording selected, the play button in the lower field of the screen was available and authoring tools at the top of the screen also became activated. The time of day that the selected audio was submitted was also displayed in the lower field. After listening to the file, the student or instructor could click *Reply* and post a response or ask questions. When replying to a recording, the voice board program provided an open field to insert text. When applied without the use of the written text, these components provided speaking and listening opportunities for students similar to text-based discussion board or text-messaging. Since these options were asynchronous, students could record, edit, and rerecord before submitting assignments. Students were even able to write out responses and read them while recording. For the current study, students were not able to edit or delete their own posts. These options were not activated for students because these data were important for the study. Students were able rerecord erroneous posts by recording another posts and submitting it. If something was recorded in error, students notified me and I was able to remove it if necessary.

Figure 12 also demonstrates the asynchronous nature of the interactions that occurred in the voice board. Ethan posted his initial recording on May 24, but Student T did not post her reply until May 25. Ethan then returned on May 27 and submitted a reply to her comment. This aspect of the DL course is important to understand because synchronous interactions were not required in order to meet the scheduling needs of the students taking the course. Unlike a FTF classroom, students did not have a set time of day to meet and interact. If students needed assistance at any time, they were instructed to contact me through e-mail.

**My entry into the virtual setting.** On the first day of the summer session, I welcomed the students to the class and provided them several assignments (see Figure 10) posted on the course's main page. As the students read the syllabus and provided or declined consent for the study, they were aware of my dual role of instructor–researcher. On the second day of the summer session, on May 24, 2011, I opened the discussion board link in Blackboard for *Introducciones* (Introductions) and formally introduced myself to the class in a discussion board post. On the same day, I also opened the first voice board link *Plans for the Future* and provided students with an example by describing my plans for the future. I accessed the course and my e-mail account several times per day during the first few days of the summer session to make sure I answered students' questions. After my initial posts in the discussion board and the voice board, I refrained from eliciting interactions directly with students by posting comments to their posts until a week into the summer session in order to provide students time to interact.

Because the study took place in a virtual setting, I was able to conceal my researcher role that required me to take notes, print e-mails, and download audio files. This also allowed me to blend into the virtual classroom as the instructor without being as obtrusive as if we were in a FTF setting (Kovinets, 2010; Rutter & Smith, 2005). This ability to observe without students being aware of my presence hopefully enabled the students to complete tasks without feeling as much pressure as if it were a FTF study.

### **Selecting the Cases**

The premise of this research study was to document the activity of three participants and how the participants interacted with other students during the study while using audio-based asynchronous CMC. I used purposeful selection to select participants among the 19 students enrolled in SPA 101-W1: Beginning Spanish I during the summer 2011 session at PHCC. This section describes the process and rationale for selection decisions.

**Cancelling the FTF version of the course.** At the beginning of the summer 2011 session, students at PHCC had the option of taking Spanish as DL or as FTF. By providing PHCC students with both options, I anticipated that students familiar with computer software and with previous experience with DL courses would be more inclined to enroll in the DL course. I also expected students with specific reasons for selecting DL courses to enroll in the course instead of it being the only option. On the first day of the summer session, however, only five students had enrolled in the FTF version of the course. Because there were fewer than the 12 students required for courses by the VCCS, the division dean and I had to cancel the class. Before the first day the FTF class was scheduled to meet, I sent an e-mail to all five students to let them know about the cancellation. At that time, I explained the options to enroll in the DL version or to wait until the fall semester to re-enroll in the FTF version. I also went to the class on the first day to explain the situation to any student that had not read the e-mail. During that meeting, I provided them with a general description of the DL course and showed them a few of the components that would be used in the course, e.g., voice boards and discussion boards. I did not mention the research study because I had not received Institutional Review Board approval to advertise the study. Of the five students, three decided to wait until the fall semester or to find another class and two decided to enroll in the DL course.

**Criteria for selecting the cases for the study.** All students enrolled in the DL course provided consent to participate in the study. I initially used the following criteria to select three participants as cases for the study. I will first list the criteria and then provide my rationale for these choices.

1. Participants without previous experience in Spanish or other foreign language.
2. Participants with varying levels of activity in the voice board assignments.
3. Participants who replied to most of my e-mails regarding assignments.
4. If possible, depending on the overall demographics of the participants, three participants that reflected the percentage of students regarding gender and enrollment status.

First, I wanted participants without previous experiences learning a foreign language. Students taking or retaking an introduction course in foreign languages, even though they have already taken the foreign language, are classified as *false beginners*. I was concerned that selecting participants who were false beginners might create inaccurate and negatively skewed results that would exaggerate the quantity and/or quality of the interactions that occurred in the

virtual classroom. To document true beginners and their interactions, I wanted to select participants without previous foreign language experiences. At the beginning of the study, six students or 31% of the students did not have previous foreign language experience.

Second, I wanted a variety of levels of participation or activity instead of focusing on the best or the worst students. I decided to select one student from three specific classifications of participation. These classifications were students demonstrating a high level of activity or participation, a middle level of activity or participation, and a low level of activity or participation in the voice board assignments. This would provide me with a detailed description of the type of students enrolled in the course and the types of interactions that might occur. To assess these levels of activity or participation, I had to observe all students enrolled in the course as they completed several assignments before classifying students into one of the three categories.

Third, because my primary means of communication with the participants was through electronic correspondence, I wanted participants who replied to my e-mails on a regular basis. As will be explained later in the Data Collection Procedures section of this chapter, I used e-mails instead of interviews to clarify meanings of discussion board and voice board posts, to inquire about the level of activity or the procedures used to complete each task, and to ask other questions that emerged during the study. If participants did not respond, I realized that a detailed portrait of the participant would not be possible. Even though reasons for not responding to e-mails could have also reflected reasons for taking a DL course, communication with the participants was essential to the study.

Fourth, I wanted to have a sample that represented the demographics of the students taking the class. If possible, I did not want to select three participants of the same gender or from the same program of study. Doing so might have created a false impression of the students taking DL courses. At the beginning of the summer session, 13 students were female and six were male. When categorizing the programs of study, nine separate programs were represented during the summer session. The variety of programs made it difficult to select three that would provide a representative sample, so I decided that I would primarily focus on the other criteria instead when selecting participants for the study.

After several weeks into the summer session, four students dropped the course and several others stopped completing assignments. These factors forced me to re-evaluate my initial

criteria for selecting cases. The next section describes the changes made and the rationale for those changes.

**Re-evaluating the criteria for selecting cases for the study.** At the beginning of the summer session, 19 students were enrolled with six students indicating on the Beginning-of-Semester questionnaire that they had not previously studied a foreign language. During the first several weeks, I observed the behavior of these students and attempted to classify them according to my initial list of criteria. Several weeks before and during the mid-term exam, four students dropped the course. Of those four, two of them were students without prior experience with foreign languages. As a result of those students dropping, four students without previous experience remained in the class. Of those four still enrolled in the class, two stopped participating for various reasons and one would not respond to e-mails. At that point in the study, only one student was left who fit my initial criteria as a participant in my study.

My third criterion was to select participants without previous foreign language experience. Because of the reduced number of participants without previous foreign language experience, I ran two independent t-tests (Howell, 2007) to compare mid-term exam averages and overall mid-term averages between students with previous experience in foreign language and students without previous experience in foreign language. The statistical software used to run the test was SPSS 16.0 GP (2007). The first independent t-test looked at the grades on the mid-term exams,  $p = 0.924$ . If  $p < 0.05$  shows a statistically significant difference between two groups, then the result of this test showed that previous foreign language experience exposure did not influence mid-term exam grades. The second independent t-test analyzed the overall mid-term averages. This average included everything that the students had completed or not completed up to the mid-term point in the semester: grades on non-proctored quizzes, discussion board and voice board assignments, and the My Spanish Lab (2010) workbook activities, and the proctored mid-term exam. The result was  $p = 0.085$  and showed that previous foreign language experience did not affect the over mid-term grade. As a result, I adjusted my criteria for selecting participants to include students with and without prior foreign language experience.

### **Introducing the Participants**

To facilitate discussion later in this chapter, a brief introduction of the three participants chosen as the cases for this study is necessary. A more detailed description of each is provided in chapter four when discussing results.

**Ethan.** Ethan was a 21 year-old male taking four credits, or one class, during the summer session. He had studied Spanish in high school and was enrolled as a non-degree seeking student at the community college. He was taking the Spanish course as transfer credits to a university during the fall 2011 semester. He explained that he selected the DL course because it was the summer and he wanted to be able to take vacations and to work while taking the class.

**Bertie.** Bertie was a 35 year-old female taking 10 credits, or three classes, during the summer session. All of her classes were as DL. She had studied French in high school and was currently enrolled in the Medical Office program of study at the community college. A foreign language course was required for her program of study. She explained that she selected the DL course because she needed to be home with her son during the summer and was not able to afford a sitter while she would be attending a FTF course.

**Lynette.** Lynette was a 40 year-old female taking 22 credits during the summer session. Lynette was taking only four credits, or one course, through the community college. The remaining 18 credits were taken through a university's satellite program that transmitted televised, synchronous courses to the community college campus. Lynette did not have any previous foreign language experience. Lynette had been enrolled in the FTF option, but had to enroll in the DL option because she needed the class during the summer session in order to graduate by spring 2012.

### **Registration and Consent**

When students registered for SPA 101-W1: Beginning Spanish I, I provided them with the course syllabus and the consent form (Appendix D) for participating in the study. Students accessed these documents under the Course Information button in Blackboard Suite 9.0 (2010) (see Figure 13) for SPA 101-W1: Beginning Spanish I. Since the course did not meet in the classroom, I obtained consent for participation by using the quiz feature in Blackboard Suite 9.0. In the quiz, students acknowledged that they had read the syllabus and understood the course requirements. Students also provided consent or declined to participate in the research study by checking *Yes* or *No* and by typing their name accompanied with the date. In the consent form, students were informed that participating or declining to participate would not affect the grade for the course.

During previous research (Shrewsbury, 2008, 2009), students failed to access and submit the completed consent form in DL courses, so the Syllabus Quiz and Consent Form were assigned the point value of quiz, 120 points. The points were distributed as 100 points for questions regarding the syllabus and 20 points for the two questions regarding consent. Even though the quiz was worth 120 points, it was not graded for content pertaining to the questions regarding the syllabus, but rather as a completion grade for questions regarding the study and providing or declining consent. The Syllabus Quiz and Consent Forms were printed to have a hard copy of the consent. The entire quiz was also exported as an Excel spreadsheet for backup documentation.

### **Data Collection and Analysis Procedures**

Creswell (2003) defined analysis as “an ongoing process involving continual reflection” to make sense out of data and “moving deeper and deeper into understanding the data, representing the data, and making an interpretation of the larger meaning of the data” (p. 190). To accomplish this task, Creswell recommended stages to the analytic process that include organization, primary analysis, and coding. This section describes the procedures implemented for data collection, the process of organizing the data, and data analysis. The subheadings for this section are archival demographic data and questionnaire, voice board observations, e-mail correspondence, serendipitous information, and strategies for validating findings.

A schematic of the research protocol that includes the phases of the research and the units of analysis are described in Figure 14. The majority of the data collection occurred when the participants began interacting using the voice board assignments. While participants were interacting, I collected data, transcribed the audio, conducted initial analysis, and continued the process for the next voice board assignment. During that time, I also contacted participants via e-mail to inquire about content in posts and their procedures taken to complete the assignments. When participants had not submitted a post, I also inquired about those missing assignments.

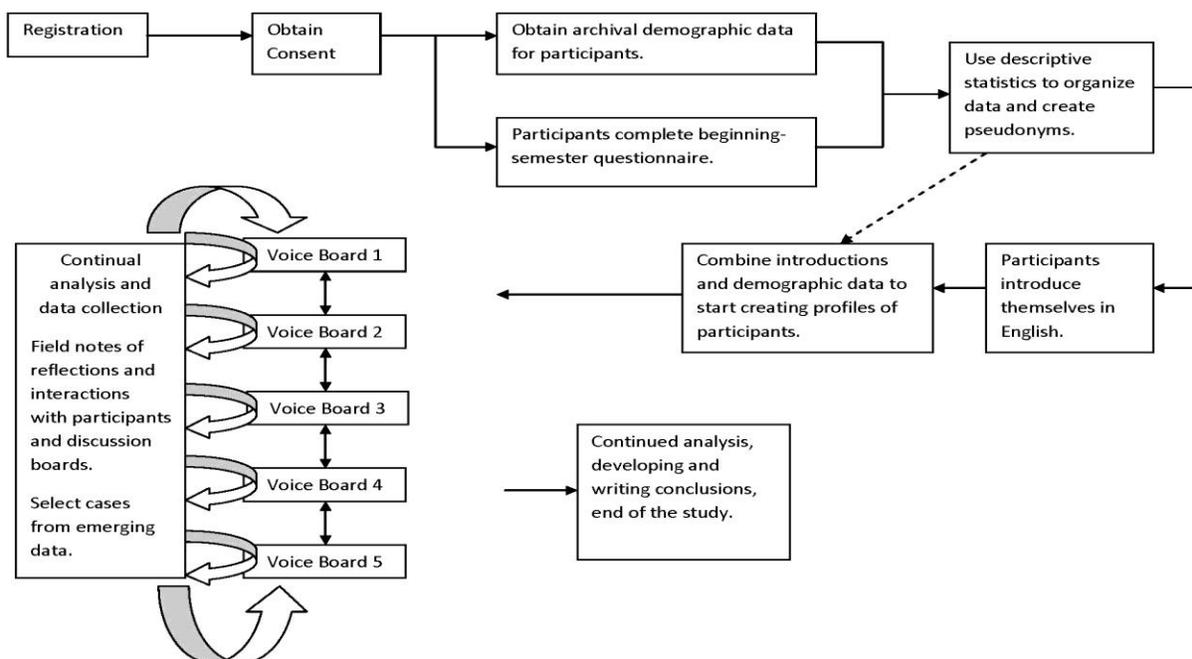


Figure 13. Schematic of Research Protocol. Figure created by author of the dissertation.

The schematic also indicates that participant selection did not occur at the beginning of the study. Participants were not selected until the mid-term because of the criteria designed to choose the participants. After collecting all data, the analysis continued through coding and writing the conclusions for the study. The following sections explain the research protocol in detail.

**Archival demographic data and questionnaire.** After obtaining consent, I collected demographic data on each participant by accessing the Student Information System 8.9 (2008) used by the Virginia Community College System (VCCS). Participants were also asked to complete a Beginning-of-Semester questionnaire (Appendix E) requesting background information regarding previous foreign language experience, previous distance learning experiences, reasons for taking Spanish through DL, and goals for the semester. When creating the Beginning-of-Semester questionnaire in Blackboard Suite 9.0 (2010), I realized that the limitations of the quiz formatting tool did not allow multiple choice and short answer options for the same question. For several questions I had to create a separate field for students to describe previous experiences or to provide a more detailed answer. A point value was assigned for each question regardless of the response or whether the participant completed the questionnaire.

During pilot studies (Shrewsbury, 2008, 2009), students completed questionnaires less frequently if no point value was assigned to the activity.

Using the quiz option enabled me to correlate answers with the appropriate participant. Because the print option for Blackboard Suite 9.0 (2010) was not working correctly when I conducted the research, I printed the beginning-of-semester questionnaire (Appendix E) and wrote the answers for each student by hand. I also exported the questionnaire into an Excel spreadsheet and saved it to a disk. The disk was stored in a safety deposit box at a local bank. After obtaining the answers from the questionnaire for each student, I entered the responses into a spreadsheet that also included demographic information. At that time, I was able to analyze each student's demographic information with his or her response to the questions in the Beginning-of-Semester questionnaire. These data will be described in chapter four.

**Voice board observations.** Voice board activities were assigned based on themes coinciding with chapters in the textbook used for the course. As an introduction to the course and the software, chapter one required two voice board assignments. For the first voice board assignment, students explained their future plans to the class in English (Appendix F). This assignment provided students with an opportunity to practice recording and submitting an audio submission in the native language and also provided me as well as other students a glimpse of each student's individual personality. In order to apply the material studied during the chapter, the participants also submitted a second voice board recording for chapter one to introduce themselves in Spanish (Appendix G). The rubrics explaining voice board assignments for chapters two through five (Appendices H through K) also required students to submit recordings in Spanish.

During the 10-week summer session, five themes provided the context for discussion: introductions, getting to know each other, describing classes and finding out schedules, learning about family members, and discussing hobbies. Each theme was correlated and supplemented with chapters, one per theme, from *¡Arriba! Comunicación y Cultura* (Zayas-Bazán, Bacon, & Nibert, 2008). Participants had approximately two and a half weeks to complete assignments for chapter one. This additional time provided late enrollments time to complete assignments and to allow everyone adequate time to register and to purchase supplies. For the remaining chapters, participants had approximately 14 days to complete all activities for each chapter. After the due date, participants who had submitted the initial voice board recording had three additional days

to interact with other students by posting questions and responding to questions submitted by other students. This extension was found necessary during pilot studies (Shrewsbury, 2008, 2009) because many students waited until the due date to submit recordings, which did not afford students adequate time to interact.

The voice board software provided a time stamp and the length of each response. When students replied to someone's post, their recording was stored under the original post to create levels in the conversation. The time stamp was important for me as the instructor to make sure students completed the assignment by the due date. I also used the time stamp to document when students were working on assignments and to cross reference activity with comments made in the voice board recording. The time stamp may have also been beneficial for students as they interacted with other students in the voice boards. Students would have been able to anticipate when other students were logged into Blackboard Suite 9.0 (2010) and listening to or submitting recordings. The length of a student's recording was also indicated and was used for analysis. The length of recordings could also have motivated students to submit longer posts when they realized that their submissions were shorter than others'.

As the instructor, my interaction with the students initiated interaction for students' posts without comments or questions submitted by other students. My task was to assist students and to not dominate the conversation. Since the research focused on documenting and analyzing the interactions among students, I did not include my interactions with the students as part of the data set for analysis. Comments by students in reference to my posts were not included in the data set for analysis either. During and after the study, I kept detailed notes in a notebook to provide an audit trail and to maintain a chain of evidence of my actions during the study. These data were also used to describe and explain my actions during the summer session.

At the beginning of the study, all voice board rubrics contained a prompt, "State and complete this sentence in English, 'In order to do this assignment, I had to...'" This prompt was designed to find out what students had to do to prepare for the assignment or to actually record and submit the audio recording for the voice board. After the first and second voice board assignments for chapter one, I realized that students were providing similar statements, such as, "I had to wait until it was quiet before I could record my assignment." Few students included information about the process to actually prepare the assignment such as looking up words in a dictionary, etc. Since these statements in English were designed to provide me with information

about the participants, I decided to also include an additional prompt asking them to describe their day before completing the assignment in Spanish. These prompts have been updated and included in the appendices (see Appendix F through K).

At the conclusion of each chapter, I exported the audio for the voice board assignment from Blackboard Suite 9.0 (2010) to a removable disk drive as a voice board file that could be imported to another voice board thread if necessary and as mp3 files. I then created in my log an outline of the voice board according to the threaded posts that included the date, the time, and the length of the audio submission as seen in Figure 14. When the audio files were exported as mp3 files, they were not numbered chronologically in the same order as seen in the voice board window. At that point, I had to correlate the numbered mp3 files to the appropriate post in voice board before identifying the submissions for the participants. To demonstrate this, I have included a sample of my log entry for the chapter four Voice board:

74	Ethan	7-21-11	6:21 pm	1:30	<b>Initial post</b>
— 84	Lynette	7-24-11	1:27 pm	0:21	<b>Response to Initial</b>
→ 85	Ethan	7-26-11	8:39 pm	0:16	<b>Response to Response</b>
— 82	Student D	7-24-11	6:07 pm	0:15	<b>Response to Initial</b>
→ 83	Ethan	7-26-11	9:00 pm	0:17	<b>Response to Response</b>

*Figure 14.* Sample of notes copied into log during study for organize the utterances according to the threaded discussion in voice boards.

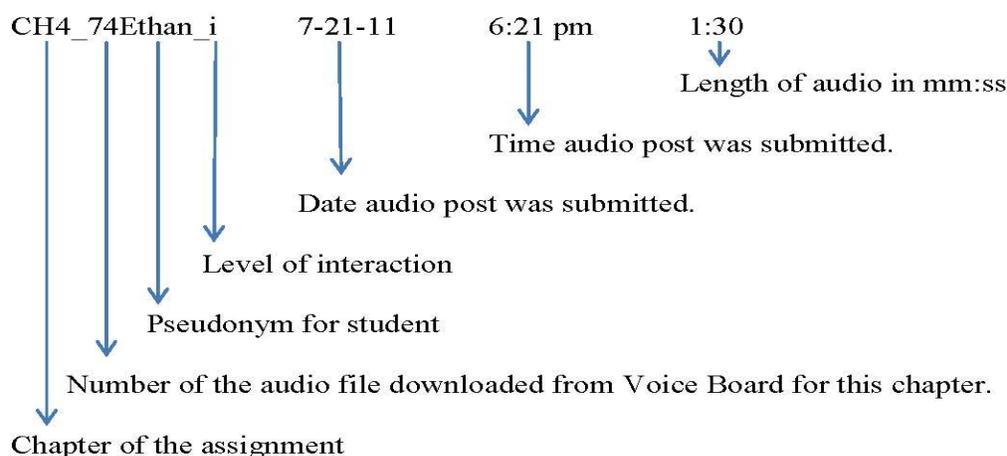
At the end of each line in Figure 14, the level of interaction has also been indicated. These levels of interaction were used during the analysis and when labeling each post. Table 5 explains the abbreviations used to correspond to the various levels of interaction.

Table 5

*Explanation of codes used to describe levels of interaction when labeling audio files*

Code	Description of the code
i	Initial post based on rubric and prompt for assignment.
rti	A student replied to the initial post by another student.
rtr	A student replied to a comment or question by another student.

After correlating the mp3 files with the appropriate student, I transcribed the audio files related to the initial post by the participant and all of the posts submitted by the participant per chapter. To organize the transcriptions and to facilitate the analysis while being able to identify each transcript, I designed a labeling strategy. This strategy is described in Figure 15 for Ethan's initial post in chapter four.



*Figure 15.* Explanation of the labeling strategy used for transcriptions for each interaction.

**E-mail correspondence.** During the study, I contacted students using the secure VCCS e-mail system. E-mails were used as a method to ask questions as they emerged during the study. I had originally planned on using an end-of-semester questionnaire and/or interview to inquire about the voice board experiences during the study. However, that method would have removed the participants from the moment and could have hindered the ability for participants to

accurately remember what procedures they used or did not use when completing assignments. To alleviate this possibility, I used e-mails to ask questions as they occurred. By using e-mails, the participants were able to respond when time permitted. This method of interaction was also less obtrusive and appeared informal or as a typical interaction for DL courses compared to completing a questionnaire or arranging a time for an interview. All e-mails were printed and placed in manila folders for each student. Since the participants for the cases were not selected until the mid-term week of the summer session, e-mails for all students were printed and organized.

**Serendipitous information.** While interacting with me through e-mails, Lynette asked to stop by the office and show me her notebooks and the resources that she was using to complete assignments. Because this was not part of the original research protocol, I contacted Dr. Judith Shrum to ask if I should include the informal interview as part of the research. We agreed that since this was a naturally occurring opportunity, I would include any relevant information obtained during our meeting to help answer any questions that I still had regarding her voice board activities. After discussing this situation with Dr. Shrum, I decided not to extend the invitation to Ethan and Bertie because the same situation had not occurred naturally through e-mail correspondences with them. Since this situation arose during the study and provided additional insight, I will include the findings in the study as serendipitous information when relevant to the study.

**Strategies for validating findings.** Creswell (2003) explained the importance of validity to determine “whether the findings are accurate from the standpoint of the researcher, the participant, or the readers” (pp. 195-196). To accomplish this, Creswell recommended one or more of eight primary strategies: triangulation, member checking, rich and thick descriptions, bias clarification, present negative or discrepant information, prolonged time in the field, peer debriefing, and external auditor. In this study, I applied triangulation, member checking, and peer debriefing to validate the findings. To triangulate the data, I used several data sources (Figure 5) such as the audio transcripts from voice board submissions that included general statements in English regarding daily schedules and other daily activities, e-mail correspondence with the participants, demographic information, and time stamps on voice board assignments.

Member checking and peer debriefing were also used to verify the accuracy of the transcriptions and translations of each interaction. After transcribing each interaction, I e-mailed

participants asking questions about content to provide participants opportunities to clarify meaning. I also applied debriefing to demonstrate inter-coder reliability. For this process, Dr. Judith L. Shrum, Professor of Spanish and Foreign Language Education at the Virginia Polytechnic Institute and State University, agreed to assist me with the determination of inter-coder reliability.

