SYNCHRONOUS COMPUTER MEDIATED COMMUNICATION AND SECOND LANGUAGE PROFICIENCY

by

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The primary purpose of this study is to investigate whether the use of textual Synchronous Computer Mediated Communication (SCMC) can help students improve oral language proficiency when compared with a group of students who engage in face-to-face oral and written practice. A second objective is to investigate how the use of synchronous computer mediated written practice motivates and enhances the students' learning of the language.

The participants (N=56) were 9th and 10th grade English-speaking students enrolled in a beginning Spanish class. A paired sample t test was conducted to evaluate whether SCM written exchanges or face-to-face written practice influence language production. The results indicated that the mean language production for CMC written exchanges (M = 1.79, SD = .833) was significantly greater than the mean language production for face-to-face written exchanges (M = 1.11, SD = .737, p = .002).

Qualitative results suggests that engaging learners in authentic interaction with other students of slightly higher language proficiency through the use of textual

synchronous technology enhances their language skills as well as their overall learning experience.

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CHAPTER I

INTRODUCTION

Language is the most frequent medium by which people communicate, exchange meaning and interact with others. The acquisition process of a second language, just as the acquisition of our first language, provides the opportunity for communicative practice. After decades of empirical research, linguists generally agree that students have a better chance to improve language proficiency when they are given an ongoing opportunity to exchange meaning with other speakers. Here we investigate whether one forum that affords rich opportunities for such situated learning--Synchronous Computer Mediated Communication (SCMC)--can enhance student's speaking performance in a Second Language (L2) 2nd year high school classroom.

The release of *National Communication Standards for Foreign Language Learning* in 1996 prompted K-12 teachers across the United States to evaluate, improve, and redesign foreign language instruction with the intent to help students meet higher levels of language proficiency. Furthermore, this document challenges world language programs and educators to consider more fully the context of various cognitive domains of communication. The traditional way of thinking about four separate skills of listening, speaking, reading and writing did not reflect how learners learn or how people communicate. The resulting *Frameworks of Communicative*

Modes formed the foundation for three standards that describe language performances as Interpersonal, Interpretive, and Presentational.

The interpretive mode is focused on the appropriate cultural interpretation of meanings that occur in written and spoken form where there is no active response to the negotiation of meaning with the writer or speaker. The presentational mode refers to the creation of messages in a manner that facilitates interpretation where no direct opportunity for the active negotiation of meaning exists.

These two domains, however, differ from the traditional skills in that active communication in real life is not a one-way mode only. Communication does not begin or end with listening an audio clip in the classroom, reading and manipulating a sentence in a grammar drill, filling-in-the blanks from a memorized list of adjectives or conjugating verbs endlessly. Communication warrants the need to negotiate meaning that leads to higher levels of language proficiency where students have the opportunity to demonstrate what they know and are able to do with the newly acquired language. The interpersonal mode, most obvious in conversation, is characterized by active negotiation of meaning, a process in which interlocutors try to convey information to one another and reach mutual comprehension through restating, clarifying, and confirming information.

Some language teachers still to this day would defend the practice of dedicating most of their time to the teaching of an ordered set of facts *about* the language. Others propose that if we are to expect students to achieve higher levels of

communication, the foreign language classroom should be a place where communication or meaning is constantly being negotiated. There is evidence this is not a new argument, going back over two decades ago, Kramsch (1981) pointed out that the questions and answers exchanged in the foreign language classroom pertained to the formal aspects of the language (vocabulary, grammar, syntax), and that most of the skills developed by the students were grammatical, not conversational. In addition, research conducted by the National Standards in Foreign Language Education Project (American Council on the Teaching of Foreign Languages (ACTFL), 1996), strongly suggests that language study cannot be divided into a sequential set of steps. They insist that "it's not the case that young students must first deal with isolated bits and pieces of language; real communication is possible for young students as well as for students in high schools" (p. 21).

This investigation will focus on textual Synchronous (real time) Computer Mediated Communication (SCMC) as a vehicle that enhances *oral communication skills*. Oral communication is a skill that often plays a minor role in the L2 classroom despite the fact that it appears quite important for effective language acquisition and figures prominently in National Standards Guidelines. For those interested in written language production and proficiency, a large number of articles study the effects of technology on the production of written language, especially in the second language university classroom (Barson, Frommer, & Schwartz, 1993; Chun, 1994; Kelm, 1992; Kern, 1995; Meskill & Rangelova 1995; St. John & Cash, 1995; Sullivan & Pratt,

1996; Tella 1992; Vilmi, 1995; Warschauer, 1996). Very few of these, however, link synchronous computer mediated communication to oral communicative language production in the K-12 second language classroom, as we will study here.

Theoretical Framework

The following theoretical framework helps us to understand the environment that enables students to achieve higher communicative language proficiency or language competence. For the sake of this study, communicative competence and communicative proficiency will be used interchangeably since both reference the ability to communicate in the target language in real-life contexts. Communicative competence and the proficiency characterizing its output build on the understanding that language use is governed not only by phonological and grammatical rules, but also by sociolinguistics and discourse rules (Canale & Swain, 1980). These researchers explain that communicative competence refers to the underlying knowledge about language as well as the skills and the practical use of the language. Hymes (1972) coined the term *communicative competence* to describe the social appropriateness of language use. He insisted that syntax and language forms were best understood not as autonomous, acontextual structures but rather as meaning resources used in particular conversational ways in particular speech communities.

In this paper, I will refer to communicative language proficiency and competence based on how well an individual can perform in actual communicative

situations. I will argue that synchronous computer mediated communication in a second language classroom can improve students' communicative (oral) proficiency and enhance language production by providing both the sociocultural and sociocognitive context and the purpose necessary for the acquisition of a second language. In reality, communicative language proficiency is a complex, creative activity that is developed depending on a variety of factors including the sociocognitive context of language interaction and the purpose in which language interaction occurs.

There are a plethora of studies conducted by English as Second Language (ESL) researchers regarding adult language learners' reading and writing proficiency and the use of SCMC (Chun, 1994; Ellis, 1995; Kelm, 1992; Kern, 1995; Sullivan & Pratt, 1996; Tella 1992; Warschauer, 1996). However, very little research has been conducted in the K-12 classroom regarding the influence of technology on listening and speaking communicative language proficiency (De la Fuente, 2006; Payne & Ross, 2005; Payne & Whitney, 2002).

My study attempts to explore whether written communicative exchanges through the use of synchronous computer mediated communication can help students improve oral language proficiency when compared with a group of students that only engaged in a face-to-face modality of oral practice. Likewise, I seek to investigate qualitative learning experience for those students who are able to engage in interactive communication with online partners--peers of slightly higher language proficiency--

through the use of textual synchronous computer mediated communication. Note that proficiency or the production of language here is not defined in terms of years of prior preparation or immersion exposure in the target/second language, but in what the student is able to do/produce with the target language (the language that the student is learning).

Expected results are that the oral production and proficiency of participants in the comparison group will be at least equivalent with the control group, and possibly even greater. The SCMC (real time/chatroom) environment and the real life exchanges should provide greater opportunities for students to engage in meaningful exchanges thus promoting the kind of natural environment where language learning can occur. In order to understand the complexities of how we acquire proficiency in a second language, here I turn to well-known researchers and authors in this field.

Sociocultural Theory of Language Acquisition

Vygotsky, a Soviet psychologist, laid the groundwork for a socio-cultural theory of sign-mediated human action with his ideas on the interrelations of thinking and speaking. In short, the focus of attention in a Vygotskyan analysis is on interpreting how speaking creates a shared social reality and maintains that individuals *speak to plan and carry out task-relevant actions* rather than encode and decode in order to speak (1962). Furthermore, Vygotsky (1978) believed that the human mind is, in essence, mediated by the contexts of our daily lives. Mediation centers on the notion

that humans use language and other symbolic tools to interact indirectly with their environments. Sustained classroom talk is defined, according to Vygotsky (1962), as a theory in which *learning takes place through meaningful interaction with*, and thus *the people* in the environment are essential to the development of new knowledge.

Vygotsky (1978) divided social speech into two areas. First, language arises initially as a means of communication between people and their environments. Second, language may be used as a tool to mediate the self as well. According to Vygotsky, a further important factor in the acquisition and production of language is the interpretation of the social situation in which communication is taking place. Language, therefore, carries not only *functional* meaning, but it also carries *social* meaning. In order to develop communicative skills, language learners need to be placed in situations where they use language as an instrument for satisfying immediate communicative needs, and where the criterion for success is functional effectiveness rather than structural accuracy.

Thus, the learner can be helped to use language as an instrument for social interaction, as exemplified by role-playing activities in a world language classroom. Under this paradigm, the emphasis is on both the communicative effectiveness and the social acceptability of the language used. The learner must develop skills and strategies for using language to communicate meanings as effectively as possible in concrete situations. In many communicative activities, the teacher creates a situation

and sets an activity in motion, but it is the learners who are responsible for conducting the interaction to its conclusions.

The Sociocultural perspective, deriving in part from the concepts of Vygotsky (1978), illuminates the role of social interaction in creating an environment to learn language, learn about language, and learn through language. In Vygotsky's view, all human learning and development is bound up in activity such as purposeful actions mediated by various tools. The most important of these tools is language. All higher-order functions develop out of language-based social interaction. "Every function in the child's cultural development appears twice: first, on the social level, and the latter, on the individual level; the first between people (interpsychological), and then inside the child (intra psychological)" (Vygotsky, 1981, p. 163).

In interpreting these principles mentioned above, one key point stands out: We need to move beyond comprehension *about* the language to actual *language competence or oral proficiency so that the student can demonstrate what s/he can do with the language in real-life situations*. Dell Hymes (1972), a well-known author on language acquisition and child development points out that it is not enough for the child to be able to produce any grammatical utterance; he would have to remain speechless if he could not connect utterances to their contexts of use (p. 19). Furthermore, he concurs that "to be successful at learning, students must develop the communicative competence that is specific to the discourse of their classroom activities" (p. 20). This concept of communicative competence, which has recently

become so influential in language teaching, has resulted in a new emphasis on the nature of interaction and the rules of discourse.

The relationship between formal instruction and practical communicative competence acquired a prominent role in SLA research and pedagogy. Lightbown and Spada (1990) research led them to the conclusion that primarily and exclusively grammar-based approaches to teaching do not guarantee that learners develop high levels of accuracy and linguistic knowledge.

Aski (2003) study results support the claim that learners require opportunities for communicative practice if students are expected to achieve higher levels of language proficiency. In addition, learners may also gain from traditional grammar instruction, if it includes an exploration of meaning and communicative practice. These activities range from mechanical exercise that manipulate forms but require no meaning to be processed, to the most communicative type, in which the primary goal is to generate original meaningful exchanges.

In the communicative language approach, teachers and students use the target language extensively. Either through role-play or communicative situations. Students are given information-exchange or situations that they carry out by working in pairs or small groups. This interactive situational exchange requires learners "to interpret, express, and negotiate meaning in the new language" (Lee & Van Patten, 2003, p. 1). Oral communicative competence is also consistent with another concept incorporated into socio-cultural theory, which is situated learning and the amount of authentic

language input students experience in a discourse community (Collins, Brown, & Newman, 1989).

