ANALYZING ORAL SKILLS
IN VOICE E-MAIL AND ONLINE INTERVIEWS

Lisa M. Volle
Central Texas College

ABSTRACT

This study investigated the acquisition of speaking skills in an online distance education course of 19 first semester Spanish learners. The possibility of oral development in a strictly online course was examined based on students' pronunciation production in two types of recorded speaking activities and in two real-time conversations. Students created two types of voiced audio e-mails each week during the semester: read aloud passages and grammar-drill completions. In order to determine whether students' pronunciation indeed improved over the course of the semester, their performance on these two types of audio e-mails were compared at the beginning of the semester and at the end of the semester. In addition, students participated in two Internet-mediated oral conversations with their instructor using MSN messaging at the mid-term week and final week of the semester. Three kinds of data were collected from the conversations: an articulation score (articulation = pronunciation, stress, and intonation), an accuracy score, and a proficiency score. Students' performance on these interviews provided further evidence regarding the development of their oral skills. The findings suggest that only in the area of oral proficiency were there significant gains in scores.

INTRODUCTION AND BACKGROUND

Distance Education courses in foreign languages (FL) must concern themselves with delivering instruction that covers all aspects of language learning. This includes reading, vocabulary, grammar, writing, listening, culture, and (frequently underreported in course design) speaking. Students often report that their most important learning objective is speaking the target language (TL). There are functional applicable uses for speaking Spanish that most students recognize in their jobs and with their extended families.

While some institutions offer "distance" education foreign language classes, they often still require the students to meet face-to-face (F2F) on a regular basis. These types of classes are often referred to as technology enhanced or hybrid courses. To offer a true distance education course in a foreign language and not provide computer-mediated communication oral production and spoken interactive opportunities, now that simple technology can be used, may reduce the course to grammar study.

This research project focused on the oral development of Spanish for first semester learners in an online distance education Spanish course without F2F meetings since the enrolled students (military personnel and their family members) were located around the world. The aim was to capture and describe how students progress in terms of their speaking skills including pronunciation and conversational ability during one semester in an online learning environment.

Distance Education at Central Texas College began in the 1970s with correspondence courses and telecourses. In 1995, conference courses were offered to different locations in real-time -- called V-Tel. By 1997, the first Web-based distance education courses were developed and offered to military personnel and their dependents at Central Texas College's U.S. continental campus sites and around the world. Today, more than 150 distance education courses are offered. Fall 2003 was the first semester in

which an exclusively online foreign language course was offered. The current study investigates speaking activities and measures for this first semester online Spanish course.

This article first presents the pertinent literature on Internet-based foreign language activities and computer-mediated communication (CMC) addressing the lack of literature on online foreign language classes. Next follows a review of the literature of second language speech development, after which I introduce the research questions and study's methodology. The last section presents the findings and analyses, concluding with implications for teaching and suggestions for future studies.

LITERATURE REVIEW

The Internet and CMC in FL Learning

Most literature focuses on the Internet as an adjunct to the classroom and not as the focus of the meeting classroom itself (Swaffar, Romano, Markley, & Arens, 1998; Warschauer, 1996). Students attend laboratory sessions to complete activities independently from the regular flow of the classroom. To foster communication in authentic ways, many propose the use of e-mail as a tool for use in foreign language classes (Aitsiselmi, 1999; Gonzalez-Bueno, 1998; Leahy, 2001; Stockwell & Harrington, 2003; Van Handle & Corl, 1998). Van Handle (1998) used e-mail with intermediate FL German students for learner-to-learner exchanges. It was found that the quality of messages was enhanced but not the accuracy. Gonzalez-Bueno's (1998) study with third semester FL Spanish students found that there was no effect on accuracy in the e-mailed journal entries. However, the quantity of words used in the entries increased as compared to the notebook and pencil entries. Aitsiselmi (1999) used e-mail with first and second semester FL French students in a non-native speaker (NNS) to native speaker (NS) exchange. He found that the e-mail pattern of communication resembled oral F2F chats. Students perceived the activity as similar to speech, reporting that the message was more important than grammatical accuracy.

Leahy (2001) conducted an international e-mail exchange between German students learning English and British students learning German. They were paired based on language level abilities and alternated target language use between e-mail exchanges. The FL German students gained in "content" and "language" use and were able to transfer written e-mails to a more formalized written report as well as oral report. Stockwell and Harrington's (2003) study of a 5-week email exchange between advanced learners of Japanese and native speakers resulted in significant increases in syntax, lexicon, and proficiency.

Other researchers describe the features, outcomes, and uses of synchronous chat in networked classrooms (Abrams, 2003; Beauvois, 1998; Blake, 2000; Chun, 1994; Kern, 1995; Kim, 1998; Payne & Whitney, 2002). Chun's seminal article suggested that written synchronous chat might produce a positive effect in F2F oral production. Beauvois and Kim suggested that there is a link between written and oral production in support of Chun's transferability of writing competence to speaking competence. Kern compared synchronous chat with F2F oral discussion in a second semester French class and noted that there was a larger quantity of language use in a CMC chat as apposed to the F2F oral discussion. He suggested that networked-based chat should be used to facilitate classroom discussion, but not as a replacement to F2F oral discussions.

In a study with FL German students, Abrams (2003) compared two CMC environments (networked-based synchronous chat and asynchronous discussion boards) with F2F discussion. Abrams suggested that training with synchronous chat can help students produce more idea-units than training with F2F discussion and asynchronous discussion boards. Payne and Whitney (2002) looked at proficiency development through synchronous CMC. Third-semester students of Spanish participated in one of two conditions: F2F oral group meetings in class four times a week for traditional instruction and discussion tasks and the experimental group that held F2F meetings twice a week for instruction with two online chat room meetings. The findings suggested that by participating half of the time in a synchronous online environment, oral proficiency development was higher than for those learners in the control group.