**The coding process.** Merriam (1998) explained three sources for naming categories or themes: the researcher, the participants, and borrowed from other sources or research. The first source, the researcher, is the most common and “occurs when the investigator comes up with terms, concepts, and categories that reflect what he or she sees in the data” (p. 182). The second source, the participants, requires that the data be organized and presented to the participants for classification and category development. The third source, borrowed from previous research, requires the researcher to locate categories that are “compatible with the purpose and theoretical framework of the study” (p. 183). When developing the research protocol and coding the utterances, research analyzing the types of interactions occurring using asynchronous audio-based CMC was scarce or non-existent. Merriam also cautioned against the use of borrowed themes or categories since this process might bias category development or hinder category generation and replace the process with data selection instead of category or theme generation. Because of these reasons, I applied the first option and read each utterance to identify emerging themes based on my experiences with the data.

**Rater-training session.** After transcribing all the audio into a single document, I printed and cut each utterance into individual strips. I removed the initial utterance for each participant for a total of 117 utterances for coding. I folded each utterance, placed them in a large bowl, mixed them, and then placed them in a bag and mixed them again. I took each utterance out of the bag and read it to organize them into piles pertaining to the themes that emerged. After I completed this stage, I wrote down the six themes in my log and placed each pile or categories of utterances into individual medium-sized envelopes pertaining to each category.

When I completed this coding session, I followed the same procedure to prepare the utterances for Dr. Shrum. I also provided Dr. Shrum with individual samples of randomly selected interactions of the six categories that resulted of my analysis. Dr. Shrum randomly selected 17 of the 117 interactions to place in one of the categories that I provided her. Then, I met with her in her office to discuss her selections according to my coding process. This was a

rater-training session. During this session, we made some necessary adjustments: to include a brief description of the previous post for each utterance and to use pseudonyms, such as *Student B*, for students not selected as participants for the study instead of using a blank space for the name.

**Second coding session.** For the second coding session, I removed the 17 utterances that Dr. Shrum used for the rater training session and resulted in a total of 95 utterances for analysis. During this coding session, I decided that two of the themes previously selected were too similar and combined them to have five total themes instead of six. I prepared the utterances for Dr. Shrum and included a list of unambiguous samples for the five themes, the name of each theme on individual slips of paper to categorize the utterances, and an informational sheet explaining the process (Appendix M and Appendix N). When Dr. Shrum received the utterances, she coded all 95 utterances into the categories.

When comparing the utterances that Dr. Shrum coded with the ones that I had coded, I realized that two themes were problematic because the differences between the two themes were subtle and were not distinguishable. During my coding session I was able to classify utterances as being one or the other. However, after a time lapse of one week, I was unable to describe the differences between the themes to another coder. When presented with the theme and an example of each, the difficulty in distinguishing them from one another is understandable.

Theme Three: Responds to a question or comment in the previous post. Also asks a question to continue conversation.

**CH3\_2Bertie\_rti\_0            7-18-11            11:15 pm            0:08**  
*Student in previous post says that she has brown hair, she is nice, likes to talk, and is sad because her friend died.*

Hola, Student D. Buenas noches. ¿Cómo está? ¿Tien uscela hoy? Adiós.  
*Hello, Student D. Good night. How are you? Do you have school (sic) today? Bye.*

Theme Five: Requests more information about something in previous posts without answering a previously asked question.

**CH5\_6Bertie\_rti\_0                      8-3-11                      9:18 am                      0:10**

*Student in previous post says in English that she had to ask her daughter to be quiet. In Spanish she describes her daily routine including getting ready, taking a shower, getting dressed, and when she wakes up and goes to sleep.*

Hola, Student A. ¿A qué hora te va a dormir?

*Hello, Student A. At what time (sic) do you go (sic) to bed?*

A comparison of the two themes with a sample for each by the same author demonstrate that the main theme for both is that that participants responded to something in the previous posts and asked a question that could continue the conversation. I discussed the two themes with Dr. Shrum and combined them with a result of 95.7% inter-rater agreement in coding the utterances.

**Summary of data collection and analysis.** Data collection for this study consisted of multiple sources of information: archival demographic data, one questionnaire, voice board and discussion board assignments, and correspondence with the participants through e-mails. Archival demographic data and information regarding previous experiences were collected through SIS 8.9 (2008) and various questions on the questionnaire. These data were used to create profiles of the three participants. Voice board observations were the primary source for data collection. During the study, 95 recordings for six voice board assignments were downloaded, transcribed, and coded. Several strategies were implemented to validate the findings. Member checking through e-mail correspondence was the primary mode of communication with the participants and was used to clarify voice board content and to ask questions as they arose. Peer debriefing with Dr. Judith Shrum during the coding process resulted in a 95.7% agreement with the themes for the utterances obtained from the voice board assignments.

### **Summary of Methodology**

Using this embedded multiple-case research study, I analyzed the nature of interactions observed through voice board posts while students studied Spanish as DL. The participants were selected from a SPA 101: Beginning Spanish I course at a rural community college. Multiple sources for data collection were used during the study: archival demographic data, one questionnaire, voice board and discussion board assignments, and correspondence with the participants through e-mails. As the instructor for the course selected for study, I played a dual role during the current research as instructor–researcher. To document my interactions with the participants and decisions made during the study, a journal was used to create an audit trail and a

detailed record. Methods for researching online environments (Hine, 2005; Kozinets, 2010; Mann & Stewart, 2006; Markham, 1998; Rutter & Smith, 2005; Sanders, 2005) consisted of online observations and CMDA (Herring, 2004a, 2004b) that applied traditional FTF practices to virtual settings. Three participants were observed during the 10-week 2011 summer session. These observations primarily consisted of interactions that occurred when completing six voice board assignments. The audio files were downloaded from the voice board software, organized, and transcribed. Member checking through e-mail correspondence was used to clarify post content. Ninety-five posts or utterances were categorized into themes and validated with an inter-rater session. A 95.7% inter-rater agreement was obtained. The next chapter analyzes and interprets the results of the study.

## **Chapter Four: Analysis and Interpretation of the Findings**

This chapter explains and interprets the results obtained from this embedded multiple-case study and has been divided into the following headings: applying modern activity theory to the current study, characteristics of distance learning students, actions taken by students to complete assignments, types of interactions in the distance learning (DL) classroom, and a summary of analysis and interpretation of the findings. After an explanation of modern activity theory, the headings precede with the three research questions before concluding the chapter with a summary. This progression through the chapter builds on sociocultural theory (SCT) and modern activity theory by focusing on the participants before analyzing the observed behavior in the virtual foreign language classroom. Under each heading, the specific theoretical components relating to SCT are discussed during data analysis and interpretation.

### **Applying Modern Activity Theory to Current Study**

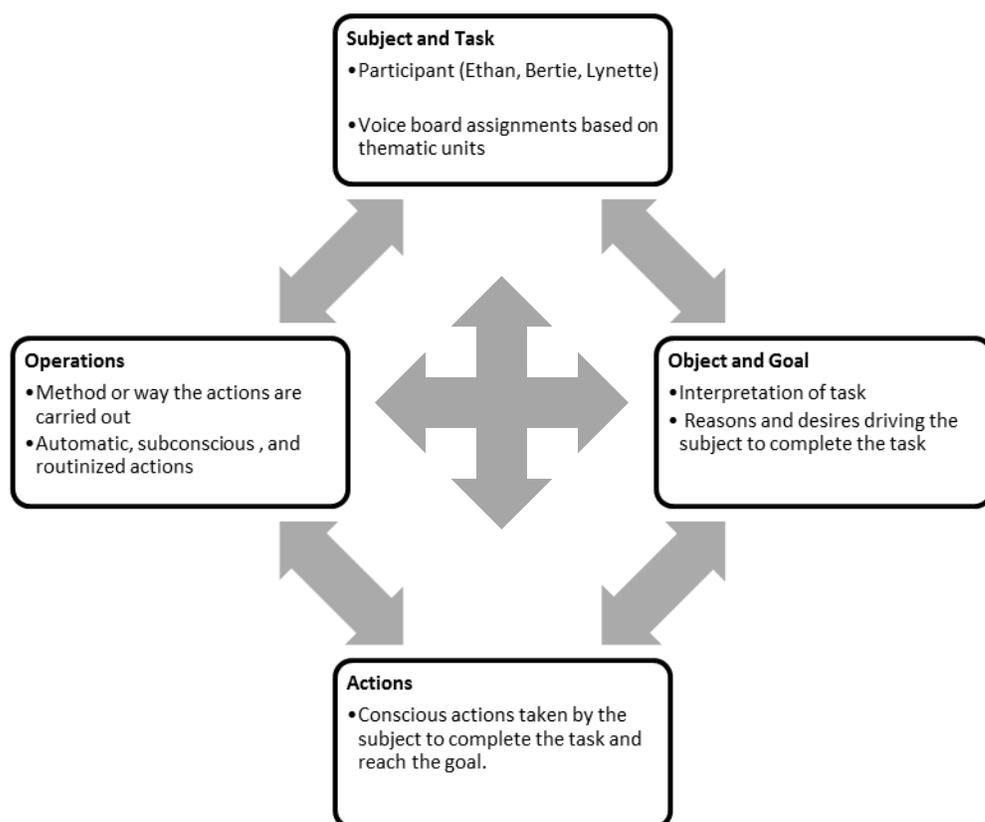
The premise of this study was to document the types of interactions that occurred when students studied a foreign language as DL. In keeping with the genetic method prescribed by SCT, the three guiding research questions applied the ontogenetic and the microgenetic levels of analysis. Ontogenesis focuses on relevant personal history, goals for taking the class, and future plans. Question one described characteristics of students taking DL courses at a community college. Microgenesis focuses on the actual actions or the specific assignment, as framed in questions two and three. Question two documented the actions that each participant used to complete assignments and question three described the activity, or the results of those actions. The three guiding research questions for this study were:

1. What are characteristics of students studying Spanish through DL?
2. How do students complete audio-based computer mediated communicative assignments?
3. What types of interactions are observed in audio-based computer mediated communicative assignments?

### **Agents, Tasks, and Activities**

The basic tenets of SCT describe learning as a complex combination of genetic, personal, and social components that should be analyzed holistically. Based on this description of learning, the participants in the current study were considered agents who “actively engage in constructing the terms and conditions of their own learning” through personal histories,

individual interpretation, and reasons and desires for enrolling in the course and completing assignments (Lantolf & Thorne, 2006, p. 239). Influenced by SCT, modern activity theory analyzes the processes used to complete an assignment or task. For the current study, the *tasks* were the voice board assignments that I designed for the participants. As the participants interpreted the tasks and worked to complete them, each participant created an individual *activity*. As a result, the activity did not always represent the task that was designed, but rather the product created by the participants depending on each one's personal situation. Figure 16 shows a combination of several interpretations of activity theory (Donato & McCormick, 1994; Lantolf & Thorne, 2006; Wells, 1999; Wertsch, 1998) to describe the relationship between the activities students produced while completing the voice board tasks that I assigned.



*Figure 16.* Relationship between participants and completing a task according to activity theory. Figure created by author of the dissertation.

Figure 16 explains an expected procedure for completing the voice board assignments. First the participants read the task for the voice board assignment. They then interpreted that task by

applying individual previous experiences or personal histories and goals for taking the course. Depending on the ability level of the participants, actions to complete the task could have included consciously looking up words in a dictionary or reviewing relevant content before recording a post and submitting the assignment. However, because of previous experiences or increased levels of proficiency, some of the participants might have been able to interpret the assignment and complete the task without looking up words and bypassing the actions stage shown in Figure 16. The double arrows used to connect the various components of activity theory in Figure 16 explain its active and dynamic nature. Even after working on the assignment, participants might have needed to reread the task, reinterpret it, and rerecord or resubmit the assignment. The next section focuses on the first research question and corresponds to the *Subject and Task* component of activity theory as described in Figure 16.

### **Characteristics of Students using Distance Learning**

In this section, data are presented and discussed to answer the first research question: What are characteristics of students studying Spanish through DL? The three participants for this study were selected from a class of 19 students enrolled in Spanish 101: Beginning Spanish I. To describe the characteristics of students enrolling in DL courses, first the demographic data of all students enrolled at the community college during the summer 2011 are discussed, followed by those of all students enrolled in the course, then a more detailed portrait of the three participants selected for this multiple-case study: Ethan, Bertie, and Lynette.

#### **Enrollment data for summer 2011**

Enrollment data for the summer 2011 session were collected by the Dean of Developmental Services at the community college (Virginia Community College System Institutional Research [VCCSIR], 2011). These data are part of a continual report for the college and the Virginia Community College System (VCCS) and were not collected specifically for this study. The enrollment data included the total number of students or the unduplicated headcount enrolled in courses, the number of credits, the gender, the race, the enrollment status as part-time or full-time, and the percentage of students taking only DL courses.

During the summer 2011 session, 1,497 students were enrolled with 80.8% ( $n = 1210$ ) being classified as part-time or taking less than 12 credits and 19.2% ( $n = 287$ ) being classified as full-time or taking 12 or more credits. Female students (64.5%,  $n = 966$ ) outnumbered male students (35.4%,  $n = 530$ ) during the summer. In the Virginia Community College System

(VCCS), racial background or ethnicity data are classified into three categories (White, Black, Other) and are self-reported and obtained when students complete the VCCS enrollment application. The majority of the students were classified as White (66%,  $n = 989$ ), followed by Black (28.9%,  $n = 434$ ), and then Other (4.9%, 74). In addition to these data, the statistics regarding the percentage of students using DL were also collected.

The summer enrollment data classified Place of Attendance as on-campus or off-campus/virtual. Students enrolled in only DL courses are classified as attending a virtual campus. Students taking a combination of face-to-face (FTF) courses and DL courses or only FTF courses are classified as on-campus. Since the premise of this study was interactions in DL courses, the enrollment trends over the past 10 years in DL courses were relevant. During the summer session of 2001, 7.24% ( $n = 97$ ) of the students were enrolled in only DL courses and were classified as off-campus or virtual students. During the summer 2011, this percentage increased to 43.7% ( $n = 655$ ) of the total students that were enrolled in only DL courses. These statistics show a 575.3% increase ( $n = 558$ ) in the number of off-campus or virtual students between 2001 and 2011 summer sessions and were consistent with studies predicting increased use of DL (NCES, 2008a). Of the total student population during the summer 2011 session, 37.86% ( $n = 507$ ) were taking only FTF courses. Even though these data do not show the complete breakdown of students taking different variations of FTF and DL, they demonstrated the increased interest or need to take DL courses. The next section discusses the characteristics of DL students and reasons for enrolling in DL courses instead of FTF courses.

### **SPA 101: Beginning Spanish I**

At the beginning of the study, 19 students were enrolled in SPA 101: Beginning Spanish I and provided consent to participate in the study. During the course of the study, four students dropped the course. While the specific reasons for dropping the course were not obtained and not a component of this study, their reasons for taking the DL course were still relevant. To parallel the previous section, this section first describes the demographic data regarding gender, race or ethnicity, and course load compared to the amount of credits taken as DL courses. The age of the students and reasons for enrolling in DL courses are also described.

Since the four students who dropped the course provided consent and did not drop the class until a week before or after the mid-term exam, their demographic information and answers on the Beginning-of-Semester questionnaire were still important for describing the

characteristics of students taking DL courses. I also understood that when they dropped the class, the dynamics of the virtual classroom were changed and my options for selecting three participants for my case study were affected. Table 6 compares the demographics of the students taking the SPA 101: Beginning Spanish I at the beginning of the semester with the demographics of the students after the four students dropped the course.

Table 6

*Comparison of Student Demographic Between the Beginning of the Semester and After Four Students Dropped the Course.*

	Beginning of Semester	After Students Dropped
Gender		
Male	6	3
Female	13	12
Race or Ethnicity		
White	16	12
Black	3	3
Other	0	0
Previous Foreign Language		
Yes	13	11
No	6	4
Previous Distance Learning		
Yes	16	13
No	3	2
Average Credits Taken During Summer 2011		
	10.42	10.46

After the students dropped the course, the majority of the students were still classified as White females with previous experiences with a foreign language and with DL courses. After the mid-term, only four students without previous foreign language experience were still enrolled in the

course. Of those students, one did not drop the course but stopped completing assignments a several weeks before the mid-term because of complications during and after a pregnancy. Two of the four students did not reply to e-mail messages. As a result, only one student without previous foreign language experiences was actively participating in the course, completing assignments, and replying to e-mails.

Before presenting the profiles for Ethan, Bertie, and Lynette, a general description of reasons why students chose DL as was self-reported in the Beginning-of-Semester questionnaire is described. At the beginning of the summer, 18 of the 19 students provided reasons for taking Spanish through DL. One student, Ethan, did not provide a reason on the questionnaire, but later in a discussion board post when responding to another student, he disclosed why he was taking Spanish as a DL course. Since his reasons were not identified on the Beginning-of-Semester questionnaire, I have not included them in Figure 17; instead, his response is explained as part of his profile later in this chapter. To organize the data, I typed all of the reasons into a spreadsheet. Then I reread all the reasons and placed them into categories or themes as they developed. Where individual students provided more than one reason, each reason was analyzed separately. The results of these categories are shown in Figure 17. The data are arranged as they emerged during the coding process.

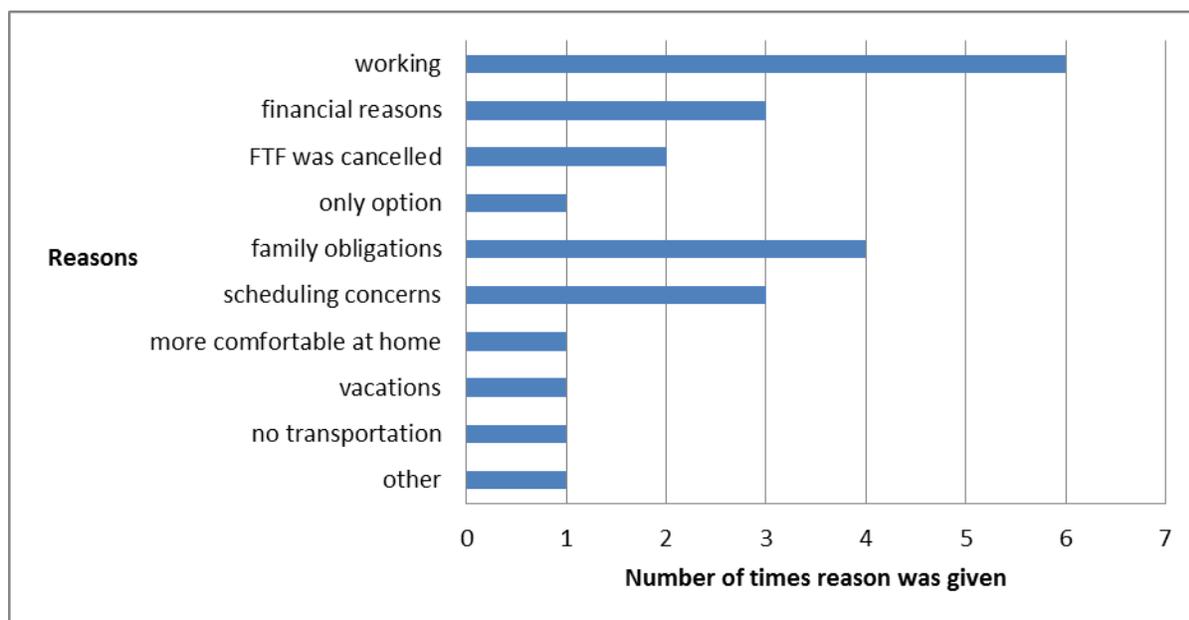


Figure 17. Reasons for Taking DL Courses Instead of Face-to-Face Courses.

These data revealed the four most common reasons for taking DL courses during the summer: 1) conflicts with employment, 2) family obligations, 3) general scheduling conflicts, and 4) financial reasons. These results were consistent with Berge's (2000) research on reasons for taking DL and Shrewsbury's (2008, 2009) research on the need for asynchronous forms of interaction to accommodate students' schedules. Two students specifically stated that DL courses enabled them to care for young children without paying for childcare. Of the students that mentioned conflicts with work schedules, three of the six specifically stated working full-time or 40 hours per week and that they would not have been able to attend FTF courses. Financial reasons mentioned included the high cost of gasoline, saving money for nursing school, and paying for daycare. These overall characteristics of the rural community college community and the students enrolled in the course selected for the current study describe the context from which the participants were selected.

### **Three Participant Profiles**

This section contains a detailed description of each participant selected for the current study. The information presented here was collected through the questionnaire, the discussion board posts, the first voice board assignment, the English prompts for the remaining five voice board assignments, and the various e-mails received during the summer session. Each profile follows a similar format. However, many of the questions or discussion prompts were open ended and participants commented on a variety of topics depending on their comfort levels with sharing personal information. To reduce the level of researcher bias, all the information that each participant disclosed during the assignments was included as part of each profile.

Each participant's profile begins with general information from the questionnaire, first discussion board assignment, and the English prompts of the second through the sixth voice board assignments. The English portion of these voice board assignments requested students to explain their day and what they had to do in order to complete assignments. Then, information obtained from the first voice board assignment describing their plans for the future is discussed. The first voice board assignment was an audio post recorded in English and several personality characteristics were observed such as laughter and tone of voice. These personality characteristics were not observed in the discussion board. After introducing each participant, a cross-analysis of their profiles to identify similarities and differences was done and is presented.

**Ethan.** Ethan, a 21 year-old White male, enrolled in one class (4 credits) during the summer session. He took the Spanish course in order to transfer the credits to a large university during the fall 2011 semester. In addition to fulfilling a degree requirement, he said that he had always wanted to learn Spanish. He had previously studied Spanish in high school, but had never taken a DL course. He chose to take Spanish as DL because he wanted to take vacations, needed to work during the summer, and did not have money for gas since he lived 50 miles from campus. Ethan owned his own computer and used it more than five times per week to access the Internet and instant messaging software. Ethan also said he lived in a small town in Virginia and enjoyed running. He was proud of his involvement with his former high school track team on winning its first track and field district championship. He said that he was a Christian and described the various members of his family. He mentioned many times during the summer the need to lock the door to his room or to tell his little brother to be quiet in order to complete his voice board assignments. He also mentioned his guinea pig and the various noises it made as a distraction when recording his audio posts. His girlfriend was another common topic during the summer in his discussion and voice board posts. When speaking of her for the first time, he said that he was sad because she was 250 miles away during the summer, but that they spoke every night before going to bed.

The first voice board task (see Appendix G) prompted the participants to explain reasons for taking the Spanish course and future plans. In his post, Ethan explained that he was attending a small four-year college as a physics major prior to the 2011 summer session. He restated his plans to transfer to a large university in the fall and that his major would be electrical engineering. He said that he needed the Spanish course because he was attending a liberal arts college and it was required. He does not mention graduating from the small college, but it appeared to be a possibility since he discussed foreign language as a degree requirement for the small liberal arts college instead of the university where he would be attending in the fall 2011 semester. He also described some of the courses that he had taken in the past and his interest in electricity.

His initial post was one minute, 33 seconds in length and contained 242 words. During his recording, he said *uhm* once and noticeably took one deep breath. I observed that his initial post contained no laughter and very few pauses. His rate of speech was also very constant and was characteristic of someone reading from a script. In his replies to comments made to other

posts, I observed laughter, audible exhaling, and audible inhaling between words. In his initial post, his voice was monotone. During his responses, however, his intonation and speed varied. In the following quote, Ethan is responding to a question about the possibility of being electrocuted while he worked with electricity:

Yeah it's a little scary but uhm (sounds with air pulling through teeth) what's life without risks (laugh) uhm, I don't know (deep breath through laughter) but /?/ that won't happen. I don't plan on getting a job uhm, where uhm you climb up on the telephone wires, and I can't remember what it is called it's just a really dangerous job and the possibility of like if you get electrocuted on that job you die pretty much (HH) but that is not really the job that I was planning on (HH) so yeah hopefully I won't get electrocuted uhm (sound with air and teeth) so yeah (big laugh and deep breath).

As seen at the beginning of this response, his laughter and breathing overpowers his words and a word became inaudible. An increased number of the filler words *uhm* that are more characteristic of spontaneous speech instead of reading from a script were also observed. In another post describing his reaction to making a C in his first physics class, he changes his voice as if mocking a child, "don't be like me and uh just sit around and say uh 'Oh I don't know how to do it so I'm just not going to' (in a funny voice) (big laugh) get a C in your first physics class." In his responses to other posts or comments, the average length of audio was 34 seconds. He submitted a total of 21 responses for the first voice board task that totaled 719 seconds (11 minutes 59 seconds). The observed behavior in his posts portrayed someone that was easygoing and felt comfortable interacting with others using the voice board software.

**Bertie.** Bertie, a 35 year-old White female, enrolled in three classes (10 credits) during the summer session. All classes were as DL and she had previous DL experience. She studied French in high school, but did not like the way she sounded speaking another language because of her country accent. She was enrolled in the Medical Office program of study at the community college. Another Spanish course, SPA 103: Basic Spoken Spanish, was actually required for her program of study, but it was not being offered during the summer. She said that she needed to fulfill the foreign language requirement during the 2011 summer session in order to graduate on time. She chose the DL course because she needed to be home with her son during the summer. She added that she would not have been able to afford childcare while taking a FTF course. She owned her own computer and used it more than five times per week to

access the Internet and to use word-processing software. She also explained that she was very busy taking three classes and that school was her main hobby. In addition to school, she talked about her son and her three dogs. During the summer, she made references to needing to wait until everyone was out of the house or needing to feed the dogs before completing her voice board assignments.