Situated Learning

Situated learning presents the opportunity for students to carry out meaningful tasks and solve meaningful problems in an environment that reflects personal interest as well as the multiple purposes to which their knowledge will be put in the future. As Collins et al. (1989) state:

> Situated learning serves several purposes. First, students come to understand the purposes or uses of the knowledge they are learning. Second, they learn by actively using knowledge rather than passively receiving it. Third, they learn the different conditions under which their knowledge can be applied. Fourth, learning in multiple contexts induces the abstraction of knowledge, so that students can acquire knowledge in a dual form, both tied to the context of its uses and independent of any particular context. This unbinding of knowledge from a specific context fosters its transfer to new problems and new domains. (p. 478)

In Situated Learning, one can observe a constructivist theoretical bent in that knowledge is not handed down from one person to another but is created through an active process of construction. In this process, the situation in which the knowledge is acquired plays a central role. Tschirner (2001) argues that learning is considered to be the acquisition of knowledge, while knowledge on the other hand, is based on the context of learning and cannot be separated from the act of learning and the situation in which it is learned. Thus, in the context of the acquisition of communicative

language competence, situated learning means learning through the active use of the target language in authentic situations.

Language Input

Krashen (1998) states that second language learning is dependent on the amount of authentic comprehensible input one receives. A number of researchers have investigated what type of conversational interactions among language learners tend to facilitate the intake of comprehensible input (Long, 1996; Pica, 1994). In this model, language learning is viewed as the development of an individual linguistic competence, and the purpose of interaction is to provide the input. Thus, the classroom becomes the place where language learners have the ability to communicate and interact in the target language (second language). It has been argued that input processing is of crucial importance for the development and acquisition of speaking and communicative competence, and therefore, it needs to play a major role in L2 classes.

Krashen (1982) also maintains that we acquire more language only when we are exposed to comprehensible input, language that contain structures that are a little beyond the speaker current level of competence, but which are comprehensible through the use of context, knowledge of the world and other extra-linguistic cues. A final part of the input hypothesis states that input needs to be deliberately planned and that speaking fluency cannot be taught directly, but rather emerges naturally over time.

Krashen concludes that although early speech is not grammatically accurate, accuracy will develop over time as the acquirer hears and understands more input.

Review of the Literature

In order to understand how certain SLA theories and concepts interact with what we know about student language learning in technology contexts, here we review some past and recent work in Computer Mediated Communication (CMC) studies.

Historical Background of CMC

CALL (computer assisted language learning) has mirrored developments in computer technology along side the evolution of linguistics and instruction of second languages. At the same time, textbooks have tried to keep up with Second Language Acquisition (SLA) theories. For example, one could draw a parallel between behaviorist theory in the 1950s and 1960s. However, it was the behaviorist research that gave birth to the audio-lingual method where the learner repeats and memorizes words and phrases through extended and memorized dialogues. Schools had a language lab where students listened, repeated and practiced language. Sociocultural, cognitive, and constructivist theories in the 1970s and 1980s, however, inspired language learning and teaching to happen in a place where real life and meaningful communication could happen. Likewise, in the two decades that followed, language classroom instructors, aided by textbook companies and computer assisted

technologies, began to supplement instruction with video and film to encourage students to gain communicative competence in the second language. Although personal computers became quite popular in the United States in the 1980s, it was not until the 1990s that this kind of technology reached the language learning classrooms with much impact. By this time, new forms of language acquisition theories had sprouted and moved into the language classroom as well. It was the dawn of a new way of looking at language learning and teaching. It was no longer enough to memorize and repeat rules about the language, but rather the use of language became seen as imperative to oral communicative competence.

More recently, the multimedia-networked computer, now accessible to many students through school technology centers and libraries as well as through home access, has transformed opportunities for language learning. Personal computers increasingly provide a range of informational, communicative, and publishing tools to many. English language learning in the United States has been the target of primary interest in the development of this field, but foreign language arenas, or in other words for the native English speaker learning other languages, also have made much progress in recent years. The movement towards communicative teaching with computer-assisted technology in the L2 classroom is taking place in response to the findings of empirical research. Some of the earliest investigations conducted in the area of technology and language learning combined with the type of software and the tasks teachers set for students indicate a positive relationship between the use of technology

in the classroom and students' communicative proficiency (Beauvois, 1992; Bump, 1990; Chang & Smith, 1991; Chappelle & Jamieson, 1986; Chavez, 1990;Chun & Brandl, 1992; Dunkel, 1991; Evans, 1993; Greenia, 1992; Levin, Evans, & Gates, 1991; Liou, Wang, & Hung-Yeh, 1992; Liu, 1994; Liu & Reed, 1995).

The rise of CMC and the Internet, more that anything else, reshaped the use of computers for language learning at the end of the 20th century. Results from empirical research in this area suggests that student participation is dramatically more balanced in computer-aided than in face-to-face discussions, with far less domination either by the teacher or by particularly vocal students when students engage in synchronous (*real time*) computer mediated discussion (Chun, 1994; Kelm, 1992; Kern, 1995; Sullivan & Pratt, 1996; Warschauer, 1996). Teachers at all levels have used long distance (pen pal) and more recently email (asynchronous) exchange to give students greater opportunities for authentic communication, either with native speakers or with other learners of the language.

Tella (1991; 1992) followed several Finnish high school classes as they carried out an exchange with classrooms in England. The results of the study suggest that compared to the ordinary English classes, the participants that use email exchanges to practice communicative skills became much more learner-centered, with learner's time and effort devoted to authentic communication with partners in the countries where the native language is spoken. Warschauer (1997) also examined the use of e-mail between a teacher and her students in a Graduate--ESL (English as a Second

Language) class. The results of his research suggest that e-mail was a powerful medium for apprenticeship learning, when the teacher provided students with detailed and rapid feedback on the immediate problems and questions that they had.

Synchronous Communication: One-to-One Textual Exchanges Via Real-Time Electronic Transcripts

The power of a systematic one-to-one exchange for language learning provides an excellent example of a student learning through interaction with a peer (Vygotsky, 1978). This mode of practice also illustrates *Language Input* as well as *Situated Learning Hypotheses* in which learning is enhanced by the use of the target language in authentic situations and through an active process of construction.

Recent research indicates that the quality of textual or written CMC interaction has close similarities with the exchanges that take place in face-to-face conversation in conventional classes (Blake, 2000). Payne and Whitney (2002) have also found that even pure textual chatting has a positive impact on oral proficiency. Several studies (Blake, 2000; Pellettieri, 2000; Smith, 2003; Sotillo, 2000) analyzed language students synchronous computer mediated communication. Evidence from these studies support that virtual exchanges contain the same type of negotiation of meaning as are typically found in face-to-face classroom discourse that are hypothesized to play a fundamental role in second language acquisition.

Furthermore, synchronous computer mediated communication (SCMC) provides a platform where L2 (second language) students can transcend the spatial confines of the classroom via the Internet. E-mail (asynchronous communication) and synchronous (real-time) communication offer students the highest level of interactivity because they permit one-on-one personal exchanges. Research has demonstrated the importance of learning language through personal exchanges that requires the learners to negotiate meaning with other learners or native speakers (Gass & Varonis, 1994; Long, 1993; Pica, 1994). This negotiation of meaning appears to be one of the crucial ways in which students gradually achieve higher levels of oral communicative proficiency.

It could be argued that these negotiation events can be carried off during regularly scheduled class time or lab sessions. However, the same benefits of negotiating meaning may also be obtained for out-of-class synchronous networked-based communication as well (Blake, 2000; Pellettieri, 1999). This means that students can engage in negotiating meaning at any time from home or the lab at their convenience, thus opening the door to an untapped potential for L2 practice.

The benefits derived from computer-mediated communication when compared with classroom oral exchanges have been researched in a recent empirical study (Swaffar, 2005). The researcher concludes that networked exchanges seem to help all individuals in language classes; students engage more frequently, with greater

confidence, and with greater enthusiasm in the communicative process that is characteristic for similar students in oral classrooms.

Several studies included quantitative measures to evaluate the amount of student participation and face-to-face discussions when communicative exchanges where computer mediated (Chun, 1994; Kelm, 1992; Kern, 1995; Sullivan & Pratt, 1996; Warschauer, 1996). All studies found a greater amount of students' participation in three measures: percentage of student talk vs. teacher talk, directional focus of student (toward other student or toward teacher) and equality of student participation. Total amount of student participation in electronic discourses ranged from 85% to 90% (Sullivan & Pratt, 1996), 86% to 88% (Kern, 1995) and 86% to 92% (Kelm, 1992). In face-to-face discourse, student participation ranged from 35% in one class (Sullivan & Pratt, 1996) to 37% and 60% in a second class (Kern, 1995). Furthermore, Sullivan and Pratt (1996) found that 100% of the students participated in electronic discourse and only 50% in the face-to-face.

Data generated through synchronous textual exchanges is difficult to analyze for oral communication measurement purposes, because it is generally not recorded and thus less accessible to empirical research. This may explain why asynchronous (e-mail) communication and its influence on written proficiency is much more ubiquitous in the literature than the influence of synchronous communication on oral communicative proficiency (Barson, Frommer, & Schwartz, 1993; Meskill & Rangelova, 1995; St. John & Cash, 1995; Tella 1992; Vilmi, 1995). However, at least

one researcher (Kelm, 1992) reported that synchronous communication could also be a useful tool for developing and measuring students linguistic accuracy. In a university intermediate Portuguese course, the researcher used students' own computer-mediated messages as a basis for review of particular grammatical points. He noted an 80% reduction in certain grammatical errors.

Other studies, while limited in number, have looked at how interlocutors resolve breakdowns in communication through negotiation of meaning and suggest that synchronous on-line environments can play a role in the development of communicative language competence (Chun 1994; Kern, 1995; Warschauer, 1996). Furthermore, results from these studies indicate interesting trends:

1. Students tend to produce more complex language in chatrooms than in face-to-face conversational settings (Kern, 1995; Warschauer, 1996).

2. Participation increases on-line with quieter students participating as much or even more than those individuals who normally dominate classroom discussions (Chun 1994; Kern, 1995; Warschauer, 1996).

3. Attitudes towards the target language were reported to improve (Chun 1994; Healy-Beauvois, 1992; Kern, 1995; Warschauer, 1996).

The technology that supports spoken and written synchronous CMC in the online classes is now widely available in several universities. For example, empirical research is being conducted on the impact of audio graphic collaboration tools on language competency such as Lyceum and Spanish Without Walls (Hampel, 2003;

Hampel & Hauck, 2004). They both utilize a Flash-based chat tool, which allow students in online classes to engage in audio exchanges and practice. These tools give students the opportunity to speak to one another in real time via their computers while at the same time augmenting their spoken communication with the additional support of written text as desired.

While there are a plethora of studies conducted by ESL researchers regarding adult language learners' reading and writing proficiency and the use of Synchronous Computer Mediated Communication, very little research has been conducted in the K-12 classroom regarding (a) the influence of synchronous network-based technology on oral communicative language proficiency, and (b) the influence of this technology on students' qualitative learning experience such as will be investigated in this study. My research questions are:

1. Do communicative *written exchanges* with peers of higher language proficiency through the use of Synchronous Computer Mediated (SCM) communication help students improve oral language proficiency when compared with a group of students who engage in a traditional face-to-face model of oral and written practice with peers of equal or similar level of language proficiency?

2. What are the qualitative aspects of the learning experience of students who have access to real time written practice with peers of higher language proficiency through the use of synchronous computer mediated communication?

