

THE EFFECT OF “CHATTING” ON THE ORAL PRODUCTION OF  
SPANISH PRESENT TENSE FORMS IN THE FOREIGN LANGUAGE  
CLASSROOM

by

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## ABSTRACT

Current research shows a positive relationship between the use of written synchronous computer-mediated communication (SCMC) and oral production (Isenberg 2010; Kern 1995; Payne & Whitney, 2002). No prior investigations specifically analyze the effect of SCMC on the conjugation of simple present tense verbal forms in narratives produced by learners of Spanish in online environments. This semester-long study addressed this issue by systematically analyzing the effect of written SCMC on the oral production of present-tense verb conjugations in two different oral tasks by students in two different intermediate level online Spanish courses. Written chat (WC), a type of synchronous group discussion, was used in the treatment group in order to examine the crossover effects of written SCMC on present tense forms in oral production tasks among intermediate Spanish students in online courses. Both online groups engaged in 30 minutes of concentrated interaction with the instructor and other students each week. The control group engaged in 30 minutes of oral interaction per week while the experimental group was exposed to 15 minutes of oral chat and 15 minutes of WC in the 30 minute session of interaction. Specifically, this study employed a pretest/posttest quasi-experimental design and tested the differential effects of a combination of oral and written SCMC online interaction and SCMC solely oral online interaction on the acquisition of Spanish present tense verb forms. The findings show a significant difference in oral gains among the experimental group.

DEDICATION

To my husband, Travis Riley

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## TABLE OF CONTENTS

	Page
LIST OF TABLES.....	vii
CHAPTER	
1 INTRODUCTION.....	1
2 REVIEW OF LITERATURE .....	3
Spanish Present Tense System .....	3
Spanish Tense System – Systemic and Non-Systemic Meanings .....	4
Verb Morphology .....	10
Transfer and Sources of Problems .....	12
Levelt’s Language Production Model and Working Memory Theory .....	14
Language Learning in Online Environments.....	19
Justification for Current Study .....	31
Research Questions.....	31
3 METHODOLOGY.....	32
Participants.....	32
Instructors.....	32
Online Class Design .....	33
Materials and Departmental Guidelines.....	34
Instruments and Procedures.....	35
Codification of Data .....	36

CHAPTER	Page
Data Analysis .....	36
4 RESULTS AND DISCUSSION.....	38
Results.....	38
Discussion.....	41
5 CONCLUSION .....	50
Conclusion.....	50
Limitations.....	50
Future Research.....	51
Pedagogical Implications .....	53
REFERENCES .....	54
APPENDIX	
A ORAL PRODUCTION TASKS .....	59
B SAMPLE LESSON PLAN – CONTROL GROUP .....	64
C SAMPLE LESSON PLAN – EXPERIMENTAL GROUP .....	66

## LIST OF TABLES

Table	Page
1. Control Group: Students' Percentages of Appropriate Use of the Present Tense .....	38
2. Experimental Group: Students' Percentages of Appropriate Use of the Present Tense .....	38
3. Control Group: Students' Appropriate Use of the Present Tense - Monologue .....	39
4. Control Group: Students' Appropriate Use of the Present Tense – Picture Description.....	39
5. Experimental Group: Students' Appropriate Use of the Present Tense – Monologue.....	40
6. Experimental Group: Students' Appropriate Use of the Present Tense – Picture Description.....	40

## Chapter 1

### INTRODUCTION

With the constant development of technology and budget costs in schools around the globe, the interest and possibility of online courses is expanding. According to Allen & Seaman (2010) online enrollments for the past six years “have been growing substantially faster than overall higher education enrollments” (p. 5). Additionally, higher education institutions have begun to offer more online courses and even completely online degrees and programs due to budgetary concerns. The questions that foreign language educators are asking themselves are: *what is the effectiveness of oral and written communication in the language learning classroom?* And *what are the crossover effects of written and oral communication?* Approximately 33% of chief academic officers in the SLOAN consortium and Babson Research Group report (Allen & Seaman, 2010) have concerns regarding online learning environments. By providing additional evidence to support the benefits of SCMC, the researcher aims to allay some of those continuing concerns.

Current research shows a positive relationship between the use of written production, in the form of synchronous computer-mediated communication ( SCMC ) and oral production (Isenberg, 2010; Kern 1995; Payne & Whitney, 2002). No prior investigations specifically analyzed the effect of SCMC on the conjugation of present tense verbal forms in narratives produced by learners of Spanish in online environments. These semester-long studies addressed this issue by systematically analyzing the effect of written SCMC on the oral production of present-tense verb conjugations in oral narratives by students in online intermediate-level Spanish courses. Written chat (WC), a type of synchronous group discussion, was used in the treatment groups in all 3 studies in order



to examine the crossover effects of written SCMC on present tense forms in oral production tasks among intermediate Spanish students in online courses.

The purpose of this study is to investigate the effects of oral vs. oral + written chat on the development of the Spanish present tense verb forms in an online environment. This study also aims to contribute to the examination of oral gains development as a result of SCMC as Payne & Whitney set out to do in their 2002 study. Specifically, this study employs a pretest/posttest quasi-experimental design to test the differential effects of a combination of oral and written SCMC online interaction and SCMC solely oral online interaction on the acquisition of Spanish present tense verb forms. A discussion of the findings and implications for instructors follows the presentation of the study.

## Chapter 2

### REVIEW OF LITERATURE

#### **Spanish Present Tense System**

The focus of this study is the acquisition of the simple Spanish present tense for the L2 learner at a beginning intermediate level. Many of the errors made by beginning intermediate foreign language learners of Spanish deal with the present tense aspectual forms, such as present vs. present progressive: *Jorge habla* (Jorge speaks or Jorge is speaking) versus *Jorge está hablando* (Jorge is speaking). This study focuses on the acquisition of the simple present tense.

For many years, second language acquisition (SLA) has focused on the acquisition of verbal aspect by students in a foreign language (FL) classroom. The teaching of the Spanish aspect to native English speakers has high importance in the research field, due to the fact that aspectual categories in Spanish differ from those in English. Although almost all aspectual studies carried out on Spanish second language (L2) data focus on the acquisition of grammatical aspect in the past tense in Spanish (preterite/imperfect) (Lafford, 1996; Negueruela and Lantoff, 2006); Salaberry, 1999;, Verónica, 1986), there is an aspectual difference in the Spanish present tense forms as well. There are also two different moods, subjunctive and indicative in the present tense system; however, this study only focuses on the indicative mood. For second-year L2 Spanish learners, the mastering and correct usage of the present tense aspectual differences and their corresponding verb forms, is just as important (if not more so) than mastering past tense aspectual differences, as intermediate level students are expected to

control unmarked present tense forms but are not expected to have mastered marked past tense forms by the end of four semesters of university-level L2 study of the language.

**The Spanish Tense System– Systemic and Non-systemic Meanings.** Several studies of the Spanish tense system have been carried out by applied linguists in order to provide systematic descriptions of target language forms for learners of Spanish as a second language (Andersen, 1986, 1991; Comrey, 1976; Hualde, et al., 2003; Liskin-Gasparro 2000). Often, these scholars make a point of separating the construct of *tense* from mere chronological accounting on a temporally-defined continuum. For instance, Whitney (2002) summarized tense as “a matter of what speakers wish to say, how they choose to express it, and the point of view they select; it is not equitable with real-world time” (p. 113). For instance, sometimes the (historical) present tense is used when referring to past time, e.g., *Napoleón entra en España en 1808*.

One of the most well-known descriptions of Spanish tenses was carried out by Bull (1965) in which he distinguished *systemic* meanings from *nonsystemic* meanings of tenses. According to Bull (1965), in the systemic system, each category has the same meaning within the overall tense system (English and Spanish are similar in this system).

Within the systemic meanings, Bull noted that a speaker will choose a tense to portray a situation based on his/her orientation or perspective, ‘right now,’ or ‘back then’ as examples. Each orientation or perspective is an axis or timeline along which the event is located in one of three ways: as *anterior* to the orientation the speaker chooses, as *simultaneous* with the orientation, or as *posterior* to it. The different tenses are used within the system to express an event from different perspectives – “linguistic tenses are not all located on the same line as points in real time must be” (Whitney, 2002, p. 111).

Therefore, in the present tense, the speaker views matters from his/her current perspective, and is orientated toward the *present point* ('now'), PP according to Bull. Even though the present system consists of other tenses, such as the present perfect, the future, the progressive, etc., the focus of this study is on the generic use of the simple present tense alone. The systemic use of the present tense would be to refer to a present point from a current perspective.

Bull's (1965) definition of *systemic* and *non-systemic* uses of verbs has to do with marked and unmarked uses of verbs, e.g., a present tense form used for present /generic meaning is systemic (unmarked, expected, normal, such as *Pablo siempre gana muchos premios en su escuela*. 'Pablo always wins lots of awards in his school. '), but a present tense form with past tense meaning is non-systemic (marked use of the present tense, special in some way, such as *En 2005 Pablo gana su primer premio*. 'In 2005, Pablo wins his first award'); this is also known as the historical present. This study focuses solely on the present tense when it refers to the moment of speaking, the systemic use. However, since students may produce non-systemic uses of the present tense as well, a discussion on non-systemic meanings follows.