Blake (2000) discussed the type and kind of discourse produced in written chat under differing task conditions, focusing primarily on lexical development. Learners of Spanish used synchronous networked chat to complete activities with native speakers. He found that the native speakers maintained the conversation pace and were more in control. He also found that for the learner, the focus of the communication was much less of form, but on negotiating meaning to reach the task goal.

The above studies of language learning with e-mail, networked-based classroom activities, and computer assisted language learning (CALL) activities are in addition to the F2F sessions that students attend. For the online distance education language learner, these tasks are regular events.

Distance Education in FL Learning

Although there are many studies about distance education (DE) or distance learning, there are very few that address foreign languages. Of two studies about languages in a DE context, one discussed general achievement in terms of all skill areas except speaking between the DE and F2F instruction. Although the attrition rate was high for the DE learners, there were no differences in achievement for completers of the DE course (Despain, 2003). Despain mentioned that three voice samples were submitted: two readings and one response to questions. No mention was made whether these voice submissions were made in a synchronous or asynchronous context. Despain acknowledged that a more in-depth investigation into proficiency development in this context is warranted.

The second report discussed supplementing audio conferencing with a text-based conferencing tool (Kotter, Shield, & Stevens, 1999). It was predicted that the participants would develop greater fluency rather than accuracy by participating in the study but a definitive conclusion was not formed. Emphasis in the report was on the tasks as promoting language development in the target language. Included in the report was a detailed description of how the media functioned for the participants. A relevant finding was that in spite of students participating in an anonymous fashion in the synchronous chat, participants were more "reserved" (p. 58) in comparison to written chat; students revealed that they were more aware of mistakes and gaps by participating in this mode.

Speech Development in FL and L2 (Second Language)

SLA research in the area of speech has not come to a consensus on an approach to phonological instruction (Chun, 1992; Moyer, 1999). Pronunciation studies appear to trail behind research on syntax and discourse (Leather, 1999). Leather suggests "one reason for this is that for many learners intelligibility in spontaneous speech is a sufficient goal" (p. 1). Even if "getting one's point across" is the main goal in speaking a second language, at some point an "accent" interferes with comprehension (Munro & Derwing, 1995). Moyer (1999) suggests that if students focus on the phonology early on, they "may acquire a comfortable level of fluency, and subsequently focus primarily on morphosyntactic and lexical accuracy, as well as pragmatic awareness" (p. 99).

There are not many studies in early FL speech production (e.g., Salaberry, 1999; Camps, 2000, 2002). Camps (2002) looked at the aspectual distinctions of preterit and imperfect use in a F2F context. It is worth mentioning a study (DeKeyser & Sokalski, 2001) that investigated the role of comprehension and production practice of first-year Spanish students in a traditional F2F context. Students were divided into a control group, an input group, and an output group for practicing material in different ways. The interaction pattern by skill acquisition theory was found: Input practice is better for comprehension and output practice for production.

The present study is designed to offer a look at the oral development of adult learners in a first semester online Spanish course. As far as I am aware, no research has been done in the area of voiced e-mails in FL studies in a DE environment at this time. This study seeks to investigate the nature of this development as well as accuracy and proficiency in real-time online conversations.

THE PRESENT STUDY

Research Questions

1) Can distance education FL students demonstrate improvement in terms of articulation during one semester of study?

2) Do different voiced audio file tasks reveal differences in terms of articulation?

3) What do synchronous online oral conversations reveal in terms of articulation, accuracy, and proficiency (based on the curriculum criteria) from the mid-term and final conversations?

Participants

This study analyzes the oral production of 19 first-semester learners of Spanish at the university level (18 female and 1 male).[1] All were native speakers of English and had completed other coursework online. The age of the participants ranged from 18 to 40. Sixteen are employed at least part-time, and 18 are full-time students. Seventeen live with children and 4 are living as single parents. Two of the single parents have husbands deployed in Iraq. All participants report that the course is a requirement for their degree plan. Two students identify themselves as "heritage" speakers and 3 had never studied a foreign language before.[2]

The Course Materials and Tools

Student learning materials for the semester of elementary Spanish come from three sources: a textbook bundle, an electronic workbook Web site, and a course Web site. The textbook bundle consists of a traditional textbook that included one audio CD to correspond to textbook activities, two interactive CD-ROMs for learning activities and tutorials, one DVD program, and a student key code to access the online electronic workbook (see Figure 1)

Figure 1. Screen shot of the interactive CD-ROM lesson display

In the Interactive CD-ROM, the *Contextos* section introduces the vocabulary with audio; and the *Fotonovela* section is a smaller version of DVD program segments with dialog. In *Fotonovela*, students have the ability to listen and read the words in Spanish, listen without the words, or listen and read the English translation. The textbook has pictures of video scenes with a dialog transcript below. Comprehension activities follow. The interactive CD *Fotonovela* is listening comprehension practice, while the *Fotonovela* in the textbook is reading comprehension practice.

The electronic workbook, also called the student activity manual (Web SAM), is maintained on www.quia.com (see Appendix A) This contains four types of activities: (a) *written practice* for vocabulary, drill work, and open-ended writing; (b) *reading comprehension* containing culture and authentic material; (c) *listening practice* for vocabulary, structures, narrations, and dialog; and (d) *video clips* with various listening, culture, and writing activities (see Appendix B).

The main course Web site was housed on Prometheus.[3] Like Blackboard, Prometheus has a place for announcements, a syllabus, frequently asked questions, contact information, a communication area (to include chat rooms), testing area, and lecture files (see Appendix C). MSN Messenger is a free chat room program that was added during the sixth week of the course. In written synchronous chat, many participants can communicate. Using, MSN Messenger with microphones limited participation to pair work, but still allowed for written communication.

As a prerequisite for the course, all students were required to have their own or regular access to a multi-media computer, speakers, computer-based recorder (found in accessories in Windows-based operating systems), a microphone, e-mail account, and regular Internet access. It was further suggested that the student have prior experience in a distance education class.