CHAPTER II

METHODOLOGY

Participants

The participants (N=58) of this study were 9th and 10th grade students enrolled in two separate 2nd year high school Spanish classes. All participants received the same amount of instruction from the same teacher. They also shared the same curriculum and the same textbook. The participants attended a high school located in a middle to upper middle class neighborhood in the suburbs, and they averaged between 14 and 16 years in age. While all 10th graders had completed one year of high school Spanish language study, the 9th grade students had completed the equivalent of one year of language study in Middle school (Table 1).

Both groups are in the range of 15 and 16 years of age. They are equally distributed in terms of sex, half of the group male and the other half female. Over 90% of the students come from middle to upper-middle class income families. Between 60% and 70% of their parents have some education and/or a four-year degree, with 30% in both groups having post-graduate degrees. English is the primary language spoken at home. It is important to point out that in the control group there are a few more students with more years of language experience than in the comparison group. In the control group, 88% of the students had 2 or more years of language

TABLE 1. Demographic Survey

Survey Question			Control Group	Comparison Group
1. Age		14	12%	16%
		15	48%	64%
		16	40%	20%
2. Sex		Male	48%	52%
		Female	52%	48%
3. Grade level		9	20%	16%
		10	64%	84%
		11	16%	0%
4. Family income		$ 12,000 - 30,000	4%	0%
		$ 31,000 - 60,000	32%	12%
		$ 61,000 - 120,000	64%	88%
5. Highest level of parent's education	Mother	High school	8%	8%
		Some college	28%	16%
		4yr-college degree	32%	44%
		Post/Graduate school	32%	32%
	Father	High school	12%	4%
		Some college	24%	16%
		4yr-college degree	28%	44%
		Post/Graduate school	36%	36%
6. Primary language spoken at home		English	92%	100%
		Spanish	4%	0%
		Other	4%	0%

TABLE 1. Continued.

Survey Question			Control Group	Comparison Group
7.	Language spoken by the parents at home	English	92%	96%
		Spanish	4%	0%
		Other	4%	4%
8.	Prior years of language study	1	12%	24%
		2+	88%	76%
9.	Travel to a Spanish speaking country	Never	84%	48%
		1-2 Weeks	12%	36%
		3-4 Weeks	4%	16%
		5-8 Weeks	0%	0%
10.	Study abroad where Spanish is spoken	Never	96%	92%
		1-2 Weeks	0%	8%
		3-4 Weeks	4%	0%
		5-8 Weeks	0%	0%

prior to participating in this research, compared to 76% in the comparison group. See Table 1 for detailed demographic data.

Study Design

This study employed a non-equivalent groups design (Table 2). The participants were equally distributed into two comparable classrooms according to the period they had been assigned at the beginning of the school year. In order to allow for one of the groups to conduct computer mediated written exchanges with another group of students that met at the same time, the afternoon class was assigned as the comparison group and the morning class was the control group. The participants

TABLE 2. Study Design

Comparison Group		Treatment Group	
Speaking/listening peer + face-to-face in class interaction	**Written** Traditional grammar worksheet practice	**Speaking/listening** peer + face-to-face in-class interaction	**Written** synchronous language practice interaction with on line more able partners via networked computers

proficiency was assessed before the implementation of the intervention and at the end of the intervention.

Oral proficiency in this context refers to an individual ability to produce language that is comprehensible and vocabulary appropriate to the situation/ communicative activity language learners are expected to carry out.

Measurement Tool

For the purpose of this research, the researcher used a modified version of the Oral Proficiency Interview (OPI) established by the American Council on the Teaching of Foreign Languages (ACTFL). This measurement tool will be referred to as the Oral Proficiency Measurement (OPM). The researcher has attended various workshops on assessing language proficiency, including one full four-day ACTFL/OPI workshop and three Modified OPI workshops also presided by ACTFL certified testers and trainers. The reason behind modifying the original OPI guidelines was to create a measurement

that could assess students language gains in a quantifiable manner and an instrument able to discriminate more precisely between small increments of progress.

The interactive nature of the OPI, that is to say the active negotiation of meaning between the interviewer (tester) and the interviewee (student) to elicit a ratable sample, helps to make the OPI an effective means to assesses language proficiency. The OPI is a structured procedure for the assessment of functional speaking ability and was developed through work initiated by the Foreign Service Institute of the U.S. government over 40 years ago, as well as by subsequent contributions of The Peace Corps, Educational Testing Service and the cooperative efforts of academic institutions from around the United States. The OPI is a prestigious and nationally recognized assessment. This instrument measures patterns of strengths and weaknesses in oral proficiency, establishing a speaker's level of consistent functional ability as well as the clear upper limitations of that ability. The OPI assesses language performance/production in terms of an individual ability to use the language effectively and appropriately in real life situations. It is a criterion-referenced, direct, face-to-face measurement with only one interviewer present. The interview consists of five stages: the warm-up, level checks, probes, role-play (for higher levels), and wind-down. The entire interview lasts between 5 and 10 minutes in the case of a novice, and can be as long as 25-35 minutes for the series of probes and level checks are necessary in the case of advanced or superior levels of proficiency.

The OPI assessment operationalizes the terms accuracy and fluency as the rate of delivery and coherence of a message, as well as the sociolinguistic appropriateness or acceptability of what is being said within a certain setting (Swender, 1999). According to Swender, the term accuracy in the OPI is referring to "the grammar, vocabulary, pronunciation, fluency, sociolinguistic appropriateness or acceptability of what is being said within a certain setting, and the use of appropriate strategies for discourse management" (p. 8). Oral proficiency or fluency in the context of the OPM refers to a holistic measure of an individual ability to produce language that is comprehensible with language function and vocabulary appropriate to the task (conveys the meaning of the message according to the task at hand, e.g., describe, list, narrate, etc.), is grammatically accurate (text type), and is conveyed in a manner that is comprehensible (accuracy) while using the content that the participants of this study complete at the end of their second year of second language study.

There are four major levels of the ACTFL/OPI that range from Novice to Superior and each level encompasses a range of performances. Language ability progresses from conceptual awareness at the Novice level (the ability to recognize certain words and communicate in isolated words or phrases) to demonstrating full control in the higher levels (the ability to develop effective hypotheses, defend, and support an opinion).

ACTFL does not claim that the OPI tests a speaker's acquisition of various specific aspects of course and curriculum content. The OPI assesses language

performance in terms of the speaker ability to use language effectively and appropriately in real-life situations. This global or holistic approach of the OPI lends itself to a variety of individual performances within each level. The OPI calls for language proficiency that "must evidence a sustained performance of the functions, contexts and content areas, accuracy, and text-type required for the level in order to be rated at that level" (Swender, 1999, p. 13). Nonetheless, the OPI does not operationalize nor quantify terms such as *sustained performance* and *using language appropriately and effectively*. It is for these reasons that the OPI measurement could only be meaningful as long as it characterizes students progress within a program as a whole, although it may not be adequate to measure progress in a shorter span.

Some of the language functions or global tasks found in the OPM are very similar to the ones in the OPI. For example, an intermediate speaker can create with language, ask and answer simple questions on familiar topics, and handle a simple situation and transaction. Someone who can communicate minimally with formulaic and rote utterances characterizes a novice speaker in both measurements. Nonetheless, there are qualifiers or descriptors of the intermediate and novice language functions in the OPI that are very general, vague and hard to quantify. These include unquantifiable terms such as conveying minimal meaning, satisfying a very limited number of immediate needs, satisfying simple personal needs, and social demands (Swender, 1999, p.10).

It is in response to this subjective and vague operationalization of such language descriptors that the author modified and quantified the sublevels in the OPM. For example in order for a student speech to be categorized as Intermediate Low, there must be evidence of a short paragraph length response with at least 3-5 discrete sentences per topic. In addition, the speaker must sustain this level of response at least 75% of the time throughout the interview. The text type of a Novice High, on the other hand, is characterized by responses in a speech sample that contains only 2-3 isolated phrases per topic. To vie detailed description, operationalization, and quantification of the terms language function, text-type, and accuracy in the other levels of the OPM, please see Appendix A.

For the sake of this study and the language level of the participants, the researcher only adapted the three sublevels of a Novice Speaker and the Intermediate Low level (see Appendix A). While the Novice Low speaker can only communicate using isolated words and memorized phrases, a student at the Intermediate Low level begins to formulate paragraph length discourse by combining language elements in discrete sentences. At the higher language proficiency level such as the Intermediate Low, the specific content of the conversation is determined through negotiation, depending on information offered by the student in response to the questions posed by the examiner. In this case, it is appropriate that the examiner formulates questions and role-play situations based on the continuous assessment of the student level of

proficiency and on the topics that emerge throughout the interview (see OPM in Appendix A for detailed quantification and operationalization of each sublevel).

Thus the OPM, as its predecessor the OPI, bases its criteria for assessing language proficiency on four areas of oral communication: *Content, Function, Text Type,* and *Accuracy.*

Content refers to what one can talk about. Learners at lower proficiency levels are able to talk about things in their immediate environment, such as objects or people. At higher levels, learners are expected to talk about activities, areas of study, and future plans.

Function describes what one can do with the language. Examples of functions are requesting help, asking directions and apologizing.

Text Type is the quantity and organization of language a speaker can produce. At first, students are expected to use only isolated words, and later they must progress from isolated phrases and discrete sentences to paragraph length discourse.

Accuracy is measured by how well a learner can communicate with another person, therefore, the message must be accurate enough to be understood after a certain number of exchanges/questions.

It was forecasted that due to the nature and span of the language course in this study, it would be unlikely that the participants would reach a level higher than Novice High. However, in the event that students demonstrated higher language proficiency, the OPM criterion ranges from Novice Low to Intermediate Low. The ability of the

language learner to function in the target language is mainly dependent on the content and context elicited by the interviewer/tester.

The language functions included in the OPM are the same functions that the participants in this research are expected to handle at the end of their second year of language study. Students are expected to handle concrete exchanges necessary for survival in the typical daily life of the target culture and manage a number of uncomplicated and highly-contextualized communicative tasks such as provide simple descriptions of physical and character traits of people, places and things; express needs/wants; describe with some supporting details; and state feelings and emotions.

The OPM measures isolated words, phrases, sentence length, and sophistication. Furthermore, the term accuracy in the OPM refers to the learner rate of comprehensibility of the task they are asked to carry out (do they understand what they are asked to do?) and learner message comprehensibility (does the learner message relate to the interviewer's question). The OPM includes the content standards, or topics that are commonly taught by the end of the participants 2nd year Spanish course, for example, description of self, school, family, hobbies and travel (Appendix A).

The researcher conducted a four-hour professional development workshop with four Spanish teachers who would serve as independent raters with the intent to establish inter-rated reliability of the measurement. All the teachers were familiar with the ACTFL Oral Proficiency Interview process and were trained to use the OPM. All five teachers, including the researcher, viewed and rated five sample interviews that

had been previously video recorded. The teachers' ratings were then compared with the rating of the researcher. Sample interview number one was rated Novice High by the researcher. Three teachers gave the same rating and only one gave a different rating. Sample interview number two was rated Novice High by the researcher, all four teachers gave the same rating. Sample interviews number three and four were rated Novice Mid by the researcher, and all four teachers gave them the same ratings. Sample interview number five was rated Intermediate Low by the researcher, three teachers gave the same rating and only one gave a different rating.