In her initial voice board post, Bertie restated that the Spanish course was required for her major and that she wanted to obtain her Associate's degree. After graduation, she hoped to find a job in a hospital or doctor's office. She also mentioned her desire to return to school in the future to become certified in phlebotomy. Her initial post was 26 seconds in length and contained 78 words. In her initial post, I did not observe laughter. She paused long enough for audible inhaling. The rate of speech was constant and flowed together as is characteristic of reading. However, since the length of her recording was 26 seconds and she specifically answered the questions provided in the speaking prompt, it is possible that she did not read from a script and was able to record the brief post without needing to pause or use filler words.

I observed similar behavior in all of her posts for this assignment. Her rate of speech was very quick and she did not pause between statements, just long enough to breathe. Several times I observed elongated vowels that might have been used in the place of filler words such as *uhm* to allow time to think about the next statement. This was observed in the following utterance:

Hey Student S congratulations on working towards your Bachelor's degree I know you've have probably worked very hard. (HH) I am working on my Associate's degree this is my fifth semester (HH) a::nd I am taking Spanish because it is part of my curriculum and hopefully I will be able to catch on pretty quick. (HH) This is the first time I have ever taken Spanish I took French in high school so::: good luck.

In this transcript, I did not include punctuation between statements in order to recreate the swiftness in her speech. The elongated vowels were observed at the ends of statements and before a new thought. The second elongated word *so* was even longer than the first. This could have provided her with more time to decide if she was finishing her post or wanting to continue. To reinforce her personal feelings about taking a foreign language and feeling silly speaking a different language as mentioned in the questionnaire, Bertie mentioned several times during the summer, as observed here, that she was nervous about taking Spanish. In her responses to other students' posts for the first voice board assignment, Bertie was supportive of the other students'

future plans and provided encouragement. The intonation of her voice varied while speaking and appeared to be pleasant and enthusiastic. In addition to being supportive by saying *good luck*, she specifically solicits her assistance and asks for possible assistance in one post. In this utterance, she realized that she had already taken classes with Student K. Her direct request for assistance was observed at the end of the post:

I think we've had a couple of classes together last semester for billing and (deep breath) medical office. I don't know if you remember me or not but if you need any help or if I need any help I guess we'll send each other e-mails.

The observed behavior in her posts portrayed someone that was supportive and felt comfortable interacting with others using the voice board. Her rate of speech and the direct nature of her posts and responses were characteristic of someone making a short response. When she appeared to need time to think, she did not use filler words. She elongated vowels at the end of statements to possibly provide herself with time to think about her response.

**Lynette.** Lynette, a 40 year-old White female was enrolled in seven courses (22 credits) during the summer session. Lynette was taking only one course through the community college, with the remaining 18 credits taken as a satellite option through televised courses transmitted to the community college campus from a four-year institution. Lynette did not have any previous foreign language experience. She was originally enrolled in the FTF option, but decided to enroll in the DL course when the FTF course was canceled because of low enrollment. She said that it was essential for her to take the class during the summer session in order to graduate at the end of the spring 2012 semester. She had previous DL experience, owned her computer, and used it more than five times per week to access the Internet and to use word-processing software. She explained that she was a newlywed with a 12 year old stepson and three dogs. Many times during the summer session Lynette explained the need to wait until she was alone in the house or that she had to lock the door to her room in order to complete her assignments. She also explained that in addition to her seven classes, she had a paying part-time job and a non-paying internship at a local employment agency. Because of recent factory closings, the internship supervisor needed her to work more hours in order to help with the influx of clients.

In her initial post for the first voice board assignment, Lynette restated her reasons for taking the Spanish course and added that she had always wanted to learn Spanish. She also added that she thought it would be helpful with her degree. She explained that she was dually

enrolled at Patrick Henry Community College and a university in order to obtain a Bachelor's degree. In addition to her future plans to eventually obtain a Master's degree in Social Work and to return to school to fulfill requirements to become a Licensed Clinical Social Worker, Lynette described previous experiences that lead her to her current goals. Her initial post was two minutes and 25 seconds in length and contained 400 words. I observed one small laugh at the beginning of her initial post and once in a response to another student's comment. Her rate of speech was constant with few stops and several audible breaths. At one moment in particular, she spoke until she was almost unable to speak due to the lack of air:

Hum, I plan to continue after I finish and work on my Master's degree (H) in Social Work and continue going until I complete the process to become an LCSW which is a Licensed Clinical Social Worker (very HH and was running out of air to speak).

She appeared to be very enthusiastic about her plans for the future and was very specific in what she planned to do. Another characteristic of her posts was the use of the filler words *uh* and *uhm*. In her initial post alone, she used filler words 16 times. Also, I observed false starts, repeated words, and self-correction that are characteristic of speech instead of reading from a script. At times she appeared to be thinking more quickly than she was able to speak: "I am working to obtain my Master's, uhm, my Bachelor's degree in Human Services with the major and my minor is in psychology (H)."

The observed behavior in her posts portrayed someone that was determined, pleasant, and felt comfortable interacting with others using the voice board software. In addition to her enthusiasm, she described uneasiness about learning Spanish and that she had never studied Spanish. However, she continued in that same post and described her experience working at a furniture store in the past and working with Spanish-speaking clients and learning some phrases.

### **Cross-analysis of Participants**

This section compares the three participants based on information obtained from demographic data, the Beginning-of-Semester questionnaire, discussion boards, and voice board assignments. Table 7 shows the comparison of several descriptive categories.

Table 7

*Participant Comparison with Data from the Questionnaire, First Discussion Board, and First Voice Board Assignments*

	Age	FL experience	DL Experience	Required Course	Course Load	Employment
Ethan	21	Yes	No	Yes	1 class	part-time
Bertie	35	Yes	Yes	Yes	3 classes	no
Lynette	40	No	Yes	Yes	7 classes	2 part-time

Bertie was the only participant that had previous foreign language and DL experiences. Even though she studied French in high school, she did not feel comfortable speaking in a foreign language. Ethan studied Spanish in high school but did not have experience taking a DL course. He stated in the questionnaire that he used computers more than five times per week to access the Internet and several other programs. He also appeared to be comfortable using the voice board software even though he lacked the DL experience. Lynette did not have previous FL experience and mentioned in her posts her feelings of anxiety about taking a FL. She also joked about not having free time because of her course load and two part-time jobs. While these data provided a general comparison of the participants, the actions and methods taken to complete the voice board assignments revealed individual personalities when the length and content of post, speaking style, and laughter were compared.

All three participants received the same prompt (see Appendix G) that instructed them to explain why they were taking the Spanish class, what were their programs of study, and their plans for the future. Participants were graded on the content of the initial post, the number of comments made to other students' posts, and the number of responses or replies to questions made on their posts by other students. Table 8 compares the length of utterances, number of words, and the averages for each participant.

Table 8

*Comparison of utterances for the first voice board assignment for chapter one.*

	Length of Initial Post	Word Count in Initial Post	Number of Replies to Initial Post Comments	Total Number of Comments Posted	Number of words for all posts w/o initial post	Average number of words per post	Total Length of posts
Ethan	93 sec	242	5	21	1915	91.19	719 sec
Bertie	26 sec	78	0	15	772	51.46	240 sec
Lynette	145 sec	400	0	3	470	156.66	140 sec

These data show several details about each participant's behavior. Ethan submitted the highest number of individual posts and had the highest overall word count. He was also the only participant to respond to comments made on his initial post. Bertie's initial post was the shortest in length and had the lowest word count. She did not respond to any comments made on her initial post, but did submit 15 comments on other students' posts. Lynette's initial post was the longest in time and contained the highest word count. She made only three comments to other posts, but had the highest overall words per post.

Each participant interpreted the same prompt for the initial post depending on personal history, goals, and other individual variables. First, the content of the initial post explains the variation in length and word count. Ethan answered the question, but provided some background information about previous academic experiences that led him to his decision to continue studying electrical engineering. He also included reasons for taking the Spanish course during the summer 2011 session. Bertie answered the questions without including previous experiences that led her to her future plans. Lynette described in detail previous work and academic experiences and how those experiences had defined her future goals. She also explained future plans that outlined many years into the future. While all three participants demonstrated that they read the assignment and answered the questions, Lynette engaged in longer but less frequent interactions with the other students in the class.

Second, the average number of words per post shows that Lynette engaged in more lengthy discussions than the other two participants. This performance could describe her as

being more eager to interact with the other students. However, the total number of posts submitted to other students and the lack of responses to comments made on her initial post provided a more detailed explanation of her performance. Lynette entered on May 25 to record and to submit her initial post. She then commented on three other students' posts before leaving the voice board. Even though Lynette appeared to be eager to interact with other students and recorded longer posts, she did not return to the voice board to post any more comments nor to respond to comments on her post. Comparing this observation with previously discussed information regarding her schedule could explain her behavior. Lynette was taking seven courses, working two part-time jobs, and described various family obligations. According to her comments, her schedule afforded less time than the other participants to return to the voice board and work on the assignments.

Bertie's activity in the first voice board assignment was similar to that of Lynette's. Bertie was not working during the summer, but was enrolled in three classes and was taking the DL course in order to care for her children. Bertie recorded and submitted her initial post on May 28. She then submitted a comment on another student's post several minutes later before leaving the voice board. She returned on May 29 and submitted a post at 11:40 pm. Bertie continued to submit a total of 14 posts with the last one being submitted at midnight. She did not return to make any more posts for the first voice board assignment. Even though Bertie appeared motivated to submit comments, she did not respond to the two comments on her initial post that had already been posted when she accessed the voice board on May 29. Her schedule could have been a factor in her activity level for this assignment.

Ethan accessed and submitted posts on four separate days and at various times. Each timeframe for voice board submissions was thirty minutes or less. On May 24, he recorded and submitted his initial post and stayed to post three comments on other students' posts. On May 27 he posted nine comments and on May 29 he recorded and submitted six. On the last day to make comments for the first voice board assignment, Ethan returned one hour before the cutoff time and submitted two more comments. According to the information he provided at the beginning of the semester, he was enrolled in one class during the summer session and worked a part time job. Ethan was also the only participant that was not married and did not have children.

**Summary of cross-analysis of participants.** All three participants read the same rubric for the first voice board assignment and submitted the initial post by the due date. Each participant performed differently on the same task, however, and demonstrated observable behavior that supported comments made by each participant during their introductions. Since the first voice board assignment was conducted in English, previous foreign language experience was not an influential factor when completing the introduction and interacting with the other students. With this in mind, two important variables remain: the DL course components and other individual characteristics. Bertie and Lynette had previous experience with DL courses and were more familiar with Blackboard Suite 9.0 (2010) because they were returning PHCC students. Ethan, on the other hand, was a new student to the college and had never taken a DL course. Since Ethan submitted the most posts and demonstrated the highest level of activity, other individual characteristics such as number of credits taken during the summer, employment status, and family obligations were more influential factors when completing or not completing assignments when taking DL courses than the software component alone. These individual characteristics and the level of influences they caused are discussed further when answering questions two and three later in this chapter.

### **Summary of Characteristics of Students using Distance Learning**

Between the 2001 and 2011 summer sessions, there was a 575.3% (n = 558) increase in students taking courses as DL. This increase demonstrates the need to understand reasons students are taking DL courses and how students complete assignments. Reasons provided by the students enrolled in this study for taking DL courses during the summer were consistent with Berge's (2000) research on reasons for taking DL and Shrewsbury's (2008, 2009) research on the need for asynchronous forms of interaction to accommodate students' schedules.

Three students were selected from the 19 enrolled in the SPA 101: Beginning Spanish I course to be participants in the current research study: Ethan, Bertie, and Lynette. Of these three participants, all three stated that the course was required for the program of study. However, Bertie and Lynette explained in detail the need to take the course during the summer 2011 in order to graduate as planned. They also explained that if they did not pass the class, that they would not be able to retake the course and graduate on time. Course loads and work schedules also became a variable in the participants' lives. Ethan worked part-time and was enrolled in one class. Bertie was not working during the study and was enrolled in three courses. Lynette was

working two part-time jobs and was enrolled in seven classes. When comparing each participant's schedule, it appeared Lynette had the most time restrictions during the study.

The first voice board assignment in English was designed to learn about the participant's future plans, to understand goals for taking the course, and to learn about each participant's personality through self-expression in speaking behaviors. This assignment was designed in line with modern activity theory. Modern activity theory explains the effects personal histories, goals for completing tasks, and the interpretation of those tasks on how students completing them. As a baseline, Ethan and Bertie briefly answered the questions provided in the prompt and submitted comments about other students' posts. In contrast, Lynette provided detailed explanations in her initial post and commented the least on other students' posts. Even though Lynette made only three comments to other posts, her posts were longer than those recorded by Ethan and Bertie.

With these data, several characteristics of students taking DL courses were observed. Students enrolling in DL instead of FTF courses explained the need to have flexible course schedules because of work schedules or family obligations. Even though researchers (Beauvois, 1992; Blake, 2005, 2008; Draves, 2002; Kern, 1995; Niño, 2009; Palloff & Pratt, 1999; Sders, 2005; Warschauer, 1996) have discussed advantages for foreign language learning through CMC and DL, those advantages were not provided as a reason for choosing the course. Reasons for enrolling in the DL course, such as scheduling issues and family obligations, appeared to negatively affect the completion rate for some participants in the study. The next sections of this chapter apply these results to interpreting the data obtained for the remaining two research questions.

### **Completing Audio-Based Computer Mediated Communicative Assignments**

This section explains and interprets the results for the second research question: How do students complete audio-based CMC assignments? To answer this question, the participants' *actions* and *operations* are discussed in relation to modern activity theory. As defined in modern activity theory, actions are the specific steps taken by the subject to complete a task or to reach a goal. Operations refer to the method or way the actions are completed. To categorize and analyze these stages of modern activity theory, the role of mediation in how the students completed the tasks is discussed using the three stages of regulation: object-regulation, other-regulation, and self-regulation (Lantolf & Thorne, 2006). However, these stages of regulation are not independent of each other and actually are observed through interconnected actions

within a context. To explain the observed behavior through this lens, this section was divided into contextual situations where a stage or various stages of regulation were observed.

### **Preparing the setting to record voice board posts**

Because the voice board assignments required participants to record and submit audio using a computer, the participants explained the importance of the setting when attempting to complete assignments. In this context, the required use of audio-based CMC through a computer to access the voice board became an object that regulated the participants' actions. The participants described the specific setting that they needed in order to complete the task. These data were collected primarily from the voice board prompts for the six voice board assignments. Each voice board assignment essentially was divided into two parts (see Appendices J through L). The first part was a prompt in English that asked the participants to explain what they had to do in order to complete the assignment and to describe their day. The second part was the assignment based on the theme for the corresponding chapter in the text used for the course.

When constructing the English prompt for the voice board assignments, I anticipated that the participants would describe the procedures for preparing the content of the posts, for getting ready to record, and for submitting the audio recording. However, preparing the setting was the main topic of discussion. All participants explained the need to have a quiet room or a quiet setting in order to complete the assignments. Each participant described this process and demonstrated the variety of actions taken. Ethan and Bertie mentioned feeding animals before recording. Ethan actually mentioned in more than one post that his guinea pig made noises in the cage and that it oinked. In this particular post, Ethan actually made reference to the other students in the class when talking about his pet: "And as, as for those of you who don't have a guinea pig, yes, they do oink." Bertie and Lynette had to actively request that family members leave the house. Bertie had to wake her son, get him dressed, and then take him to his friend's house to play while she worked on her assignments. Lynette explained that she had been sick, that everyone was "babying her," and that she was not able to work on class assignments. She had to ask them to leave the house in order to complete her homework. She also stated that her husband laughed at her when she spoke Spanish. Even though all participants explained the need to find a quiet place to complete assignments, Bertie and Lynette had to take an additional step and asked family members to leave the house. In addition to having family members leave, Bertie stated that she also waited until everyone was asleep. Waiting to complete her

assignments meant that her voice board posts were sometimes submitted very early in the morning or between 11:30 pm and 12:15 am.

While the above topics were discussed most often during the study, several other comments were made: having to complete assignments for another class, having to turn off the television, or waiting for the Internet connection. Table 9 compares what participants reported when preparing to record and submit the voice board posts. The first column contains a comment mentioned during the English prompt of the assignment and the second column shows the participant or participants who mentioned the comment.

Table 9

*Comparison of what participants said was necessary to do before completing assignments.*

Comment Made by Participant	Participant
Had to shut the door to keep others out of the room while completing assignments or find quiet room.	Ethan, Bertie, and Lynette
Had to stop watching television.	Ethan
Told a family member to be quiet.	Ethan
Feed pets to keep them from making noise.	Ethan and Lynette
Had to wait until everyone was gone.	Bertie
Had to wait until everyone was asleep.	Bertie
Trouble using the voice board software, not working.	Bertie and Lynette
Did not have Internet connection	Lynette
Had to practice what he or she wanted to say.	Bertie
Actively made family members leave in order to complete assignments.	Bertie and Lynette
Had to complete other assignments first.	Lynette

As seen in Table 9, each participant demonstrated being negatively affected by object- and other-regulation when he or she attempted to complete the voice board recording. The objects that regulated their behavior were noise, television, pets, complications with using the voice board software, lack of Internet connection, and other assignments. Some of these object-

regulations were relatively minor distractions of wanting to continue watching something on the television or having to feed pets to keep them quiet. Other distractions such as waiting until the Internet connection was restored or software updates were completed were more severe and were out of the participant's immediate control. The occurrences of other-regulation reported by participants were family members making too much noise and being asked to leave. Lynette explained that on two occasions family members were deliberately inhibiting her ability to complete assignments by taking care of her after she had been sick and by laughing at her when she tried to record her post.

### **Recording the voice board posts**

While the process to access Blackboard Suite 9.0 (2010), to create a thread in the voice board, and to record the assignment was essentially the same for everyone, each participant approached the task in various ways. This section describes how each participant recorded and submitted the recordings for the voice board assignments. Since all participants were required to use Wimba Voice 6.0 (2009) tools, all voice board posts were mediated through the Wimba Voice 6.0 (2009) software and the course management system Blackboard Suite 9.0 (2010). This mediation was classified as object-regulation because the computer software and hardware were required for the recordings in voice board to occur.

When participants used the voice board, the date and time for each post was recorded and included as part of the identifying information for each audio submission. It did not provide data showing the duration of each visit, but submission times provided a record of voice board submission activity. These data provided insight into how students worked on the voice board assignments. Table 10 shows the time and date that each participant submitted the initial and subsequent recordings for the second voice board assignment for chapter one. This was the first voice board assignment that required participants to speak and interact in Spanish. Bertie and Ethan submitted recordings on two separate days. Lynette submitted recordings on one day and did not return to submit more posts for this assignment.

Table 10

*Date and Time of Post Submissions for the Second Voice board Assignment for Chapter One*

Second Chapter One Voice Board Posts									
	Bertie			Lynette			Ethan		
Initial	6/6/2011	8.33 pm		Initial	6/4/2011	5.26 pm	Initial	6/5/2011	9.02 pm
	6/6/2011	8.38 pm			6/4/2011	6.16 pm		6/6/2011	10.31 pm
	6/6/2011	8.40 pm			6/4/2011	6.16 pm		6/6/2011	10.32 pm
	6/6/2011	8.41 pm			6/4/2011	6.17 pm		6/6/2011	10.35 pm
	6/6/2011	8.42 pm						6/6/2011	10.36 pm
	6/6/2011	8.43 pm						6/6/2011	10.40 pm
	6/6/2011	8.44 pm						6/6/2011	10.43 pm
	6/6/2011	8.44 pm						6/6/2011	10.47 pm
	6/6/2011	8.45 pm						6/6/2011	10.50 pm
	6/7/2011	8.35 pm						6/6/2011	10.54 pm
	6/7/2011	8.36 pm						6/6/2011	10.55 pm
								6/6/2011	11.08 pm

All participants submitted voice board posts in the evening and at night. The due date for this voice board assignment was June 6, 2011, by 11:59 pm. Lynette submitted her posts on June 4, Ethan submitted his initial post on June 5, and Bertie waited until June 6. Even though students had 15 days to submit this assignment, these data support previous studies (Shrewsbury, 2008, 2009) that documented students waiting until the due date to complete assignments.

**Bertie's voice board posts.** The times for each of the audio posts also indicated that students did not require a large amount of time between submissions. Since this was the first post, the assignment was to state one's name, place of birth, and two descriptive adjectives, so it was not expected that students would need an extended amount of time to listen and to respond to other posts. For Bertie's chapter three posts, however, a similar pattern was observed. Bertie recorded and submitted eight posts in nine minutes (see Appendix O). For chapter three, participants were to discuss how they felt and what they were planning on doing in the near future. The thematic unit for this assignment was based on classes and schedules. In chapter two of the textbook, students had also studied methods to ask and to answer questions and to

conjugate regular verbs in the present indicative tense. Bertie's posts for chapter three contained several characteristics. For her first two submissions, she attempted to address the previous student's post, but the remaining utterances were identical with the exception of mentioning the student's name, as seen in the following utterance.

**CH3\_32Bertie\_rti\_30**

**7-18-11**

**11:24 pm**

**0:06**

*Student in previous post says in English that she had to go into her office and close the door. She says that it was a good day because she saw a friend today and was able to talk. In Spanish, she says that she is happy but tired. She is going to clean the house in the morning and then will rest in the afternoon.*

Hola, Student K. Buenas noches. ¿Cómo está? Adiós.

*Hello, Student K. Good night. How are you? Bye.*

Bertie did not specifically respond to or mention anything from the previous post submitted by Student K.

To inquire about her voice board posts for chapters two and three, I sent Bertie e-mails asking questions about the content and actions taken to complete the assignments. She responded:

I listened to the ones I didn't understand about ten times hoping I would pick up on a couple of words to try and understand. I wanted to ask what they were saying, but I kinda felt stupid and the assignment was to respond to what each person was saying. You will hear on the [voice board] that I just said hello, good evening, how are you, and goodbye to everyone that I wasn't sure what they were saying. The last [voice board] I did not respond because I did not see where anyone had responded to me because I was looking in the wrong place. I think I would have done a lot better in this class if I had taken Basic Spoken Spanish first. I will dedicate more time to this class now that I am finished with my other two classes for the semester.

In her response, Bertie revealed that she intentionally posted the same comments when she was not able to interpret what the other students were saying. Posting these comments was an example of being object-regulated by the target language. Bertie also identified the limitations of her self-regulative abilities. Lantolf and Thorne (2007) defined self-regulation as the ability to perform an action or complete a task without the use of external assistance. Since characteristics for performing at this level, e.g., not needing assistance or using techniques such as self-talk,

could not be observed, the limits of self-regulation could be acknowledged only when a participant explained complications or the need to use tools to complete the assignments.

Time constraints were also a factor. She stated that she would be able to dedicate more time for Spanish class because she had completed the other courses that she was taking. Her goal to graduate by a particular semester also became a factor since she enrolled in a class that was not required and that was more advanced than the course required for her program. In response to this e-mail, I encouraged her to ask the students to re-explain content or to ask me for assistance when needed for the remaining voice board assignments. Even after this recommendation, she demonstrated that she did not feel comfortable and chose not to ask other students or me for help when she did not understand something for the remaining assignments during the summer.

Later, in chapter five, Bertie changed her pattern for submitting her voice board posts. Her previous pattern, and the pattern of the other participants, was to first submit the initial recording before commenting on other students' posts. On August 1, Bertie submitted two responses to other students' posts at 9:42 am and at 9:44 am. Then, at 9:45 am, she submitted her initial post for the chapter five voice board assignment. Because of the threaded nature of the voice boards, this pattern was not noticed until after the data collection period and asking her to explain this behavior was not possible. It is obvious, however, that this was a deliberate action and that this behavior was not observed with the other participants. It is possible that she listened to the other students' posts in order to decide what she wanted to say or to verify her understanding of the assignment. If these were the reasons, then she could have been using those posts to mediate her own interpretation of the assignment. This action would be classified as other-regulation because other students would have assisted, although indirectly, with her actions.

**Ethan's voice board posts.** Observations of Ethan's actions revealed consistent behavior during the study. On average, he submitted voice board posts on two to three separate days for each assignment. Only one post was submitted during the morning hours with all other posts occurring between 3:20 pm and 11:25 pm. In response to several e-mails I sent to him inquiring about the actions he took to complete the assignments, he stated that he used an electronic online dictionary to look up words. He also expressed how much he enjoyed looking up words and talking about his hobbies in Spanish. Using the electronic dictionary to create his

posts was a positive example of object-regulation. This example of object-regulation was then transferred to other-regulation when Ethan created and submitted some of his voice board posts and comments.