Online Oral Training

The instructor/researcher advised students to approach a lesson beginning with the information presented in the textbook and followed by a multimedia presentation in either the interactive CD-ROM, PowerPoint presentation or a real media video file created by the instructor. I gave the students a list of explicit assignments to complete so they could follow the suggested ordered plan or they were free to explore and complete tasks out of order if they so wished.

Each lesson contained a pronunciation section accessible in the textbook with a corresponding audio followed by repetition drills. The same lesson was repeated in the Web SAM lab manual with a different set of repetition drills. The interactive CD-ROM contained the same pronunciation lesson with listen, repeat and record drills. The student could listen to the native speaker and compare his or her own recording. The activities moved from one word to phrase to sentence level (see Appendix D). In addition, 2 -3 minute real media video files were created by the instructor/researcher to correspond to pronunciation topics. These videos were embedded in the lesson description on Prometheus.

In the assignments, the students created audio WAV files (a format of audio file) of lesson readings and drill exercises and sent these WAV files to me via e-mail. There were a total of seven readings WAV files and 25 drill WAV files per student.

Students made audio files by going to

All Programs > Accessories > Entertainment > Sound Recorder

A small box appears with a microphone, and students record themselves and save the recordings in WAV files.

The WAV files were very large and had to be recorded in 30-second intervals for the Distance Education mailbox to open them. Some students sent drills in two or three WAV files because they needed more time to complete responses.

Additional Output: Simulating Spoken Chat

In addition, other supporting exercises were required in written form and sent in e-mail as word file attachments or were posted in discussion board folders. Students were encouraged to complete written drills together online in chat rooms. If students worked in pairs or groups, only one person would have to e-mail the responses. The only requirement was that a chat record be created to document the written chat. If the chat was oral (via Instant Messenger) then a written summary to document the day, time, and

length of the session needed to accompany answers. After MSN Messenger was installed in student computers (week 6), the amount of pair and group activity increased as evidenced by the number of written transcripts that were preserved. Students reported that the ability to see the blue icon (online signal) next to the student's name made them feel comfortable enough to send an instant message.

Included in these collaborative homework assignments were conversational questions that corresponded to the theme of the lesson and the syntactical structures. Students could write their own responses or work out and exchange responses with other students. These questions formed the basis for the mid-term (week 8) and final (week 16) real-time synchronous conversations with the instructor. Students signed up for 30-minute sessions to meet their instructor for the mid-term and final oral "interviews." The interview session lasted 6-10 minutes, the remaining time was dedicated to equipment checks and other coursework concerns.

The Data and Method of Analysis

In order to evaluate students' oral production during the semester, two types of voice e-mails were collected: read aloud passages and grammar-drill completions. An articulation comparison between lesson 1 (week 3) and lesson 7 (week 15-16) reading passages was made. An articulation score is based on three components: pronunciation, stress, and intonation (Koren, 1995). This idea is derived from Tarone (1983, cited in Koren) because it was found that speech output varied as a result of the task type. In addition, a second articulation score comparison was made between grammar drills in week 4 and week 15.

Students participated in two Internet-mediated oral conversations with the instructor using MSN messaging in week 8 and week 16; these conversations were recorded. Three kinds of data were collected from the conversations: an articulation score, an accuracy score, and a proficiency score. The accuracy score is adapted from Weir's *Communicative Language Testing* (1990). The proficiency evaluation is adapted from *ACTFL Proficiency Guidelines* (1983). The data from conversation one was compared to the data from conversation two (see the score cards in Appendices E and F).

Two raters were given tapes of oral reading 1, drill exercise 1, and conversation 1 and were instructed to rate each based on the scales described above. Both raters are native Spanish speakers; the male rater is originally from Argentina, the female rater from Puerto Rico. Both raters teach Spanish and are accustomed to working with adult learners of Spanish. The raters spent about 1 hour receiving rating instruction and scoring examples from five drills, five readings, and five conversations. These samples of student work came from students who had withdrawn from the course and the study. Afterwards, the raters were given tapes of the 19 participants to rate the read aloud tasks, drill completion tasks, and the two student-instructor conversations.

A Pearson's product-moment correlation was performed to determine the coefficient (Pearson r) for measuring intra-rater agreement. These two raters positively correlated ($r = .9932$). I, as researcher/instructor, also rated the data set. A week later, intra-rater reliability was performed between the first set of rater scores and my scores. The correlation between the scores of the NS raters and the NNS instructor was $r = .9966$. For both correlations, a significance level of .05 was adopted. For this data set, there appears to be no effect on scoring based on whether the rater is NS or NNS.

RESULTS AND DISCUSSION

An SPSS package was used to run the five sets of paired t tests on the mean scores. This compares the average score at the beginning of the semester to the average score at the end of the semester in five measures: articulation in three tasks (read aloud, drill, and conversation) and accuracy and proficiency in conversation. Being equally interested in outcomes at either tail distribution, the 2-tailed t test was preferred (see Tables 1, 2, 3, and 4).

Table 1. Articulation Scores for Reading, Drill, and Conversation 1

Articulation Scores	M	N	SD	SE
Reading 1	3.36	19	1.02	.23
Drill 1	3.10	19	1.05	.24
Conversation 1	3.23	19	1.02	.23

Table 2. Articulation Scores for Reading, Drill, and Conversation 2

Articulation Scores	M	N	SD	SE
Reading 2	3.55	19	.90	.21
Drill 2	3.49	19	1.05	.24
Conversation 2	3.52	19	1.26	.28

Table 3. Conversation Accuracy Scores for Week 8 and Week 16

Accuracy Scores	M	N	SD	SE
Conversation 1	1.98	19	1.12	.26
Conversation 2	1.97	19	.99	.23

For conversation accuracy 1 and 2 , $t = 2.10$ which was not significant at $t(18) = .07$, $p<.05$.