Procedure

Moodle, the software utilized in this study, is a web-based conference tool designed to improve one-to-one and small group communication for academic purposes. This stand-alone application is primarily aimed as a textual language exchange tool for language students. It is a synchronous (real time) and one-to-one conversation/language written interaction between the L2 learner and her/his tutor. *Moodle* is a free software e-learning platform, also known as a Course Management System (CMS), or Learning Management Systems (LMS), or Virtual Learning Environment (VLE). *Moodle* is designed to help educators create online courses with opportunities for rich interaction. Its open-source license and modular design means that people can develop additional functionality.

One of the challenges of conducting this quasi-experimental research with intact groups is the issue of unequal treatment or a teacher effect. To ensure that the instruction given to participants in the comparison and control conditions was equivalent, both groups received instruction from the same teacher (see Table 2). The treatment group had access to *Moodle,* while the comparison group did their written practice using traditional grammar worksheet/handouts.

While both groups received similar instruction and were given equal amount of instructional time, the treatment group carried out written communicative tasks remotely via CMC (*Moodle*) with students of higher speaking proficiency, while the comparison group did their traditional written practice in class. The benefit for the online partners was that they were able to review and practice communicative skills (writing), while at the same time helping beginning-Spanish learner become more proficient in a second language.

The treatment group did the on-line practice one hour a week (30 minute intervals/twice a week), for a total of 16 hours during/in one semester (4 months of instruction). The researcher worked closely with the classroom teacher, Sra. Linda Fuertes (pseudo name for the actual teacher) to create the content of the written tasks that were to be carried out on line (Appendix B). The researcher is also a high school Spanish language instructor, however, he is not currently teaching in the same building as Sra. Fuertes.

Sra. Fuertes took the treatment group to a computer porch just outside her classroom for them to carry out the intervention. The researcher provided Sra. Fuertes and her students with instructions for *Moodle*, secured passwords and pseudo login names. The researcher and Sra. Fuertes had a list of the real names of the students as well as their pseudo names. The Online Partners (hereafter OLPs) that provided the practice for the participants were students from a more advanced language class that met during the same period as the participants in the study. The researcher met with the OLPs and the participants independently prior to every online session and gave them instructions. During the online sessions, the OLPs met in a different part of the building in order to maintain anonymity, confidentiality and to minimize corruption of the study. The researcher was present during several of the online sessions, especially when the intervention was first introduced to the participants and the OLPs to make sure that the technology worked efficiently.

Once the students logged on to *Moodle* (Appendix C), they could go into various virtual rooms. They were instructed that there could only be two people chatting in the same room. If they entered a room where two people were chatting, they would need to go to another virtual room. Once they found a room available, the OLP would greet him/her and begin the conversation/written task for that session. Once the task was completed, the OLP stayed in the same virtual room, and the participant would leave and find another virtual room available. The participants averaged between two to three conversations per session. Each session lasted between

7 and 10 minutes depending on the task and/or the speed and capability of the school district computer server on the particular day of the online practice.

Data Collection

In order to measure language gain, both groups were given the OPM before and after the intervention. The participants were aware that their speaking proficiency would be measured twice through an oral proficiency interview at the beginning and at the end of the semester. The interview was conducted one-on-one with the examiner, in a room adjacent to their own classrooms. All interviews (pretest and posttest) were either videotaped or audio-recorded by the researcher for the purpose of maintaining a record and establishing measurement inter-rater reliability for multiple scorers to view. The majority of the posttest interviews were videotaped for the purpose of going back and rating the interview a second or third time by independent raters and by the researcher. The participants' interview was rated using the OPM scoring sheet (see Appendix D).

Data Analysis Approach

My quantitative data analysis addressed research question 1: Do communicative exchanges (written task-based practice) through the use of synchronous computer mediated communication help students produce greater oral language proficiency when compared with a group of students that only engaged in a

more traditional face-to-face modality of oral practice? To test this hypothesis, depending on mean pre and posttest OPM scores of the two groups, first a paired sample *t* test was calculated with the pretest scores functioning as a variant to consider the participants' level of oral proficiency when beginning the course. As will be reported in the results section, there was no significant difference between the comparison and treatment groups based on the pretest ($p = .326$), so the groups are considered to have equivalent proficiency at the start of the intervention for the purpose of this study.

Next, a paired sample *t* test was conducted to evaluate whether oral language production gains for students involved in the SCM written exchanges were different from those using face-to-face. The findings are presented in the Results section.

To address research question 2, I employed a survey to examine the contextual aspects of the learning experience for students who engaged in written communicative exchanges through the use of synchronous computer mediated communication (Appendix E). The data in the survey was self-reported. In particular, I examined whether or not they overtly vocalized the comments they composed, spoke silently to themselves as they typed the comments, and if they read aloud the comments others posted in the chatroom. A Likert scale was used for the survey (0 never and 5 always). The quantitative analysis of this data was supplemented by the analysis of the students open-ended comments on a questionnaire to understand and better interpret their perspective (Appendix F). The researcher performed an ethnographic analysis of the

narrative that was generated by the participants responses to explore evidence regarding how the textual SCMC enhanced the participants second language learning experience. I looked for themes and patterns, or recurring regularities, in the data that arose from the questionnaire. The findings are in the Results section.

The students filled out the online Survey and a Questionnaire using a Web Survey Application that guaranteed anonymity for the participants. The researcher took steps to reassure the students that their participation was voluntary and that their answers would be used for the sole purpose of the study at hand. Once the student filled out the survey, their responses were sent electronically to a Web Survey data bank. Only the researcher had access to that information.

CHAPTER III

RESULTS

A paired sample *t* test was conducted to evaluate whether SCM written exchanges or face-to-face written practice influence language production (Table 3). The Alpha level was set at .05. The results indicated that the mean language production of the group that engaged in the task-based textual SCMC written exchanges ($M = 1.79$, $SD = .833$) was significantly greater than the mean language production of the students that engaged in traditional face-to-face language practice ($M = 1.11$, $SD = .737$), $t\,(54) = -.679$, $p = .002$. The results also suggest that the participants that were given the opportunity to carry out task-based textual activities in a synchronous online environment were advantaged in their oral proficiency over those meeting face-to-face in the classroom. The *t* test run to compare the pre-test groups means found no significant difference ($t\,(54) = -.991$, $p = .326$), so the groups were considered essentially the same when they started (Table 4). The effect size of the pre-post gain for the comparison group using Cohen *d*, with pooled standard deviations is .41, a small to moderate effect size. For the treatment group, Cohen's *d* is 1.52, a large effect size.

A key finding is that over 50% of participants in the control group made little or no language gains after the four months of the intervention and 34% progressed from one level to the next. In contrast, only 10% of the participants in the comparison

TABLE 3. Descriptive Statistics: Pretest and Posttest Mean Oral Proficiency Scores for Treatment Group (1) and Comparison Group (2)

	Group	Mean	Standard Deviation	*N*
Pre	1	0.64	0.678	28
	2	0.82	0.67	28
	Total	0.73	0.674	56
Post	1	1.79	0.833	28
	2	1.11	0.737	28
	Total	1.45	0.851	56

TABLE 4. Paired Samples Test for Equality of Variance

		Levene's Test for Equality of Variances		*t*-Test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
pre	Equal variance assumed	0.53	0.469	-1	54	0.326	-0.179
	Equal variances not assumed			-1	53.99	0.326	-0.179

group showed no language gains when comparing their pre and posttest scores. Furthermore, 76% progressed from a lower level to a higher level of language proficiency (Table 5).

TABLE 5. Percentage of Students Who Either Made or Did Not Make Language Gains

	Control Group	Comparison Group
Remained Novice Low	14%	3%
Novice Low to Novice Mid	14%	17%
Novice Low to Novice High	0%	21%
Novice Low to Intermediate Low	0%	3%
Remained Novice Mid	42%	7%
Novice Mid to Novice High	10%	25%
Novice Mid to Intermediate Low	7%	10%
Remained Novice High	10%	0%
Novice High to Intermediate Low	3%	10%

Frequency results from the survey results show in Table 6. First, they demonstrate that of the students who engaged in textual task-based exchanges with online partners, 24% to 68% either always or most of the time verbalized out loud and spoke silently to themselves the comments they typed. These results were gathered from self-reported data gathered from the students answers to the survey.

Second, a larger number of students reported that the task-based textual SCMC had a positive influence on their language learning experience. Table 7 shows the themes that emerged as a result of using textual SCMC as a language enhancement tool. For an analysis of theses themes, see Results Analysis section.

As demonstrated in the demographic survey results (see Table 1), both groups are reasonably equivalent in terms of age, gender, family income, parents' education,

TABLE 6. Survey Results

Survey Questions	Results
1. When doing the task-based communication activities using *Moodle*, did you verbalize out loud the comments you posted?	Always = 6/25 (24%) Most of the time = 17/25 (68%) Never = 2/25 (8%)
2. When doing the task-based communication activities using *Moodle*, did you verbalize out loud the comments your online partner posted?	Always = 9/25 (36%) Most of the time = 13/25 (52%) Never = 3/25 (12%)

and language spoken at home. Almost 100% of the students come from either middle or upper middle class backgrounds. This may explain why a good percentage of the students in both groups have traveled abroad to a Spanish speaking country. Although traveling overseas to a Spanish speaking country is a possibility for a good number of students, studying abroad where the language is spoken is still not a reality for many high school students. Only a small percentage of students in both groups had experienced between two to four weeks of study abroad. Thus, the need to bring into the high school second language classroom the kind of technology that virtually places the students in the country and culture of the target language.

As one can observe in the table below, close to 100% of the students have access to a computer at home (Table 8). Furthermore, a large percentage of students (over 60%) spend one or more hours on the Internet, and an equal percentage actively use synchronous technology to chat/communicate with others. Over 88% of the

TABLE 7. Questionnaire Results

	Themes	Percentage of Students
1	Not being nervous, no pressure, less intimidation, taking more risks, not afraid to mess up.	20/25 = 80%
2	Time was a factor–extra time to think, construct better sentences, edit your own mistakes, pre-task planning.	19/25 = 76%
3	Real life exchanges–talking to real people–sharing information in a real conversation–meaningful, authentic communication.	19/25 = 76%
4	My comfort level with the language (oral communication) and enjoyment of the language increased by the end of the semester.	18/25 = 72%
5	Writing and seeing written language influenced writing and speaking skills in Spanish, writing full sentences, and spelling.	18/25 = 72%
6	Would benefit from seeing the person face-to-face, hear the words spoken as well as see them written, body language, face expressions (Video streaming).	17/25 = 68%
7	Quick application of what you have just learned (referring to the "Task-based" lessons that the researchers co-created with the classroom teacher).	16/25 = 64%
8	When the technology was not working efficiently, the students got distracted due to the waiting time; taking a long time for them to log in; slow response from the online partner.	16/25 = 64%

TABLE 8. Computer Use and Trends

Survey Questions		Control Group	Comparison Group
Computer at home	yes	100%	96%
	no	0%	4%
Access to the Internet at home	yes	96%	92%
	no	4%	8%
Chat with friends or IM?	yes	64%	72%
	no	36%	28%
Hours of Internet use at home	1-2	64%	64%
	2+	36%	36%
Level of comfort in communicating online (via the internet) with others:	very enjoyable	12%	12%
	enjoyable	76%	84%
	intimidated	12%	4%

(over 60%) spend one or more hours on the Internet, and an equal percentage actively use synchronous technology to chat/communicate with others. Over 88% of the students find the Internet as a way of communicating from an enjoyable to very enjoyable experience. On the contrary, it appears that a small percentage find this mode of communication intimidating, 4% to 12%, a percentage that correlates with the low percentage of students who do not have access to a home computer.