Within the non-systemic meanings, the unmarked present tense can extend back into the past and forward into the yet-to-come and both native English and Spanish speakers use the present tense in this way. The *historical present*, for example, may interrupt a narrative in the past tense with a switch to the present and the *recalled point* (RP, past tense) becomes PP: *fuimos a la tienda y vimos a María, se nos acerca y nos dice que no quiere ir a la fiesta* ('We went to the store and saw María, she comes over to us and tells us that she doesn't want to go to the party'). This switch was researched by

Silva-Corvalán (1983), who concluded that the strategy is used in Spanish to maintain a level of intimacy with the listener and to present the events as if they were occurring at the same time as the conversation took place. This occurs frequently in day-to-day storytelling and retelling of situations for speakers.

The *anticipatory present* is a forward shift of the present tense to cover future time, *te llamo mañana* ('I will'/'I'll call you tomorrow'). This is similar to the *analytic future* which also uses the present tense to refer to a future timeframe, *voy a llamarte mañana* (I am going to'/'I will call you tomorrow). Gili Gaya (1973) pointed out that this use of the present tense conveys a present intention to realize a future action. The *anticipatory present* use needs to be explained and taught to the students in the Spanish FL classroom. Several linguistic studies have concluded that the use of the synthetic future tense (e.g., *hablaré* 'I will speak') to realize a future action is disappearing and is only used in cases of probability (Corvalán 1990; Corvalán 2003; Corvalán & Terrell, 1989; Kany, 1951).

**Aspect.** Although the discussion of aspect typically focuses on the preterite and imperfect past tense verb forms in Spanish, there are aspectual differences within present tense verb forms in both English and Spanish. According to Whitney (2002), aspect “refers to (1) the nature of the event being described (e.g., instantaneous and pointlike vs. enduring or recurring) and (2) which part of the event is being depicted [...] (e.g., ongoing or ended)” (p. 117).

The first type of aspect cited by Whitney (2002) refers to *lexical aspect*, a lexical property of the verb itself, whereas the second type is called *discourse aspect* or *viewpoint aspect* (Salaberry, 1999), i.e., a function of how the speaker is choosing to

present the event during a story. In short, the lexical aspect is located in the roots of the verbs and is tied to their lexical meaning (e.g., *arreglar* ‘to fix’ indicates a completed act after a duration of time), while inflectional morphemes carrying viewpoint aspect indicate the speaker’s perception of the events (e.g., *arreglaba* ‘was fixing’ vs. *arregló* ‘fixed’) (Andersen & Shirai, 1994). Vendler (1967) presented four classes of verbs that refer to their lexical, semantic characteristics. The verbs can describe a *state* (‘to be’), an *event* (‘to wish’), an *activity* that has arbitrary points of a beginning and an ending (‘to eat’), a *telic* event that intrinsically has a final point (‘to close’) and a *punctual* event, which also has a final internal point, but without a specific duration (‘to find out’). This study focuses on the acquisition of the simple present tense.

Regarding the aspectual variation in English and Spanish present tenses, Cowper (1998) argued that the present tense in English has four interpretations with eventive and activity verbs. The aspect can be habitual, generic, futurate and reportive/narrative /historical present (adapted from Cuza, 1993):

- (1) Travis runs (every day). Habitual.
- (2) Babies sleep during the day. Generic.
- (3) The Diamondbacks play next week. Futurate.
- (4) I’m on the phone with my mom when Michele comes and asks me...

#### Historical present

In the above examples, the eventuality expressed by the verb extends over a period of time. In (1), the use of the present tense designated that Travis is a runner and that it is a habitual activity. In (2) the present tense indicated a generic fact about babies. In (3) the present tense usage had a future value and in (4) the present tense specified a past event,

the *historical present*. In all of the examples above, the present tense referred to a situation that was not occurring simultaneously to the moment of speech. The present tense in English cannot denote an event ongoing at the moment of speaking (\*Travis runs now), rather, the present progressive must be used:

(5) Travis is running now.

Exceptions to this rule are found in performative verbs, such as declare:

(6) I now declare you husband and wife

and reporting during a sporting event, for example:

(7) Dave runs down the court, shoots and scores.

In Spanish, the present tense uses are almost identical to those of English, except for the fact that Spanish does allow for an ongoing activity to be expressed using the simple present tense:

(8) Travis corre (en este momento/todos los días). Habitual.

As shown in example (8) above, the Spanish present tense can be ambiguous as Travis could be running right now and only right now, or he could run every day. The table below summarizes the interpretations of aspect according to Cuza (1993) in the present tense in Spanish and English.

**Figure 1. Summary of aspectual differences interpretations in the present tense.**

<i>Aspectual Interpretations</i>	<i>Spanish</i>	<i>English</i>
1. Present – habitual	1. Travis habla todo el tiempo.	1. Travis speaks all the time= habitual.
2. Present – generic	2. Los hombres hablan	2. Men speak but

	pero los gatos no.	cats do not.
3. Present – future	3. Travis habla mañana.	3. Travis speaks tomorrow.
4. Present – historical present	4. Travis fue al cine y le habla a esta mujer...	4. Travis went to the movie and he speaks to this lady...
5. Present – to indicate simultaneity with the moment of speaking	5. Travis habla ahora con su mamá en la cocina (en este momento).	5. *Travis speaks now to his mother in the kitchen (right now).
6. Present Progressive to indicate simultaneity with the moment of speaking	6. Travis está hablando con su mamá en la cocina (en este momento).	6. Travis is speaking to his mother in the kitchen (right now)
7. Present Progressive to indicate future time	7. *Travis está hablando con su mamá mañana.	7. Travis is speaking to his mother



		tomorrow.
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Based on the interpretations of aspect according to Cuza (1993), the Spanish language allows the student to use the simple present tense to convey five different interpretations of aspect, ongoing, generic, future, simultaneity to the moment of speaking and historical present, whereas the English simple present tense does not have the same five different interpretations of aspect. In order to convey simultaneity to the moment of speaking, the English speaker must use the progressive tense ‘Travis is speaking to his mother in the kitchen right now,’ whereas the Spanish speaker may use the simple present for this aspect *Travis habla con su mamá en la cocina ahora mismo* . Additionally, an English speaker may use the present progressive to indicate future time, as in *Travis is speaking to his mother tomorrow*, but a Spanish speaker cannot say *\*Travis está hablando con su mamá mañana*, but rather must change the auxiliary verb *estar* to the future tense, *Travis estará hablando con su mama mañana*.

**Verb morphology.** An ongoing challenge for native English speakers learning Spanish is Spanish verb morphology. In contrast to English, the Spanish verb has forty-eight distinct *inflectional* forms. These forms include those that indicate person, number, tense, aspect and mood (e.g., *-amos, -aba, ó, -aran*), but exclude derivationally-derived forms such as *-ble, -dor*, etc. and participial forms forms, such as *ha hecho*. In Spanish, a verb must be conjugated multiple times based on tense/aspect/mood/person/number distinctions whereas the English language relies heavily on the presence of personal pronouns to indicate the subject of the verb: *hablé, habló, hablaron* versus ‘I spoke,’ ‘he spoke,’ ‘they spoke.’

For the most part Spanish verb morphology follows a consistent, predictable pattern. For example, for the verb *hablar* (to speak), *habl-* is the root, *-r* is the infinitive suffix and *-a* is the theme vowel, which identifies the conjugational class, the “*-ar* verb”, as opposed to the “*-er*” or “*-ir*” verbs. In conjugating a verb, one adds to the stem the theme vowel, and then conjugates the remainder of the verb based on the appropriate tense/mood/aspect and person/number suffixes as shown below:

Verb	Stem/ Root	Theme	Time/Mood/ Aspect	Person/Number
a. Hablo	Habl	O	∅	∅
b. Hablas	Habl	A	∅	S
c. Hablan	Habl	A	∅	N

Besides the morphophonemic (diphthongs, for example in *puedo*) and orthographic changes (e.g., *c* → *que* in *sacar* → *saqué*), which too, can be predicted in most cases (Whitney, 2002), Spanish verb morphology is quite conventional and unsurprising.

On the other hand, English verb morphology is “paltry” in comparison to Spanish (Whitney, 2002, p. 100). Whitney stated the following:

If the term *tense* is limited to purely inflectional possibilities, a verb such as *give* has only two real tenses: present *give(s)* and past *gave* (*given* being a participle and not a tense). English has no true future or conditional tenses because *will* and *would* are modal auxiliaries [...] Whereas Spanish permits contrasts among five simple tenses for a main verb in the indicative (*Ella me lo da/dará/dio/daba/daría*), in English there are only two options morphologically (*She gives/gave it to me*), supplemented by a few more possibilities from the modal system (*She will/would/could/might give it to me*) (p. 100).

In short, it is apparent that the English verb is less inflected for person and number than its Spanish counterpart.

### **Transfer and Sources of Problems**

Within the FL classroom, students adopt a continually changing *interlanguage* (Selinker, 1972, 1992) that lies between the native language and the target language. This *interlanguage* draws on both the source language and the target language and reflects varying ways in which the individual is internalizing, sorting out and applying what they take in from the input received in the FL classroom.

Sometimes the learner relies on patterns from his/her native language when trying to produce L2 forms. This is referred to as *transfer* or *cross-linguistic influence* (CLI). An example of transfer from the L1 could involve the extension of the “s” used in English to indicate noun possession as in *Mary’s house*. In Spanish the learner relies on this pattern and will say *Mary’s casa* instead of *la casa de Mary*. This type of negative transfer by the English-speaking L2 learner of Spanish could cause miscommunication.

However, not every mistake in Spanish can be attributable to transfer from the L1. Some errors are the result of learners making incorrect analogies within the Spanish system (e.g., overgeneralization). The following section of examples will briefly list and explain some of the conjugation mistakes in the simple present tense that English-speaking L2 learners of Spanish tend to make. These examples were adapted from problem and solution passages found in Lee & VanPatten (2003), Omaggio Hadley (2001), and Whitney (2002).