Table 4. Conversation Proficiency Scores for Week 8 and Week 16

Proficiency Scores	M	N	SD	SE
Conversation 1	3.74	19	1.56	.36
Conversation 2	4.74	19	1.63	.37

Paired sample correlations show that the first set of scores is similar to the second set of scores, and the larger the number, the more benefit there is to the pairing (see Appendix G). The correlation between the two repeated measures for reading articulation, drill articulation and conversation proficiency is .66, .66, and .67, $p >.05$ respectively. The correlation between conversation articulation and conversation accuracy is .69 and .68, $p >.05$. These scores are significant.

The statistical data show trends and are not generalizable. Even though four out of five mean score sets increased from pretest to posttest, three changes were not large enough to be significant.

Research Question 1: Can distance education (online) students demonstrate improvement in terms of articulation during one semester of study?

The results from these measures showed no significant difference in articulation in each compared measure. Even though this model of scoring was adopted for the ease of scoring, averaging the subscores in pronunciation, accent, and intonation may have washed any subtle changes in articulation. Perhaps one semester is not enough time to demonstrate improvement when there are so many competing aspects of language learning.

Another reason that scores may not reflect significant improvement is that as the lessons progress, readings and drill exercises increase in level of difficulty. Students who scored high on initial WAV files may not have scored as high on subsequent WAV files. The opposite may also be true. Students with native-like and near-native-like articulation scores in the beginning of the semester scored the maximum on the scale, and therefore, could not demonstrate improvement.

A final reason that scores may not reflect a significant gain in articulation is due to the influence of the raters. Anderson-Hsieh and Koehler (1988) reported that raters assigned higher comprehension scores to taped speech for two types of speakers: for those who were native speakers and for those (both NS and NNS) whose rate of speech was slower. In this study, reading and drill audio WAV files were submitted primarily in 30-second intervals which may have affected the scores assigned to the student.

Major, Fitsmaurice, Bunta, and Balasubramanian (2002) investigated the comprehensibility of NN speech in an ESL context and found that native and nonnative listeners scored significantly lower scores when listening to nonnative speakers. Although, the inter-rater and intra-rater reliability was established in this study, Major's findings suggest that the raters are influenced by nonnative-like speech.

Research Question 2: Do different voiced audio WAV file tasks reveal differences in terms of articulation?

Although the mean scores for the three tasks all improved, the improvement was not significant. It is interesting to note the pattern between the different articulation scores (see Figure 2). In both charts, the first bar represents the mean articulation score for read aloud passages. The second bar represents the mean articulation score of a drill activity. The articulation means in both charts from reading to drill exercises drops.
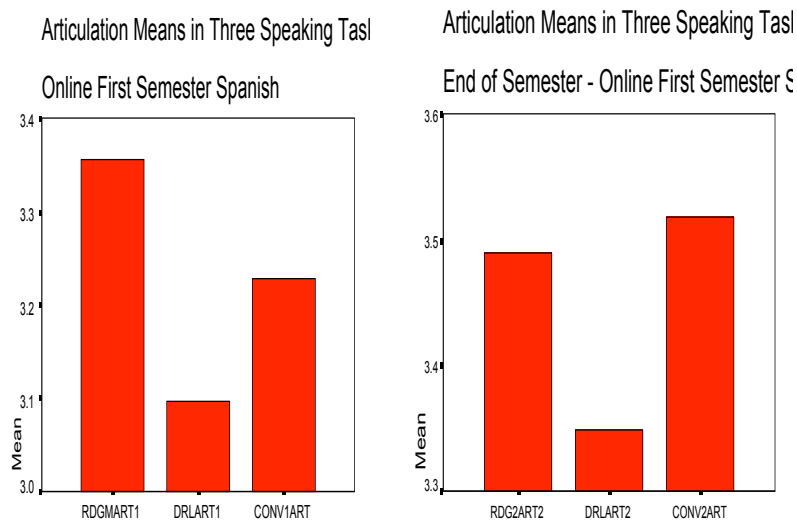

Figure 2. Three articulation means -- beginning of semester (left) and end of semester (right)

Koren (1995) described this in terms of "rising degree of care in pronunciation" (p. 391). The students' attention is more focused when the task involves reading: making sense of the letters and producing the sound. In answering drill exercises described as "slightly attended," pronunciation was predicted to fall as it did.

The third bar represents the mean articulation scores in conversations. The mean articulation scores of drill articulation time 1 and conversation articulation time 1 show an increase. Similarly, the scores in drill and conversation articulation increase at the end of the semester. Students participated in synchronous written chat conversations with the instructor and with other students. I provided written feedback to written conversational responses for each lesson. Perhaps, the students prepared written responses to read aloud during the real-time oral conversations. Students reported great stress and anxiety prior to and during each conversation time, but less stress and anxiety during the final conversation since they experienced the process before. This initial stress may account for the articulation means in conversation time 1 to be lower than reading 1. However, the reverse is true at the end of the semester. The articulation mean is higher in conversation 2 than in reading articulation 2. Having reduced stress may have allowed the students to better articulate in the final conversation.

 In contrast, conversation articulation means from time 1 to time 2 increased. This is contrary to the "careless" end of the continuum that Koren (1995) described. It was believed that if students focus their

attention on being understood then their attention is on word choice or grammar and not on phonology. However, in this current study, the mean articulation score increased, but not significantly. The different tasks appear to affect articulation.