Results Analysis

The quantitative and qualitative findings suggest that second language speaking proficiency can be supported through chatroom interaction in the target

language. As suggested by Healy-Beauvois (1992) and Kern (1995), a direct transfer of skills across modality from writing to speaking occurs when language learners are given the opportunity to engage in active and meaningful negotiation of language through the use of synchronous computer mediated communication. The findings in this study suggest that a relationship might exist between the act of keyboarding text and oral proficiency. It is also plausible to suggest that the quality of textual CMC interaction has close similarities with the exchange that takes place in face-to-face conversation in traditional classrooms (Blake, 2000).

As reported in the Results section, theme one (see Table 7), 80% of the students reported that they benefitted greatly from the online synchronous task-based practice, because it reduced their anxiety and it allowed for extra time to reflect and think what they would write. One of the students wrote [W]e were able to *think and edit what was being said* (italics mine) everything that you and the other person wrote was there in front of you to view; unlike in face-to-face conversation you could quickly forget what was said, or how it was said. According to Payne (1999), the chatroom requirement of language use may increase students' monitoring of their own language and the language of others.

These results indicate that students anxiety levels were reported to lower when they used the technology. A couple of students articulated their enjoyment of using the online synchronous practice in this way: . . . not being nervous, because sometimes people get nervous when talking with other people. Another one wrote, it was pretty

helpful and it was pretty laid back . . . and not being able to see the other person lowers the pressure.

In regards to face-to-face conversation for either written or oral practice, several students ascribed their hesitation to participate in classroom face-to-face practice to the intimidation factor. One student wrote, . . . you could easily communicate with quick responses and even change mistakes with your online partner. There is less of an *intimidation factor* (italics mine) because the person you are communicating with is not there on your face waiting for you to mess up. Another student wrote, doing your language practice online helps me a ton because you are not under any pressure and you have time to think about your response.

Moreover, as expressed by several students, the pressure to produce language face-to face seems to be even more overwhelming than I realized. One student wrote, [T]here can be a lot of awkwardness and intimidation while talking face-to-face in a language that the student does not feel comfortable with. The opposite is experienced in the online environment as expressed by another student, you don't get embarrassed or feel uncomfortable to learn and interact. You can feel free to be yourself and learn.

As demonstrated in theme 2, the reduced pace of exchange in the chatroom offered over 70% of the students with an opportunity to engage in an unlimited amount of pre-task planning. This ability to plan for an oral performance task has shown to result in more fluent and syntactically complex output and increased focus on form (Ortega, 1999). In the following task-based online textual exchange the students are

talking about their typical daily and weekend activities and inquiring about the activities they did the previous weekend. Notice self-correction . . . with friend . . . to *with my friends**. Also, note that when typing *Moodle* does not allow students the ability to include some orthographical nuances in Spanish such as the inverted question mark and accents.

14:32 Carmen Conde has just entered this chat
14:32 Federico Garcia Lorca has just entered this chat
14:34 Federico: Me llamo Federico. (*My name is Federico)*
14:35 Carmen: ?de donde eres tu? *(Where are you from?)*
14:36 Federico: Soy donde de Andalucia. Y yu? De donde eres? *I am from Andalucía, and you, where are you from?)*
14:36 Carmen: yo soy de Argentina *(I'm from Argentina)*
14:36 Federico: Ah, muy bien. (*Ah... very well)*
14:36 Federico: Como es un fin de semana tipico? (*What's a typical weekend like)*
14:37 Carmen: depende, a veces salgo mi novio Brandt o salgo con mis amigos. (*It depends, sometimes I go out with my boyfriend, Brandt or I go out with my friends)*
14:37 Carmen: ? y tu? (*and you?)*
14:38 Federico: Tambien me encanta salir con **mi amigos** al cine para mirar las peliculas. (*I also love to go out* ***with friend*** *to the movie theater to watch movies)*
14:38 Federico: **con mis amigos*** (***with my friends)***
14:38 Carmen: o interesante (*Oh, interesting)*

The findings also suggest that the reduced pace of language exchange in the chatroom may have influenced the students' level of language proficiency when communicating in a real life-like scenario. The notion that learners can practice speaking in an environment where affect and rate of speech are minimized and could potentially produce higher levels of conversational ability should be very appealing to the second language acquisition researcher and instructional community.

As evidenced in theme three, 84% of students reported that the textual/ synchronous practice with online partners along with the various types of task-based structure, provided for them an opportunity to engage in authentic and meaningful communication with other students. One student wrote I liked carrying out the online task-based activities because you were actually *having a conversation in Spanish* (italics mine) with another student instead of writing one sentence at a time on a worksheet. Yet another students wrote it was nice being able to talk to other students that were close to my age so that was also a nice touch. The findings of this study support the notion that SCMC provides the opportunity for students to engage in a meaningful language learning experience in which they can cultivate new social relationships within or across classrooms. These results support the findings of other empirical studies in that real time written exchanges enable students to have meaningful and authentic conversations with others in the target language (Beauvois, 1992; Chun, 1994; Kelm, 1992; Kern, 1995).

As cited earlier in Introduction section, according to Vygotsky (1962, 1978), the human mind is mediated by the contexts of our daily lives and such mediation centers on the notion that humans use language and other symbolic tools to interact indirectly with their environments. Speaking, therefore, creates a shared social reality. It is in this context that individuals speak to plan and carry out tasks and relevant action and the language they produce is simply the interpretation of the social situation in which communication is taking place. Language, therefore, carries not only

functional meaning, but it also carries *social* meaning. Although the students in this study were not necessarily peaking orally, they were communicating (in writing) in real time and carrying out communicative activities similar to those that you would do traditionally face-to-face. Furthermore, as evidenced in this study, one could argue that the textual/synchronous practice facilitates the "sociocultural" context in which students learn language and content simultaneously. As shown in this experiment, instruction and language practice that is oriented toward negotiation of meaning through collaborative interaction with others provides the opportunity to create a discourse community. A student articulated this notion very clearly when he wrote it was like we were having a conversation with other people, and it was good that they were around our age because we could talk about the same things. The students also drew connections between the online communication and real life conversation. One student wrote, chatting with the online partners was like actually talking to someone who speaks Spanish, like when I went to Mexico, I learned more Spanish because I was talking to people who actually spoke. Such comments suggest that SCMC promotes a meaningful human interaction that can foster the language learning process while at the same time being an excellent medium for cultivating new social relationships within or across classrooms. It appears that for this age group of students, social interaction is extremely important, even if the interaction comes through the means of technology. Take for instance the following comment by one of the students:

> When you logged on, you were actually communicating with real people. In class, we often do worksheets, which is helpful, but is not actual

> communication. Communication online helped me to actually experience talking to someone in a different language, even if it may not have been face-to-face.

Theoretically, there has been emphasis on meaningful interaction in authentic discourse communities. Textual SCMC fosters an environment in which language proficiency can be developed through social interaction and assimilation of their online partners' language. It facilitates access to other people, information and the opportunity to engage in meaningful communication. These elements result in the enhancement of the learner communicative skills. For example, there were numerous times when the OLP restated in a grammatically correct manner a mistake that was made by the student he was chatting with. Notice the following exchange. At first, Fidel makes the mistake of writing s/he went (fue) instead of I went (fui). Juana corrects him by re-stating oh, you mean *I went*. The second time Fidel uses the verb to go he does not make the same mistake with the verb *fui* (I went) as he had done the first time around.

21:06 Juana Lopez has just entered this chat
21:07 Fidel: hola *(Hello)*
21:08 Juana: hola *(Hello)*
21:08 Fidel: como estas? *(How are you doing?)*
21:08 Juana: estoy bien, y tu? *(I'm well, and you?)*
21:09 Fidel: estoy asi asi, muy cansado *(I'm so so, very tired)*
21:09 Juana: oh, por que? *(oh, why?)*
21:09 Fidel: **yo fue** al parque con mis amigos ***(I -she/he- went** to the park with my friends)*
21:10 Juana: ah quieres decir "**fui**"? *(ah, you meant to say "**I went**"?)*
21:10 Fidel: si *(yes)*
21:10 Fidel: lo siento *(I 'm sorry)*

21:25 Fidel: que hiciste hoy? *(What did you do today?)*

21:25 Juana: yo limpie mi cuarto, fui a Starbucks y fui al concierto en el parque. *(I cleaned my room, went to Starbucks, and I went to the concert in the park)*

21:26 Juana: y tu? *(How about you?)*

21:26 Fidel: ahh el parque es divertido *(ahh, the park is a lot of fun)*

21:27 Fidel: **yo fui** al parque con mis amigos porcinco anos *(I went to the park with my friends for five years)*

Though there has not been convincing evidence on the use of computer-technology to improve language skills in all areas, as shown in theme 4, over 72% of the students indicated enthusiastic responses and positive attitudes toward technology use. A positive emotional state such as enjoyment and decreased anxiety could help increase student enthusiasm for a subject matter so that learning happens-perhaps not effortlessly, but at least willingly (Donaldson & Morgan, 1994, p. 56). Ritter (1993), for instance, reported in her study that 92% of the students preferred learning new vocabulary using a computer program, because they considered it good fun, and 88% regard[ed] it as a good addition to more traditional ways of vocabulary acquisition (p. 66). Also, when students anxiety levels are lowered, students become more active participants in the learning process. It is very possible that these positive affective states (i.e., enjoyment, anxiety) can provide additional incentive for students to learn.

In theme five, it was revealed that 72% of students reported that writing full sentences and seeing written language influenced their speaking skills and their spelling. These students reported that using *Moodle* helped them focus more on the grammatical correctness and the accuracy of what they said in the chatroom than in

face-to-face settings. Take for instance what one of the students wrote in response to the electronic intervention:

> It is such a cool way to communicate with other people, especially with native speakers. I like it that *you have time to pause and think about what you want to say and how you want to say it.* With Moodle IM is *not as awkward because you are not standing face-to-face with that person.* I know it is so much *more relaxed and you can construct better sentences, get my ideas across much better* [italics mine] .

Researchers frequently cite the computer usefulness as a text-based medium that amplifies students' attention to linguistic forms, as stimulus for increased L2 written production, as a less stressful environment for L2 practice and as a more equitable and non-threatening forum for L2 discussions (Chun, 1994; Kern, 1995; Warschauer, 1996, 2000). Although there was no formal assessment of written skills in this study, one of the elements of the OPM was the measurement of language text type. Part of the students' rating was based on the sophistication of their sentences when they communicated a message. As shown in Table 4, over 70% of the students that had access to the textual synchronous technology were *able to use learned material, stock phrases, and simple sentences to communicate a message at least 75% of the time* during their post treatment assessment. On the other hand, only 34% of the students in the control group demonstrated language gain in this category.

CHAPTER IV

DISCUSSIONS AND CONCLUSIONS

Discussions

My findings support what other studies have found when examining the use and influence of written synchronous computer mediated communication. These studies suggest that real time written exchanges enable students to have meaningful and authentic conversations with others in the target language (Beauvois, 1992; Chun, 1994; Kelm, 1992; Kern, 1995). The intervention presented in this study provided the students with a high level of interactivity while permitting them one-on-one personal exchanges. It also provided a platform where the students transcended the spatial and temporal confines of the classroom via the Internet. My results corroborated with prior research that underscore the importance of learning language through personal exchanges when language learners negotiate meaning with other learners (Long, 1991; Pica, 1994).