1. Incorrect analogies within the Spanish system.

- a. *\*Teno que estudiar.* The student has incorrectly applied the first person singular rule and conjugated the ending of the verb with an “o” instead of remembering the *g* addition for the verb *tener*. *Tengo que estudiar* would be the correct conjugation.
- b. *\*Me gusto la camisa.* The student has chosen the pronoun *me* correctly to describe the first person form, but has incorrectly conjugated the verb *gustar* as if it were supposed to agree with the agent (yo) instead of the syntactic subject (la camisa). The student has applied the first person singular ending (-o) in which verbs typically end in an “o” just after the stem to indicate first person. In Spanish, the verbal agreement is with the syntactic subject of the sentence, *me gusta la camisa* or *me gustan las camisas*.
- c. *\*Puedes hablas.* The student has overgeneralized a conjugational pattern beyond the limits of either L1 or L2 and is following the constant mindset of “conjugate those verbs!” (Whitney, 2002, p. 105). In English a student would not say *you can you speak*, rather *you can speak*. This would be *puedes hablar* in Spanish as well.

2. English transfer errors.

- a. *\*Me llamo es Susana.* The student has incorrectly transferred English syntactic structure onto Spanish word for word in this example: “my (me) name (llamo) is (es) Susana.” The student has not realized that *llamarse* is a reflexive verb and should be conjugated accordingly: *Me llamo Susana*.

Additionally, the student could say *my name is Susana* in Spanish: *Mi nombre es Susana*.

- b. *\*La fiesta es en mi amiga's casa*. The student has incorrectly transferred the third person noun possession of –'s from English onto the Spanish noun *casa*. In Spanish an –s does not indicate possession, rather, the speaker must add a prepositional phrase to indicate possession. The correct sentence would be *la fiesta es en la casa de mi amiga*.
- c. Speaker A: *¿Vas a la fiesta?* Speaker B: *Sí, vas a la fiesta*. The student has incorrectly mimicked the prompt in an attempt to answer the question through a response that repeats part of the prompt. The correct answer would be *sí, voy a la fiesta*.

Based on the information above, there are several issues that arise when English-speaking learners conjugate the simple present tense in Spanish. Additionally, there is a dearth of studies on the acquisition of the simple present tense; the handful of studies related to the present tense that do exist choose to focus on the present perfect, present progressives or gerund acquisition in Spanish and do not have any meaningful quantitative data. These verb forms need to be solidified by intermediate level (SPA 201) Spanish FL learners, but often are not. This study will contribute valuable information to the field by exploring ways to assist speakers with their development of present tense verb forms in an online learning environment at the SPA 201 intermediate level. The next section will present information and empirical studies based on online language learning.

**Levelt's Language Production Model (1989, 1995) and Working Memory Theory**

In a foreign language learning classroom, oral output is typically one of the main objectives. Oral output is the basis for corrective feedback, and as it allows for syntactic processing, it promotes automatization of speech production processes. This study uses Levelt's Language Production model (1989, 1995) along with Working Memory theory as a basis for proposing mechanisms that influence L2 acquisition.

Levelt's model (1989, 1995) is based upon an empirical analysis that is made up of speech-error data from L1 learners. The three main components of this model are the *conceptualizer*, the *formulator* and the *articulator*. These components process language in an incremental way. During oral production, the conceptualizer determines the semantic content of the utterance to be spoken, which results in a preverbal message that is maintained in working memory. The preverbal message goes into the formulator where lexical items are selected that most accurately represent the semantic content of each chunk of the preverbal message. The formulator also selects phonological representations. In other words, the articulatory plan of an utterance comes from the formulator. Before moving onto the articulator, the actual muscles that engage to produce an utterance, the articulatory plan may be monitored internally and stored in the *articulatory buffer* (this is the working memory as described in working memory theory). While a person is speaking, the lexical items and representations for another word are being selected and in the conceptualizer the speaker is still deciding what words will follow. As we often begin uttering a sentence even before we have determined how we are going to end it, it is fitting that Levelt's model is deemed an incremental production model. (Payne & Whitney 2002).

Levelt's model alone does not develop the concept of short-term storage of information, although Levelt (1989) does acknowledge the importance of that particular concept. "Working Memory theory provides both models and measurement techniques for determining an individual's capacity for temporarily maintaining verbal and visual-spatial information in memory and for performing judgment or executive functions based on changing one's immediate environment" (Payne & Whitney, 2002, p. 11). Additional first language studies provide evidence that individual differences in Working Memory capacity are most likely due to verbal fluency (Daneman, 1991), the ability of learners to use contextual clues in text to incorporate words into speech (Daneman & Green, 1986), and the ability to maintain language strings for "off-line" processing when language becomes too difficult for "online" processing (Gathercole & Baddeley, 1993). Moreover, several prominent studies indicate that verbal Working Memory capacity serves as an effective predictor of L2 vocabulary development and proficiency (Gathercole & Baddeley, 1989a; Geva & Ryan, 1993; Miyake & Friedman, 1998; Papagno, Valentine & Baddeley, 1991; Service, 1992; Service & Kohonen, 1995). This study draws upon both Levelt's production model and Working Memory theory as a basis for interpreting the results of the current study, gleaned from online environments. Accurate production is optimized by learners having time to process input and plan their output. Learners need time to process language and monitor their production in a controlled fashion, which is called *controlled processing*.

### **Controlled Processing**

*Controlled* versus *automatic* processing may account for some of the differences between oral chat and SCMC. There is more time to plan and less pragmatic pressure to

produce speech before it is monitored in environments that provide space for controlled processing (CP). Written environments provide more space for this than oral ones, in which speakers are always under pragmatic pressure to produce language to not inconvenience the interlocutor (Lafford 2006). In CP, memory nodes are “activated in a given sequence and held in working memory on a temporary basis since the items in question have not yet been learned” (Lafford 2006, p. 10). Effective CP would be most beneficial in an environment in which the foreign language learners could focus attention on the input or output process and also store new input or output in working memory. In written SCMC, students have more time (than in oral chat) to focus attention on both the input and the output processes due to the nature of a written chat box. Students are able to review and re-evaluate previous posts and comments and can also take their time in responding, choosing their words and phrasing carefully. In other words, learners are able to hold and compare new input and output to foreign language norms using their working memory. In the oral interactions; however, students encounter the ever-present pragmatic pressure to produce language in order to “keep the conversation going” (Lafford 2006). Therefore, the optimal environment of written chat, which includes less pragmatic pressure and extra time for planning words and negotiating form in working memory before choosing an actual output of the words, may provide insight into differences in oral gains among oral chat students and written chat (SCMC) students.

Automatic processing (AP), contrarily, does not require active attention or control by the learner. The memory nodes of language processing are automated, learned processes that are built up over time. This means that learners use automated responses that are quick, but very difficult to change. Due to time constraints and the pressures



associated with speaking “on the spot,” students engaging in oral chat for the majority of their classroom learning, may begin to automatize incorrect forms in the target language. In contrast, the students in written chat (SCMC) have the time to analyze input and plan and monitor their language production. The following section will explore research that has investigated language acquisition in oral and written modes in online learning environments.

### **Language Learning in Online Environments**

In recent years, the development of the internet has transformed the nature and delivery of higher education. More than 4.6 million higher education students took at least one online course during fall 2008, a 17 % increase from the reported amount in the previous year (Allen & Seaman, 2010). 94% of colleges surveyed use a web-based course management system such as *Blackboard* or *WebCT* (Bush & Browne, 2004). Naturally, with more options and more developments in the “digital age” there continues to be an increased interest among faculty and students in online courses. On the other hand, there continues to be increasing concerns and doubts regarding online education (Allen & Seaman, 2010; Allen, Seaman, & Garrett, 2007; Blake, 2007). These concerns may be due to insufficient information, experience and inadequate and insufficient studies on online learning and teaching (Allen et al, 2007). Based on these reports and surveys, there is clearly a need for additional and further studies involving the evaluation of learning outcomes in online language learning environments.

Moreover, the definitions of *online*, *blended* and *hybrid* learning vary among educators and learners, as does the amount of time online and the activities done online. Chenoweth and Murday (2003) defined online language courses as a combination of

computer assisted language learning (CALL), computer-mediated communication (CMC) and distance learning environments. For the purposes of the present study, the following terms and definitions will be used to describe online and blended courses. These terms are adapted from the SLOAN Consortium's definition (Allen & Seaman, 2010, p. 4) and also used in Goertler (2011, p. 472).

1. *Traditional face-to-face instruction* (TF2F) refers to courses that only minimally use technology for either instruction or practice components of a course. These courses meet face-to-face (F2F) only and the technology may be limited to providing the syllabus and the course calendar on a course management system (CMS).
2. *Technology-enhanced instruction* (TEI) refers to courses that primarily meet F2F. During those F2G meetings technology is used to varying degrees for instruction and application. This course may also include online homework assignments. Some class-time, but less than 30% of class-time, may be replaced with online class periods.
3. *Blended instruction* (BI) refers to courses that strike a balance between F2F and online instruction and application time. The online components replace 30 to 90% of class-time. The online or technology enhanced components may be synchronous (in which all participants and teachers are online at the same time working together) or asynchronous (participants and teachers do not have to be online at the same time), self- or teacher-guided, and use a diverse range of technologies.

4. *Open/online instruction* (OL) refers to courses that meet F2F minimally, if at all. Most of the instruction and practice time is completed independently and/or online. As in the case of blended instruction, the implementation of these courses varies greatly. For the purpose of this thesis, this definition does not include courses that are paper-based or television-delivered distance learning courses. In some of the reported research and the discussion the threshold for considering a course online is much lower than the standards proposed here.