On two occasions Ethan assisted other students with interpreting his voice board submissions. In one instance, he looked up and used the word *helado* [ice cream] in his voice board post. In this post, he stated in English after completing his utterance in Spanish the meaning of the new vocabulary word. This interaction was directed specifically to another student in the class regarding the comment that he made on her post. This mediative behavior was also observed in another post later in the summer. In the second instance, he did not include the vocabulary word as part of his audio utterance, but rather typed new vocabulary words with their meanings in the text box portion of the voice board software (see Figures 11 and 12). After observing this behavior, other students in the course adopted this strategy and started using the text-box available with the voice board to assist other students when using new vocabulary.

In Ethan's voice board posts, another form of other-regulation was observed when he did not understand what someone said or if he could not hear the audio that someone had submitted. On several occasions, Ethan asked other students for clarification about something mentioned in his or her post: *Hola Lynette. Perdonas a mí.. pero no comprendo que tú hablas. Repita por favor. Gracias. Adiós.* [Hello Lynette. Forgive me.. (sic) but I do not understand what you are saying (sic). Repeat please. Thank you. Bye.] Lynette's utterance was very difficult to understand because of her pronunciation and her attempt to use advanced grammatical concepts and many vocabulary words not covered in the text. Even though Ethan's utterance was not completely grammatically accurate, he apologized and asked her to re-record her post. For another post, a student's microphone did not record any audio, just silence. Ethan apologized and said that he could not hear what that student had submitted. These utterances demonstrated a request for assistance similar to negotiating for meaning (Gor & Long, 2009). Requesting assistance from another student was not observed with the other participants.

**Lynette's voice board posts.** Some of Lynette's actions during the study were not consistent. Even though she submitted an initial post for each voice board, she did not post any comments to other posts for two of the chapters. When asked about her posts, she explained that she was not able to access the course on some weekends because she had to travel to the main campus of another institution to complete assignments for other classes that she was taking. She

also explained that she was having difficulty understanding what the other students were saying. Through e-mails and during a serendipitous interview at the end of the summer, she described her actions for working on the voice board assignments. Lynette depended on additional resources such as flashcards, other textbooks, and friends to attempt to complete her assignments. Her learning was object- and other-regulated by these resources and by her schedule and requirements for other courses during the summer.

Lynette also demonstrated conflicts between the content that she wanted to discuss and her ability to successfully do so in Spanish. This gap in ability can be described as negative object-regulation between the performance levels of the native and target languages. Many times, she tried to talk about the past or express opinions and emotions that required the use of the present subjunctive in Spanish: “Tien una.. manera tan gran:. de hablar español. (HxH) Espero kwi ponada... comprendo.. como eso al-june día. [*You have (sic) a great (sic) manner of speaking Spanish. (HxH) I hope that (sic) I can understand like (sic) that some (sic)day.*]” This utterance also demonstrated that she was not comfortable with the pronunciation and that the content of her posts did not match her level of performance in Spanish.

During several e-mail exchanges with Lynette, she described her frustration with not being able to discuss many topics in Spanish. She also stated many times that she should have been able to have more detailed conversations in Spanish and that she did not understand why she was having trouble learning. I directed her to focus primarily on the topics being covered in the course for the assignments and that she would be able to discuss more complex topics later. Her performance in the voice board assignments even after our discussions continued during the rest of the course.

### **Summary of completing audio-based CMC assignments**

Even though the voice board tasks were identical for each student taking the course, each participant's actions resulted in various strategies used to complete these tasks. The actions and operations for each participant to complete the voice board assignments were documented and discussed in relation to their mediative qualities. A form of mediation identified as regulation was applied using its three stages: object-regulation, other-regulation, and self-regulation. To analyze and discuss these stages of regulation, contextual situations were used in order to facilitate occurrences when more than one stage of regulation was observed simultaneously or as a related sequence.

All three participants explained the need to find a quiet room or to wait until family members were not at home. Bertie and Lynette explained that they had to actively adjust times of the day to submit voice board posts or to ask family members to leave the house. While some distractions were minimal, other distractions were more problematic for the participants. Bertie and Lynette experienced some complications with the voice board software and an Internet connection. Lynette also explained that her husband laughed at her trying to speak in Spanish and she had to wait for him to leave before recording comments. These examples demonstrated negative object- and other-regulation that delayed each participant's ability to complete the voice board assignment.

When recording the voice board posts, various stages of regulation were also observed. All participants demonstrated being affected by object-regulation when a breakdown in communication occurred. Each participant responded to these situations differently. Bertie decided to not respond to other students' comments or to respond using a general phrase in order to obtain points for the assignment. Even after I recommended that she ask the other students about the post or to ask me for help, she chose not to request assistance and continued this behavior. During these situations, Ethan asked the students in Spanish through the voice board to please repeat what they had said or explained that he could not hear any audio. Lynette submitted very few comments to other posts, but requesting clarification was not observed in those that she submitted.

Object-regulation became an example of other-regulation when Ethan looked up new vocabulary words and provided the definitions for the other students to assist them with interpreting his comments. This behavior was noticed and adopted by other students in the course for their posts later in the summer. On another occasion, Bertie deliberately listened and posted to comments on two posts before recording her initial post for the assignment. This behavior was not observed with any other participant. She could have been using the other posts to assist with interpreting the task or to assist her with her content.

Identifying instances for self-regulation were less frequent because of the nature of DL courses using only asynchronous communication. Identifiers such as monitoring students and documenting when they were performing without assistance or observing the use of self-talk were not possible. The limits of self-regulation were identified, however, when the participant

explained that he or she did not understand something, asked for clarification, or said he or she had to refer to a dictionary or other source for assistance.

The actions and operations discussed in this section described the process the participants followed when interpreting and completing the task. The next section focuses on the outcomes of these actions and discusses the types of utterances that were observed during the study. These outcomes demonstrate the individual activities as explained in modern activity theory.

### **Types of Interactions Observed in Audio-Based Computer Mediated Assignments**

This section discusses the results regarding the third research question: What types of interactions are observed in audio-based CMC assignments? The interactions observed in the voice board posts were the activities submitted by each participant. These activities were the result of each participant's interpretation of the assigned task for each chapter and the actions each participant took in order to complete the tasks. Two headings were used to discuss the results in this section: themes observed in the voice boards and chaining of interactions. A summary of the discussion concludes this section of the chapter.

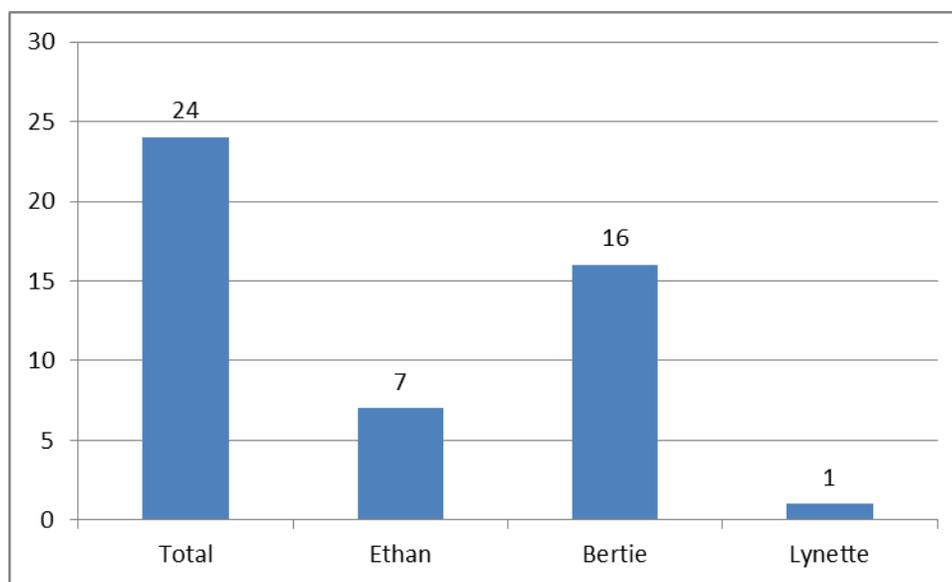
#### **Themes observed in voice board assignments**

Ninety-five voice board posts or utterances were analyzed to find emerging themes. While coding these utterances, four themes emerged to describe the types of interactions observed in the voice board assignments: 1) general or generic statement and does not specifically address anything in particular other than mentioning the name of the producer of the utterance in the previous post, 2) requests clarification about something that was not understood in the previous post, 3) responds to a question or comment in the previous post and also asks a question to continue the conversation, and 4) responds to a question or comment in previous post, but does not ask a question to continue the conversation.

The discussion in this section first focuses on the themes and provides examples of these themes. A breakdown of which participants' utterances were classified for each particular theme is also discussed. Since the voice boards permitted participants to plan and write the content of his or her posts before recording and submitting them, each theme is also classified by proficiency level according to the *ACTFL Proficiency Guidelines: Speaking, Writing, Listening, and Reading* (2012). To explain characteristics of utterances classified into each theme, excerpts from the transcripts were used. See Appendix P for the transcript of all utterances analyzed for this study. Each transcription of each individual utterance contains the label to identify the

utterance, a time stamp, a brief description of the previous post in italics, the actual utterance in standard font, followed by the English translation in italics. This section concludes with a comparison of the overall percentage of utterances submitted by each participant.

**The first theme.** The first theme that emerged when coding the utterances was: general or generic statement and does not specifically address anything in particular other than mentioning the name of the producer of the utterance in the previous post. An unambiguous sample used during the coding process of an utterance being categorized in this theme was: *Hola, Lynette. Me llamo Ethan. Mucho gusto. Adiós.* [Hello, Lynette. My name is Ethan. Nice to meet you. Bye.] Because this utterance demonstrates a low level of proficiency, utterances classified in this category were to be submitted during the beginning of the semester because of the limited contact with the target language. Figure 18 shows the number of utterances in this category that were submitted by each participant.



*Figure 18.* Total number of utterances submitted for theme one compared to submissions by each participant.

Ethan submitted 29.2% ( $n = 7$ ), Bertie submitted 66.7% ( $n = 16$ ), and Lynette submitted 4.2% ( $n = 1$ ) of the utterances placed into this category. A closer look at these utterances showed that all of Ethan and Lynette's utterances were submitted for the second voice board for chapter one. That was the first voice board during the summer that required students to interact in Spanish. Of the 16 submitted by Bertie, nine were from the second voice board in chapter one and seven were from chapter three. When asked about the content of her posts and how she completed the

assignments, Bertie explained “I just said hello, good evening, how are you, and goodbye to everyone that I wasn't sure what they were saying.” Utterances classified into this theme were characteristic of students performing at the Novice proficiency level (ACTFL, 2012). Speakers performing at this level have no real functional ability, but are able to exchange greetings. Writers performing at this level are able to recombine learned vocabulary and create basic sentences dealing with familiar topics.

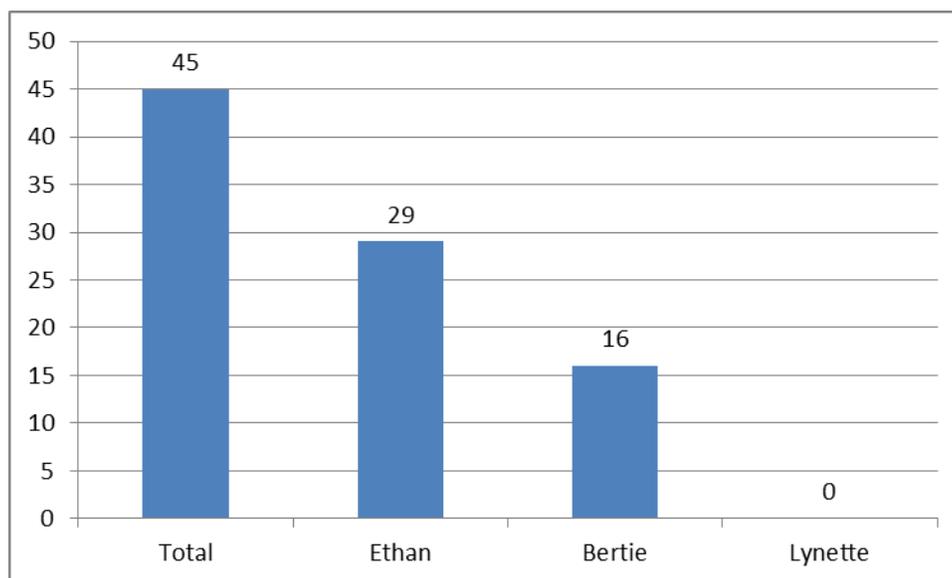
**The second theme.** The second theme was: requests clarification about something that was not understood in the previous post. Ethan was the only participant that requested more information when he could not understand what someone said or if someone had not recorded any audio. An example of an utterance classified as this theme was

**CH4\_63Ethan\_rti\_60**                      **7-26-11**                      **3:52 pm**                      **0:18**  
*Student in the previous post says in English that she had to send everyone out of the house because they were babying her since she has Rocky Mountain Spotted Fever. In Spanish, she describes her family. He says that her husband was in the military and that he likes skateboarding, snowboarding, and motocross.*

Hola, Lynette. Por favor, perdonas a mí. No comprendo. ¿Quién en tu familia le gusta motorcross? Adiós.  
*Hello, Lynette. Please, forgive me (sic). I do not understand. Who in your family likes motorcross? Bye.*

Four utterances were classified into this category and three of these utterances were submitted while completing the voice board assignment for chapter four and one for chapter five. Utterances classified into this category were characteristic of students performing at the Intermediate-Low or Novice-High proficiency levels. Speakers performing at these levels struggle to answer and ask direct questions for more information. Writers at these levels may commit basic errors in grammar and word choice and rely mainly on practiced material.

**The third theme.** The third theme was: responds to a question or comment in the previous post and also asks a question to continue the conversation. Figure 19 displays the number of utterances per participant that were classified under this theme. Ethan submitted 64.4% (n =29) of the utterances placed in this category and Bertie submitted 35.5% (n =16) of the utterances. Lynette’s utterances were not classified consistent with this theme because she did not include a question to initiate and/or continue the discussion in her voice board submissions.



*Figure 19.* Total number of utterances submitted for theme three compared to submissions by each participant.

Utterances classified into this theme were characteristic of students performing at the Intermediate-Low level of proficiency. Speakers performing at this level can handle uncomplicated tasks by creating with the language. Writers at this level can create statements and questions regarding familiar material. To demonstrate these types of utterances, two samples from the same chapter are presented.

**CH3\_56Ethan\_rti\_51**                      **7-16-11**                      **10:35 pm**                      **0:12**

*Student in previous post says in English that she had to find a quiet room. She has had a very stressful day because her son did not bring any clothes home. Her computer was not working correctly either. In Spanish, she states that she is hungry and is going to eat dinner with friends and play cards.*

Hola Bertie. ¿Tienes hambre? Tú necesitas un Big Mac de McDonalds.. Adiós.  
Hello Bertie. Are you hungry? You need a McDonalds Big Mac. Bye.

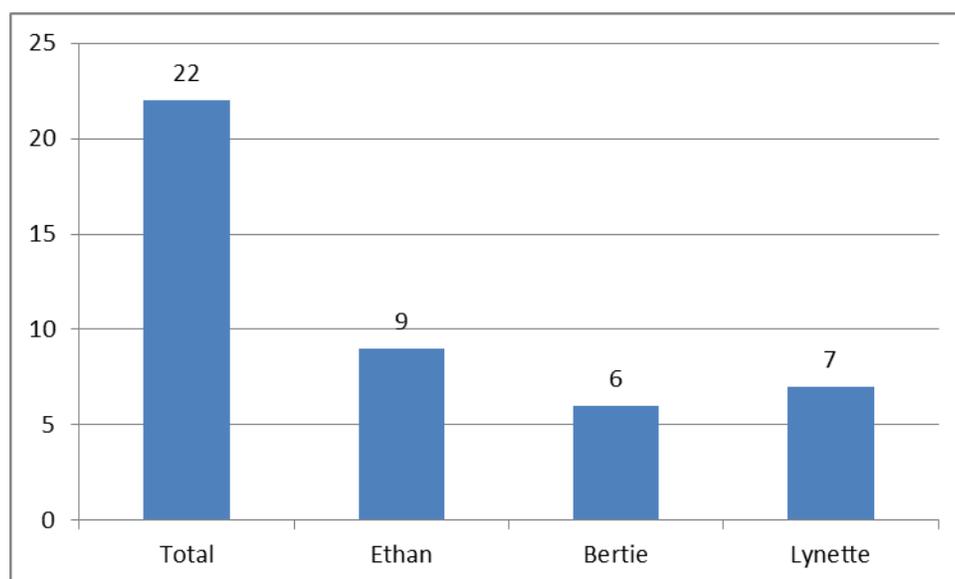
**CH3\_70Bertie\_rti\_69**                      **7-18-11**                      **11:28 pm**                      **0:12**

*Student in previous post says that she is going to study tonight and that she is going to the library tomorrow. She also says that she studies a lot every day.*

Hola...Buenas noches. ¿Cómo está? Estudio de noche también. Adiós.  
Hello. Good night. How are you? I study at night too. Bye.

In his response, Ethan restructured a comment made in the previous post to create a question and then made a recommendation. Bertie responded to a comment in the previous post by describing a similarity she shared with the other student.

**The fourth theme.** The fourth theme was: responds to a question or comment in previous post, but does not ask a question to continue the conversation. Ethan submitted 40.9% (n = 9), Bertie submitted 27.3% (n = 6), and Lynette submitted 31.8% (n = 7) of the posts that were classified into this theme. Figure 20 shows the amount of utterances submitted by each participant compared to the total utterances for this theme.



*Figure 20.* Total number of utterances submitted for theme four compared to submissions by each participant.

Posts submitted by Ethan and Bertie used similar grammatical structures and vocabulary choices as discussed under theme three and could be classified as characteristic of students performing at the Intermediate-Low level of proficiency. The difference, however, was that they did not ask a question that could have continued the conversation. Lynette's utterances were characteristic of speakers performing at the Novice levels of proficiency. She struggled with pronunciation and hesitated often when recording her post for the voice board assignments. The following utterance was characteristic of those submitted by Lynette:

**CH3\_52Lynette\_rti\_51**

**7-18-11**

**11:43 pm**

**0:16**

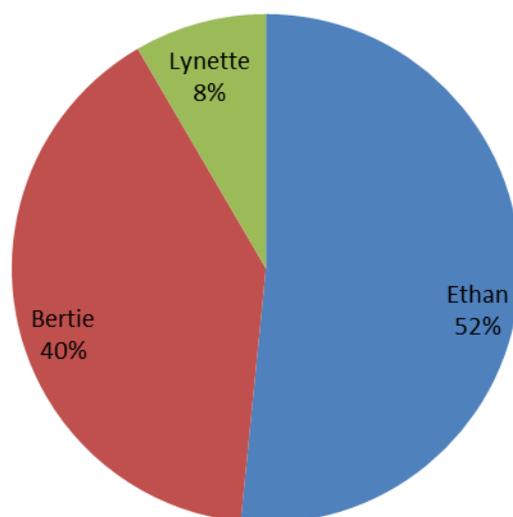
*Student in previous post says in English that she had to find a quiet room. She has had a very stressful day because her son did not bring any clothes home. Her computer was*

*not working correctly either. In Spanish, she states that she is hungry and is going to eat dinner with friends and play cards.*

*Sueno como se ha tiendo..un de muy interesante..espero koo se m:adura para usted.  
Sounds like you have had..an interesting day (sic).. I hope it gets b:etter (sic) for you.*

Lynette paused twice for at least two seconds during this utterance. She also struggled with pronunciation as is characteristic of speakers performing at a lower level of proficiency. Unlike Ethan and Bertie, however, the content of her utterance required more complex grammatical structures than she had studied and possibly hindered other students' interpretation of her posts.

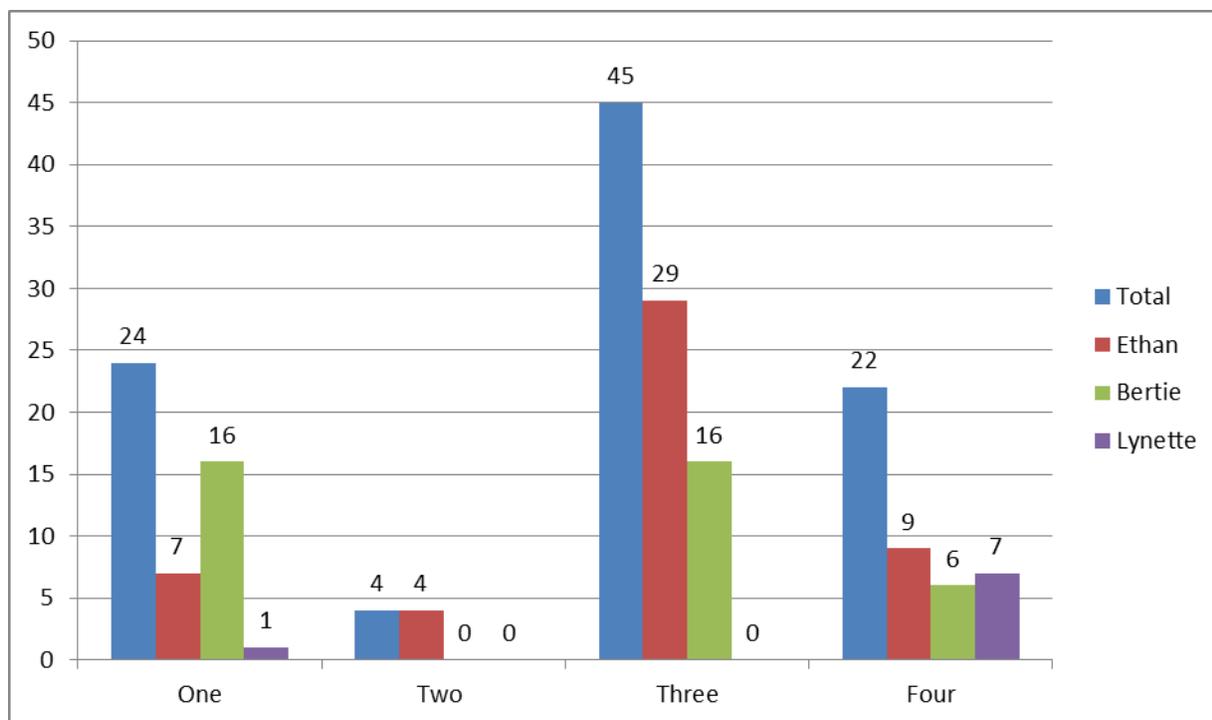
**Summary of themes observed in voice boards.** Of the 95 utterances, Ethan submitted more than half of the utterances during the study. Figure 21 shows the percentage of utterances submitted by each participant. These data were collected and calculated from all five voice board assignments that required the participants to interact in Spanish.



*Figure 21.* Percentages of total number of utterances submitted by participants for the voice board assignments requiring students to speak in Spanish.

Even though Ethan submitted the majority of the utterances, he and Bertie performed with similar levels of proficiency during the study. The majority of their utterances were classified as characteristic of performers at the Intermediate-Low and Novice-Mid to High levels of

proficiency. Lynette's utterances were characteristic of performers at the Novice-Low to High levels of proficiency. A comparison of submissions helps demonstrate their performance levels.



*Figure 22.* Utterances classified into the four themes indicating the participants submitting the utterance.

Only Ethan's utterances were classified as theme two. These utterances did not contain more advanced grammatical structures than those classified into the other themes. It was necessary, however, to feel comfortable asking another student to explain something that was not understood or to explain in the target language that something happened to the audio recording. Bertie and Lynette explained during the study that they did not feel comfortable asking the other students for clarification or assistance when needed. Themes two through four required the participants to listen to the audio recording, interpret the content, decide on a reply, and then translate the reply into Spanish. Utterances that were classified as theme three also contained a question for the other student that could continue the conversation. The majority of the utterances observed during this study were classified as consistent with theme three. This demonstrated that participants interacted in the voice board assignments and asked questions to continue the interaction. This concept will be discussed in more detail in the next section.

### Chaining of interactions

While copying the threaded discussion of the voice board submissions into my journal (see Figure 14 for example) and designing a labeling system (see Table 5 and Figure 15 for an explanation of the labeling system) to identify the audio files, I realized that most of the utterances were responses to the initial voice board post. I described the development of interactions in the threaded discussion as *levels of interaction*. However, Hall's (1995) terms *lexical chaining* and *interactive practices* better describe what occurred in the voice board assignments. Lexical chaining described how utterances were connected during interactions and the characteristics of those utterances. Interactive practices were "recurring episodes of purposeful, goal-directed talk" (Hall, 1995, p. 38) that were observed during interactions in the classroom. Hall's research expanded on previous explanations of classroom discourse described as a *triadic dialogue* that described the teacher's *initiation* of a topic or question, a student's response, and then a teacher's *follow-up* comment (Hall, 1995; Miao & Heining-Boynton, 2011; Wells, 1993).