The kind of Textual SCM practice observed in this particular study may be situated within both the Sociocultural and Sociocognitive paradigm of language acquisition. In this paradigm, language learning and function are not just a means of providing comprehensible input, but rather help the participants enter into authentic

social discourse situations and communities that they will later encounter outside of the classroom. The content of the following exchange between these two students became very common as the communication between OLP and the participants progressed throughout the four months of the intervention. The exchanges became more personal and informal in their tone, while at the same time fulfilling the expectation of completing the task at hand.

21:27 Juana: por cinco anos?? (*for five years?)*

21:28 Fidel: jajaja *(ja-ja-ja)* no, por cinco horas (*for five hours)*, lo siento *(I'm sorry)*; estoy muy cansado (*I'm very tired)*

21:28 Juana: jaja, esta bien, te divertiste? (*ja ja, it's all right, did you have fun?)*

21:29 Fidel: si, nosotros jugamos Frisbee (*yes, we played Frisbee)*

21:30 Juana: es divertido, comiste mucho? (*that's a lot of fun, did you eat a lot?)*

21:31 Fidel: ehh no *(no)*

21:31 Fidel: una hamburgesa (*a hamburger)*

21:31 Juana: ahh (ahh)

21:32 Fidel: yo estoy un poco **enferma** (*I'm a little sick)*

21:32 Fidel: **enfermo*** (*Sick)*

21:32 Juana: oh no!! es malo. yo acabo de recuperarme (*Oh no! That's bad. I just got better)*

21:35 Fidel: yo voy a dormir mucho (*I'm going to sleep a lot)*

21:35 Juana: si, y te aconsejo que bebas mucha agua (*Yes, and I suggest that you drink lots of water)*

21:36 Fidel: haha si (*ha ha, yes)*

One should caution to not generalize the findings of this study due to the small size of the sample. However, it is possible to state that textual SCM intervention offered the participants in this particular study the opportunity to help them improve speaking language proficiency. Furthermore, the fact that computer-mediated

communication occurred in a written, electronically archived form, gave students additional opportunities to plan their discourse and to notice and reflect on language use in the messages that they composed and read. There are thus various reasons why language learners would prefer textual synchronous SCMC over face-to-face interaction when practicing communicative skills and why this medium may have influenced the ability to help them improve language production. *Moodle* was a vehicle for interactive human communication and a medium for students to attend to and reflect on the form and content of the communication.

The social interaction and assimilation of their online partners' language facilitated access to other people, information, and the opportunity to engage in meaningful communication that enhanced the participants language skills. It also provided alternative contexts for social interaction. The findings in this study as evidenced in their online exchanges and responses to questionnaires support the Sociocultural theory of language acquisition which states that language is not just a private affair in the head but rather a socially constructed phenomenon.

Although face-to-face interaction is highly beneficial for oral practice, students often feel more pressure and more apprehensive when speaking. It appears that for the students that participated in this study, the online practice seemed to be a rather useful precursor to their face-to-face interaction. The online conversations seemed to put them at ease and allowed them time to practice without pressure of being face-to-face with someone. As it was self-reported by the participants, SCMC increased their self-

confidence as they became familiar with new vocabulary and had the opportunity to use the newly acquired knowledge in a practical and meaningful context. As presented in theme 6 (see Table 7), 68% of the students that had access to technology reported that they would still benefit from seeing their online partners face-to-face, hear the words spoken as well as seem them written, read their body language, and see their face expressions as they spoke.

Another plausible reason why a higher percentage of students in the treatment group developed higher language skills (Novice High and Intermediate Low ranges) may be credited to the scaffolding aspect of the computer-mediated dialogues. Perhaps it was the synchronous technology partnered with the ability for pre-task planning that allowed the students the ability to extend executive function in mediated language in a low pressure context. This process may have enabled the students to get to a level of automated processing of the lower level language recall and recognition skills beginning to be mastered in the Novice Low and Mid levels and later on used with ease at the Novice High and Intermediate Low levels.

The term Executive function is used to describe the capacity that allows us to control and coordinate our thoughts and behavior (Rodriguez-Farnells et al., 2006). These skills include selective attention, decision-making, voluntary response inhibition, and working memory. Each of these executive functions has a role in cognitive control, for example filtering out unimportant information, holding in mind a plan to carry out in the future, and inhibiting impulse. These are the kind of functions

that students at the higher levels of language proficiency would need to master in order to carry out functions such as narrating and describing in a short paragraph-length discourse. Baddeley (1986) refers to such executive function as the Central Executive which plays a critical role in second language production and comprehension, especially in the meaning negotiation context of a conversation. In this context, the second language learners compare what they hear and read to what they know about the language based on their own level of language acquisition.

It also seems appropriate to assume that the online context presented the instructor with an opportunity to deliver individualized instruction. While students were busy writing and engaging with their online partners, the teacher answered individual questions and provided one-on-one explanation and/or practiced with struggling students. This extra intervention was especially helpful for the student that did not fully understand the written exchange, the meaning of a word, or an expression that appeared on his or her screen.

Limitations of the Study and Future Research

The study was faced with some challenges and limitations. As shown in Table 7/theme 8, when the technology was not working efficiently, the students became distracted. This was due perhaps to the waiting time, the time it took for them to log in or the slow response from the on-line partner. Additionally, although students demonstrated excitement that they would be able to use instant messaging as a

classroom activity, when the computers froze, it curbed their enthusiasm. As time went on, the program worked better and they were able to have conversations; however, there was skepticism whether or not the program would work on any given day.

Students were not very patient when dealing with technology issues. In addition, whenever the technology was not running smoothly, it posed challenges not only for the student participants but also for the classroom instructor. For example, it was difficult for the instructor to pay attention to all the conversations going on and to make sure students were on task. Due to the limitations of the server, only half of the class could be on the computers at the same time. This forced the instructor to be in and out of the classroom monitoring the students that were completing the writing portion of the activity.

While results from this study suggested a relationship between CMC and improvement on oral proficiency, there were also some limitations to the design. We were able to isolate the independent variable, the synchronous textual intervention participants in the treatment group carried out with their online partners. Nonetheless, we would have to take into consideration the fact that their online partners were students from a more advanced Spanish class. The participants in the comparison group, on the other hand, although they carried out the oral communicative situations, their partners were peers of similar language proficiency and their written practice was grammar-based. It was assumed that the online partners (4^{th} to 5^{th} year language students) class had higher language proficiency skills and were more mature than the

students from the comparison group. We knew for sure that there were at least 3 out of the 12 online partners that were native speakers, four were 5th year Spanish students and five were 4th year students. It is very likely that having native speakers and students with higher language proficiency as online tutors could potentially be a confounding variable. The question may arise to what extent the language gain in the treatment group could be the result of the textual SCMC and not the result of using this new technology in tandem with native speakers and/or speakers of higher language proficiency as online partners.

However, the effect of introducing this resource of native and/or higher proficiency Spanish students to the learning environment of the treatment group was made possible by the CMC. Thus the technology in effect made it possible for the learning gains to be achieved, whether they were derived directly from the technology itself or afforded by the technology augmentation of advanced speakers to the learning environment. So both are important aspects of the experience.

One would have to question the effect that knowing you are part of a study has on the outcome and results of the study. The participants in the treatment group were aware that their language ability was going to be assessed before and after the intervention. They could have had an advantage over the students from the comparison group in knowing that the synchronous written exchanges they were practicing with the online partners could help them prepare for the second and final interview. On the other hand, the students from the comparison group knew they were participating in a

study that examined the influence of technology on their oral proficiency, but they may have not taken the pre and post interview that measured language gain as seriously as the participants in the treatment group. Again, whether knowing that you are going to be tested after a period of time has an effect on the results is an important topic for discussion here, and there could have been differences between the comparison group and the treatment group.

The distant relationship between the examiner and the participants may have been a limitation when rating the proficiency level of the participants. For example, question-asking is a hallmark of the Intermediate Low level. However, the rating of a student could have been potentially confounded because of the distant relationship between the examiner and the students taking the OPM. The student's lack of personal connection with the researcher/examiner may have left him/her with insufficient relationship, comfort, and reason to ask questions that they might have been able to produce in their CMC context. Perhaps, this could have been ameliorated if the online partners had been available for oral communication during the post-test. One possible solution to ensure that the students are given a more accurate rating in future research might be to tape a conversation with online partners they have come to know, and train the online partners to be able to deliver the post-test or elicit questions. Future research that could be of interest in the field of language acquisition and language instruction and assessment include:

1. Assess written proficiency as a dependent variable (in this study only speaking pre and post proficiency scores were available).

2. Examine the influence of textual SCMC practice provided by online partners who are native speakers rather than peers of more advanced speaking proficiency.

3. Examine oral and written communicative skills in the context of audio-visual networking and task-based learning.

4. Examine the influence of Synchronous Computer Mediated Communication on oral and/or written proficiency for language learners that have more advance language skills.

5. Use time-series statistics, or growth models, to measure language proficiency so that change in frequency reflects gains over time. This technique offers the benefits of more than one observation point and the ability to compare learner trajectories as opposed to mean frequencies based on arbitrary divisions of the data into time periods. The participants in this study were students with limited language proficiency. In their research, Chun (1994) and Warschauer (1996) concluded that learners use a variety of language functions that are more complex in computer-mediated communication than face-to-face discussion. However, providing an opportunity for students to use multiple linguistic approaches--conveying information to one another and reaching mutual comprehension through restating, clarifying, and

confirming information--are all sophisticated language functions that only more advanced students would be able to fully demonstrate.

Conclusions

My findings support Chavez's (1990) conclusions regarding the role of tasks and activities to promote successful learning. Chavez determined that technology in combination with tasks that were based on meaningful interactional purposes could be used to promote a positive second language-learning environment. *Moodle* provided a platform where the students transcended the spatial and temporal confines of the classroom.

The technology that supports spoken CMC in online classes is now ubiquitous in college and university foreign language courses. Audio-graphic collaboration tools such as Lyceum, currently being piloted by the Open University (Hampel 2003; Hampel & Hauck 2004), and the Flash-based chat tool utilized in Spanish Without Walls (Blake & Delforge, 2004) allow students to engage in audio exchanges and practice. These tools give students the opportunity to speak to one another in real time via their computers while at the same time increasing their spoken communication with additional support of written text as demonstrated in this study and observed in the students' reflections. By permitting language learners to develop and practice their written and oral communication skills, this technology offers a way of addressing, at

least to some degree, the lack of authentic and meaningful exchanges that constitutes one of the apparent shortcomings of the traditional classroom.

The results indicated that the mean language production for CMC written exchanges with partners of higher language proficiency ($M = 1.79$, $SD = .833$) was significantly greater than the mean language production for face-to-face oral exchanges with peers of similar language proficiency ($M = 1.11$, $SD = .737$, $p = .002$). Based on the language gains of the treatment group, it would be plausible to consider that the opportunity to practice with a more advanced student allowed those participants a wider variety of vocabulary and sentence structure than could be generated when practicing with a peer of equal proficiency. The more advanced student provides answers and questions that are grammatically accurate, whereas a student at a similar level might make mistakes or not notice the mistakes of their partner. For instance, some of the advance students pointed out errors in questions or answers, which initially offended the participants. However, Sra Fuertes pointed out that as the intervention progressed students were encouraged to pay more attention to their questions and answers because they knew they were talking with either native or advance speakers. They did not want to make mistakes and have them be noticed. For the participants that were ready to be challenged, the online partners were able to add that additional challenge to the conversation. Furthermore, the identity of the student was supposed to be unknown, so students stayed on task because they were not just chatting with friends. Additionally, knowing they were working with more advanced

peers seemed to allow the students to accept the language production corrections without the same burden of peer-to-peer proficiency expectations, similar to the acceptance of instruction in teacher-student relationship.