Chenoweth, Ushida, & Murday (2006) assessed the effectiveness of technology enhanced instruction (TEI) language courses at Carnegie Mellon University. Oral and written production, reading and listening comprehension, grammar knowledge and vocabulary were measured among language learning students in 13 sections of technology enhanced instruction courses and 21 traditional F2F instruction courses. These courses were a mixture of French and Spanish language courses. The modalities were measured by final exams created by the course instructors, which were then rated by the researchers' assessment team. Essays were scored on a 5-point rating scale (Chenoweth & Murday, 2003), which included ratings such as topical relevance, overall development, vocabulary, etc.

Although the statistical analysis in the study above concluded that students in most online courses made progress in the L2 similar to that of the students in the equivalent offline courses, it is important to consider their definition of the "online" course, which is simply technology enhanced instruction based on the definition used in this final project. However, each "online" course in this study met F2F in a traditional classroom format for one hour each week. Additionally, students were required to meet

F2F with their instructor or a language assistant for 20 minutes each week on a rotating basis. Lastly, students participated in a weekly task-based chat session once a week. All course materials were offered online and assignments were turned in online or via email. Based on this course description, the “hybrid online language learning” courses included two traditional F2F classroom meetings whereas the “equivalent offline courses” meet 3 or 4 times F2F each week for 50 minutes. There was not much difference in the amount of face time between the two courses and the “hybrid online” course was simply a TEI course; this may account for the lack of significant difference in outcomes between the two groups.

Chenoweth, Ushida, & Murday (2006) cited similar results among the online and offline courses; however, the TEI courses evaluated do not truly differ very much in terms of F2F time with the instructor or the language assistant. Secondly, the syllabus was essentially the same between the two courses compared, but each individual instructor chose which cultural topics to cover and discuss. Also of concern is the teaching methodology employed by each instructor. Given that there were 11 teachers involved, consistency among the classroom instruction would be difficult to verify and the threat to internal validity posed by a “teacher effect” goes unmentioned in the study. Lastly, the researchers mentioned the statistical differences of higher performance by the traditional F2F students in the Spanish language courses. They attribute these higher scores among the F2F students in the Spanish courses to technological difficulties in the online course, based on interviews with the students and partial teacher feedback. As the students and teachers “became more familiar with the web site [and course materials, these issues] were even less of a problem” (Chenoweth, et al, 2006, p. 129). Therefore,

the results of this study seem to be weakened by teacher effects. In order to evaluate results among online and offline courses, all instructors teaching online need to be familiar with the programs and the software used in order to provide optimal instruction, guidance and support.

Kern (1995) examined the relationship between oral discussion and written discussion via *InterChange*, which is a synchronous chatroom environment where students collaboratively participate in foreign language interactions. Kern (1995) set out to find the quantitative and qualitative differences between oral chat and SCMC in terms of class participation. Forty students in 2 sections of a 2<sup>nd</sup> semester French class participated in this study. Both sections went to a computer lab one day every 2 weeks for a 50 minute *InterChange* chat session. The data collected from this study was during the 10<sup>th</sup> week of the semester. In order to gather the data among both sections, the data sessions of students of the first section of students was split as follows: in the first section, 14 students, 1 graduate student and 1 visitor engaged in the *InterChange* chat session while 18 students participated in the oral discussion. In the second section of foreign language learners, 15 students, 1 graduate student, 1 visitor and the instructor participated in the *InterChange* session and 14 students and the instructor were present for the oral discussion. Both groups discussed the topic of the “abortion” pill topic in French. Kern (1995) collected both the oral and the SCMC transcriptions of each section and also administered a questionnaire to both sections of students in order to assess their impressions of advantages and disadvantages of using *InterChange*.

Due to sample size, Kern (1995) did not analyze his results with a formal statistical test. However, there were salient differences in the quantity of production

between the *InterChange* sessions and the oral chatting sessions. The *InterChange* SCMC session for the first section of students resulted in 165 turn taking interactions, while the oral session for the first section of students resulted in only 98 turn taking interactions. For the second section of students, 200 turn taking interactions took place in the *InterChange* SCMC session, while only 53 turn taking interactions took place in the oral chatting session.

Discourse functions (e.g., greetings, assertions, questions, commands, self-corrections) were also analyzed among the two different types of foreign language learning interaction in Kern (1995). The SCMC transcripts revealed a wider variety of discourse functions than the oral transcriptions contained. No greetings were present in the oral sessions, while 11 greetings took place in the first section of SCMC and 16 greetings took place in the second section of SCMC. There was almost twice as many assertions in the SCMC transcriptions than the oral chat transcriptions and student questions were over seven times more frequent in the SCMC data than the oral chat data. This study provides evidence that students tend to produce more complex language in chattroom sessions than in face-to-face oral interactions. Additionally, based on the qualitative data collected via questionnaires, Kern (1995) found that participation increases online with “quieter” students that participate more freely in an online chatting environment. The results of this support the benefits of environments conducive to the benefits of controlled processing, such as the environment formed in online chattroom sessions.

Although the results of Kern (1995) show that foreign language learning students in SCMC environments produce more complex language than students in similar oral

chat environments, there are several limitations found in the study. The student population is different for the oral transcriptions and the SCMC transcriptions. Although all students were both in the same sections of French 2, approximately half the class engaged in an SCMC session discussing the abortion pill and the other half of the class engaged in an oral chat session discussing the abortion pill. Due to the varying types of students in each chat session, we are unable to conclude that the differences found among the SCMC transcriptions and the oral transcriptions are solely due to the different environments. In order to assess the data and make valid conclusions, the same student population should have engaged in both oral and written chat discussions and that data should have been compared and analyzed for significant differences. Additionally, the SCMC dialogues went about 2 minutes longer than the oral dialogues and because the length of times were not identical, the differences in the amount of words and the more complex language use appears skewed. Again, in order to make valid conclusions and equal comparisons, the lengths of time between both sessions should have been exactly the same. Lastly, the instructor in the first section of French 2 did not participate in the *InterChange* discussion, but did participate actively in the oral discussion, which results in a distorted comparison of the oral and written chat transcriptions in that French section. The instructor participation should have been equally defined by the researcher in each section in order to remove any differences that may have been caused by instructor posed questions or comments present in the oral chat session yet absent in the written chat session.

Volle (2005) investigated the acquisition of speaking skills in a strictly online course of 19 first-semester Spanish students. Students engaged in SCMC and performed

weekly oral recording assignments. These students made gains in oral proficiency ( $r > .99$ ,  $p = .05$ ) in this pre- and post-test design. Oral proficiency was based on six conversational objectives taken from the ACTFL proficiency guidelines for first year language learners. Although the positive gain scores indicate that these participants did indeed develop during the treatment, there is no basis for comparison or evaluation of SCMC, since there was no control group with which to compare and evaluate results. The lack of a control group limited the generalizability of the positive oral production results that were obtained.

In contrast to Volle's (2005) strictly online study, Isenberg (2010) set out to evaluate online language learning as a whole by comparing data from online and F2F L2 learners of German to answer the following research question "Is it possible to develop viable, comprehensive, fully at-a-distance language courses, that is, courses without any F2F contact hours?" (p. 76). Isenberg defined "viable" according to the definition found in the Merriam-Webster dictionary (Merriam-Webster Online) which means "capable of working, functioning, or developing adequately... capable of existence and development as adequately... capable of existence and development as an independent unit" (p. 3). Per the same source, the author defines "comprehensive" as "covering completely or broadly... having or exhibiting wide mental grasp" (p. 3). The goal of this study was to find out if distance language courses can be as "developmentally effective as, or more effective than, classroom-based instruction, neither a 'stepping stone to the traditional classroom' Warriner-Burke, 1990, p. 129) or an appendage to 'regular' instruction (Moore, 1973, p. 676) and address all of the objectives of a typical, classroom-based language course, including the oral communication objective" (p. 3).



Isenberg (2010) compared an online German class to a TF2F German class by evaluating several tasks, including reading, writing, translation recognition, grammaticality and speaking. The online course included the following:

(a) self-study of text, audio, and video materials (section 2.2.2.4); (b) reading, writing, grammar, and listening activities with automated feedback (section 2.2.2.5); (c) a weekly, web-based, large-group discussion forum, commonly known as an electronic message board (section 2.2.2.6); (d) mobile language immersion (listening to two German pop songs per week on a portable audio player such as an iPod) (section 2.2.2.7); (e) speaking assignments submitted to the instructor and shared with classmates as podcast episodes (section 2.2.2.8); (f) two weekly 50-minute text-chat sessions, in peer-to-peer small groups and dyads (section 2.2.2.9); (g) three final exam components (section 2.2.2.10); (h) access to additional, supplementary websites (section 2.2.2.11); and (i) attendance at a minimum of two virtual office hours (2.2.2.12) (pp. 79-80).

For the TF2F group, (the control group), four 50-minute F2F sessions replaced the weekly speaking assignments and weekly text-based chat sessions. All of the other components and materials were the same among both conditions. This study is similar to the Payne and Whitney (2002) study in terms of course distribution and experimental conditions.

The pre- and post-tests for oral production in Isenberg (2010) were evaluated using a German speaking test, the 1995 German SOPI (Simulated Oral Proficiency Interview). This proficiency exam asked basic questions categorized under a particular task, which was usually accompanied by a black-and-white illustration. Isenberg (2010)

reported findings that included statistically significant gains in SOPI-based task scores for learners in both populations, but no significant difference in the SOPI-based task gain scores between the two groups (face to face vs. online). A slightly higher mean was calculated for the web-based group, 4.38 (N = 16), compared to a mean of 3.53 (N=17) for the TF2F group, but this was not significant. These results suggest that weekly speaking assignments and weekly text-based chat sessions slightly improve the oral proficiency of a foreign language learner, but again, no significant differences in gains were found between the online and TF2F groups.