Figure 3 summarizes the mean task score for each articulation measure. The lines allow the comparison among the three sets of articulation mean scores. The point to the left is the first measurement, and the point on the right is the last measurement. The colors represent the different tasks.
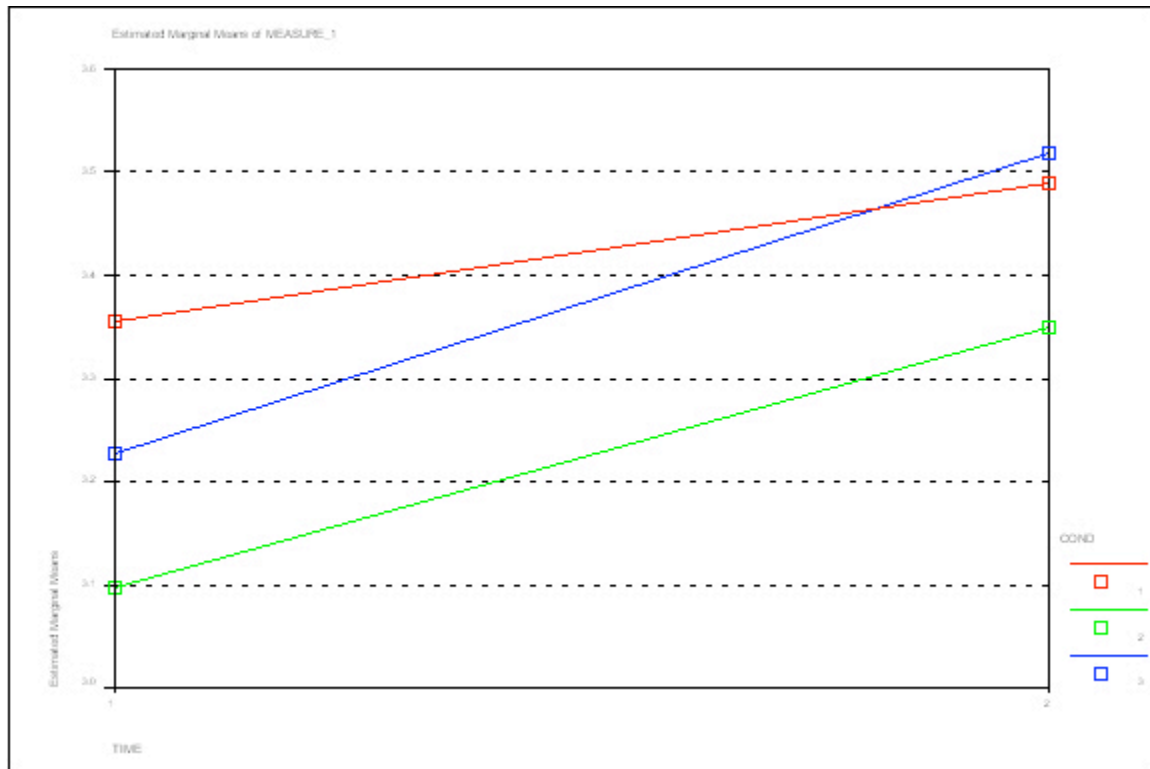
Time 1 Measure   Time 2 Measure

Legend   Green Line = Drill Articulation Mean
            Blue Line = Conversation Articulation Mean
            Red Line = Reading Articulation Mean

Figure 3. Articulation means of oral reading, drill, and conversation tasks

Research Question 3: What do synchronous online oral conversations reveal in terms of articulation, accuracy, and proficiency (based on the curriculum criteria) from the mid-term and final conversations?

In terms of articulation, there is not significant improvement between the mean scores of the first conversation and the final conversation. Accuracy mean scores decreased from time 1 to time 2. This decrease in mean accuracy score was not significant. Output accuracy appears secondary to communication goals in real-time communication.

In terms of proficiency mean scores, there was significant improvement from conversation proficiency 1 to conversation proficiency 2. The conversations were designed to follow the flow of the interviewee. I made every attempt to link themes and ideas from one speaking turn to another. All proficiency check criteria were attempted, but if time ran out, some checks could not be made (see Appendix F).

One reasonably explanation for the significant improvement in proficiency was timing. Students were not focused on some of the grammatical structures that were checked at the midterm. For instance, the past tenses continued to be one criteria check most students (89%) could not perform at the midterm. By the final conversation, the majority (84%) was able to communicate in the past tenses.

Another reason there was significant improvement was the scale of measurement. It might have been too simplistic. Students could or could not communicate on topic X or in tense X.

The assigned work mimicked the type of personal questions that were tested in the conversation with the instructor. These written chats (possibly spoken chats since students could use any mode available to practice with partners online) may have helped script some of the responses and therefore, in some cases, may have become reading exercises. Kotter et al. (1999) made this same observation.

With the voiced interviews conducted online, it was easy to notice the amount of English used in the conversations as opposed to written chats. Sometimes, students thought aloud in English for two purposes: to translate the question posed or as a strategy to respond -- talking out the rules and listing the necessary vocabulary. With out an actual "body" to talk to, the students felt free to softly speak out their thoughts before attempting the answer in Spanish. Several students verbally signaled they were finished making remarks by using the phrase "*Es todo*" (that is all). The students self reported that they felt they were improving their oral skills in Spanish with their audio files and individual conversations.

Study Limitations

There are several areas of limitation with this study: the number of participants, the level of control of extraneous variables, the nature of communication without visual cues, and the issues with technology, to mention a few. The study began with 38 participants and had an attrition rate of 50%. The sample population of 19 weakened the study.

Several extraneous variables could not be controlled. Six students (42%) reported that they redid their voice recordings if they were not satisfied. This may have provided some students with extra practice. Other students said that they only recorded the speaking task one time. Having only 30 seconds to record per file may have rushed students who could have benefited from having more time.

It was interesting to hear the interviews that were conducted via the computer. In some cases, the pages of the book could be heard being turned when students wanted to look up a word or find a phrase. Paper rustling could be heard behind obviously prepared responses, especially noticeable when the response had nothing to do with the question asked. There were also competing interests during the interviews. Children could be heard crying and yelling for attention; three conversations were put on hold in order to deal with children. This is unnerving for the participant and may have affected performance.

It is difficult to control the atmosphere of the testing situation when it is in an online format, and students' prepared notes raise serious questions about this assessment format's validity and reliability.

Another issue that arose was that without visual cues, the interviewer can be heard on the tape repeating "*sí*" (yes) and "*ah*" over and over to signal she is listening and paying attention to what the student is saying. This may have been distracting to the students. Several students verbally signaled they were finished making remarks by using the phrase "*Es todo*" (that is all).