Although face-to-face interaction in the traditional world language classroom is how the majority of messages are communicated, learners seem to lack the comfort level and self-confidence when communicating in a second language. Furthermore, the traditional classroom presents very limited opportunities for students to practice their communicative skills. As it was evident in this study, the majority of students experience anxiety when speaking face-to-face in the target language. It was apparent in this study that through consistent practice, both written and oral, students could increase their knowledge of the language and find practical and meaningful applications, while often experiencing less anxiety in the process through CMC.

Conversely, it appears that face-to-face interaction has the potential to be a negative experience when students feel unprepared yet are forced to engage in speaking activities. One could draw the conclusion that when students feel unprepared, they will be less likely to speak or participate in a conversation or a classroom activity. They might revert to I do not understand when asked to participate in a classroom discussion. As demonstrated by the participants of this study, synchronous written exchanges with an online partner, seemed to prepare them for face-to-face interaction in a setting with little pressure or spotlight on their abilities. It is plausible to assume that lack of preparation prior to a speaking activity may affect the student self-

confidence. The most widely acclaimed benefits of textual SCMC are that it allows more equal time and increased participation than in regular face-to-face classroom-based activities and greater student empowerment with decreased teacher control and dominance.

Textual and synchronous technology in particular, can be an effective instructional tool; its effective use has the potential to influence and enhance various kinds of communicative skills. Moreover, SCMC can provide authentic learning situations while supporting the national standards for foreign language teaching, which urge teachers to place equal emphasis on all skills (American Council on the Teaching of Foreign Languages, 1996). The standards provide suggestions and guidelines for developing activities to promote speaking and listening. Computer technology holds the promise and potential for offering ways in which teachers can help students improve their oral and listening skills. Learning more specifics about how textual SCMC differs and/or shares similarities with face-to-face practice may help language teachers make informed decisions about how, when, and to what purposes and extent to use these two modes of communication in the classroom.

Pedagogical Implications

The use of *Moodle* provided an opportunity for authentic language experience through text-based SCMC. Again, language acquisition research suggests that increasing the amount and quality of students L2 input and interaction is crucial in

their success in improving their communicative skills (Blake, 2000; Gass 1997). However, school districts interested in the area of L2 and SCMS research would face the need to support teachers with the technology necessary to implement and/or carry out synchronous technology with software (*Moodle*/Blackboard), desktop, server, and Internet hardware. Furthermore, Internet bandwidth capacity sufficient to handle synchronous technology is an expense for schools, especially if many students and classrooms intend to engage in the technology at the same time.

Limited language input/output experience for the L2 learner will continue to limit students improvement in their communicative skills. The use of SCMC applications in the high-school world language classroom has an enormous contribution to make to the L2 curriculum, especially when language instructors take the time to become familiar with the technology and incorporate it into their curriculum and are willing to share communication between language learners and peers with a slightly higher level of language proficiency. Furthermore, textual SCMC, if properly designed and implemented into the curriculum, could have a vital role to play in augmenting the opportunities for L2 learners. Again, it is crucial to point out that the learner contact with the target language plays a critical role in the long and challenging second language acquisition process.

As language educators, we seek instructional strategies that will take our students to higher levels of language proficiency while at the same provide the context where they can demonstrate what they know are able to do in the target language. The

present research suggests that engaging learners in authentic interaction with other students of higher level of language proficiency through the use of textual synchronous computer mediated technology, enhances their language skills as well as their overall learning experience. Furthermore, textual synchronous technology has the potential to create language discourse communities while at the same time help language learners overcome the spatial confines of the classroom.

APPENDIX A

THE ORAL PROFICIENCY MEASUREMENT

(OPM)

THE ORAL PROFICIENCY MEASUREMENT (OPM)

Functions *At the end of their second year of language study, students are expected to handle the functions in this column*	**Text Type** *Quantity: sentence length and sophistication*	**Accuracy** *Student's comprehensibility of message (do they understand what they are asked to do?) And Student's message comprehensibility (does the student's message relate to the interviewer's question)*	**Criteria** Performance
Ability of the language learner to function in the target language is mainly dependent on the **content and context** presented by the interviewer/tester; s/he may *handle concrete exchanges necessary for survival in the typical daily life of the target culture and* manage a number of uncomplicated and highly contextualized **communicative tasks** such as: o List a number of personal information o Make and respond to greetings and introductions o Use numbers to express quantity, prices, time; give address and telephone numbers o Provide simple descriptions of physical and character traits of people, places and things o Give/obtain permission o State (express) likes/dislikes o Ask a few formulaic questions	A **short paragraph length** response to the content and context presented by the interviewer/tester • **3-5 discrete sentences per topic** • **Able to sustain this level of text type over 75% of the time** • ***Ask informational questions related to the topic/content (6-10)*** • ***Ask questions for clarification***	• *Respond to simple and direct questions after the* ***first time when presented with a communicative task or question*** • Learner's first language may influence their pronunciation • Convey a message comprehensible to a sympathetic listener • Sustain this level of accuracy at least **75% of the time when asked to speak on the content-topics.**	***Inter-mediate Low***
	Still unable initiate and sustain communication at sentence level discourse, *but is able to use learned material and stock phrases to communicate a message with simple sentences at least* ***75% of the time****, the rest of the time messages are communicated in incomplete sentences* • ***3-5 phrases per topic*** • ***Ask 4-5 formulaic questions*** • ***Able to sustain this level of text type at least 75% of the time***	• *Respond to simple and direct questions after the* ***second time*** *when presented with a communicative task or question* • Learner's first language may influence their pronunciation • **Hesitations/pauses** and grammatical errors may interfere with comprehension • Sustain this level of accuracy at least **75% of the time when asked to speak on the content-topics.**	***Novice High***

o Request assistance o Extend/accept and/or reject invitations o Express needs/wants o Give/obtain permission o Describe with some supporting details o State feelings and emotions o Give simple directions o Make simple suggestions o Report events in present time and simple past o Make simple comparisons	**Using highly-contextual vocabulary, occasionally create formulaic utterances with only 2-3 word phrases at a time:** • ***2-3 phrases per topic*** • ***Ask 2-3 formulaic questions*** • ***Able to sustain this level of text type at least 75% of the time***	• *May respond after **the third** repetitions* • Convey a message which is generally comprehensible to a sympathetic listener, although there may be hesitations/pauses/**grammatical errors which interfere with the message they are trying to communicate** • Still rely on **first language** when communicating • Sustain this level of accuracy at least **75% of the time when asked to speak on the content-topics**.	*Novice Mild*
	List words in context • Learned words • List is limited to maximum of 15 memorized isolated words	• *May respond after four or more repetitions* • Message may be incomprehensible to a sympathetic listener. • Due to pronunciation, they may be **unintelligible** when trying to respond to certain questions • Rely heavily on first language when communicating a message • No real function ability	*Novice Low*

Content Standards:

Description of Self (name, age, nationality, physical traits, personality, birthday, place of residence), **school** (classroom, classes, teachers, calendar, activities, basic descriptions), **family** (members, relationships, basic descriptions), **friends, pets, colors, clothing, numbers, leisure activities** (sports, hobbies, likes/dislikes), **daily activities** (when, where, frequency), **invitations** (extending, accepting, rejecting), **weather** (seasons), **routine/chores, health, celebrations, vacation** (travel).

APPENDIX B

SAMPLES OF ON-LINE ACTIVITIES

Samples of On-Line Activities

1. **Task/Situaci:** You are meeting a person for the first time. Your task is to exchange greetings, names, find out what country each of you is from, ask/tell about typical/daily after school and weekend activities, before you say good-bye, ask/tell about 3 different activities you did yesterday.

2. **Task/Situaci:** You are meeting a person for the first time. Your task is to exchange greetings, names, find out what country each of you is from, ask/tell about a typical weekend (activities), and before you say good-bye, ask/tell about what you did last weekend.

3. **Task/Situaci:** My friends and I: You are getting acquainted with a new friend. Ask/tell about what each other is like. Then, find out what each other's friends are like. Before you say good-bye, be sure to ask/tell about what you were like when you were a little kid. Have you changed much?

4. **Task/Situaci:** Last week you purchased items for yourself and for your classroom on line. Today you will go over the items that you bought, ask/tell how much each cost. Your new task is to describe your school and your city. Before you log out, ask/tell about future plans (where you are going and what you are going to do during spring break).

5. **Task/Situaci:** Last week your chat was about future plans (where you were going and what you were going to do during spring break). Your new task is to share with your tutor where you went, what you did and/or did not actually do during your vacation. But before you log out, your tutor is going to purchase items from you this time, you will tell them where to buy each item and who to give the item to.

6. **Task/Situaci:** Last week you shared with your tutor where you went, what you did and/or did not do during your vacation. Also, your tutor was in Argentina, visiting the city of Buenos Aires. You told them where to buy each item and who to give the item to. Today, when you chat with your tutors, ask them to tell you what items they bought, where they bought each item, and to whom they gave the items.

7. **Task/Situaci:** Last week you asked your tutor to remind you what items they bought, where they bought each item, and to whom they gave the items. Today you are going to inquire with each other about your daily routine, daily activities on weekdays and on weekends. How do they differ? For questions 2-3, see grammar hand out – you must ask and respond to a minimum of 5 questions/answers from the list.

8. **Task/Situaci:** Last week you inquired with each other about your daily routine, daily activities on weekdays and on weekends. This week you are going to ask and respond to questions according to the schedule on your hand out (see second column – you must ask and respond to a minimum of 5 questions/answers from each category, morning and afternoon).

9. **Task/Situaci:** Your tutor will give you 5 different kinds of illnesses, injuries and body aches. For each illness, make a recommendation that will help them get and/or feel better.

APPENDIX C

MOODLE CHAT PROGRAM

Moodle Chat Program

Choose the Chat Room from the list below	WHS Español Tutor		Calendar
Main Menu	Country/Cities	Tutor	February 2000
* Mexico	Mexico	Diego Rivera	
* Chile	Chile	Pablo Neruda	Sun Mon Tue Wed Thu Fri Sat
* Panama	Panama	Ruben Blades	1 2 3 4 5 6 7
* España	Spain	Salvador Dali	8 9 10 11 12 13 14
* Guatemala	Guatemala	Isabel Allende	15 16 17 18 19 20 21
* Honduras	Honduras	Enrique Granados	22 23 24 25 26 27 28
* Nicaragua	El Salvador	Rigoberta Menchu	
* Colombia	Nicaragua	Andres Segovia	
* Cuba	Colombia	Gabriel Marquez	
* Ecuador	Cuba	Fidel Castro	
* Argentina	Ecuador	Juana Lopez	
* Venezuela	Argentina	Mercedes Sosa	

APPENDIX D

OPM SCORING SHEET

OPM Scoring Sheet

Functions	Text Type (Quantity, sentence length, and sophistication)	Accuracy (Comprehensibility of message and listening comprehension)	Performance Criteria
Ability of the language learner to function in the target language is mainly dependent on the **content and context** presented by the interviewer/tester; s/he may *handle concrete exchanges necessary for survival in the typical daily life of the target culture and* manage a number of uncomplicated and highly contextualized **communicative tasks** such as: o List a number of personal information o Make and respond to greetings and introductions o Use numbers to express quantity, prices, time; give address and telephone numbers o Provide simple descriptions of physical and character traits of people, places and things o Give/obtain permission o State (express) likes/ dislikes o Ask a few formulaic questions o Request assistance o Extend/accept and/or reject invitations o Express needs/wants o Give/obtain permission			**Inter-mediate Low**
			Novice High
			Novice Mid
			Novice Low

APPENDIX E

QUALITATIVE SURVEY: COMPUTER USE AND TRENDS

Qualitative Survey: Computer Use and Trends

1. Did you speak silently (verbalizing) to yourself as you typed comments in the chatroom? Fill one (0 – Never, 5 – Always).