Isenberg (2010) suggested that these findings underscored the findings of Payne and Whitney (2002) and furthermore, she pointed out that the key to significant gains may be a “bimodal experimental condition” (p. 161). In other words, the experimental group in Payne and Whitney (2002) performed text-based chatting, but also included synchronous oral face-to-face exchange (as it was a TEI course and not a strictly online course). Although Isenberg made a valid point regarding the bimodal experimental condition, the online courses in her (2010) study also met for at least two virtual meetings with the instructor, which would be considered synchronous oral exchange. However, each virtual meeting could vary, depending on what tasks or activities students performed with or without the instructor. Additionally, the lack of information regarding the online student participation of office hours or what took place during those office hours makes it difficult to determine the presence or absence of a bimodal experimental condition. Finally, the German online program at Penn State University was new and small, which may have accounted for the absence of significant gains.

Payne and Whitney (2002) paved the way for SCMC cross-modality transfer studies with a methodical research design to test the effect of online written chat on oral production in language learning courses. Based on Levelt's language production model (1989, 1995), they conducted an experiment to see if SCMC would improve L2 oral proficiency through the development of the cognitive mechanisms underlying spontaneous conversational speech. Although they were not the first researchers to study the effects of chatting in the foreign language learning classroom (see Pellettieri 2000; Warschauer, 1996), they were the first researchers to do so with a different research design. In this study, the instructional time between the test group and the control group is comparable, task groups were of the same size and the instructor effects were balanced across conditions. 58 students participated, 34 students in two sections of a traditional F2F environment and 24 students in two sections of a TEI course (due to the addition of the weekly chat sessions). Two instructors participated in the study and each instructor taught a control section and a treatment section. To control the treatment administered to all the participants, the curriculum and lesson plans for all four groups were the same and the activities covered in the chatroom sessions were covered on the same days as the control group's F2F activities. In the treatment group, the TEI course, two out of four weekly classes were held in an online chatroom, for a total of 21 chatroom sessions.

Payne and Whitney (2002) analyzed the pre- and post-tests of oral proficiency on a 50 point scale adapted from the oral proficiency interview (OPI) derived from the definition of oral proficiency according to the ACTFL Oral Proficiency Guidelines: "an individual's ability to produce language that is comprehensible with syntax and vocabulary appropriate to the task, is grammatically accurate, and is pronounced in a

manner that approximates the speech of a native speaker” (p. 16). Not only did Payne and Whitney (2002) show significantly greater gains in oral proficiency in the experimental SCMC group than in the control (face to face) group ( $p < .05$ ), but the cross-modality transfer, based on the results of the students that participated in written SCMC in chatting sessions, showed significant gains in oral proficiency as well ( $p < .05$ ). Due to these groundbreaking results, Payne and Whitney (2002) pointed out that “the fact that the mean gain score of participants conducting half of their class time in the chatroom was higher than the control condition, suggests that synchronous SCMC may offer some unique benefits to second language learners that may be difficult to obtain in a conventional classroom setting” (p. 20). These findings suggest that the inclusion of the chat modality may render online courses as effective, if not more effective, than the traditional F2F format in facilitating the development of oral proficiency.

After the ground-breaking Payne & Whitney (2002) study, several shorter-term studies involving chat sessions began to appear in journals. In Abrams (2003), third-semester students of German prepared for oral discussions by engaging in a text-based chat session. In comparison to the F2F learners, the “chatters” did not perform in a significantly different way in terms of lexical and syntactic complexity nor did they exhibit a significant difference of quantity of language during the oral discussions.

Similar, short-term developmental advantages of SCMC were noted in Sykes’ (2005), study of pragmatic acquisition. To prepare for F2F discussions, third-semester Spanish students engaged in either a 30-minute text-based chat session, a 30 minute F2F discussion, or a 30-minute oral chat session. Three days after the treatment sessions, these students performed F2F post-test discussions. The participants that prepared via the

text-based chat modality (SCMC) used more complex and varied pragmatic strategies than those participants who simply prepared conversations F2F or those who prepared conversations via an oral chat.

Although these “chatroom” studies show some sign of transfer from written discourse to oral discourse, including a positive significant gain in oral proficiency based on the Payne & Whitney (2002) study, Hampel & Hauck (2004), noted:

Some studies have shown that in written forms of computer-mediated communication (SCMC), or so-called text chat, students produce a greater quantity of discourse than in an oral classroom... The question is, however, whether these communicative skills acquired in a written environment are transferable to oral communication. Most studies are tentative on this point and only go so far as to say that the written interactional competence may gradually be transferred to spoken discourse competence (p. 67).

The ever-present concern among researchers seems to be the lack of studies on written transfer to oral production.

These aforementioned studies examined the effects of SCMC on general oral abilities. Kern (1995) assessed and compared oral chat transcriptions to SCMC transcriptions from French foreign language learners to study language use and production. Payne and Whitney (2002) examined the differences between oral chat groups and SCMC groups in terms of oral proficiency. While Volle (2005) only looked at L2 oral data from “online” courses with chat without a control group Isenberg (2010) evaluated the differential effect of written SCMC vs. F2F oral interaction using an online experimental and a F2F control group. However, none of these studies compared effect of

SCMC vs. oral interaction on the acquisition of specific grammar points within online environments..

### **Justification for the Current Study**

In order to further explore the effects of oral interaction vs. oral interaction + written chat, this study used control group (only oral chat used in an online course) and an experimental group (a combination of oral and written SCMC used in an online course). This study assessed the differential effects of a combination of SCMC oral interaction and written chat vs. SCMC oral interaction only on the acquisition of the present tense forms in the oral production of L2 online learners of Spanish as they describe their daily routines and carry out a picture description task. Although this study tested oral gains during the semester and did not test oral proficiency, it aimed to contribute some valuable and relative information to the examination of “oral proficiency development as a result of synchronous SCMC” (Payne & Whitney, 2002, p. 25) as Payne & Whitney set out to do in their 2002 study.

### **Research Questions**

Therefore, the research question to be investigated is

Is there a significant difference in the effect of oral vs. a combination of oral and written synchronous computer-mediated communication on the oral production of the present tense forms by intermediate level L2 students of Spanish in online learning environments?

## Chapter 3

### METHODOLOGY

#### **Participants**

**Non-Native Speakers.** The participants in this study (n = 21) were second-year students of Spanish 201 at Arizona State University. 13 students were enrolled in an online course taught by the researcher and 8 students were enrolled in an online course taught by a fellow instructor. The age of the students varied between 18 and 40 years and all students used in this study were native English speakers. Additionally, the majority of the participants took the course as a degree requirement. Heritage learners or students who have studied abroad were excluded from the study. The control group students performed 30 minutes of oral chatting via the Adobe Connect meeting software while the experimental group performed 15 minutes of oral chatting and 15 minutes of SCMC via the Adobe Connect meeting software. The course design was exactly the same except for the mode of interaction that will take place among learners in the two groups. The control group online students practiced their present tense verb forms in oral only SCMC communicative tasks carried out during the virtual meetings with the instructor and other students, while the online experimental group made use of oral and written SCMC written chat sessions to carry out the same tasks.

#### **Instructors**

One of the challenges in conducting research among different classes in a natural setting is the issue of unequal treatment or the “teacher effect.” In order to assure that the treatment administered to participants in both the control group and the experimental group is comparable, and due to the inability for the researcher to teach two online

courses, the experimental group was taught by the researcher and the control group was taught by another instructor of a similar background. Both instructors are non-native speakers of Spanish with English as their first language. They both took the Teaching Methods course at ASU, in which they were exposed to various approaches to teach foreign language learning in the classroom, using as primary texts Omaggio (2003) and Lee and VanPatten (2003). The researcher differs from the second instructor as she both studied and worked in a Spanish speaking country; however, both instructors have acquired and maintained their Spanish through personal relationships with native Spanish speakers. Additionally, the curriculum to be covered, oral exams and written exams used for both classes were pre-set and pre-determined by both the researcher and fellow instructor and uploaded to all online instructors' shells within the Blackboard 9.1 computer management system by the ASU Spanish coordinator. These class materials were not modified by either instructor neither was there any deviation from these materials on the part of the instructor. The instructors alternated writing the lesson plan for each upcoming week on a weekly basis and furthermore, touched base during the week to verify that the same activities were covered in the lesson plans using the textbook *Interacciones*, 6th edition by Emily Spinelli, Carmen García and Carol Flood (2009) (See Appendices B & C). Again, the course design was exactly the same except for the mode of interaction (oral vs. oral and written interaction) that will take place among learners in the two groups.

### **Online Class Design**

As previously mentioned, all lower division Spanish courses taught at ASU-Tempe (including the SPA 201 level) are designed in the same way. The online SPA 201



syllabus, schedule of due dates and homework assignments (including oral tasks) were pre-determined and listed online for each online student within the instructor's individual Blackboard 9.1 shell. These materials were not modified by either online instructor. In addition to weekly assignments, all online students took three chapter exams, wrote three compositions and were required to virtually meet via the Adobe Connect software system, for 30 minute virtual meetings in groups of 2 or 3 each week. The virtual meetings on Adobe Connect allow all students and the instructor to see each other via the video chat function and each person has the ability to chat orally and the ability to use written chat to communicate with the other group members. The control group performed all of the lesson plan activities in an orally communicative form whereas the experimental group performed half of the same lesson plan activities in an orally communicative form and the other half of those activities through the use of written chat.