When analyzing interactions between a teacher and students, Hall classified utterances following a reoccurring lexical chain: teacher initiate–student respond–teacher evaluate (IRE). IRE limited extended interaction with the students because after the teacher evaluated the student's response with phrases such as *correct* or *incorrect*, the student was provided little opportunity or motivation to expand and continue the conversation. During her observations, Hall also explained the lack of an overall theme for the students to expand on the discussion and to extend the lexical chain. She recommended the use of a conversational theme and less evaluative responses from the teacher while interacting with the students to promote an increased level of interaction in the classroom. Wells (1993) described various types of follow-up comments that can occur when applying the triadic dialogue format. In contrast to IRE, teacher initiate–student respond–teacher feedback (IRF) can be used during classroom interactions. With feedback, the teacher expresses interest and encourages the student to elaborate in order to assist the student while developing higher levels of proficiency and scaffolding learning.

In the voice board utterances observed during the study lexical chains following the IRE or IRF formats were not observed. Participants did not evaluate each other's posts directly as would be characteristic of the IRE format. One might interpret that asking for clarification might have indicated an error or an utterance with errors, but explicit evaluation and correction was not

observed during the study. The lexical chaining observed during the study followed two patterns: a) initial post by student–response by another student (IR), and b) initial post by student–response by another student–response by first student or another student (IRR). Participants did follow-up with comments submitted to a response made by another student, but these responses were not intended to scaffold student learning. These responses were classified as themes two through four as discussed in the previous section.

Of the 95 utterances analyzed, only 11.57% (n = 11) followed the IRR pattern of chaining. Ethan submitted 81.81% (n = 9) and Bertie submitted 18.18% (n = 2) of the utterances that were classified as IRR. When participants were asked why they had not returned to the voice board and responded to comments and/or questions, responses were that they did not have time, did not realize someone had submitted a comment, forgot to return, or did not understand what someone was saying.

### **Summary of types of interactions observed in audio-based CMC assignments**

Four themes for utterances in voice board assignments were observed: 1) general or generic statement and does not specifically address anything in particular other than mentioning the name of the producer of the utterance in the previous post, 2) requests clarification about something that was not understood in the previous post, 3) responds to a question or comment in the previous post and also asks a question to continue the conversation, and 4) responds to a question or comment in previous post, but does not ask a question to continue the conversation. Each theme was discussed with samples of utterances submitted by the three participants.

Ethan submitted 52% (n = 49) of the utterances, Bertie submitted 40% (n = 38), and Lynette submitted 8% (n = 8). Themes two through four required higher levels of proficiency because they required participants to listen to an audio post, interpret the audio, create a response, translate that response into Spanish, and record the audio before submitting the response. Seventy-four percent of the utterances observed during the study were classified into themes two through four. This demonstrated that participants interacted when completing the voice board assignments and asked each other and answered questions that promoted short conversations.

Various levels of proficiency were also observed in the voice board submissions. Ethan and Bertie performed with similar levels of proficiency during the study. The majority of their utterances were classified as characteristic of performers at the Intermediate-Low and Novice-

Mid to High levels of proficiency. Lynette's utterances were characteristic of performers at the Novice-Low to High levels of proficiency. Unlike Ethan and Bertie's utterances, the content of her utterances were more complex and required advanced grammatical structures that had not been taught in the course. Her desire to discuss in-depth and more detailed topics appeared to hinder her ability to perform above the Novice level of proficiency.

While organizing and analyzing the utterances, other characteristics were observed. Instead of describing the nature of the utterances as levels of interactions, I realized that lexical chaining better described the interactions that were observed in the voice board assignments. Lexical chaining following the IRE or IRF patterns was not observed. Participants did not directly evaluate each other's comments and when responding, did not appear to do so in a scaffolding manner. Instead, IR or IRR chains were observed. The majority of the chains followed the IR pattern. Only 11.57% (n = 11) of the utterances followed a three link chain of IRR. Even though 47% (n = 45) of the utterances during the study contained questions to promote extended interaction, the length of interactions were limited.

### **Summary of Analysis and Interpretation of the Findings**

Chapter four presented and interpreted the characteristics of students studying Spanish as a DL course, the actions taken to complete CMC assignments, and the types of interactions that occurred when using audio-based CMC software. Between the summer 2001 and summer 2011 sessions at the research site, there was a 575.3% (n = 558) increase of the total student population enrolled in only DL courses. During the summer 2011 session, 37.86% (n = 507) of the student population were taking only FTF courses. This increase in DL enrollment demonstrated an interest and need to take DL courses. Students enrolled in SPA 101: Beginning Spanish I explained that work schedules, family obligations, and/or financial hardship were the main reasons for taking DL courses.

When completing voice board assignments, Ethan, Bertie, and Lynette all demonstrated various forms of regulation and how these forms affected their abilities to complete the tasks. Positive forms of object- and other-regulation were observed when participants consulted dictionaries for new vocabulary words to prepare posts or when Ethan assisted other students by defining vocabulary that he used in his posts. Other students in the course observed this behavior and adapted this strategy when preparing their comments later in the summer. Negative regulation was also observed. Participants were distracted when attempting to complete

assignments by the television, computer or Internet problems, and by family members not permitting the participants to work on assignments. Lynette also explained that her husband laughed at her when she attempted to speak in Spanish. Work schedules and assignments for other courses taken during the summer also negatively affected participants' abilities to complete assignments.

Various levels of proficiency were also observed in the voice board submissions, ranging from Novice-Low to Intermediate-Low. Ethan and Bertie performed with similar levels of proficiency during the study. Lynette's utterances were characteristic of performers at the Novice-Low to High levels of proficiency. In her utterances, she attempted to discuss in-depth and more detailed topics than Ethan and Bertie that appeared to hinder her ability to perform above the Novice level of proficiency. Even though many of the utterances replied to comments in previous posts and contained questions that promoted discussion, the lexical chains followed the IR pattern because participants did not return to the voice boards and reply to comments or questions submitted to their posts.

## **Chapter Five: Conclusions, Implications, and Future Research**

This chapter first restates the statement of the problem and reviews the research questions that guided the current study. Then a review of the methodology contains the research protocol, the sources of data collection, and the procedures used to analyze the data. The discussion section provides conclusions of the data analysis from chapter four and is organized based on the research questions. The discussion then continues to address the significance these results have on current research. Implications for practice are also discussed and are based on these findings. This chapter concludes with recommendations for further research.

### **Statement of the Problem**

Offerings for DL courses are expected to continually increase (Gunawardena & McIsaac, 2004; Kraemer, 2008; VCCSIR, 2008) as institutions struggle to meet the needs of students' hectic schedules that require them to work full-time and fulfill family obligations while taking classes to find employment or to improve employment opportunities (Berge, 2000). In a study interviewing DL foreign language instructors and students, Sánchez-Serrano (2008) described three concerns shared by foreign-language educators when developing DL versions of traditional FTF courses: the need for more oral practice in the online class, the need for improved professional development for faculty when developing a DL course for the first time, and the student's expectation to have a 24-hour instructor. In response to the first concern, Sánchez-Serrano explained that in order to develop speaking skills, "the teaching-learning process cannot be limited to the transmission of knowledge through written text" (p. 153). Requiring foreign language students taking courses as DL to participate in synchronous speaking activities through video conferencing or audio chat would provide students with ample opportunities for oral practice and would simulate the activities typically used in traditional FTF foreign language classrooms. However, reasons for enrolling in DL courses hinder students' availability for scheduling times to meet with other students or instructors (Berge, 2000; Shrewsbury, 2008).

Studies (Chenoweth, Ushida, & Murday, 2006; Cubillos, 2007; Echávez-Solano, 2003; Schida & Saury, 2006; Zhao, Lei, Yan, & Lai, 2005) that have compared FTF and DL courses have provided data to dissipate the fears that learners taking technologically enhanced or DL courses are at a disadvantage because of limited FTF contact. These studies, however, provided limited documentation of the interaction among students and teachers in the virtual foreign language classroom. Twigg (2001) advised institutions to go beyond comparative studies and to

study specific components of DL courses that will provide data to improve DL as well as traditional FTF experiences. To aid in filling the gap in literature on foreign language courses as DL, the main objective of this study was to specifically describe and analyze how students interacted when using asynchronous audio-based CMC while learning Spanish as DL. To answer this overarching objective, three supporting questions guided the research.

1. What are characteristics of students studying Spanish through DL?
2. How do students complete audio-based CMC assignments?
3. What types of interactions are observed in audio-based CMC assignments?

### **Review of the Methodology**

For the study, I applied modern activity theory influenced by sociocultural theory (SCT) as the theoretical framework. In keeping with the tenets of SCT, this research study focused on a holistic approach that emphasized learning as a process and used an embedded multiple-case study design with quantitative and qualitative data. Stake (1995) described the case study as a method to explore a program, an event, or a process that is bounded by time and activity. Yin (2003) explained that a case study is an empirical inquiry that (a) investigates a contemporary phenomenon in its naturally occurring environment and (b) when the boundaries between the phenomenon and the context are not clearly evident. Since the overall objective of this study was to analyze and describe how three students interacted in the context of a preexisting virtual foreign language classroom during the 2011 summer session, the case study was the most appropriate method for the current research.

This case study used four types of data sources: archival demographic data, questionnaire, audio-based and text-based discussion board assignments, and correspondence through e-mail. The audio-based discussion board used for the study was an audio-based CMC component of Wimba Voice 6.0 (2009) known as a voice board. A voice board is a threaded discussion board that allows users to record and submit audio and text posts instead of only text. Three participants were asked to complete six voice board assignments as part of the Beginning Spanish I courses based on themes corresponding to the text for the course. As prescribed by online researchers (Hine, 2005; Kozinets, 2010; Mann & Stewart, 2006; Markham, 1998; Rutter & Smith, 2005; Sanders, 2005), I applied *online observations* and *participant observations* when reading, listening, or watching interactions online through CMC. At the end of each voice board

assignment, I downloaded all audio from the voice board as mp3 files and transcribed them for analysis and coding.

During this study, I played two dichotomous and complementary roles: teacher–researcher and participant–observer. Because of my teaching role, it was essential to actively participate in assignments and provide guidance and mediation during the study instead of solely observing my students. For me, teaching is a reflective journey that includes a constant cycle of instructing, participating, observing, and reviewing. During the study, I documented this cycling process in order to apply the critical lens of a researcher. I was aware of the difficulty of these multiple roles and took precautions to account for and to document my experiences.

The context of the study was the virtual foreign language classroom accessed through the course management system Blackboard Suite 9.0 (2010) with Wimba Voice 6.0 (2009) audio components. Participants were two females and one male enrolled in a SPA 101: Beginning Spanish I course at Patrick Henry Community College (PHCC). The study was conducted during the 10-week summer 2011 session. At the beginning of the summer, participants read and provided consent to participate in the study. To validate the findings, I applied triangulation, member checking, and peer debriefing. To triangulate the data, I used several data sources such as the audio transcripts from voice board submissions that included general statements in English regarding daily schedules and other daily activities, e-mail correspondence with the participants, demographic information, time stamps on voice board assignments, and serendipitous data. Member checking and peer debriefing were also used to verify the accuracy of the transcriptions and translations of each voice board utterance. After transcribing each utterance, I e-mailed participants asking questions about content to provide participants with opportunities to clarify meaning. I also applied peer debriefing to demonstrate inter-coder reliability with Dr. Judith Shrum. Ninety-five utterances were coded and a 95.7% inter-coder agreement was obtained.

## **Discussion of the Results**

This section provides a bulleted list of the primary findings presented in chapter four of three participants attending a rural community college in Southwestern Virginia, PHCC. The findings are presented in order of the three research questions. After the findings, the significance of this study and implications for practice in DL classrooms are discussed. Several areas of interest for future studies are also discussed at the end of the chapter.

### **What are characteristics of students studying Spanish through DL?**

- Of the 1,497 students enrolled during the summer 2011 session at PHCC, 62.3% (n = 990) took at least one DL course and 43.7% (n = 655) were classified as Virtual Campus, not taking any FTF courses.
- In the SPA 101: Beginning Spanish I course, students represented nine separate programs of study.
- Various personal histories influenced reasons for enrolling in DL courses: employment schedules, family obligations, and financial reasons. These reasons did not reflect an interest in pedagogical benefits described by researchers.

### **How do students complete audio-based CMC assignments?**

- Positive influences of other-regulation was observed when Ethan assisted other students when he used new vocabulary words and when Bertie listened and submitted comments to other posts before submitting her initial submission.
- Various forms of regulation influenced the level of activity in the voice boards such as: the need for a quiet setting to record, lack of support from family members, employment schedules, and assignments or other requirements for other courses taken during the summer.
- Asynchronous CMC environment promoted experimentation with the language to discuss interests.
- Asynchronous CMC environment provided participants time to listen to audio submissions multiple times when interpreting voice board posts.

### **What types of interactions are observed in audio-based CMC assignments?**

- Fifty-two percent (n = 49) of utterances were classified as responding to questions or comments in a previous post and asking additional questions to promote continued dialogue.
- Eighty-eight percent (n = 84) of the utterances followed a two-link chain of the initial post and response to that post (IR).
- Only 11.6% (n = 11) of the utterances followed a three-link chain of the initial post, response to that post, and an additional response to the first response (IRR) with 81.8% (n = 9) of those utterances being submitted by one student.
- As the participants interpreted the tasks, the resulting activity did not always represent the original task that was assigned.

### **Significance of the study**

As manufacturers market products for educational environments (Richtel, 2011, November 4), improved learning situations or increased test scores are generally used as selling points to school systems (Gabriel & Richtel, 2011, October 8; Richtel, 2012, January 3). When the desired results are not acquired, educators and researchers are questioning the studies funded by these manufacturers that demonstrated improved results (Richtel, 2012, January 3). Instead of comparing DL with FTF outcomes, the premise of this study was to continue the conversation of what happens in the virtual classroom. Similar to previous research (Berge, 2000; Goertler & Winke, 2008; Natriello, 2005; Ohler, 1991), this study demonstrated that DL enabled students to fulfill course requirements who would not have been able to attend FTF courses. This study also provided documentation that asynchronous CMC enabled participants to interact, to create with the language, and to assist other students to learn Spanish through DL. These data demonstrated that interactions can occur in the virtual foreign language classroom and that being in a FTF setting it is not essential for interaction between students. One participant's actions in particular supported research (Hokanson, 2000; Niño, 2009; Sayers, 1993) stating the presence of experiential learning, motivation, enhanced student achievement, and greater time to think through content before engaging in conversations through DL courses. Providing these opportunities, however, did not guarantee the same level of success for all participants. The personal histories and individual circumstances of each participant also influenced the level and type of interactions observed in the voice board assignments. The focus then, according to

Knowlton (2000) and the current study, should be to analyze and to manage the learning environment and not the devices being used. These conclusions showed that technology and methods of instruction are tools that can enhance and provide opportunities, but cannot take the place of understanding the student body and individual histories.

### **Implications for Practice**

The following recommendations for practice are based on the discussion of the results obtained in this study and the previous research discussed in the review of literature.

#### **Encourage the use of available resources**

In order to take advantage of asynchronous audio-based CMC software, students taking a foreign language as DL should be encouraged to use as many of the components available to promote interaction in the target language. Ethan's use of the text-based option to assist other students in class demonstrated its practical use to facilitate understanding. Blake (2005, 2008) considered this as bimodal communication and explained the benefits for synchronous communication in foreign language. Using the bimodal option afforded with the voice board software allowed students to use new vocabulary words while not hindering interpretation of the utterance and were also observed to be beneficial for asynchronous communication. Instructors should demonstrate how to use these components through videos and/or training sessions at the beginning of the semester. Instructors should also encourage students to use electronic dictionaries available through the Internet with audio components that pronounce unfamiliar vocabulary.

#### **Creating a sense of community and virtual presence**

Applying the English prompt at the beginning of the voice board assignments allowed the students to interact and to get to know each other more than during the pilot studies when they were instructed to only communicate in the target language, Spanish. Allowing students to interact in English before posting the assignment in the target language also increased the similarities between the DL and FTF classroom environments. The first voice board assignment for chapter one that prompted students to discuss future goals in English also showed positive results. Participants supported each other's plans and provided encouragement. Since two of the participants were reluctant to ask other students for assistance through the voice board assignments and also refrained from discussing misunderstandings with me through e-mails,

instructors need to make attempts to create a sense of community and virtual presence to encourage higher levels of interaction by all participants (Ducate, Lomicka, & Lord, 2012; Lomicka & Lord, 2012). In addition to the English prompts used in this study, applying other options such as avatars or other pictures to represent students might create an environment resembling social media sites instead of the formal virtual classroom. Providing students with various topics of discussion for each theme might also create variety and encourage students to post and interact at a higher level.

### **Learners without previous foreign language experience**

Another recommendation is to emphasize methods of studying foreign languages for students without previous foreign language experience. From my 10 years of experiences teaching foreign languages and the actions observed in Lynette's utterances, beginning students have a tendency to attempt to communicate and discuss concepts that are more difficult than their command of the target language can manage. Even though I provided a short video at the beginning of the semester to explain various strategies for learning a foreign language, the limitations of the course management system did not document whether students watched the video. Offering training sessions through synchronous video chat or FTF on campus could be a method to assist students to create realistic goals for language proficiency. Providing students with samples of the performance indicators for various levels of language proficiency could also provide reassurance of realistic outcomes. The expected outcomes should also be applied by educators to modify the assignments for appropriate levels of complexity depending on the students' ability levels.

### **Student advising during registration**

A final recommendation is to remind students during registration that DL courses require a comparable amount of time for studying and preparing for assignments as FTF courses. Expecting to take 12 or more credits and work a full-time job might not create the most successful learning experience. Bertie mentioned that she would be able to devote more time to the Spanish course after she had completed her other two courses for the summer. Lynette also explained that she did not complete assignments because of requirements for her six other courses and work obligations. From my experience teaching at the community college, Bertie and Lynette represent many students taking DL courses. Currently, PHCC provides students

who enroll in DL courses for the first time the opportunity to attend a short informative presentation on how to access courses and to check e-mail. Students are also able to take a self-assessment consisting of several questions regarding individual learning styles and the correlation with success rates in DL courses. These opportunities, however, are not mandatory or required for students to access their DL classes. Since students have varied personal histories and previous experiences, DL might not be the best mode of instruction for everyone. By requiring training sessions and counseling for students enrolled in DL courses, advisors could assist students with designing a schedule indicating the time needed for various personal obligations and possible times to study and complete course work. This interaction with the DL student might reduce the amount of students enrolling in a full-load while working full-time and improve the DL experience.

### **Recommendations for Further Research**

The findings and conclusions of this case study were expected to continue the dialogue to improve DL and FTF foreign language instruction. During this study, several questions emerged when observing student behavior and interactions. These recommendations pursue two themes: foreign language study through DL and understanding the community college learner.

#### **Foreign language study through DL**

Repeating this study with a focus on a participant's willingness to communicate (MacIntyre, 2007; MacIntyre, Clément, Dörnyei, & Noels, 1998) could provide more insight on why some students take advantage of CMC when learning a foreign language and others do not. Even though all three participants were presented with the same opportunities and the same assignment, the same level of activity was not observed. During the study, I was not able to monitor the amount of time participants spent in the voice boards listening to other students before and after posting assignments. Tracking this information would be beneficial in understanding the influences of listening to recordings multiple times have on proficiency development. Another recommendation relates to Bakhtin's (1986) explanation that even though an actual response to someone's comment does not take place, the speaker creating the initial comment will anticipate possible responses and, as a result, promote language learning. Replicating this study to analyze the performance levels of students engaging in various lengths of lexical chaining during voice board assignments would document influences that preparing

utterances and questions even though they are not answered might have on language development.

### **Understanding the community college learner**

In addition to recommendations specifically addressing the teaching of foreign language as FTF or as DL, my interests for future studies also focuses on understanding the community college population. While conducting this study and analyzing these data, a parallel study emerged. Even though I have discussed only three participants for this case study, all students enrolled in this course provided consent and were potential participants. During the study, the same reasons that motivated students to take the DL course also appeared to hinder their abilities to be successful and to complete assignments. At times, I became distracted from focusing on teaching the course content and felt overwhelmed by obstacles and challenges the students experienced and shared during the summer. For some, college appeared to be the last opportunity after multiple experiences with factories closing in the surrounding serving area. For others, the anxiety of attending a formal class for the first time in twenty years or more years was too overwhelming. As their instructor, I have often felt uncomfortable for not accepting late work after reading or listening to my students' personal struggles. Conducting future studies to document students' reasons for attending the community college, their personal goals, and their plans to accomplish those goals would create a realistic and up-to-date portrait of the community college student in areas with similar socioeconomic situations. As prescribed by SCT, we need to focus on our students as unique individuals with diverse backgrounds before we can expect to improve our approaches to educating them.

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## **Appendix A**

### **Five Goal Areas**

#### **Communication**

Standard 1.1: Students engage in conversations, provide and obtain information, express feelings and emotions, and exchange opinions.

Standard 1.2: Students understand and interpret written and spoken language on a variety of topics.

Standard 1.3: Students present information, concepts, and ideas to an audience of listeners or readers on a variety of topics.

#### **Culture**

Standard 2.1: Students demonstrate an understanding of the relationship between the practices and perspectives of the cultures studied.

Standard 2.2: Students demonstrate an understanding of the relationship between the products and perspectives of the cultures studied.

#### **Connections**

Standard 3.1: Students reinforce and further their knowledge of other disciplines through the foreign language.

Standard 3.2: Students acquire information and recognize the distinctive viewpoints that are only available through the foreign language and its cultures.

#### **Comparisons**

Standard 4.1: Students demonstrate understanding of the nature of language through comparisons of the language studied and their own.

Standard 4.2: Students demonstrate understanding of the concepts of culture through comparisons of the cultures studied and their own.

#### **Communities**

Standard 5.1: Students use the language both in and beyond the school setting.

Standard 5.2: Students show evidence of becoming life-long learners by using the language for personal enjoyment and enrichment.

## **Appendix B**

### **Proficiency Guidelines-Speaking**

#### **Intermediate Low**

Speakers at the Intermediate Low sublevel are able to handle successfully a limited number of uncomplicated communicative tasks by creating with the language in straightforward social situations. Conversation is restricted to some of the concrete exchanges and predictable topics necessary for survival in the target-language culture. These topics relate to basic personal information; for example, self and family, some daily activities and personal preferences, and some immediate needs, such as ordering food and making simple purchases. At the Intermediate Low sublevel, speakers are primarily reactive and struggle to answer direct questions or requests for information. They are also able to ask a few appropriate questions. Intermediate Low speakers manage to sustain the functions of the Intermediate level, although just barely.

Intermediate Low speakers express personal meaning by combining and recombining what they know and what they hear from their interlocutors into short statements and discrete sentences. Their responses are often filled with hesitancy and inaccuracies as they search for appropriate linguistic forms and vocabulary while attempting to give form to the message. Their speech is characterized by frequent pauses, ineffective reformulations and self-corrections. Their pronunciation, vocabulary, and syntax are strongly influenced by their first language. In spite of frequent misunderstandings that may require repetition or rephrasing, Intermediate Low speakers can generally be understood by sympathetic interlocutors, particularly by those accustomed to dealing with non-natives.

#### **Novice High**

Speakers at the Novice High sublevel are able to handle a variety of tasks pertaining to the Intermediate level, but are unable to sustain performance at that level. They are able to manage successfully a number of uncomplicated communicative tasks in straightforward social situations. Conversation is restricted to a few of the predictable topics necessary for survival in the target language culture, such as basic personal information, basic objects, and a limited number of activities, preferences, and immediate needs. Novice High speakers respond to simple, direct questions or requests for information. They are also able to ask a few formulaic questions.

Novice High speakers are able to express personal meaning by relying heavily on learned phrases or re-combinations of these and what they hear from their interlocutor. Their language consists primarily of short and sometimes incomplete sentences in the present, and may be hesitant or inaccurate. On the other hand, since their language often consists of expansions of learned material and stock phrases, they may sometimes sound surprisingly fluent and accurate. Pronunciation, vocabulary, and syntax may be strongly influenced by the first language. Frequent misunderstandings may arise but, with repetition or rephrasing, Novice High speakers can generally be understood by sympathetic interlocutors used to nonnatives. When called on to handle a variety of topics and perform functions pertaining to the Intermediate level, a Novice High speaker can sometimes respond in intelligible sentences, but will not be able to sustain sentence-level discourse.

**Novice Mid**

Speakers at the Novice Mid sublevel communicate minimally by using a number of isolated words and memorized phrases limited by the particular context in which the language has been learned. When responding to direct questions, they may say only two or three words at a time or give an occasional stock answer. They pause frequently as they search for simple vocabulary or attempt to recycle their own and their interlocutor's words. Novice Mid speakers may be understood with difficulty even by sympathetic interlocutors accustomed to dealing with non-natives. When called on to handle topics and perform functions associated with the Intermediate level, they frequently resort to repetition, words from their native language, or silence.

**Novice Low**

Speakers at the Novice Low sublevel have no real functional ability and, because of their pronunciation, may be unintelligible. Given adequate time and familiar cues, they may be able to exchange greetings, give their identity, and name a number of familiar objects from their immediate environment. They are unable to perform functions or handle topics pertaining to the Intermediate level, and cannot therefore participate in a true conversational exchange.