A final issue concerned the use of technology. The technology did not always work well. After attempting to connect through MSN messenger three times, the conversation moved to a backup plan. The students phoned in and the conversation was performed on speaker phone. This occurred five times in conversation 1 and four times in conversation 2. Sometimes the connection was fine, but one student did not have all her equipment. Another did not produce oral practice the entire semester and was not able to participate in the study. Yet another student had very poor quality speakers/microphone, so an echo was persistent and interruptive. Occasionally there was feedback noise that would require the repetition of the

question. In some cases, it was necessary to display a written message in Spanish during the conversation because the echo became so intrusive.

Implications

Synchronous online oral tasks and online oral interviews are valuable experiences to the students and provide permanent records of oral development. The reading and drill tasks were short and offered frequent glimpses into students' interlanguage development. The 30-second files were quick and easy tasks for the students to perform and the instructor to listen to. Students have the opportunity to check and redo their file as many times as they want. Instead of choral responses or mimicking (lip-synching) a response that may happen in F2F classes, each student has a true voice and cannot hide online.

Using desktop recorders and creating sound (WAV) files is quick, easy, and inexpensive. Blackboard has the ability to hold larger files in the digital drop box than in a mailbox system. At this time, I am unaware of software that can be applied to evaluate all aspects of speech of the foreign language learner. Until that software is created, FL students will continue to depend on the judgments of native and non-native speakers to determine their comprehensibility level in terms of fluency, competency, and proficiency. The language teacher will continue to play a major role in providing feedback to learners' oral performance. Although no significant oral changes were documented, there were trends in the right direction, and these electronic procedures allowed me to "capture" these trends.

Suggestions for Further Research

The technological capabilities in language learning are changing the dynamics and dimensions of online learning. Since this study, the current online Spanish courses use desktop video conferencing tools for tutoring, pair, and small group work. Adding the dimension of facial visuals to online synchronous oral communication is changing not only the nature of the output, but also the students' socio-cultural, visual and audio perception of the input. Comparing these oral tasks with F2F students would be the next step in getting a fuller picture of oral development in these dynamic environments.
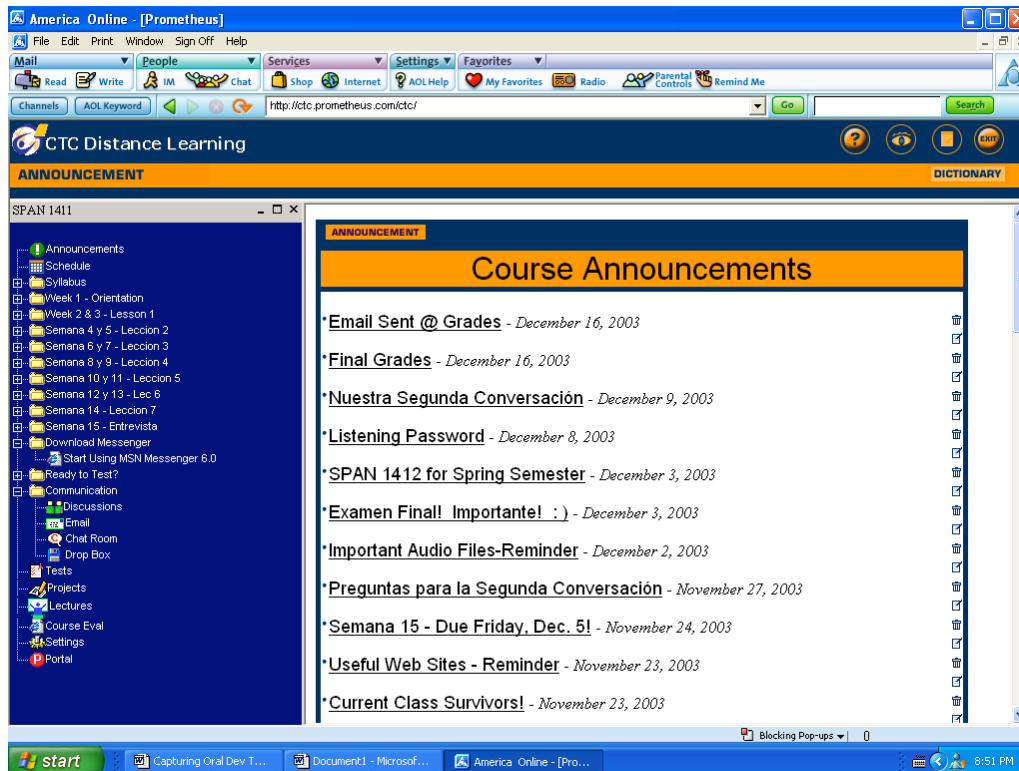