### **Materials and Departmental Guidelines**

The textbook used for the 201 level Spanish courses at ASU is *Interacciones*, 6th edition by Emily Spinelli, Carmen García and Carol Flood (2009). The design of this textbook follows a communicative approach to help the students achieve functionality within the Hispanic culture. In addition to the classroom activities that emphasize and support listening, reading, writing and speaking skills, the students are expected to do online homework that includes speaking exercises.

All teaching assistants (TAs) in the Spanish section of the School of International Letters Cultures at ASU are required to take the Teaching Methods course, in which they are exposed to various approaches to teach foreign language learning in the classroom, using as primary texts Omaggio (2003) and Lee and VanPatten (2003). Although there

are training workshops provided to TAs by Cengage Learning, who is the publishing company of the textbook used in the intermediate Spanish courses and the owner of the online *ebook* and homework site that accompanies the textbook, many TAs feel underprepared to teach an online course. There are several resources offered within the Blackboard management system including documents, files and videos that walk users through the use of Blackboard and Adobe Connect and other online software uses, but many TAs do not take advantage of these resources before beginning to teach courses online as these are “do it yourself” options and there is no formal group training. Both the researcher and the additional instructor used in this study completed all training modules online. The format of all beginning and intermediate levels of Spanish online courses are pre-designed within the course management system (Blackboard 9.1) by the Director of the Spanish Language Program.

### **Instruments and Procedures**

The study instruments consisted of an oral pretest and posttest (Appendices A and B). The students used the present tense to perform two pretest tasks and two post-test tasks. Both groups of tasks included a daily routine monologue in which the student related his/her daily routine on the given days and a picture description of a woman’s daily routine in which the students verbalized the woman’s daily routine. All of these tasks appear in Appendices A and B.

As the oral data was collected during class time and was within the curriculum guidelines, the study carried out was deemed exempt by the IRB and the researcher did not need to obtain an informed consent letter from students.

In order to compare the findings of the current study with those of previous studies, this study used a quasi-experimental, pre- and post-test design similar to comparable, prior research on SCMC (Isenberg, 2010; Payne & Whitney, 2002) as described above.

### **Codification of Data**

The oral pre- and post-test data from both the control group and the test group was successfully recorded with live video through the adobe connect classroom software. The researcher transcribed the oral data of each student's pre and post tasks to ensure equality among transcribing the present tense verbs of the whole population. When a student attempted to self-correct a verb, the researcher used the second attempt at the verb as the sample verb rather than the first as it was obvious based on the student's stumbling or filler words that he/she intended the second verb to be used. If the student used the progressive present tense, for example, *la mujer está hablando*, the entire verb form (the verb and its necessary gerund) had to be correctly conjugated for the student to receive credit for an appropriate use: *la mujer es hablando* would result in a 0/1, or an incorrect use of the present tense in that particular obligatory context, while *la mujer está hablando* would result in a 1/1 as it is appropriately used. Similarly, person/number errors, such as *la mujer se maquillan* would result in a 0/1 as this is an incorrect use of the present tense in that particular context.

### **Data Analysis**

This semester long study focused on two groups of foreign language learners enrolled in SPA 201 online. The control group engaged in weekly 30 minute oral chat sessions

while the experimental group engaged in weekly 30 minute sessions comprised of 15 minutes of oral chatting followed by 15 minutes of SCMC. Two types of data were collected and analyzed: (a) pre and posttest transcripts of student monologues, and (b) in class transcripts of student written chat dialogues. The oral gain scores of these oral tasks were measured by dependent t-tests for each group. Additionally, qualitative data was gathered to help contextualize and explain the results of the t-test analyses.

## Chapter 4

### RESULTS AND DISCUSSION

#### Results

The oral pre- and post-test data transcriptions of each informant were assigned a score, a percentage of correct answers, in order to assess the learner's level of acquisition based on suppliance in obligatory context (SOC). In other words, to calculate the rates of appropriate use of the present tense in this study, the researcher used the ratio of the number of present tense forms supplied to the number of obligatory environments, which expressed the rates as percentages of appropriate use (see Tables 1 and 2)

Table 1. Control Group: Students' Percentages of Appropriate Use of the Present Tense

Informant	Pretest monologue	Post-test monologue	Pretest picture description	Post-test picture description
1	100	100	90	100
2	33	62	9	100
3	88	80	60	64
4	100	92	77	93
5	73	88	100	64
6	14	80	6	93
7	90	60	94	94
8	10	83	33	31

Table 2. Experimental Group: Students' Percentages of Appropriate Use of the Present Tense

Informant	Pretest monologue	Post-test monologue	Pretest picture description	Post-test picture description
1	100	100	100	56
2	0	88	0	87
3	84	100	89	94
4	71	88	57	80
5	100	100	100	100
6	62	79	38	79
7	86	77	0	93
8	77	93	57	93
9	100	86	75	40
10	57	78	27	58

11	71	86	0	91
12	67	100	0	77
13	89	100	72	83

The pre and post scores of each task noted in tables 1 and 2 above were analyzed using a dependent t-test (within each group) to see if there was a significant difference in the performance gains of the two online groups over time regarding the use of the simple present tense (see Tables 3, 4, 5 and 6)

Table 3. Control Group: Students' Appropriate Use of the Present Tense - Monologue

Number of students	Mean Difference Gain (Pre to Post)	Standard Deviation of Difference Monologue	Minimum value of the difference	Maximum value of the difference
8	17	36.6156	-30	66

The dependent t-test p-value of 0.2280 indicates that the results were not significant, using a .05 alpha level. There is no significant improvement in present tense use from pre-test to post-test in the monologue task in the control group.

Table 4. Control Group: Students' Appropriate Use of the Present Tense – Picture

Description

Number of students	Mean Difference Gain (Pre to Post)	Standard Deviation of Difference	Minimum value of the difference	Maximum value of the difference
8	21	44.5778	-36	91

The dependent t-test p-value of 0.2201 indicates that the results were not significant using a .05 alpha level. There is no significant improvement in present tense use from pre-test to post-test in the monologue task.

Table 5. Experimental Group: Students' Appropriate Use of the Present Tense – Picture Description

Number of students	Mean Difference Gain (Pre to Post)	Standard Deviation of Difference Monologue	Minimum value of the difference	Maximum value of the difference
13	16	25.0101	-14	88

Here, the dependent t-test p-value is 0.0397, which is significant at the .05 alpha level. Therefore, in contrast to the oral-only control group there is a significant improvement in the pre and post test monologue task in the oral and written chat experimental group, which suggests that synchronous SCMC does offer some unique benefits to second language learners that may be difficult to obtain solely in an oral environment.

Table 6. Experimental Group: Students' Appropriate Use of the Present Tense – Picture Description

Number of students	Mean Difference Gain (Pre to Post)	Standard Deviation of Difference Picture Description	Minimum value of the difference	Maximum value of the difference
13	33	43.4238	-35	93

Here, the dependent t-test p-value is 0.0267, which is significant. In general, a p-value of under 0.05 is considered significant at the alpha level. Therefore, in contrast to the oral-only control group there is a significant improvement in the pre and post test picture description task in the oral and written chat experimental group, which suggests that synchronous SCMC does offer some unique benefits to second language learners that may be difficult to obtain solely in an oral environment.

## **Discussion**

The results of this study provide evidence that L2 oral abilities can be indirectly acquired and developed through chatroom interaction in the target language. The oral gains of the experimental groups in Kern (1995) and Payne & Whitney (2002) also support the evidence presented above, showing that a direct transfer of skills across modality from speaking to writing does take place.

Before discussing the unique mechanisms of the online written chat environment, a comparison of the results of the current study with those of Kern (1995) and Payne and Whitney (2002) is in order. Through means of comparing oral transcriptions and SCMC transcriptions discussing the same topic, Kern (1995) found that students in SCMC produced more complex language through the use of more discourse functions (greetings, questions, assertions) and also used more words overall (assessed with a word count) in the transcriptions than the oral chat students. Additionally, by administering questionnaires to gain students' perspectives of the SCMC environment, Kern (1995) found that students felt more at ease in written chat sessions and that students that were typically "quiet" in an oral chat environment "spoke" more in the SCMC environment. The results of the study presented here also show that students produced more language via word counts in 6 sessions of 15 minute oral sessions versus 15 minute chat sessions: 1.7 times more words were "spoken" in the SCMC sessions, on average.

Through means of an ANCOVA analysis, Payne and Whitney (2002) found that participants in an experimental group using SCMC as an aggregate group outperformed the control group participants on an oral proficiency exam. "These findings suggest that



the participants spending half of their instructional time in a synchronous online environment were advantaged in their oral proficiency development over those meeting face to face in the classroom” (p. 20). As Levelt’s model (1989, 1995) points out, language production, whether it is aural or textual, develops the same set of underlying cognitive mechanisms. The results of this current study show similar results, i.e., the experimental oral and written (SCMC) group outperformed the (oral) control group through the means of significant oral gains on oral tasks. Therefore, researchers can conclude that written chat may present unique benefits to foreign language learners that may be difficult to obtain in a traditional face-to-face environment.