## **Appendix C**

### **Proficiency Guidelines-Writing**

#### **Intermediate Low**

Writers at the Intermediate Low sublevel are able to meet some limited practical writing needs. They can create statements and formulate questions based on familiar material. Most sentences are re-combinations of learned vocabulary and structures. These are short and simple conversational-style sentences with basic word order. They are written almost exclusively in present time. Writing tends to consist of a few simple sentences, often with repetitive structure. Topics are tied to highly predictable content areas and personal information. Vocabulary is adequate to express elementary needs. There may be basic errors in grammar, word choice, punctuation, spelling, and in the formation and use of non-alphabetic symbols. Their writing is understood by natives used to the writing of non-natives, although additional effort may be required. When Intermediate Low writers attempt to perform writing tasks at the Advanced level, their writing will deteriorate significantly and their message may be left incomplete.

#### **Novice High**

Writers at the Novice High sublevel are able to meet limited basic practical writing needs using lists, short messages, postcards, and simple notes. They are able to express themselves within the context in which the language was learned, relying mainly on practiced material. Their writing is focused on common elements of daily life. Novice High writers are able to recombine learned vocabulary and structures to create simple sentences on very familiar topics, but are not able to sustain sentence-level writing all the time. Due to inadequate vocabulary and/or grammar, writing at this level may only partially communicate the intentions of the writer. Novice High writing is often comprehensible to natives used to the writing of non-natives, but gaps in comprehension may occur.

#### **Novice Mid**

Writers at the Novice Mid sublevel can reproduce from memory a modest number of words and phrases in context. They can supply limited information on simple forms and documents, and other basic biographical information, such as names, numbers, and nationality. Novice Mid writers exhibit a high degree of accuracy when writing on well-practiced, familiar topics using limited formulaic language. With less familiar topics, there is a marked decrease in accuracy. Errors in spelling or in the representation of symbols may be frequent. There is little evidence of functional writing skills. At this level, the writing may be difficult to understand even by those accustomed to non-native writers.

**Novice Low**

Writers at the Novice Low sublevel are able to copy or transcribe familiar words or phrases, form letters in an alphabetic system, and copy and produce isolated, basic strokes in languages that use syllabaries or characters. Given adequate time and familiar cues, they can reproduce from memory a very limited number of isolated words or familiar phrases, but errors are to be expected.

## **Appendix D**

### **Informed Consent for Participants in Research Projects Involving Human Subjects**

**Title of Project: Interaction through Asynchronous Audio-Based Computer Mediated Communication in the Virtual Foreign Language Classroom**

**Principal Investigator: Dr. Judith L. Shrum, Foreign Languages and Literatures, Virginia Tech**

**Co-Investigator: Eric-Gene J. Shrewsbury, Patrick Henry Community College**

#### **I. Purpose of this Research/Project**

In order to improve foreign language distance learning course, it is important to obtain feedback from the students and to learn more about study skills.

All students enrolled in the SPA 101 Beginning Spanish 1 for the summer 2011 session at Patrick Henry Community College will be asked to participate in this study. These data will be used for analysis in a dissertation and during presentations and/or in articles to assist other institutions with distance learning language courses.

#### **II. Procedures**

All students will complete the activities required for SPA 101 Beginning Spanish 1. These activities will include assignments in My Spanish Lab (2010) and Blackboard. Students will complete discussion board and voice board assignments in Blackboard.

In addition to the normal coursework, participants will complete two questionnaires during the semester. At the beginning of the semester, the participants will complete a questionnaire asking information about past experiences with foreign language and computer knowledge. At the end of the summer session, participants will complete a questionnaire asking questions regarding the overall experience during the summer 2011 session.

In addition to the questionnaires, the researchers will analyze interactions in voice board assignments. The researchers will also obtain information from Student Information System (SIS) 8.9 regarding gender, age, previous courses taken, and placement scores for the COMPASS or ASSET tests to understand the class demographics.

Although all students are expected to complete classroom related activities, students who return this signed consent form consent for 1) the use of the student's classroom data (e.g., assignments, audio clips) for research purposes, and 2) the student's completion of two questionnaires during the semester.

### **III. Risks**

There are no more than minimal risks involved in the study. Participants will have to fill out the questionnaires that will require no more than 10 minutes during the entire summer session. After participants have completed questionnaires, all identifying information will be removed and replaced with codes.

### **IV. Benefits**

Participants will be able provide opinions specifically related to the distance learning course. These data will be used to improve future distance learning courses at the community college and at other institutions.

No promise or guarantee of benefits have been made to encourage you to participate. At the option of the investigator, participants may be informed that they may contact the researcher at a later time for a summary of the research results.

### **V. Extent of Anonymity and Confidentiality**

At the end of the course, the researchers will substitute codes for names on all documents used for the study and future presentations, articles, and/or dissertation. All identifiable information will be stored in a safety deposit box until the conclusion of the study. After the data have been collected and coded, all identifiable documentation will be destroyed. The researchers will be the only ones with access to the documentation.

It is possible that the Institutional Review Board (IRB) may view this study's collected data for auditing purposes. The IRB is responsible for the oversight of the protection of human subjects involved in research.

### **VI. Compensation**

Participants will not receive compensation for participating in this study.

### **VII. Freedom to Withdraw**

Participants are free to withdraw from a study at any time without penalty. If they choose to withdraw, they will not be penalized by reduction in points or grade in a course. Participants are free not to answer any questions that they choose without penalty.

There may be circumstances under which the researchers may determine that a participant should not continue as a part of the study.

### VIII. Participant's Responsibilities

I voluntarily agree to participate in this study. I have the following responsibilities:

- Answer two questionnaires during the summer 2011 session.

### IX. Subject's Permission (Also including consent from parent or legal guardian for those participants under the age of 18.)

I have read the Consent Form and conditions of this project. I have had all my questions answered. I hereby acknowledge the above and give my voluntary consent:

\_\_\_\_\_ Date \_\_\_\_\_  
Participant signature

I am the legal parent or guardian of \_\_\_\_\_, and have read the consent form and conditions of this project. I have had all my questions answered. I hereby acknowledge the above and give my voluntary consent.

\_\_\_\_\_ Date \_\_\_\_\_  
Parent/Legal Guardian signature

Should I have any pertinent questions about this research or its conduct, and research participants' rights, and whom to contact in the event of a research-related situation subject, I may contact:

#### Researchers

Eric-Gene J. Shrewsbury 276-656-0245 / eshrewsbury@ph.vccs.edu

Dr. Judith L. Shrum 540-231-8300 / jshrum@vt.edu

#### Departmental Reviewer

David M. Moore 540-231-4991 / moored@vt.edu

**Appendix E**  
**Beginning-of-Semester Questionnaire**

Please answer the following questions regarding your experience with foreign languages and with computer software. There is no right or wrong answer. Your answers will not affect your grade in this course.

1. Have you ever studied a foreign language?

- Yes
- No

If you answered YES, please proceed to question 2. If you answered NO, please proceed to Question 3.

2. If YES, when and where?

- Elementary School
- Middle School
- High School
- Other (Please describe in Question 3)

3. If you selected Other for Question 2, please describe or explain your previous experiences with foreign languages here.

4. Why are you taking this course as distance learning instead of face-to-face in the classroom?

5. Is this course required for your degree?

- Yes
- No

6. What are your goals for taking this course?

- I have always wanted to learn Spanish.
- I enjoy learning languages.
- To fulfill a requirement.
- Other (please explain in Question 7)

7. If you selected Other for Question 6, please describe or explain here.

8. Have you ever taken a distance learning course?

- Yes
- No

9. What computer will you use?

- I own my own computer.
- I will use a family member's computer.
- I will use the computers at the college.
- Other (please explain in Question 10)

10. If you answered Other in Question 9, please explain here.

11. What computer software do you use on a weekly basis?

- Word Processors (Word, WordPerfect, etc.)
- Spreadsheet Software (Excel, etc.)
- Internet Browser Software (Internet Explorer, Firefox, etc.)
- Computer Games
- Instant Messaging Software (AOL, MSN Instant Messenger, etc.)
- Other (please explain in Question 12)

12. If you answered Other in Question 11, please explain here.

9. How often do you use a computer for personal use (checking personal e-mail, playing games, etc.) per week?

- Once per week
- Twice per week
- Five times per week
- More than five times per week

Thank you for your participation.

## Appendix F

### First Discussion Board Assignment for Chapter One: Introduction in English

If we were in the face-to-face classroom, we would introduce ourselves to the other students on the first day. Because we are learning through DL, we will need to use the Discussion Board to do the same thing. Since this is the first post, we will do this in English. You should include the following information.

- Name
- Where you were born
- In what city and state you currently live
- Interests or hobbies
- Do not mention anything about your plans for the future in this discussion board because that will be the first voice board assignment.

The following is a rubric that will provide you with information on how I will grade your assignment. You will have a rubric for every writing or speaking assignment that we do this semester. To receive a 100%, you only need to meet the standard. If you would like to provide more information or do extra work, then you will receive extra credit by looking at the Exceeds Expectations column of the rubric. You will also note that you are required to read other posts and to respond or comment on what they have written. If you have any questions, let me know before the assignment is due.

	<b>No Attempt</b> <b>0</b>	<b>Does not meet Standard</b> <b>1</b>	<b>Approaching Standard</b> <b>2</b>	<b>Meets Standard</b> <b>3</b>	<b>Exceeds Standard</b> <b>4</b>
<b>Content</b>	No post.	Student includes one or two of the necessary information listed in the assignment.	Most, but not all, of the necessary information is included in the post.	All information is included.	Student provides additional information in the post.
<b>Comments to other posts</b>	No responses made to other posts or initial post not submitted by due date.	Responses made on other posts, but questions are not asked to promote conversation.	Responds and ask questions to at least half of the posts by other students.	Responds and asks questions to more than half of the posts by other students.	Responds and asks questions to all of the posts by other students.
<b>Responses to questions</b>	No attempt to respond to posts by others or initial post not submitted by due date.	Attempts to respond to less than half of posts by others.	Attempts to respond to half of posts by others.	Attempts to respond to more than half of the posts by others.	Attempts to respond to all comments or questions posted by others.

## Appendix G

### First Voice board Assignment for Chapter One: Introduction in English

In the discussion board you introduced yourself to the rest of the class. For this assignment, you will use the Voice board. Now, since the Voice board will be something new to some of you, we are going to try this in English first. Later in the chapter, you will work on the introduction in Spanish.

If you were in a face-to-face classroom, before, during, and after class you would have an opportunity to chat with other students to explain (a) why you are taking Spanish, (b) what your program of study is, and (c) to describe your future goals. Finding out more about each other can be interesting and fun. So, you will have an opportunity to do this by using the Voice board option in Blackboard. You should include the following information:

- We are all very busy and are taking distance learning courses for different reasons. To find out more about each other, begin your recording by saying and completing this sentence, “In order to complete this assignment, I had to...” For example, I might have to say this, “In order to complete this assignment, I had to give my dogs a chew toy to keep them from barking with recording responses.”
- Why are you taking this Spanish class?
- What is your program of study?
- What are your plans for the future?

	<b>No Attempt</b> <b>0</b>	<b>Does not meet Standard</b> <b>1</b>	<b>Approaching Standard</b> <b>2</b>	<b>Meets Standard</b> <b>3</b>	<b>Exceeds Standard</b> <b>4</b>
<b>Content</b>	No post submitted by due date.	Student describes why he or she is taking Spanish or future goals, but not both.	Student describes why he or she is taking Spanish and future goals, but not in detail.	Student describes why he or she is taking Spanish and future goals in detail.	In addition to describing reasons for taking Spanish and future goals, student also includes information regarding his or her future.
<b>Comments to other posts</b>	No responses made to other posts or initial post not submitted by due date.	Responses made on other posts, but questions are not asked to promote conversation.	Responds and ask questions to at least half of the posts by other students.	Responds and asks questions to more than half of the posts by other students.	Responds and asks questions to all of the posts by other students.
<b>Responses to questions</b>	No attempt to respond to posts by others or initial post not submitted by due date.	Attempts to respond to less than half of posts by others.	Attempts to respond to half of posts by others.	Attempts to respond to more than half of the posts by others.	Attempts to respond to all comments or questions posted by others.

## Appendix H

### Second Voice board Rubric for Chapter One

Now that you have introduced yourself to the rest of the class in English, let's try to speak to each other in Spanish. You will need to introduce yourself to the rest of the class by posting a description of yourself in a Voice board. You need to include the following information:

State and complete this sentence in English, "In order to do this assignment, I had to..."

- Name
- Where you are from
- Use at least two adjectives to describe yourself
- You may include other information that you might like to share

The following is a rubric that will provide you with information on how I will grade your assignment. To receive a 100%, you only need to meet the standard.

	<b>No Attempt</b>	<b>Does not meet Standard</b>	<b>Approaching Standard</b>	<b>Meets Standard</b>	<b>Exceeds Standard</b>
	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Content</b>	No posts submitted by due date.	Student's introduction includes name, place of birth, or a description, but not all information.	Student's introduction includes name, place of birth, or a description, but forgets to include everything.	Student's introduction includes name, place of birth, and personal description.	Student's introduction includes name, place of birth, and personal description using more than two descriptive adjectives.
<b>Grammar</b>	No posts submitted by due date.	Adjectives to do agree with subject of sentence.	Some complications with adjective agreement.	All adjectives agree with subject.	No error in grammar even with advanced concepts.
<b>Comments to other posts</b>	No responses made to other posts.	Responses made on other posts, but questions are not asked to promote conversation.	Responds and ask questions in Spanish to at least half of the posts by other students.	Responds and asks questions in Spanish to more than half of the posts by other students.	Responds and asks questions to all of the posts by other students.
<b>Responses to questions</b>	No attempt to respond in Spanish to posts by others.	Attempts to respond in Spanish to less than half of posts by others.	Attempts to respond in Spanish to half of posts by others.	Attempts to respond in Spanish to more than half of the posts by others.	Attempts to respond in Spanish to all comments or questions posted by others.

## Appendix I

### Voice board Assignment Rubric for Chapter Two

One of the activities we do in the face-to-face classes to learn more about each other is the activity 2-34 of the textbook on page 63.

State and complete this sentence in English, “In order to do this assignment, I had to...” You may also tell each other what type of day you had before answering the following questions in Spanish.

1. ¿Cuándo estudias, por la tarde o por la noche?
2. ¿Qué idiomas hablas bien?
3. ¿Lees el periódico?
4. ¿Siempre asistes a clase?
5. ¿Qué deportes practicas?

Use these questions as a guide to tell others about your schedule and your interests.

	<b>No attempt made 0</b>	<b>Does not meet Standard 1</b>	<b>Approaching Standard 2</b>	<b>Meets Standard 3</b>	<b>Exceeds Standard 4</b>
<b>Grammar</b>	Initial post not recorded and submitted by due date.	Grammatical errors are seen throughout description.	Some errors with adjective agreement or verb conjugations. Meaning is still understood.	Errors might be evident, but it is not dealing with grammar covered in course.	No errors even with advanced grammatical concepts.
<b>Content</b>	Initial post not recorded and submitted by due date.	Less than half of the questions are answered in Spanish.	Half of the questions are answered in Spanish.	All questions are answered in Spanish.	In addition to answering the necessary questions, student elaborates and provides more information about schedule and/or interests.
<b>Comments to other posts</b>	No responses made to other posts.	Responses made on other posts, but questions are not asked to promote conversation.	Responds and ask questions in Spanish to at least half of the posts by other students.	Responds and asks questions in Spanish to more than half of the posts by other students.	Responds and asks questions to all of the posts by other students.
<b>Responses to questions</b>	No attempt to respond in Spanish to posts by others.	Attempts to respond in Spanish to less than half of posts by others.	Attempts to respond in Spanish to half of posts by others.	Attempts to respond in Spanish to more than half of the posts by others.	Attempts to respond in Spanish to all comments or questions posted by others.

## Appendix J

### Voice board Assignment Rubric for Chapter Three

The main topics for this chapter were classes, describing how people feel, and what you are going to do. Many of my friends and family do the same thing with Facebook. If I were using Facebook right now, I could say something like: “Tengo hambre y estoy muy cansado. Voy a Starbucks porque necesito estudiar y voy a comprar café y pastel.”

Begin your post by completing the following sentence in English, “In order to do this assignment, I had to...” You may also tell each other what type of day you had before answering the following questions in Spanish.

Now, provide the class with an update of how you are feeling right now and what you are going to do in the near future. You should try and use the “ir + a + infinitive” format that you see on page 95 of your textbook to talk about your future plans.

	<b>No attempt made</b> <b>0</b>	<b>Not approaching standard</b> <b>1</b>	<b>Approaching standard</b> <b>2</b>	<b>Meets standard</b> <b>3</b>	<b>Exceeds standard</b> <b>4</b>
<b>Grammar</b>	Initial post not recorded and submitted by due date.	Grammatical errors are seen throughout description.	Some errors with adjective agreement or verb conjugations. Meaning is still understood.	Errors might be evident, but it is not dealing with grammar covered in course.	No errors even with advanced grammatical concepts.
<b>Content</b>	Initial post not recorded and submitted by due date.	Describes how he or she is feeling or where he or she is going, but not both.	Describes how he or she is feeling and future plans, but does not explain why.	Describes how he or she is feeling, future plans, and gives a reason to explain why.	Provides additional information regarding other people or more than one future plan.
<b>Comments to other posts</b>	No responses made to other posts.	Responses made on other posts, but questions are not asked to promote conversation.	Responds and ask questions in Spanish to at least half of the posts by other students.	Responds and asks questions in Spanish to more than half of the posts by other students.	Responds and asks questions to all of the posts by other students.
<b>Responses to questions</b>	No attempt to respond in Spanish to posts by others.	Attempts to respond in Spanish to less than half of posts by others.	Attempts to respond in Spanish to half of posts by others.	Attempts to respond in Spanish to more than half of the posts by others.	Attempts to respond in Spanish to all posts by others.

## Appendix K

### Voice board Rubric for Chapter Four

Now that we have met your friends, you will introduce us to your family. If you would like to be a little creative, you can make up a family. Basically, you are going to be able to apply what you have already learned to another context. You will need to include the following:

- Name of the family member and relation to you.
- Where they are from or where they were born.
- Two adjectives to describe each family member.
- What they do or like to do?

Begin your post by completing the following sentence in English, “In order to do this assignment, I had to...” You may also tell each other what type of day you had before answering the following questions in Spanish.

	<b>No attempt made</b> <b>0</b>	<b>Not approaching standard</b> <b>1</b>	<b>Approaching standard</b> <b>2</b>	<b>Meets standard</b> <b>3</b>	<b>Exceeds standard</b> <b>4</b>
<b>Grammar</b>	Initial post not recorded and submitted by due date.	Grammatical errors are seen throughout description.	Some errors with adjective agreement or verb conjugations. Meaning is still understood.	Errors might be evident, but it is not dealing with grammar covered in course.	No errors even with advanced grammatical concepts.
<b>Content</b>	Initial post not recorded and submitted by due date.	Answers less than half of the questions required.	Answers half of the questions required.	Answers all of the questions.	Provides additional information regarding family members.
<b>Comments to other posts</b>	No responses made to other posts.	Responses made on other posts, but questions are not asked to promote conversation.	Responds and ask questions in Spanish to at least half of the posts by other students.	Responds and asks questions in Spanish to more than half of the posts by other students.	Responds and asks questions to all of the posts by other students.
<b>Responses to questions</b>	No attempt to respond in Spanish to posts by others.	Attempts to respond in Spanish to less than half of posts by others.	Attempts to respond in Spanish to half of posts by others.	Attempts to respond in Spanish to more than half of the posts by others.	Attempts to respond in Spanish to all posts by others.

## Appendix L

### Voice board Assignment for Chapter Five

We are all very busy! Now you will be able to talk about this in Spanish. You will need to post this in the voice board as an assignment.

You need to make sure you include the following content:

- At least four events that you have to do every day.
- At least two of the actions that you have to do will be a reflexive verb.

Begin your post by completing the following sentence in English, “In order to do this assignment, I had to…” You may also tell each other what type of day you had before answering the following questions in Spanish.

	<b>No attempt made</b> <b>0</b>	<b>Not approaching standard</b> <b>1</b>	<b>Approaching standard</b> <b>2</b>	<b>Meets standard</b> <b>3</b>	<b>Exceeds standard</b> <b>4</b>
<b>Grammar</b>	Initial post not recorded and submitted by due date.	Grammatical errors are seen throughout description.	Some errors with adjective agreement or verb conjugations. Meaning is still understood.	Errors might be evident, but it is not dealing with grammar covered in course.	No errors even with advanced grammatical concepts.
<b>Content</b>	Initial post not recorded and submitted by due date.	Includes less than half of the requirements.	Includes at least half of the requirements.	All requirements are included.	Provides additional information regarding daily routines.
<b>Comments to other posts</b>	No responses made to other posts.	Responses made on other posts, but questions are not asked to promote conversation.	Responds and ask questions in Spanish to at least half of the posts by other students.	Responds and asks questions in Spanish to more than half of the posts by other students.	Responds and asks questions to all of the posts by other students.
<b>Responses to questions</b>	No attempt to respond in Spanish to posts by others.	Attempts to respond in Spanish to less than half of posts by others.	Attempts to respond in Spanish to half of posts by others.	Attempts to respond in Spanish to more than half of the posts by others.	Attempts to respond in Spanish to all posts by others.

## Appendix M

### Unambiguous samples from coding utterances into themes.

**Theme #1: General or generic statement, but does not specifically address anything in particular other than maybe mentioning the name of the person in the previous post.**

**CH1second\_43Ethan\_rti\_40                      6-6-11                      10:36 pm                      0:11**

*Student in the previous post says in English that she had to complete an exam and had to wait for her husband to be outside. In Spanish she states her name, where she is from, and says that she is nice and extroverted.*

Hola, Lynette. Me llamo Ethan. Mucho gusto. Adiós.  
Hello, Lynette. My name is Ethan. Nice to meet you. Bye.

**CH1second\_38Bertie\_rti\_34                      6-6-11                      8:42 pm                      0:06**

*Student in the previous post says in English that she had to study the vocabulary and wait until she was alone in the house. In Spanish, she states her name, where she is from, and says that she is timid and nice.*

Hola, Student A. ¿Cómo está? Muy bien. Adiós.  
Hello, Student A. How are you? Very good. Bye.

**Theme #2: Request clarification about something that was not understood in the previous post.**

**CH5\_50Ethan\_rtr\_49                      8-1-11                      10:54 pm                      0:12**

*Student in the previous post did not record any audio.*

Hola, Student D. Perdonas a mí. No escucho tú. Adiós.  
Hello, Student D. Forgive me (sic). I do not hear you (sic). Bye.

**Theme #3: Responds to a question or comment in the previous post. Also asks a question to continue conversation.**

**CH5\_44Bertie\_rti\_41                      8-1-11                      9:44 am                      0:08**

*Student in previous post says in English that she had to wake up early and review the material. In Spanish she says that she wakes up, brushes her teeth, changes clothes, and washes her hands.*

Hola, Student T. ¿Se lava el cabello todos los días?  
Hello, Student T. Do you wash your hair every day?

**CH3\_15Bertie\_rti\_14**                      **7-18-11**                      **11:18 pm**                      **0:09**

*Student in the previous post she says in English that she had to go into a different room. In Spanish, she says that she is thirsty and that she is very excited about seeing the new Harry Potter movie.*

Hola Student T. Buenas noches. ¿Cómo está? Me amor es yo Harry Potter. Adiós.  
Hello Student T. Good night. How are you? I love (sic) Harry Potter. Bye.

**Theme #4: Responds to a question or comment in previous post, but does not ask another question to continue conversation.**

**CH4\_57Bertie\_rtr\_56**                      **7-26-11**                      **11:19 am**                      **0:09**

*Student in previous post states that he wants to play Guitar Hero and asks her if she has a Playstation.*

Hola, Student S. Mi hijo y juega Guitar Hero un X-box 360.  
Hello, Student S. My son and plays Guitar Hero an X-Box 360.

**CH3\_43Lynette\_rti\_42**                      **7-18-11**                      **11:41 pm**                      **0:15**

*Student in previous post states in English that he had to turn off the television and ask everyone to be quiet. In Spanish he states that he is hungry and that he is going to a restaurant to eat and relax.*

Disfruto de ... ir a restaurantes (H) para comer significant kwi yo no tengo kwi cokinar.  
I enjoy ... going to restaurants (H) to eat so that (sic) I do not have (sic) to cook (sic).

**Theme #5: Request more information about something in previous post without answering a previously asked question.**

**CH4\_34Bertie\_rti\_30**                      **7-26-11**                      **11:06 am**                      **0:08**

*Student in the previous post says in English that she had to wake up early and that she had to look up a word. In Spanish, she describes her family and says what each member likes to do.*

Hola, Student T. Buenos días. ¿Cuántos años tiene Father? Adiós.  
Hello, Student T. Good morning. How old is Father? Bye.