(0) (1) (2) (3) (4) (5)

2. Did you read aloud the comments other posted in the chatroom? Fill one (0 – Never, 5 – Always).

(0) (1) (2) (3) (4) (5)

3. Do you have a computer at home?

a. Yes___ b. No___

4. Do you have access to the Internet at home?

a. Yes___ b. No___

5. Do you chat with friends on Instant Messaging?

a. Yes___ b. No___

6. Hours of Internet use at home?

a. 1-2 hrs___ b. 2+ hrs___

7. Level of comfort in communicating on-line (via the internet) with others:

a. very enjoyable___

b. enjoyable___

c. intimidated___

APPENDIX F

QUESTIONNAIRE: DEMOGRAPHIC SURVEY

Questionnaire

1. What were some aspects of using Moodle/chatting with your online partners that you enjoyed the most in regards to your experience of learning a second language?

2. Advantages of written communication with others via the Internet, as a form of communicating and practicing. Did the writing practice make a difference in your learning experience? If yes, please explain.

3. Disadvantages (Challenges) of communicating with others via the Internet. What were some aspects of using Moodle/chatting with your online partners that you feel helped you the least in your experience of learning a second language?

4. Advantages of face-to-face interaction. What were some aspects of practicing with someone face-to-face that you feel helped you **the most** in the learning of a second language?

5. Disadvantages of face-to-face interaction. What were some aspects of practicing with someone face-to-face that you feel helped you **the least** in the learning of a second language?

6. Age: 14___ 15___ 16___

7. Gender: M___ F___

8. Grade Level: 9___ 10___ 11___

9. Family Income:
   $12,000-30,000___ $31,000-60,000___ $61,000-120,000+___

10. Highest level of education of both parents:

    Mother: High School___ Some College___
    4yr College___ Post/Graduate School___

    Father: High School___ Some College___
    4yr College___ Post/Graduate School___

11. Primary language spoken at home:
    English___ Spanish___ Other_____

12. Language spoken by the parents at home:
    English___ Spanish___ Other_____

13. Prior years of language study (**not** including this year):
    a. 1_____ b. 2+_____

14. Any extensive travel (vacation) to countries where Spanish is spoken:
    a. Never____ b. 1-2 Weeks____
    c. 3-4 Weeks____ d. 5-8 Weeks____ e. 3+ Months____

15. Have you had any study experience to countries where Spanish is spoken:
    a. Never____ b. 1-2 Weeks____
    c. 3-4 Weeks____ d. 5-8 Weeks____ e. 3+ Months____

APPENDIX G

SAMPLE OF TEXTUAL EXCHANGES AMONG STUDENTS

Sample of Textual Exchanges Among Students

Sample Task 1: You are meeting a person for the first time. Your task is to exchange greetings, names, find out what country each of you is from, ask/tell about typical daily and weekend activities, before you say good-bye, ask/tell about 3 different activities you did yesterday.

14:32: Carmen Conde has just entered this chat
14:32: Federico Garcia Lorca has just entered this chat
14:34 Federico: Me llamo Federico. (*My name is Federico)*
14:35 Carmen: ?de donde eres tu? *(Where are you from?)*
14:36 Federico: Soy donde de Andalucia. Y yu? De donde eres?
14:36 Carmen: yo soy de Argentina *(I'm from Argentina)*
14:36 Federico: Ah, muy bien. (*Ah... very well)*
14:36 Federico: Como es un fin de semana tipico? (*What's a typical weekend like)*
14:37 Carmen: depende, a veces salgo con mi novio Brandt o salgo con mis amigos. (*It depends, sometimes I go out with my boyfriend, Brand or I go out with my friends)*
14:37 Carmen: ?y tu? (*and you?)*
(Reseacher's note: Notice self-correction – with friend… to *"with my friends**."*)
14:38 Federico: Tambien me encanta salir con amigo al cine para mirar las peliculas. (*I also love to go out **with friend** to the movie theater to watch movies)*
14:38 Federico: **con mis amigos*** (*with my friends)*
14:38 Carmen: o interesante (*Oh, interesting)*
14:39 Carmen: ?que hiciste durante el fin de semana? (*What did you do last week end?)*
14:40 Federico: Camine a una tienda de cafe con mi amigo porque era una dia muy bonita. (*I walked to a coffee shop with my friend because it was a pretty nice day)*
14:40 Federico: Y tu, que hiciste durante el fin de semana? (*and you, what did you do on the week end?)*
(Researcher's note: Notice exchanges of sympathy which demonstrated accuracy of understanding of the message exchanged between students)
14:41 Carmen: ugh. yo hice mi tarea y estuve muy enferma (ugh, I did my homework and I was very sick)
14:42 Federico: Ah, lo siento. Estas sintiendo mejor? (Ah… I'm sorry, are you feeling better?)
14:42 Carmen: si, yo estoy muy buena. (*Yes, I am very good)*
14:43 Federico: bien, estoy feliz por tu (*Well, I am very happy for you)*
14:43 Carmen: Gracias ☺adios (*Thank you ☺, good bye)*
14:44 Federico: Adios Carmen! (*Good bye, Carmen)*
14:44 Federico: Es un buen placer (*It's a pleasure)*
14:44: Carmen Conde has left this chat
14:44: Federico Garica Lorca has left this chat
14:45: Cristina has just entered this chat

Sample Task 2: Your partner is not feeling well. It is your task to find out what kind of illnesses, injuries or body aches your partner is suffering from. For each health related situation, make a recommendation that will help them get and/or feel better. You may make 2 or more suggestions for the same illness.

Exchange #1

21:06: Juana Lopez has just entered this chat
21:07 Fidel: hola *(Hello)*
21:08 Juana: hola *(Hello)*
21:08 Fidel: como estas? *(How are you doing?)*
21:08 Juana: estoy bien, y tu? *(I'm well, and you?)*
21:09 Fidel: estoy asi asi, muy cansado *(I'm so so, very tired)*
21:09 Juana: oh, porque? *(oh, why?*

Notice one of the student correcting the other student regarding the subject/verb agreement of "to go" in the past tense.

21:09 Fidel: yo fue al parque con mis amigos *(I -she/he- went to the park with my friends)*
21:10 Juana: ah quieres decir "fui"? *(ah, you meant to say "I went"?)*
21:10 Fidel: si *(yes)*
21:10 Fidel: lo siento *(I 'm sorry)*
21:25 Fidel: que hiciste hoy? *(What did you do today?)*
21:25 Juana: yo limpie mi cuarto, fui a Starbucks y fui al concierto en el parque. *(I cleaned my room, went to Starbucks, and I went to the concert in the park)*
21:26 Juana: y tu? *(How about you?)*
21:26 Fidel: ahh es divertido *(ahh, that's a lot of fun)*
21:27 Fidel: yo fui al parque con mi amigos por cinco anos *(I went to the park with my friends for five years)*
21:27 Juana: por cinco anos?? *(for five years?)*
21:28 Fidel: jajaja *(ja-ja-ja)*
21:28 Fidel: horas *(hours)*
21:28 Fidel: lo siento *(I'm sorry)*
21:28 Fidel: estoy muy cansado *(I'm very tired)*
21:28 Juana: jaja, esta bien, te divertiste? *(ja ja, it's all right, did you have fun?)*
21:29 Fidel: si, nosotros jugamos Frisbee *(yes, we played Frisbee)*
21:30 Juana: es divertido, comiste mucho? *(that's a lot of fun, did you eat a lot?)*
21:31 Fidel: ehh no *(no)*
21:31 Fidel: una hamburgesa *(a hamburger)*
21:31 Juana: ahh (ahh)
21:32 Fidel: yo estoy un poco enferma *(I'm a little sick)*

Researcher's note: Notice self correction of noun-adjective gender agreement

21:32 Fidel: enfermo* *(Sick)*
21:32 Juana: oh no!! es malo. yo acabo de recuperarme *(Oh no! That's bad. I just got better)*
21:35 Fidel: yo voy a dormir mucho *(I'm going to sleep a lot)*
21:35 Juana: si, y te aconsejo que bebas mucha agua *(Yes, and I suggest that you drink lots of water)*
21:36 Fidel: haha si *(ha ha, yes)*

Exchange #2

14:35: Ana Matute has just entered this chat
14:35: Ana: Hola! *(Hello)*
14:35 Isabel: Hola, como estas? *(Hello, how are you?)*
14:35 Ana: Yo estoy contenta. Y tu? *(I'm quite content, and you?)*
14:36 Isabel: Estoy enferma. Me duele la cabeza. *(I'm sick)*
14:36 Ana: Lo siento. *(I'm sorry)*
14:37 Isabel: Me cai. *(I fell down)*
14:38 Ana: Es importanta que bebe agua. *(It's important that you drink water)*

14:38 Isabel: Gracias. (*Thank you)*
14:39 Isabel: y Usted, Como se siente? *(How about you, how are you feeling?)*
14:41 Ana: Me duele el brazo y me siento enferma. (*My arm hurts)*
14:43 Isabel: Es mejor que descanse (*It's best that you rest)*
14:43 Isabel: Y tambien quiero que coma vegetales. (*and I also want you to eat your vegetables)*
14:44 Ana: Gracias. Adios! (*Thank you, good bye)*
14:44 Isabel: adios (*Good bye)*

Exchange #3
14:49: Franco has just entered this chat
14:49 Francisco: hola como te llamas *(hello, what's your name?)*
14:49 Isabel: Hola. Me llamo Isabel. Y tu? (*Hello, my name is Isabel, and you?)*
14:49 Francisco: me llamo Chase. (*my name is Chase)*
14:51 Isabel: Como se siente? *(How are you feeling?)*
14:53 Francisco: Tengo mareos y Me duelen los pies. (*I feel dizzy and my feet hurt)*
14:53 Isabel: Es mejor que descanse (*It's best – I suggest that you rest)*
14:53 Francisco: si *(Yes)*
14:54 Isabel: Y quiero que coma vegetales (*and I also want you to eat your vegetables)*
14:55 Francisco: Oh si… los vegetales son muy bueno por su cuerpo. *(oh yes, vegetables are very good for the body)*
14:55 Isabel: Si. Le aconsejo que se cuide. *(I suggest that you take care of your self)*
14:55 Francisco: adios *(Good bye)*
14:55 Isabel: adios. *(Good bye)*
14:56: Francisco Franco has left this chat

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