It is worthwhile to point out some characteristics and differences between face-to-face oral conversation and SCMC that may support the significant gains found in this study. First of all, contrary to face to face and oral conversations, the normal rules of turn-taking do not obtain. When engaging in SCMC within the Adobe Connect virtual classroom, students did not see other students’ “talking” until the student hit the “enter” key on the keyboard and posted the sentence(s). Given the written chat environment, more than one student would be answering a question at the same time or a student would be delayed in his/her response as s/he tried to figure out a previous question as in the following example:

Student A: even my chat is delayed

Instructor: I’m sorry, do you see the prompt posted on the side

Student A: I am confused as to what we are doing

Student B: we are talking about daily routines

Instructor: Student A, daily routines like the prompt. Student C, are you still there?

Student A: are we talking about daily routines?

Student C: yes

Instructor: yes

Student B: *sí* 'yes'

Student A: *vale* 'okay'

In this example, Student A is confused about the topic and both the instructor and a fellow student, Student B, provide clarity to the task at hand. The instructor inquires if Student C is still online and Student C answers the instructor; however, by the layout above it could appear that Student C was answering the question about daily routines from Student A. The instructor and Student B both answer 'yes' that the students will be discussing daily routines and Student A says 'okay' and acknowledges that they will be discussing daily routines.

This "delayed" posting is one particular downfall of the chatting environment; however, the researcher only noted one other point of confusion as follows:

Student A: i dont have that on p 150?

Student B: no its not there

Instructor: actividad A?

Student B: oops i hit enter. p. 149

Instructor: *vamos a hacer la actividad A en la página 149* 'we are going to do activity A on page 149'

Student A: got it :)

Student C: my book just loaded. What *pagina* 'page'?

Student C: sorry, i'm there!

Instructor: *página 149.*

In the above example, Student B hit the “enter” key too quickly resulting in both the instructor and the student answering the question from Student A. Student’s C’s online version of the textbook was still loading and this student neglected to read the prior conversation posts.

The absence of normal turn-taking rules in a SCMC environment may also be beneficial, in that that students can be typing and producing more language in a SCMC classroom environment versus a strictly speaking classroom environment:

Instructor: Student A, qué haces en un día típico? ‘what do you do in a typical day?’

Student A: En día típica, me despierto muy temprano y me ducho. Me arreglo y como el desayuno. Despues hablo con mis amigos y mi profesora de espanol.

Despues tengo que trabajar. Durante la noche me gusta caminar con mis perros.

Is that good? ‘In a typical day, I wake up very early and shower. I get ready and eat breakfast. After I talk with my friends and my Spanish teacher. After I have to work. At night I like to walk my dogs.’

Instructor: sí, muy bien, ahora puedes preguntarle a Student B? ‘Yes, very good, now can you ask Student B?’

Student A: sí. ‘yes’

Instructor: Student A, tú puedes preguntarle a Student B sobre SU rutina diaria? ‘can you ask Student B about his/her daily routine?’

Student A: oh, okay, sorry. Student B que haces en día típica? ‘what do you do in a typical day?’

Student B: en mi día típico yo me levanto temprano y me baño. Yo como desayuno con mi hija y la llevo a escuela. Despues enseno ingles a los estudiantes españoles. Entonces, como almuerzo despues almuerzo, voy a mi casa ‘In my typical day I get up early and I shower. I eat breakfast with my daughter and take her to school. After I teach English to Spanish students. Then, I eat lunch after lunch, I go home’

In the above example, both students gave long detailed answers, which was not expected by the researcher. Even though daily routine discussions were performed both orally and through written chat during virtual meetings, there was not one instance of any student’s oral chat during regular virtual meetings that contained as many spoken words about daily routines as written above in either Student A or Student’s B posts. In the SCMC environment, Student B was given more time to process a response based upon the time it took Student A to describe his/her daily routine and had fewer pragmatic pressures to “speak” and respond quickly than the control (oral only) group. Thus, the SCMC group had more time to devote to controlled processing before the output was perceivable by the interlocutor than students had in the control group.

Students also actively engaged their partner or partners during the chatting portion, which resembled a group accountability function for all group participants. In an oral classroom environment (either online or traditional face-to-face) students can elect to be passive listeners or passively engage (through means of a head nod or passive acknowledgement of material) whereas in the online SCMC environment nonparticipation means that the person is not online. If other students went for more than

a minute without responding, other group members inquired as to where they were or if their internet connection or chat box had failed:

Student A: hey [Student B] are u still here? It doesn't look like you're on here stil; [still]

Student B: yea sorry

Another interesting difference that took place in the SCMC portion of the virtual meetings was the ability to see and evaluate and re-evaluate the foreign language written on the screen. The overall speed of conversation was decreased in comparison with face-to-face oral synchronous communication. Students had the opportunity to visually take note of spelling and questions and phrases written by other participants in their group. Monitoring their own written language or their peer's written language allowed for additional CP of selecting linguistic forms or cementing lexical concepts. As noted above, the activation of CP may provide additional insight as to the significant oral gains in the experimental group when compared to AP which was more likely used in the control (oral only) group (Lafford 2006). The short-lived and informal SCMC environment coupled with the ability to easily control the conversational pace reduced the memory load normally imposed by synchronous communication according to Working Memory theory. Students were able to view previous comments and discussion threads to refresh their memory as they typed or prepared to type a response. Prior studies have shown that the ability to plan before producing language production has resulted in more fluent and syntactically complex output and increased focus on form (Isenberg 2010; Ortega 1999; Payne & Whitney, 2002). Unfortunately, the Adobe Connect program did not allow the instructor to capture the students' dynamic deletion or retyping of words;

however, in a review of the recorded chatting sessions the researcher did note unnatural pauses where the student would stop and start typing before posting a comment or response as the message “Student A is typing” only appears in the chat box when someone is actually typing. It is assumed that during these pauses, students were planning their responses or engaging in self correction.

Based on the researcher’s teaching experiences in this study, it appeared that students in this study corrected their peers more often through chat than in an oral environment, perhaps because correction in the SCMC environment is less threatening than a face-to-face correction. The following examples serve as support of peer correction and questioning in the written chat environment:

1. Vocabulary correction
  - a. Student A: *centro commercial* = mall?
  - b. Student B: *sí* ‘yes’
2. Spelling correction
  - a. Student C: how do you say wash again? *llavar*?
  - b. Student D: *lavar* with one l
3. Pragmatics correction (greetings)
  - a. Student E: *qué hay?* ‘how are things?’
  - b. Student F: *nada* ‘nothing’
  - c. Student E: I think that it means how are things, right *profesora*?
  - d. Student F: so i can’t say nada?
  - e. Instructor: *Correcto. Qué hay* = how are things (p. 95)
  - f. Student F: okay *bien*. ‘good’

4. Gender correction
  - a. Student G: *cansado* ‘tired’
  - b. Student H: *cansada* is for a female
  - c. Student G: oh *cansada* :)
5. Grammar correction (*por* versus *para*)
  - a. Student I: Tengo que leer para dos horas. I mean por?? ‘I have to read for two hours.
  - b. Student J: *por*

There were a handful of clarification questions posed by students to another during chat written sessions about vocabulary. The researcher studied 6 archived sessions of the experimental group in order to determine the frequency of peer corrections in the oral chat and written sessions among those same students. Based on these 6 sessions, the average ratio of the number of corrections to the total number of words was .25 for the oral chat portion. In other words, per 100 words, students had the tendency to correct each other .25 times. The ratio of the number of corrections to the total number of words was .96 for the written chat portion. This means that per 100 words, students had the tendency to correct each other .96 times. Based on these 6 sessions, students in the experimental group tended to correct each other almost four times as often during the written chat sessions as in the oral only sessions. However, the numbers are so small (less than one occurrence for each 100 words in both modalities) that no real conclusions can be drawn here. More research on this with a larger data base should be carried out to study this question more thoroughly.

It must be noted that during the written chatting students still had access to use their microphones to talk and would also verbalize their vocabulary to their group members, who in turn would respond, correcting them:

Student A (oral chat): Wait, I'm trying to think of the word for sweeping. I hate sweeping.

Student B (oral chat): I think it's *barrer*, right? Page 201? Vocab?

Student A (written): haha *no me gusta barrer*. 'I don't like to sweep.'

In the above example, Student A indirectly asked Student B for the vocabulary word for sweeping. Student B orally provided that word and then Student A typed out his/her response "*no me gusta barrer*." In casual and informal conversations with the researcher's students at the end of semester confirmed that almost all students felt "more comfortable" in the SCMC portion of the virtual meeting, that they felt that [written] "chatting is easier than talking" and that "chatting isn't as scary" [as oral production face-to-face in a conventional classroom environment]. These statements may also mean that students made more of an effort to produce the foreign language in SCMC since they felt that the environment was more comfortable and less-threatening. Only one student cited feeling equally comfortable in both the oral and written chat portions of the virtual meetings.

## Chapter 5

### CONCLUSION

#### **Conclusion**



The objective of this study was to explore the effects of oral interaction vs. oral interaction + written chat on the development of the Spanish present tense verb forms in an online environment. Additionally, although this study did not test oral proficiency, rather tested oral gains, it aimed to contribute some valuable and relative information to the examination of “oral proficiency development as a result of synchronous SCMC” (Payne & Whitney, 2002, p. 25). This study was designed to test the differential effects of a combination of oral and written SCMC online interaction and solely oral online interaction on the acquisition of Spanish present tense verb forms.

The results of this study show that the addition of written chat resulted in significant oral gains of the Spanish present tense verbs among Spanish online language learners at the 200 level. The findings above indicate that there may be distinctive benefits obtained by using SCMC in foreign language learning online environments that are not easily obtained in conventional online designs that do not feature SCMC.