**CH4\_4Ethan\_rti\_0**                      **7-26-11**                      **5:54 pm**                      **0:10**

*Student in previous post says in Spanish that her sister likes peanut butter on bananas. She says that she has a new job and that she has to leave.*

Hola Student D. ¿Te gusta plantanos? Me gustan plantanos también. Adiós.  
Hello Student D. Do you like (sic) bananas (sic)? I like bananas (sic) too. Bye.

## Appendix N

### Instructions for Dr. Shrum for Coding Session

Basically, I have included the same items that I did before and have followed the same procedures.

- As I was working on the interactions and looking for the unambiguous samples, I realized that two of the categories that I previously had were too similar to actually distinguish and combined them. Now I have five categories instead of six. I have included the themes or categories on sheets of paper to help you code.
- In the plastic bag, I have included all of the interactions that the three participants posted for the five chapters excluding interactions directed to me, the initial posts, and the ones that we used for rater training session and one extra that I had to use for an unambiguous sample. The new total is **95 interactions**.
- To mix up the interactions: I cut them into sheets, folded them to put them in a large bowl, mixed them, then placed them in a reusable Kroger bag with a zipper and shook them for one minute, then I put them in the large plastic bag.
- On a sheet of paper, I have listed the unambiguous samples for the five themes of types of interactions that I saw emerge from the data.

I also wanted to explain the format for each interaction.

- For each interaction, you will see the identifying information to let me know which interaction it is.
- The next information you will see is a sentence or paragraph explaining the contents and context of the previous post. If I do not indicate that some information was in English, then everything would have been said in Spanish.
- Then, you will see the transcription of the actual interaction. I have tried to demonstrate difficult pronunciation as much as possible when it complicated understanding.
- Finally, you will see the translation of the interaction.
- To make everything a little more clearly, I have used the “Student A” format as pseudonyms for the participants not selected as my three cases. Also, I decided to use words like Brother or Girlfriend when someone mentions a specific name of someone. I have also done the same with Town or City when the participants said where they were from or living in the post.

Sincerely,

Eric-Gene

## Appendix O

### Date and Time for Participants' Voice board Post Submissions

Second Chapter One Voice board Posts								
Bertie			Lynette			Ethan		
initial	6/6/2011	8.33 pm	Initial	6/4/2011	5.26 pm	Initial	6/5/2011	9.02 pm
21	6/6/2011	8.38 pm	65	6/4/2011	6.16 pm	64	6/6/2011	10.31 pm
27	6/6/2011	8.40 pm	57	6/4/2011	6.16 pm	55	6/6/2011	10.32 pm
32	6/6/2011	8.41 pm	51	6/4/2011	6.17 pm	48	6/6/2011	10.35 pm
38	6/6/2011	8.42 pm				43	6/6/2011	10.36 pm
44	6/6/2011	8.43 pm				37	6/6/2011	10.40 pm
49	6/6/2011	8.44 pm				33	6/6/2011	10.43 pm
56	6/6/2011	8.44 pm				20	6/6/2011	10.47 pm
62	6/6/2011	8.45 pm				17	6/6/2011	10.50 pm
5	6/7/2011	8.35 pm				26	6/6/2011	10.54 pm
2	6/7/2011	8.36 pm				12	6/6/2011	10.55 pm
						61	6/6/2011	11.08 pm

Chapter Two Voice board Posts								
Bertie			Lynette			Ethan		
Initial	6/24/2011	12.01 am	Initial	6/22/2011	8.32 pm	Initial	6/22/2011	9.12 pm
25	6/24/2011	12.03 am				53	6/24/2011	4.51 pm
36	6/24/2011	12.06 am				51	6/24/2011	5.01 pm
44	6/24/2011	12.08 am				66	6/24/2011	5.16 pm
52	6/24/2011	12.09 am				59	6/24/2011	5.21 pm
61	6/24/2011	12.11 am				41	6/24/2011	5.25 pm
						32	6/24/2011	5.28 pm
						23	6/24/2011	5.31 pm
						18	6/24/2011	6.12 pm
						13	6/24/2011	6.15 pm
						8	6/24/2011	7.51 pm
						2	6/24/2011	9.51 pm

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 Chapter Three Voice board Posts
 

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Bertie			Lynette			Ethan		
Initial	7/15/2011	4.26 p	Initial	7/11/2011	11.35 p	Initial	7/10/2011	3.20 pm
2	7/18/2011	11.15 pm	38	7/16/2011	3.09 pm	95	7/16/2011	9.04 pm
6	7/18/2011	11.16 pm	49	7/16/2011	3.11 pm	88	7/16/2011	9.11 pm
15	7/18/2011	11.18 pm	57	7/16/2011	3.13 pm	80	7/16/2011	9.16 pm
23	7/18/2011	11.23 pm	81	7/16/2011	3.16 pm	73	7/16/2011	9.23 pm
32	7/18/2011	11.24 pm	31	7/18/2011	11.39 pm	66	7/16/2011	9.29 pm
44	7/18/2011	11.25 pm	43	7/18/2011	11.41 pm	56	7/16/2011	10.35 pm
61	7/18/2011	11.26 pm	52	7/18/2011	11.43 pm	93	7/18/2011	5.08 pm
70	7/18/2011	11.28 pm	76	7/18/2011	11.45 pm	47	7/18/2011	5.13 pm
77	7/18/2011	11.30 pm				34	7/18/2011	5.17 pm
86	7/18/2011	11.31 pm				27	7/18/2011	5.21 pm
91	7/18/2011	11.32 pm				19	7/18/2011	5.28 pm
						10	7/18/2011	5.32 pm
						3	7/18/2011	5.35 pm

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 Chapter Four Voice board Posts
 

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Bertie			Lynette			Ethan		
Initial	7/24/2011	5.41 pm	Initial	7/24/2011	7.36 pm	Initial	7/21/2011	6.21 pm
72	7/26/2011	10.49 am				71	7/26/2011	3.38 pm
64	7/26/2011	10.52 am				63	7/26/2011	3.52 pm
5	7/26/2011	10.57 am				55	7/26/2011	4.03 pm
15	7/26/2011	11.01 am				49	7/26/2011	4.10 pm
26	7/26/2011	11.04 am				41	7/26/2011	5.03 pm
34	7/26/2011	11.06 am				24	7/26/2011	5.24 pm
43	7/26/2011	11.11 am				33	7/26/2011	5.29 pm
50	7/26/2011	11.15 am				13	7/26/2011	5.44 pm
57	7/26/2011	11.19 am				4	7/26/2011	5.54 pm
59	7/26/2011	11.35 am				85	7/26/2011	8.39 pm
78	7/26/2011	11.52 am				81	7/26/2011	8.46 pm
						79	7/26/2011	8.51 pm
						83	7/26/2011	9.00 pm
						76	7/27/2011	9.02 pm

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Chapter Five Voice board Posts								
Bertie			Lynette			Ethan		
51	8/1/2011	9.42 am	Initial	8/1/2011	7.56 pm	Initial	7/27/2011	8.52 am
44	8/1/2011	9.44 am	26	8/3/2011	9.33 am	42	8/1/2011	9.38 pm
Initial	8/1/2011	9.45 am	3	8/4/2011	7.36 pm	38	8/1/2011	9.43 pm
6	8/3/2011	9.18 am	16	8/4/2011	7.37 pm	32	8/1/2011	9.50 pm
12	8/3/2011	9.21 am	35	8/4/2011	7.38 pm	10	8/1/2011	9.54 pm
17	8/3/2011	9.23 am				28	8/1/2011	10.26 pm
21	8/3/2011	9.26 am				22	8/1/2011	10.41 pm
27	8/3/2011	9.33 am				18	8/1/2011	10.41 pm
39	8/3/2011	10.15 am				13	8/1/2011	10.46 pm
37	8/3/2011	10.18 am				52	8/1/2011	10.52 pm
						50	8/1/2011	10.54 pm
						48	8/1/2011	11.25 pm
						4	8/3/2011	6.09 pm

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## Appendix P

### Transcription of Voice board Utterances

**CH1second\_33Ethan\_rtr\_32**                      **6-6-11**                      **10:43 pm**                      **0:09**

*Student in previous post asks him how he is doing.*

Buenas tardes, Bertie... Soy muy bien. ¿Y tú?  
*Good afternoon, Bertie.. I am doing (sic) well. And you?*

**CH1second\_12Ethan\_rti\_7**                      **6-6-11**                      **10:55 pm**                      **0:06**

*Student in previous post says in English that he had to lock the door so family members will not walk in the room. In Spanish, he introduces himself to the class and says where he is from and that he is hardworking and nice.*

Hola. Buenas tardes. ¿Qué pasa?  
*Hello. Good afternoon. What is going on?*

**CH1second\_17Ethan\_rti\_14**                      **6-6-11**                      **10:50 pm**                      **0:09**

*Student in previous post says in English that she had to wait until everyone was gone. In Spanish she states where she is from. She also says that she is sweet and timid.*

Hola. Buenas tardes, Bertie. ¿Qué tal?  
*Hello. Good afternoon, Bertie. What is going on?*

**CH1second\_20Ethan\_rti\_18**                      **6-6-11**                      **10:47 pm**                      **0:07**

*Student in the previous post says in English that she had to complete the assignment twice because she messed up. In Spanish, she states where she is from, that she is patient, hardworking, and likes to read romance books.*

Mucho gusto, Student K...¿Cómo estás?  
*Nice to meet you, Student K...How are you?*

**CH1second\_26Ethan\_rti\_23**                      **6-6-11**                      **10:54 pm**                      **0:07**

*Student in the previous post says in English that she had to give her cats a toy and lock herself in her room to complete the assignment. In Spanish she introduces herself, says where she is from, and that she is nice and small.*

¿De verdad? ¡ENCANTADO! Hasta luego.  
*Really? DELIGHTED! See you later.*

**CH1second\_37Ethan\_rti\_34**                      **6-6-11**                      **10:40 pm**                      **0:08**

*Student in the previous post says in English that she had to study the vocabulary and wait until she was alone in the house. In Spanish, she states her name, where she is from, and says that she is timid and nice.*

Mucho gusto, Student A. ¿Qué tal? Hasta luego.  
*Nice to meet you, Student A. What's up? See you later (sic).*

**CH1second\_43Ethan\_rti\_40**                      **6-6-11**                      **10:36 pm**                      **0:11**

*Student in the previous post says in English that she had to complete an exam and had to wait for her husband to be outside. In Spanish she states her name, where she is from, and says that she is nice and extroverted.*

Hola, Lynette. Me llamo Ethan... Mucho gusto.. Adiós.  
*Hello, Lynette. My name is Ethan...Nice to meet you..Bye.*

**CH1second\_48Ethan\_rti\_45**                      **6-6-11**                      **10:35 pm**                      **0:06**

*Student in previous post says in English that she had to study the vocabulary and the verb conjugations. In Spanish she states her name, where she is from, that she is married and that she has a daughter. She also says that she is extroverted and nice.*

Mucho gusto, Student J. Hasta luego.  
*Nice to meet you, Student J. See you later.*

**CH1second\_55Ethan\_rti\_52**                      **6-6-11**                      **10:32 pm**                      **0:06**

*Student in previous post introduces herself to the class and describes herself as being nice and outgoing.*

¿De verdad? Igualmente.  
*Really? Likewise.*

**CH1second\_51Lynette\_rti\_45**                      **6-4-11**                      **6:17 pm**                      **0:05**

*Student in previous post says in English that she had to study the vocabulary and the verb conjugations. In Spanish she states her name, where she is from, that she is married and that she has a daughter. She also says that she is extroverted and nice.*

Hola, Student K...[]¿Qué pasa?  
*Hello, Student K...[]What's going on?*

**CH1second\_2Bertie\_rti\_0**                      **6-7-11**                      **8:36 pm**                      **0:07**

*Student in previous post states in Spanish his name, where he is from, his age, and states that this is a fascinating class.*

Hola::, Student D. ¿Cómo está::? Soy muy bien. Adiós.  
*Hello::, Student D. How are you::? I am doing (sic) well. Bye.*

**CH1second\_5Bertie\_rti\_3**                      **6-7-11**                      **8:35 pm**                      **0:07**

*Student in previous posts states in Spanish his name, where he is from, his age.*

Hola, Student Z. ¿Cómo está? Soy MUY bien. Adiós.

*Hello, Student Z. How are you? I am doing (sic) VERY well. Bye.*

**CH1second\_10Bertie\_rti\_7**                      **6-6-11**                      **11:44 pm**                      **0:10**

*Student in previous post says in English that he had to lock the door so family members will not walk in the room. In Spanish, he introduces himself to the class and says where he is from and that he is hardworking and nice.*

Hola, Student S...(H) ¿Cómo estás? Soy:: muy bien. Adiós.

*Hello, Student S...(H) How are you? I am:: doing (sic)very well. Bye.*

**CH1second\_21Bertie\_rti\_18**                      **6-6-11**                      **8:38 pm**                      **0:10**

*Student in the previous post says in English that she had to complete the assignment twice because she messed up. In Spanish, she states where she is from, that she is patient, hardworking, and likes to read romance books.*

Hola, Student K. (H) ¿Cómo estás? Muy bien...Adiós::s.

*Hello, Student K. (H) How are you? Very good. By::e.*

**CH1second\_27Bertie\_rti\_23**                      **6-6-11**                      **8:40 pm**                      **0:07**

*Student in the previous post says in English that she had to give her cats a toy and lock herself in her room to complete the assignment. In Spanish she introduces herself, says where she is from, and that she is nice and small*

Hola, Student T. ¿Cómo está? (H) Muy bien. Adiós.

*Hello, Student T. How are you? (H) Very good. Bye.*

**CH1second\_32Bertie\_rti\_29**                      **6-6-11**                      **8:41 pm**                      **0:06**

*Student in the previous post says in English that he had to feed the Guinea Pig. In Spanish he states his name, and where he is from. He also says that he is nice, interesting, and hardworking. Says that he is also a student at a four-year institution.*

Hola, Ethan. ¿Cómo estás? Muy bien. Adiós.

*Hello, Ethan. How are you? Very good. Bye.*

**CH1second\_44Bertie\_rti\_40**                      **6-6-11**                      **8:43 pm**                      **0:07**

*Student in the previous post says in English that she had to complete an exam and had to wait for her husband to be outside. In Spanish she states her name, where she is from, and says that she is nice and extroverted.*

Hola, Lynette. ¿Cómo estás? Muy bien. Adiós.

*Hello, Lynette. How are you? Very good. Bye.*

**CH1second\_49Bertie\_rti\_45**                      **6-6-11**                      **8:44 pm**                      **0:06**

*Student in previous post says in English that she had to study the vocabulary and the verb conjugations. In Spanish she states her name, where she is from, that she is married and that she has a daughter. She also says that she is extroverted and nice.*

Hola, Student K. ¿Cómo estás? Muy bien. Adiós.  
Hello, Student K. How are you? Very good. Bye.

**CH1second\_56Bertie\_rti\_52**                      **6-6-11**                      **8:44 pm**                      **0:05**

*Student in previous post says in English that she had to study chapter one all week and to wait for her daughter to take a nap. In Spanish, she states her name, where she is from, and that she is nice and extroverted.*

Hola, Student A. ¿Cómo estás? Muy bien. Adiós.  
Hello, Student A. How are you? Very good. Bye.

**CH2\_51Ethan\_rtr\_50**                      **6-24-11**                      **5:01 pm**                      **0:05**

*Student in previous post asks him what books he likes to read.*

Hola Student K. Me gusta los libros de aventura. Mi libro favorito es *Las crónicas de Narnia*. ¿Y tú?

*Hello, Student K. I like to read adventure books. My favorite book is The Chronicles of Narnia. And you?*

**CH2\_53Ethan\_rtr\_52**                      **6-24-11**                      **4:51 pm**                      **0:07**

*The student in the previous post asks him how long or how often he plays basketball.*

(H) Yo practico baloncesto dos veces a la semana.  
*I practice basketball two times a week.*

**CH2\_8Ethan\_rti\_4**                      **6-24-11**                      **7:51 pm**                      **0:12**

*Student in the previous post says in English that he had to ask everyone to be quiet. In Spanish he says that he reads often, attends class daily, and plays golf often.*

Hola Student D. ¿Te gusta ver golf..en la televisión?  
Hello, Student D. Do you like to watch golf..on the television?

**CH2\_13Ethan\_rti\_9**                      **6-24-11**                      **6:15 pm**                      **0:11**

*Student in the previous post says in English that she had to turn off everything. She says that it has been a good day. In Spanish, she states that she studies in the afternoon, reads the paper three days per week, always attends class, but does not practice sports.*

Hola, Student K ¿Te gusta ve:r deportes en la televisión?  
Hello, Student K. Do you like to wa:tch sports on the television?

**CH2\_23Ethan\_rti\_20**                      **6-24-11**                      **5:31 pm**                      **0:12**

*Student in previous posts says in English that he had to tell his girlfriend to be quiet. In Spanish he states that he does not read the newspaper, studies at night, attends classes, and that he practices basketball.*

Hola, Student Z. ¿Qué es tu equipo favorito ekwipo de baloncesto?  
Hello Student Z. What (sic) is your favorite basketball team (sic)?

**CH2\_32Ethan\_rti\_26**                      **6-24-11**                      **5:28 pm**                      **0:09**

*Student in previous post says in English that she had to wake up early. In Spanish, she says that she studies at night, does not read the newspaper, intends to attend all classes, and does not play any sports.*

Hola, Student T. ¿Te gusta: la deporte de vólibol?  
Hello, Student T. Do you like: the (sic) sport volleyball?

**CH2\_41Ethan\_rti\_37**                      **6-24-11**                      **5:25 pm**                      **0:14**

*Student in the previous post states in English she had to write down what she wanted to say and paused the cartoons on the television. In Spanish, she says that she studies in the evening, sometimes reads the newspaper, attends class, and that she practices Karate.*

Hola, Student A. Me gusta dibujos animados. Me favorito es Phineas y Ferb.  
Hello Student A. I like cartoons. My (sic) favorite is Phineas and Ferb.

**CH2\_59Ethan\_rti\_54**                      **6-24-11**                      **5:21 pm**                      **0:18**

*Student in the previous post states in English that she had to lock herself in the room and wait for the Internet to be fixed. In Spanish, she says that she studies at night and the afternoon, attends class, and that she practices tennis and swimming.*

Hola Lynette. Admiro los nadadores. Yo no nadar. Yo corro y monto un bicicleta.  
Hello Lynette. I admire swimmers. I do not swim (sic). I run and ride a bicycle (sic).

**CH2\_66Ethan\_rti\_62**                      **6-24-11**                      **5:16 pm**                      **0:20**

*Student in the previous post says in English that she had to put her daughter to bed, write down what she wanted to say, and to practice it a few times. In Spanish, she says that she studies in the evening and night when her daughter is sleeping, that she speaks English well, but speaks Spanish and French a little. She does not read the newspaper, but watches the news on the television. She does not attend classes because they are all on-line. She also says that she does not practice sports but that she likes swimming and gymnastics.*

Hola, Student J. Yo quiero aprender nadar. Me gusta correr y montar la: bicicleta. Necesito nadar compitar un triathelon.  
Hello Student J. I want to learn to swim. I like to run and ride a: bicycle. I need to swim to compete (sic) in a triathlon.

**CH2\_25Bertie\_rti\_20**                      **6-24-11**            **12:03 am**            **0:09**

*Student in previous posts says in English that he had to tell his girlfriend to be quiet. In Spanish he states that he does not read the newspaper, studies at night, attends classes, and that he practices basketball.*

Hola. Buenas noches. ¿Cuánto tiempo ti he le balesco practico?..Adiós.  
Hello. Good night. How long have you practiced basketball? (sic)..Bye.

**CH2\_36Bertie\_rti\_26**                      **6-24-11**            **12:06 am**            **0:12**

*Student in previous post says in English that she had to wake up early. In Spanish, she says that she studies at night, does not read the newspaper, intends to attend all classes, and does not play any sports.*

Hola. Buenas noches. No practico desports también...Adiós.  
Hello. Good night. I do not practice sports (sic) either (sic)... Bye.

**CH2\_44Bertie\_rti\_37**                      **6-24-11**            **12:08 am**            **0:07**

*Student in the previous post states in English she had to write down what she wanted to say and paused the cartoons on the television. In Spanish, she says that she studies in the evening, sometimes reads the newspaper, attends class, and that she practices Karate.*

(H) Buenas noches. Estudio en la noche también. Adiós.  
Good night. I study at night also. Bye.

**CH2\_52Bertie\_rti\_45**                      **6-24-11**            **12:09 am**            **0:09**

*Student in previous post states in English that he had to close the door so we would not hear the Guinea Pig making noises in the background. He said that he just got home from university orientation and that it was very exciting. In Spanish, he says that he studies in the afternoon and night, he does not read the newspaper but reads books, he always attends class. He likes to run and ride a bike. He also practices basketball.*

Buenas noches..(H) ¿Kíánto tiempo ti he le belesquico practico?  
Good night..(H) How long have (sic) you practiced basketball? (sic)

**CH3\_95Ethan\_rtr\_94**                      **7-16-11**            **9:04 pm**            **0:14**

*Student in previous post asks him why he has to talk at night.*

Hola Stuent S. Me gusta decir buenas noches a (name of girlfriend). Ella le gusta a también...Adiós.  
Hello Student S. I like to say good night to (name of girlfriend). She likes it to (sic) too...Bye.

**CH3\_3Ethan\_rti\_0**                      **7-18-11**                      **5:35 pm**                      **0:10**

*Student in previous post says that she has brown hair, she is nice, likes to talk, and is sad because her friend died.*

Hola, Student D. ¿Qué tienes triste? ¿POR QUÉ? Adiós.  
Hello Student D. You are sad (sic)? WHY? Bye.

**CH3\_19Ethan\_rti\_14**                      **7-18-11**                      **5:28 pm**                      **0:12**

*Student in the previous post she says in English that she had to go into a different room. In Spanish, she says that she is thirsty and that she is very excited about seeing the new Harry Potter movie.*

Hola, Student T. ¿Te gusta el nuevo película de Harry Potter?..Hasta luego.  
Hello Student T. Do you like the new (sic) Harry Potter movie?.. Until later.

**CH3\_27Ethan\_rti\_22**                      **7-18-11**                      **5:21 pm**                      **0:14**

*Student in previous post says in English that she had to go outside to the only quiet area. In Spanish, she states that she is very tired and busy. She is going to work very soon.*

Hola Student A...¿Por qué estás cansado?  
Hello Student A... Why are you tired?

**CH3\_34Ethan\_rti\_30**                      **7-18-11**                      **5:17 pm**                      **0:12**

*Student in previous post says in English that she had to go into her office and close the door. She says that it was a good day because she saw a friend today and was able to talk. In Spanish, she says that she is happy but tired. She is going to clean the house in the morning and then will rest in the afternoon.*

Hola, Student K... ¿Cómo es el nombre de tu amigo?  
Hello, Student K... What (sic) is the name of your friend?

**CH3\_47Ethan\_rti\_42**                      **7-18-11**                      **5:13 pm**                      **0:11**

*Student in previous post states in English that he had to turn off the television and ask everyone to be quiet. In Spanish he states that he is hungry and that he is going to a restaurant to eat and relax.*

Hola, Student D. ¿Qué restaurante te gusta?.. Hasta luego.  
Hello Student D. Which restaurante do you like?.. Until later.

**CH3\_56Ethan\_rti\_51**                      **7-16-11**                      **10:35 pm**                      **0:12**

*Student in previous post says in English that she had to find a quiet room. She has had a very stressful day because her son did not bring any clothes home. Her computer was not working correctly either. In Spanish, she sates that she is hungry and is going to eat dinner with friends and play cards.*

Hola Bertie.. ¿Tienes hambre? Tú necesitas un Big Mac de McDonalds.. Adiós.  
Hello Bertie. Are you hungry? You need a McDonalds Big Mac. Bye.

**CH3\_66Ethan\_rti\_60**                      **7-16-11**                      **9:29 pm**                      **0:10**

*Student in previous post says in English that she had to wake up before her daughter in order to complete the assignment. In Spanish, she says that she is happy about going back to school and explains her plans about her future and going into pharmacy field.*

Hola, Student A. ¿Qué tiempo te hace despertaste?  
Hello, Student A. What time did you wake up (sic)?

**CH3\_73Ethan\_rti\_69**                      **7-16-11**                      **9:23 pm**                      **0:12**

*Student in previous post says in English that she had to fix dinner and clean up after dinner. In Spanish, she says that she is tired, has an exam this week, is going to study tonight, and that she is going to the library tomorrow. She also says that she studies a lot every day.*

Hola, Student K. ¿Qué estudias en la biblioteca?  
Hello, Student K. What do you study in the library?