APPENDIX A. Screen Shot of Online Workbook, Student Sign-In Page
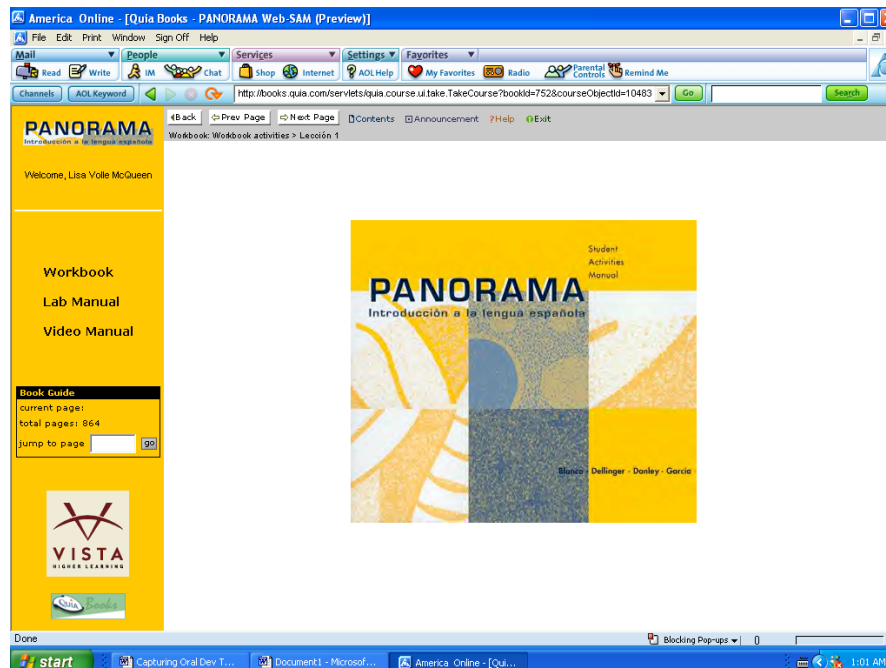
APPENDIX B. Screen Shot of QUIA, Lab Manual Listening Activity
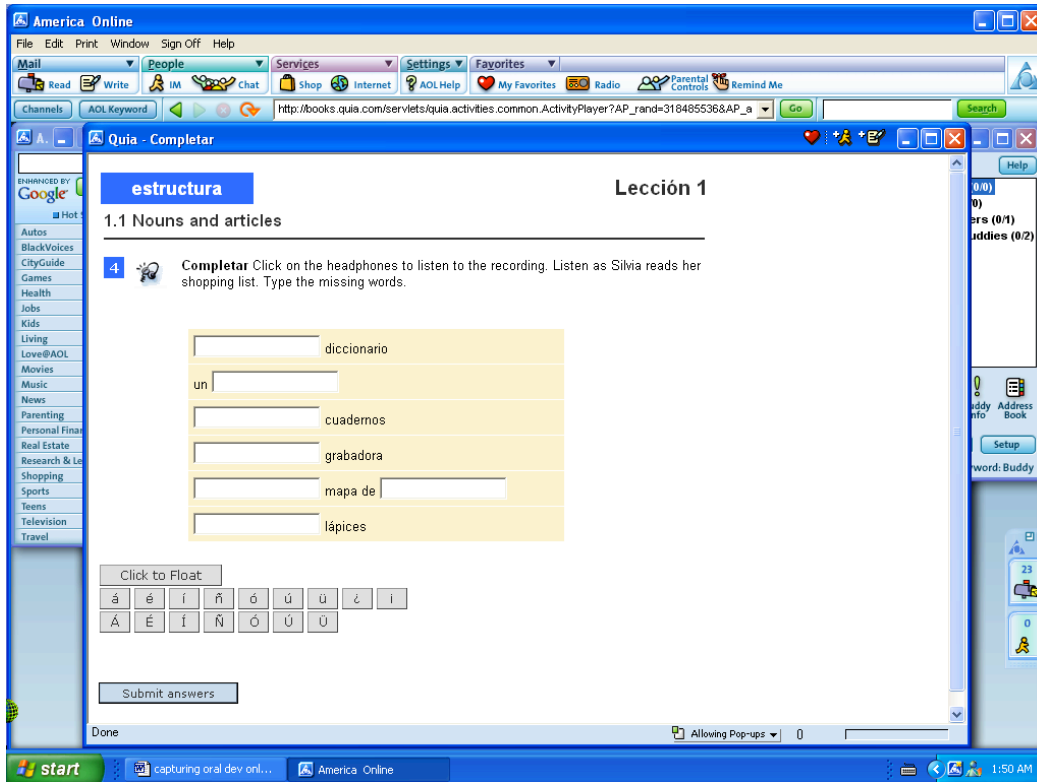
APPENDIX C. Screen Shot of Prometheus Course Page (After Sign-In and Portal Pages)

APPENDIX D. Screen Shot of Interactive CD-ROM Pronunciation Practice
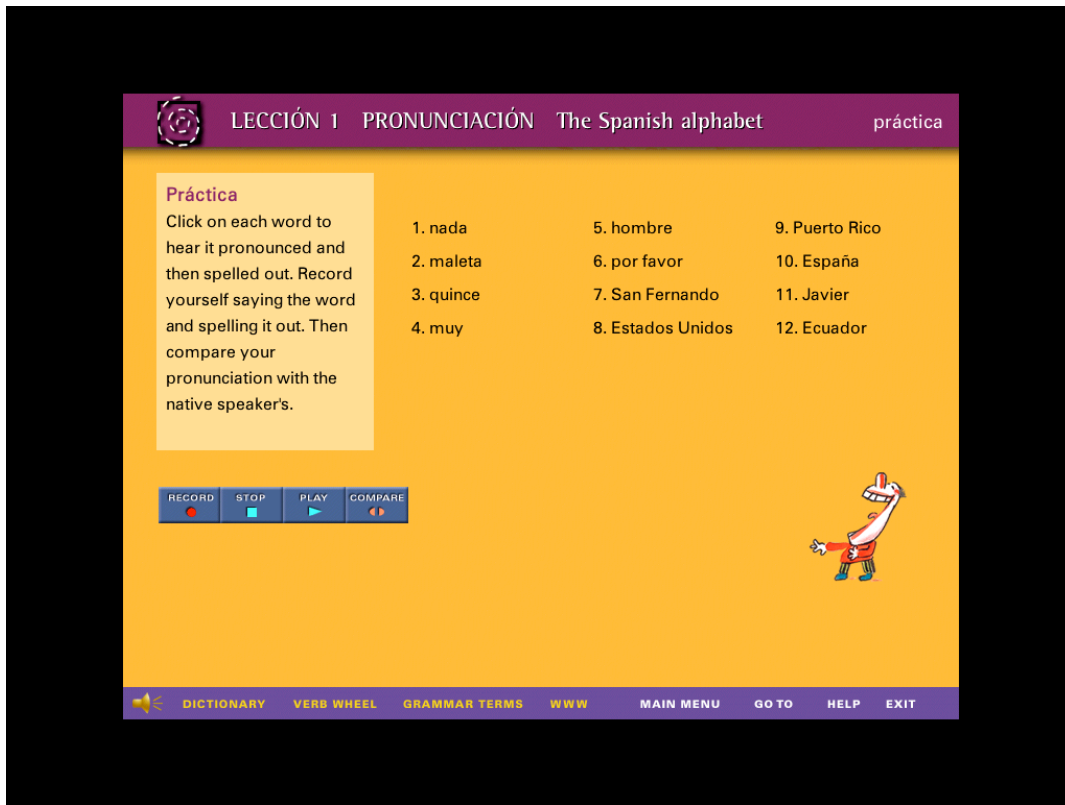
APPENDIX E. Articulation Score Card