### **Limitations**

The study was limited to two online classes of 201 level Spanish students. Online courses in general have a much lower rate of retention and the maximum number of students per class is 18. At the most this study could have had 36 students ( $n = 36$ ); however, due to students dropping out or choosing not to attend live sessions with their instructor the total population was  $n=8$  for the control group and  $n=13$  for the test group.

Additionally, due to availability and time constraints, one course was taught by the researcher and the other course was taught by a different instructor, which raises the question of the teacher and “halo” effect wherein the researcher may be influenced by the anticipated findings of his/her data and therefore, bias and/or influence the study. This

effect was mitigated as both online course curriculums and materials were pre-determined and pre-set by the Director of the Spanish Language Program at ASU with the exception of the SCMC in the experimental group. This effect was further mitigated by the use of the same lesson plan and activities for each week and by the researcher choosing a similar instructor to the researcher in terms of Spanish ability, personality, teaching methods and background. It cannot be assumed that any improvement in oral production is due solely to the inclusion or exclusion of SCMC, since the students were also expected to do various speaking and writing exercises as part of their online homework assignments.

### **Future Research**

A search for L2 oral development empirical studies based on the unique mechanisms of SCMC in the foreign language learning classroom reveals that this topic still lacks attention. It is evident that incorporating SCMC into the online language environment resulted in significant oral gains in the experimental group in this study; however, determining how much and for what functions a particular group of students should use SCMC cannot easily be established. Future studies would do well to incorporate specific tasks into treatment groups, testing for example, a role play of exchanging clothing at the department store in both written and oral chatting sessions in the experimental group and solely in a chatting session in the control group. A second control group could be added that solely performed the role play task in written chat for additional insight into Working Memory functions.

Since the participants were solely students at the 200 level, a future empirical study should investigate whether there is an effect of SCMC at lower and more advanced levels

of study in addition to different types of classes, such as a “Business Spanish” class, a “Medical Spanish” class or content courses such as literature, culture and linguistics, with regards to oral gains.

An additional replication of this study with a higher sample size, drawing students from four online language classes (due to the low retention rate of online language courses), for example, would further contribute to the investigation of SCMC in terms of oral gains as the researcher would be able to run an ANCOVA analysis similar to the test conducted in Payne & Whitney (2002).

It would also merit replicating this study with a larger sample size and a different make-up of groups: two online groups of foreign language learning students and two traditional face-to-face groups foreign language learning students. With two online groups and two traditional face-to-face groups of foreign language learners, the researcher could set up an online control group to compare the oral gains in the Spanish present tense to the results in online experimental group that used SCMC and test to see if there would be any significant gains in oral development in a face-to-face experimental group employing SCMC compared to a face-to-face control group. Additionally the researcher could cross-examine and evaluate the results to note the gains in the online foreign language classroom in comparison to the traditional face-to-face classroom. The addition of traditional face-to-face groups would shed light as to whether incorporating written chat sessions into foreign language learning lesson plans results in significant gains in oral proficiency. As most if not all students text their friends and family daily on their cell phones, written chatting sessions would seem almost as natural as oral chatting. There have been several studies that cite the benefits of incorporating current technology

into the foreign language learning classroom, such as emailing pen pals (Hung, P.-Y. (2007) and the effect of technology in multimedia environments and/or gaming environments (Blake, 2008; Coleman, 2002; Goertler & Winke, 2008; Nikolova, 2002; Squire, 2003; Sykes, 2005; Von der Emde, Schneider, & Kotte, 2001).

### **Pedagogical implications**

Based on the results of this study, which showed that there is a significant effect positive on the oral production of the Spanish present tense forms in the online courses with written chat, the design of future hybrid and online classes should be examined. The interactive portion of online courses should not only consist of oral dialogue, but should include SCMC based tasks as well, as the time for controlled processing that SCMC affords seems to assist students in their acquisition of oral abilities in the target language. It is clear that there is value of incorporating written chat into interactive sessions in the online foreign language classroom. However, as noted above, the researcher is unable to establish how much and for what functions a particular group of students should use SCMC. Perhaps a means to accomplish this would be to allow students themselves an active role in deciding and evaluating how written chatting could best be used in the online foreign language classroom. These insights would aid researchers to understand better students' own assessments and reflections and assist instructors in consciously creating a combination of written and oral chatting tasks to incorporate into foreign language learning lesson plans.

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## APPENDIX A

## ORAL TASKS

### **Acquisition of Spanish as a Second Language – Daily Routine Prompt for Pretest**

**Arizona State University**

**Riley – August, 2011**

“Think about how you spend a typical Monday and Wednesday, including what activities you do, school activities and which friends or family members you spend time with. Talk about a typical weekend as it happens from the time that you wake up to the time that you go to bed.”

### **Acquisition of Spanish as a Second Language – Daily Routine Prompt for Posttest**

**Arizona State University**

**Riley – August, 2011**

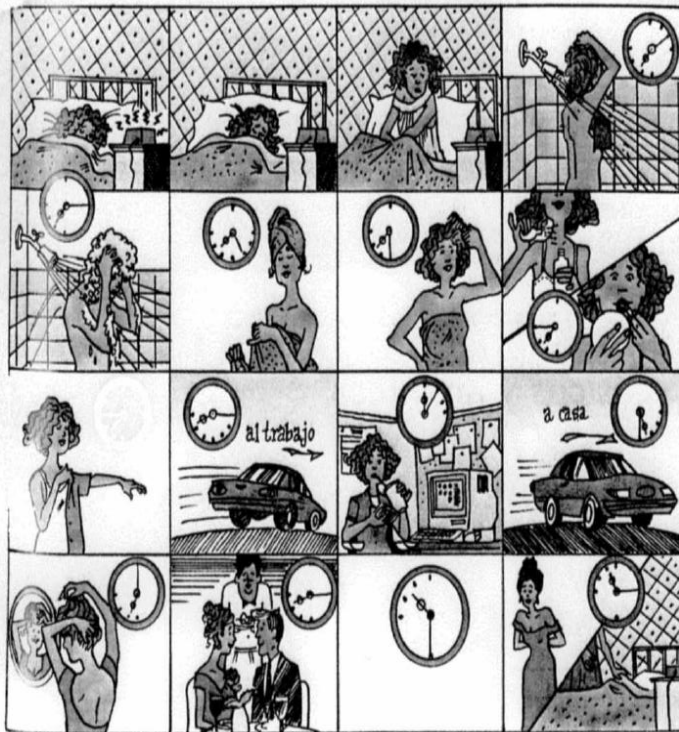
“Think about how you spend a typical Tuesday and Thursday, including what activities you do, school activities and which friends or family members you spend time with. Talk about a typical weekend as it happens from the time that you wake up to the time that you go to bed.”

**Acquisition of Spanish as a Second Language – Picture Description Pretest**

**Arizona State University**

**Riley – August, 2011**

**La Rutina Diaria de Adriana**

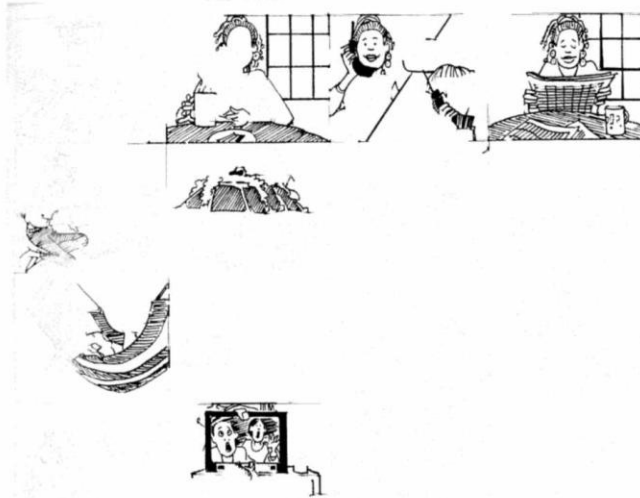


**Acquisition of Spanish as a Second Language – Picture Description Posttest**

**Arizona State University**

**Riley – August, 2011**

Un Día Típico de Carmen



## APPENDIX B

SAMPLE LESSON PLAN – CONTROL GROUP

**Week 1 Spanish 201 online, Fall 2011**

Goal task: Daily routines (las rutinas diarias)

Al principio - Saludarles- ¿hay preguntas?

Warm-ups

P29 1.13

1.14

\*Vamos a hablar ahora de las rutinas diarias\*

Act-1.16-¿Qué hace cada persona? Lo hacemos como grupo

Post-1.18 Dile a tu compañero qué haces para arreglarte en la mañana. Por ejemplo, para arreglarme, me maquillo.

\*Vamos a hablar más de nuestras rutinas diarias\*

1.22 take turns describing their day to each other

1.24 –Remind them to switch from present to past tense. Talk in partners

1.25

1.27-Traten de no escribir, solo conversen.

## APPENDIX C



## SAMPLE LESSON PLAN – CONTROL GROUP

### Week 1 Spanish 201 online, Fall 2011

Goal task: Daily routines (las rutinas diarias)

Al principio - Saludarles- ¿hay preguntas? Explicarles el formato de la reunión en inglés, 15 min oral y 15 min “chatting”

#### **15 min oral:**

Warm-ups

P29 1.13

1.14

\*Vamos a hablar ahora de las rutinas diarias\*

Act-1.16-¿Qué hace cada persona? Lo hacemos como grupo

Post-1.18 Dile a tu compañero qué haces para arreglarte en la mañana. Por ejemplo, para arreglarme, me maquillo.

#### **15 minutes chat:**

\*Vamos a hablar más de nuestras rutinas diarias\*

1.22 take turns describing their day to each other

1.24 –Remind them to switch from present to past tense. Talk in partners

1.25

1.27