**CH3\_80Ethan\_rti\_75**                      **7-16-11**                      **9:16 pm**                      **0:21**

*Student in the previous post says in English that she had to finish her ice cream and that she and her husband were all night because of a sick daughter. In Spanish she says that is planning on relaxing a little and also mentions sitting in a massage chair and having her nails painted.*

Hola, Student J. ¿Qué es tu helado favorita? And since it is not a vocabulary word and I might not have said it right, helado means ice cream. Adiós.  
Hello, Student J. Which (sic) is your favorite ice cream? And since it is a not a vocabulary word and I might not have said it right, helado means ice cream. Bye.

**CH3\_88Ethan\_rti\_85**                      **7-16-11**                      **9:11 pm**                      **0:13**

*Student in the previous post says in English that she had to feed her dog at 11:00 at night and lock herself in the room. In Spanish, she says that she is stressed and that she is going to study harder to understand Spanish..*

Hola Lynette. ¿Qué hace tu perro le gusta comer?  
Hello Lynette. What does (sic) your dog like to eat?

**CH3\_31Lynette\_rti\_30**                      **7-18-11**                      **11:39 pm**                      **0:09**

*Student in previous post says in English that she had to go into her office and close the door. She says that it was a good day because she saw a friend today and was able to talk. In Spanish, she says that she is happy but tired. She is going to clean the house in the morning and then will rest in the afternoon.*

Adoro pasar tiempo con mis amigos también.  
*I adore passing time with my friends too.*

**CH3\_52Lynette\_rti\_51**                      **7-18-11**                      **11:43 pm**                      **0:16**

*Student in previous post says in English that she had to find a quiet room. She has had a very stressful day because her son did not bring any clothes home. Her computer was not working correctly either. In Spanish, she says that she is hungry and is going to eat dinner with friends and play cards.*

Sueno como se ha tiendo..un de muy interesante..espero koo se m:adura para usted.  
*Sounds like you have had..an interesting day (sic).. I hope it gets b:etter (sic) for you.*

**CH3\_76Lynette\_rti\_75**                      **7-18-11**                      **11:45 pm**                      **0:19**

*Student in the previous post says in English that she had to finish her ice cream and that she and her husband were all night because of a sick daughter. In Spanish she says that is planning on relaxing a little and also mentions sitting in a massage chair and having her nails painted.*

Tien una.. manera tan gran:. de hablar español. (HxH) Espero kwi ponada... comprendo.. como eso al-june día.  
*You have (sic) a great (sic) manner of speaking Spanish. (deep breath) I hope that (sic) I can understand like (sic) that some (sic)day.*

**CH3\_2Bertie\_rti\_0**                      **7-18-11**                      **11:15 pm**                      **0:08**

*Student in previous post says that she has brown hair, she is nice, likes to talk, and is sad because her friend died.*

Hola, Student D. Buenas noches. ¿Cómo está? ¿Tien uscela hoy? Adiós.  
*Hello, Student D. Good night. How are you? Do you have school (sic) today? Bye.*

**CH3\_6Bertie\_rti\_5**                      **7-18-11**                      **11:16 pm**                      **0:12**

*Student in previous post says in the English introduction of the assignment that he had to stop working on his car. He says that he wants to finish it before the end of the summer. He has had a nice day, but wanted to work more to make money for tuition. In Spanish, he says that he is a little sad because his female friend is out of town for a few days. He also mentions working on his car.*

Hola, Student S. Buenas noches. ¿Cómo está? Espero que su coche finah:: pronto. Adiós.  
*Hello, Student S. Good night. How are you? I hope that you finish:: your car (sic) soon. Bye.*

**CH3\_23Bertie\_rti\_22**                      **7-18-11**            **11:23 pm**            **0:09**

*Student in previous post says in English that she had to go outside to the only quiet area. In Spanish, she states that she is very tired and busy. She is going to work very soon.*

Hola, Student A... Buenas noches. ¿Cómo está?.. Adiós.  
Hello Student A... Good night. How are you? Bye.

**CH3\_32Bertie\_rti\_30**                      **7-18-11**            **11:24 pm**            **0:06**

*Student in previous post says in English that she had to go into her office and close the door. She says that it was a good day because she saw a friend today and was able to talk. In Spanish, she says that she is happy but tired. She is going to clean the house in the morning and then will rest in the afternoon.*

Hola, Student K. Buenas noches. ¿Cómo está? Adiós.  
Hello, Student K. Good night. How are you? Bye.

**CH3\_44Bertie\_rti\_42**                      **7-18-11**            **11:25 pm**            **0:06**

*Student in previous post states in English that he had to turn off the television and ask everyone to be quiet. In Spanish he states that he is hungry and that he is going to a restaurant to eat and relax.*

Hola, Student D. Buenas noches. ¿Cómo está? Adiós. (Said very slowly and without any expression.)  
Hello, Student D. Good night. How are you? Bye.

**CH3\_61Bertie\_rti\_60**                      **7-18-11**            **11:26 pm**            **0:06**

*Student in the previous post in English that she had to wake up before her daughter did in order to do the assignment. In Spanish, she talks about her decision to return to school and what she wants to study.*

Hola, Student A. Buenas noches. ¿Cómo está? Adiós.  
Hello, Student A. Good night. How are you? Bye.

**CH3\_70Bertie\_rti\_69**                      **7-18-11**            **11:28 pm**            **0:12**

*Student in previous post says that she is going to study tonight and that she is going to the library tomorrow. She also says that she studied a lot every day.*

Hola... Buenas noches. ¿Cómo está? Estudio de noche también. Adiós.  
Hello. Good night. How are you? I study at night too. Bye.

**CH3\_77Bertie\_rti\_75**                      **7-18-11**            **11:30 pm**        **0:06**

*Student in the previous post says in English that she had to finish her ice cream and that she and her husband were all night because of a sick daughter. In Spanish she says that is planning on relaxing a little and also mentions sitting in a massage chair and having her nails painted.*

Hola, Student J. Buenas noches. ¿Cómo está? Adiós.  
Hello \_\_\_\_\_. Good night. How are you? Bye.

**CH3\_86Bertie\_rti\_85**                      **7-18-11**            **11:31 pm**        **0:06**

*Student in the previous post says in English that she had to feed her dog at 11:00 at night and lock herself in the room. In Spanish, she says that she is stressed and that she is going to study harder to understand Spanish.*

Hola, Bertie. Buenas noches. ¿Cómo está? Adiós.  
Hello, Bertie. Good night. How are you? Bye.

**CH3\_91Bertie\_rti\_90**                      **7-18-11**            **11:32 pm**        **0:05**

*Student in the previous post says in English that he had to lock the door to complete his assignment. Also says that he went to church and is now going to complete the assignment. In Spanish he says that he is thirsty, very busy, and tired. He also says that he is going to go running and then to play basketball before going to work. He also says that is will talk to his girlfriend before going to sleep.*

Hola \_\_\_\_\_. Buenas noches. ¿Cómo está? Adiós.  
Hello \_\_\_\_\_. Good night. How are you? Bye.

**CH4\_85Ethan\_rtr\_84**                      **7-26-11**            **8:39 pm**        **0:16**

*Student in the previous post asks him about skateboarding and says that it appears that it is fun and that he must have a nice family.*

Hola Lynette. Perdonas a mí.. pero no comprendo que tú hablas. Repita por favor. Gracias. Adiós.

*Hello Lynette. Forgive me.. (sic) but I do not understand what you are saying (sic). Repeat please. Thank you. Bye.*

**CH4\_83Ethan\_rtr\_82**                      **7-26-11**            **9:00 pm**        **0:17**

*Student in previous post asks him about living in the town where he lives.*

Hola, Student D. Área de Town, Virginia es muy bonita. ¿Dónde vives? ¿Cómo es donde tú vives? Adiós.

*Hello, Student D. The Town, Virginia area is very pretty. Where you do live? How is it where you live? Bye.*

**CH4\_81Ethan\_rtr\_80**                      **7-26-11**                      **8:46 pm**                      **0:13**

*Student in the previous posts asks him where he works.*

Hola, Student S. Yo trabajo en McDonalds...casa del Big Mac. Adiós.

*Hello, Student S. I work at McDonalds...home of the Big Mac. Bye.*

**CH4\_13Ethan\_rti\_7**                      **7-26-11**                      **5:44 pm**                      **0:21**

*Student in the previous post says in English that he had to rush through supper and a shower in order to complete the assignment. He also says that he had to stay late at work. In Spanish, he says that he has a big family and describes them. He says that his little brother like to go kayaking.*

Hola, Student S. (clears throat) Necesito un kayaquista para el New River Challenge en septiembre. ¿Es tu hermano interesado?... Adiós.

*Hello, Student S. (clears throat) I need a kayaker for the New River Challenge in September. Is your brother interested? Bye.*

**CH4\_24Ethan\_rti\_17**                      **7-26-11**                      **5:24 pm**                      **0:19**

*Student in the previous post says in English that she is watching the storm and hoping it will not knockout the power before she finishes the assignment. In Spanish, she describes her family, including her grandparents. She says that her family is large and that everyone is a musician and religious.*

Hola, Student K. Mi novia es bajo y yo soy alto. uh Igual que tu abuelos. El hombre es más alto normalmente. Adiós.

*Hello, Student K. My girlfriend is short (sic) and I am tall. uh Similar to your grandparents. The man is taller usually. Bye.*

**CH4\_33Ethan\_rti\_30**                      **7-26-11**                      **5:29 pm**                      **0:17**

*Student in the previous post says in English that she had to wake up early and that she had to look up a word. In Spanish, she describes her family and says what each member likes to do.*

Hola, Student T. Mi madre le gusta leer también...¿Qué libros hace tu madre le gusta? Adiós.

*Hello, Student T. My mother (sic) likes to read too. Which books does (sic) your mother (sic) like? Bye.*

**CH4\_41Ethan\_rti\_36**                      **7-26-11**                      **5:03 pm**                      **0:15**

*Student in the previous post says in English that she had to ask her daughter to be quiet. In Spanish, she describes her family and says what they like to do. She mentions that her daughter likes to watch cartoons.*

Hola, Student A. ¿Qué dibujos animados hace tu hija le gusta? Adiós.

*Hello, Student A. Which cartoons does (sic) your daughher (sic) like. Bye.*

**CH4\_49Ethan\_rti\_47**                      **7-26-11**                      **4:10 pm**                      **0:18**

*Student in the previous post says in English that he had to turn the volume on the television down and to ask everyone to be quiet. In Spanish, he describes himself and his family.*

Hola, Student D... ¿Qué has, hace tu esposa le gusta hacer?..Adiós.  
Hello, Student D. What doe, does (sic) your wife (sic) like to do? Bye.

**CH4\_55Ethan\_rti\_52**                      **7-26-11**                      **4:03 pm**                      **0:20**

*Student in the previous post says in English that she had to practice many times what she wanted to say and that she is not sure if it is correct. She says that she has had a nice, lazy day. In Spanish, she talks about her family and says that her son likes to play Guitar Hero.*

...Hola, Bertie...Por favor..perdonas a mí. No comprendo. ¿Quién en tu familia le gusta Guitar Hero?

...Hello, Bertie... Please, forgive me (sic). I do not understand. Who is your family likes to play Guitar Hero?

**CH4\_63Ethan\_rti\_60**                      **7-26-11**                      **3:52 pm**                      **0:18**

*Student in the previous post says in English that she had to send everyone out of the house because they were babying her since she has Rocky Mountain Spotted Fever. In Spanish, she describes her family. He says that her husband was in the military and that he likes skateboarding, snowboarding, and motocross.*

Hola, Lynette. Por favor, perdonas a mí. No comprendo. ¿Quién en tu familia le gusta motorcross? Adiós.

Hello, Lynette. Please, forgive me (sic). I do not understand. Who in your family likes motorcross? Bye.

**CH4\_71Ethan\_rti\_68**                      **7-26-11**                      **3:38 pm**                      **0:17**

*Student in the previous posts says in English that she still has not been able to sleep because her daughter is teething. In Spanish, she describes her family. She says that her husband likes golf.*

Hola, Student J. ¿Tu esposo le gusta jugar al golf o mirar el golf? Hasta luego.

Hello, Student J. Your husband (sic) likes to play golf or watch golf? Until later.

**CH4\_59Bertie\_rtr\_58**                      **7-26-11**                      **11:35 am**                      **0:15**

*Student in the previous post says that he likes Guitar Hero also and that he hopes they have fun.*

Hola, Student D. Me gusta Guitar Hero demasida:. Yo uso el remoto only no la guitarra.

Hello, Student D. I like Guitar Hero a lot (sic). I use the remote only (sic) not the guitar.

**CH4\_5Bertie\_rti\_0**                      **7-26-11**                      **10:57 am**                      **0:08**

*Student in previous post says in Spanish that her sister likes peanut butter on bananas. She says that she has a new job and that she has to leave.*

Hola, Student D. Buenos días. ¿Cuántos años tiene (name of sister)?

*Hello, Student D. Good morning. How old is (name of sister)?*

**CH4\_15Bertie\_rti\_7**                      **7-26-11**                      **11:01 am**                      **0:11**

*Student in the previous post says in English that he had to rush through supper and a shower in order to complete the assignment. He also says that he had to stay late at work. In Spanish, he says that he has a big family and describes them. He says that his little brother like to go kayaking.*

Hola, Student S. Buenos días. ¿Su familia se reunia ofte? Adiós.

*Hello, Student S. Good morning. Does your family get together often (sic)? Bye.*

**CH4\_26Bertie\_rti\_17**                      **7-26-11**                      **11:04 am**                      **0:10**

*Student in the previous post says in English that she is watching the storm and hoping it will not knockout the power before she finishes the assignment. In Spanish, she describes her family, including her grandparents. She says that her family is large and that everyone is a musician and religious.*

Hola, Student K. Buenos dias. ¿Toda su familia va a la misma iglesia? Adiós.

*Hello, Student K. Good morning. Does your entire family go to the same church? Bye.*

**CH4\_43Bertie\_rti\_36**                      **7-26-11**                      **11:11 am**                      **0:10**

*Student in the previous post says in English that she had to ask her daughter to be quiet. In Spanish, she describes her family and says what they like to do. She mentions that her daughter likes to watch cartoons.*

Hola, Student A. Buenos días. Daughter mantenes ocupado. Adiós.

*Hello, Student A. Good morning. Daughter keeps you (sic) busy. Bye.*

**CH4\_50Bertie\_rti\_47**                      **7-26-11**                      **11:15 am**                      **0:11**

*Student in the previous post says in English that he had to turn the volume on the television down and to ask everyone to be quiet. In Spanish, he describes himself and his family.*

Hola, Student D. Buenos días. ¿Cuánto tiempo ha estado casado con (name of wife)? Adiós.

*Hello, Student D. Good morning. How long have you been married to (sic) (name of wife)?*

**CH4\_64Bertie\_rti\_60**                      **7-26-11**                      **10:52 am**                      **0:24**

*Student in the previous post says in English that she had to send everyone out of the house because they were babying her since she has Rocky Mountain Spotted Fever. In Spanish, she describes her family. He says that her husband was in the military and that he likes skateboarding, snowboarding, and motocross.*

Hola Lynette. I hope you feel better with your Rocky Mountain Spotted Fever. My son also had it when he was five-years old, now he has a phobia of ticks. Every time he sees something on him that he thinks is a tick, he is like "Oh my God momma, I got a tick on me. I might get Rocky Mountain Spotted Fever!" So, uhm, hope you feel better. uhm Usted snowboard. *You snowboard (sic).*

**CH4\_72Bertie\_rti\_68**                      **7-26-11**                      **10:49 am**                      **0:09**

*Student in the previous posts says in English that she still has not been able to sleep because her daughter is teething. In Spanish, she describes her family. She says that her husband likes golf.*

Hola, Student J. ¿Cuántos años tiene tu hija?  
*Hello, Student J. How old is your daughter?*

**CH4\_78Bertie\_rti\_74**                      **7-26-11**                      **11:52 am**

*Student in the previous post says in English that he had to stop watching television in order to work on the assignment. He says that he has been working. In Spanish, he describes his family. He says that his father likes baseball and that his mom likes to read. He mentions that his younger brother likes to skateboard.*

Hola Ethan. Buenos días. ¿Ha usted el monopatín con Brother? Adiós.  
*Hello Ethan. Good morning. Have you skateboarded with Brother? Bye.*

**CH5\_52Ethan\_rtr\_51**                      **8-1-11**                      **10:52 pm**                      **0:14**

*Student from previous post asks him if he works everyday at McDonalds.*

Hola, Bertie. No, no trabajo en McDonalds todos los días. Adiós.  
*Hello, Bertie. No, I do not work at McDonalds every day. Bye.*

**CH5\_48Ethan\_rtr\_47**                      **8-1-11**                      **11:25 pm**                      **0:16**

*Student from previous post asks him what his girlfriend was like.*

Hola, Student S. Girlfriend es gran. Ella es llándome receintamente. Ella mirandome /cinco kilómetros/ Adiós.  
*Hello, Student S. Girlfriend is great (sic). She is calling me (sic) recently. She is watching me (sic) /five kilometers/ Bye.*

**CH5\_4Ethan\_rti\_0**                      **8-3-11**                      **6:09 pm**                      **0:14**

*Student in previous post says in English that she had to ask her daughter to be quiet. In Spanish she describes her daily routine including getting ready, taking a shower, getting dressed, and when she wakes up and goes to sleep.*

Hola, Student A. ¿Qué marca de jabón prefieres? Yo prefiero Irish Spring... Adiós.  
Hello, Student A. What brand of soap do you prefer? I prefer Irish Spring. Bye.

**CH5\_10Ethan\_rti\_8**                      **8-1-11**                      **9:54 pm**                      **0:29**

*Student in previous post says in English that she needed her boyfriend to take their baby to another room so we would not hear her crying. In Spanish, she that she and her children wake up early. She says that she combs her hair and brushes her teeth.*

Hola, Student D. ¿Qué marca de pasta de dientes prefieres? Adiós.  
Hello, Student D. What brand of toothpaste do you prefer? Bye?

**CH5\_13Ethan\_rti\_11**                      **8-1-11**                      **10:46 pm**                      **0:13**

*Student in previous post says in English that she had to finish assignments for another class first. In Spanish, she explains her daily routine including when they wake up, eat different meals, when they watch television, and when she does her homework. She also says that she and her daughter play outside.*

Hola, Student J. ¿Qué clases otros tienes? Adiós.  
Hello, Student J. What other classes (sic) do you have? Bye.

**CH5\_22Ethan\_rti\_19**                      **8-1-11**                      **10:41 pm**                      **0:13**

*Student in the previous post says in English that she needed to wait for her husband to go to work so that he would not laugh at her speaking Spanish. In Spanish she describes her daily routine stating when that she wakes up, takes a shower, goes to school, and then cooks dinner for her family.*

Hola, Lynette. ¿Qué prefieres? ¿baño o ducha?  
Hello, Lynette. Which (sic) do you prefer? bath or shower?

**CH5\_28Ethan\_rti\_24**                      **8-1-11**                      **10:26 pm**                      **0:13**

*Student in previous post says in English that she had to take something for a headache. In Spanish, she says that she wakes up every morning, washes her hands, bathes, and then brushes her teeth. Then she eats and watches television.*

Hola, Student K. ¿Qué es tu favorita canal en el televisión?... Adiós.  
Hello, Student K. What (sic) is your favorite television channel?...Bye.

**CH5\_32Ethan\_rti\_30**                      **8-1-11**                      **9:50 pm**                      **0:25**

*Student's previous post did not record any audio.*

Hola, Student D. Yo tengo un problema. Perdornas, perdonas a mí. No escucho a tú. ¿Qué es tu cosa favorita hacer cada día? Adiós.

*Hello, Student D. I have a problem. Forgive, forgive me (sic). I do not hear (sic) her. What (sic) is your favorite thing to do every day? Bye.*

**CH5\_38Ethan\_rti\_33**                      **8-1-11**                      **9:43 pm**                      **0:11**

*Student in previous post says in English that she had to take her son to his friend's house and that she had to prepare what she wanted to say for the assignment. She also says that she has had a good day so far. In Spanish, she says that she wakes up in the morning, feeds the dogs, takes a bath, brushes her teeth, and studies every day.*

Hola Bertie. ¿Qué es tu favorita pasta de dientes?...Adiós.

*Hello Bertie. Which (sic) is your favorite toothpaste?*

**CH5\_42Ethan\_rti\_41**                      **8-1-11**                      **9:38 pm**                      **0:12**

*Student in previous post says in English that she had to wake up early and review the material. In Spanish she says that she wakes up, brushes her teeth, changes clothes, and washes her hands.*

Hola, Student T. ¿Por qué lavas tus manos todos los días? Adiós.

*Hello, Student T. Why do you wash your hands every day? Bye.*

**CH5\_3Lynette\_rti\_0**                      **8-4-11**                      **7:36 pm**                      **0:16**

*Student in previous post says in English that she had to ask her daughter to be quiet. In Spanish she describes her daily routine including getting ready, taking a shower, getting dressed, and when she wakes up and goes to sleep.*

Ver que es todos tomamos un ducha diaria.... Es....eso es bueno.

*I see (sic) that everyone we take a shower daily.... It is....that is good.*

**CH5\_16Lynette\_rti\_14**                      **8-4-11**                      **7-37 pm**                      **0:13**

*Student in previous post says in English that he had to put off working on his cars. He also said that he worked today at a construction site and worked in the yard. In Spanish he says wakes up in the morning and gets ready for work. He works in construction. He arrives home and is tired. He also studies for school, talks to his girlfriend before bathing and going to bed.*

Lo sonados como usted hacen mucho trabajo kwi es comas diferences.

*It sounds (sic) like you do (sic) a lot of work that is like (sic) different (sic).*

**CH5\_26Lynette\_rti\_24**                      **8-3-11**                      **9:33 am**                      **0:07**

*Student in previous post says in English that she had to take something for a headache. In Spanish, she says that she wakes up every morning, washes her hands, bathes, and then brushes her teeth. Then she eats and watches television.*

(HxH) Como usted yo miro televisión e disfruto del tiempo de hacer eso.

(HxH) *Like you (sic) I watch television and (sic) I enjoy the time to do that.*

**CH5\_35Lynette\_rti\_33**                      **8-4-11**                      **7:38 pm**                      **0:18**

*Student in previous post says in English that she had to take her son to his friend's house and that she had to prepare what she wanted to say for the assignment. She also says that she has had a good day so far. In Spanish, she says that she wakes up in the morning, feeds the dogs, takes a bath, brushes her teeth, and studies every day.*

Estoy contento kwi tuver un día bueno. Será un medra... disfruto de unas vacaciones pequeñas.  
*I am happy that you had a good day (sic). It will would (sic) I enjoy some small vacations (sic)*

**CH5\_37Bertie\_rtr\_36**                      **8-3-11**                      **10:18 am**                      **0:04**

*Student in the previous post says that Bertie is hardworking and asks why she studies at night.*

Hola. Estudio de noche.

*Hello. I study at night.*

**CH5\_6Bertie\_rti\_0**                      **8-3-11**                      **9:18 am**                      **0:10**

*Student in previous post says in English that she had to ask her daughter to be quiet. In Spanish she describes her daily routine including getting ready, taking a shower, getting dressed, and when she wakes up and goes to sleep.*

Hola, Student A. ¿A qué horge te va a dormir?

*Hello, Student A. At what time (sic) do you go (sic) to bed?*

**CH5\_12Bertie\_rti\_11**                      **8-3-11**                      **9:21 am**                      **0:10**

*Student in previous post says in English that she had to finish assignments for another class first. In Spanish, she explains her daily routine including when they wake up, eat different meals, when they watch television, and when she does her homework. She also says that she and her daughter play outside.*

Hola, Student J. ¿Qué es en que te gusta ve: el la TV?

*Hello, Student. What is it that you like to watch on TV (sic)?*

**CH5\_17Bertie\_rti\_14**                      **8-3-11**                      **9:23 am**                      **0:06**

*Student in previous post says in English that he had to put off working on his cars. He also said that he worked today at a construction site and worked in the yard. In Spanish he says wakes up in the morning and gets ready for work. He works in construction. He arrives home and is tired. He also studies for school, talks to his girlfriend before bathing and going to bed.*

Hola, Student S. ¿Qué clases de estudias más?  
Hello, Student S. Which classes do you study most?

**CH5\_27Bertie\_rti\_24**                      **8-3-11**                      **9:33 am**                      **0:07**

*Student in previous post says in English that she had to take something for a headache. In Spanish, she says that she wakes up every morning, washes her hands, bathes, and then brushes her teeth. Then she eats and watches television.*

Hola, Student K. ¿Lo que gusta ve: en la televisión?  
Hello, Student K. That which you like (sic) to watch on the television?

**CH5\_51Bertie\_rti\_45**                      **8-1-11**                      **9:42 am**                      **0:09**

*Student in previous post says in English that he had to tell his little brother to be quiet. He says that he had a good day, worked at McDonalds. In Spanish he says that runs, washes his hands, bathes in the evening, and talks to his girlfriend every night.*

Hola, Ethan. ¿Trabajar todos los días en McDonalds? Adiós.  
Hello, Ethan. Do you work every day at McDonalds? Bye.