SPAN 1411 Online: Voice-Mail Articulation Score Card

1 = very heavy non-native pronunciation
2 = poor
3 = reasonable
4 = close to native
5 = native-like

Task:_____ Week:_____

Participant	Pronunciation	Stress	Intonation	= Articulation

Adapted from: Koren, S. (1995). Foreign language pronunciation testing: A new approach. *System, 22*(3), 387- 400.

APPENDIX F. Conversation Score Card

Part I: Articulation
1 = No effort at all; often incomprehensible
2 = Meaning obscure by poor pronunciation; minimally comprehensible; very "American"
3 = Pronounced foreign accent requiring extra-sympathetic listening; comprehensible
4 = Tries to sound "native," mispronunciations but still clear
5 = Native-like

Score	1	2	3	4	5
Pronunciation					
Stress					
Intonation					

Part II. Accuracy Check*

	0	1	2	3
(Listening function) comprehension of questions posed	No understanding	Comprehended few questions	Comprehended most questions	Comprehended all questions
Appropriate responses	Unable to function	Able to operate in a very limited capacity	Signs of developing attempts at response but misunderstandings arise	Almost no errors in conventions: error not significant enough to cause misunderstanding
Word order	Incorrect word order	Minimal word order usage	Developing signs of correct word order	Correct word order
morphology	No words in correct form	Minor control of word form	Developing signs of control	Good control of work form
Adequacy of vocabulary for purpose	Totally inadequate	Limited to that necessary to express simple elementary needs	Signs of developing active vocabulary although hesitations and circumlocution are frequent	Almost no inadequacies or inaccuracies in vocabulary for the task. Only rare circumlocution
Grammatical Accuracy: correct use of tense(s)	Unable to function	Syntax is fragmented- frequent grammar errors	Some errors, but developing control of major patterns	Almost no grammatical errors. Occasional imperfect control
(4)correct use of *gustar*	All erroneous usage	Mostly used erroneously	Some errors	Almost no error in usage

* Adapted from Weir, C. (1990). Communicative language testing.

III. Proficiency** -- Student can or cannot… yes/no

1)   Greet someone, answer questions about how he feels, say good bye &
      Describe where his is from and where he currently lives (personal data)   _____
2)   Answer questions about schedule (school – morning routine)   _____
3)   Identify and describe specific items (family, clothes, weather, etc.)   _____
4)   Describe what he likes (to do in his free time, etc.)   _____
5)   Talk about the past   _____
6)   Talk about the future   _____

**Adapted from ACTFL Proficiency Guidelines (1983) and Course Objectives for First Semester Spanish

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APPENDIX G. *T*-Test -- Paired Sample Tests

Paired Samples Statistics

		Mean	*N*	*SD*	*SE*
Pair 1	RDGMART1	3.3553	19	1.01639	.23318
	RDG2ART2	3.4890	19	.89676	.20573
Pair 2	DRLART1	3.0965	19	1.05162	.24126
	DRLART2	3.3487	19	1.05127	.24118
Pair 3	CONV1ART	3.2281	19	1.02018	.23405
	CONV2ART	3.5175	19	1.25818	.28865
Pair 4	ACCONV1	1.9812	19	1.12230	.25747
	ACCONV2	1.9677	19	.99130	.22742
Pair 5	CNVPFC1	3.7368	19	1.55785	.35740
	CNVPFC2	4.7368	19	1.62761	.37340

Paired Samples Correlations

		N	Correlation	*Sig. p* > .05
Pair 1	RDGMART1 & RDG2ART2	19	.656	.002*
Pair 2	DRLART1 & DRLART2	19	.663	.002*
Pair 3	CONV1ART & CONV2ART	19	.692	.001*
Pair 4	ACCONV1 & ACCONV2	19	.679	.001*
Pair 5	CNVPFC1 & CNVPFC2	19	.672	.002*

Paired Samples Test

Pair		Mean	SD	SE	Lower	Upper	t	df	Alpha level .05
					Paired Differences				*Sig. (2-tailed)
					95% Confidence Interval of the Difference				
1	RDGMART1 RDG2ART2	-.1338	.80094	.18375	-.5198	.2523	-.728	18	.476
2	DRLART1 DRLART2	-.2522	.86318	.19803	-.6682	.1638	-1.274	18	.219
3	CONV1ART CONV2ART	-.2895	.92102	.21130	-.7334	.1544	-1.370	18	.188
4	ACCONV1 ACCONV2	.0135	.85540	.19624	-.3988	.4258	.069	18	.946
5	CNVPFC1 CNVPFC2	-1.0000	1.29099	.29617	-1.6222	-.3778	-3.376	18	.003*

NOTES

1. Normally at the college, the gender distribution in a traditional classroom is 60% female and 40% male. There are no numbers available to determine if this is also a normal gender ratio for online classes at this institution. However, the 4th Infantry Division was deployed to Iraq at the time of this study and many students began to withdraw from courses in February, 2003 and did not re-enroll for the Fall semester. (Many students are directly associated with the U.S. Army as military dependents or retirees. The main campus is located adjacent to Ft. Hood, Texas.) One semester is 16 weeks long (15 instructional weeks and 1 examination week).

2. The term *heritage speaker* is used here in the broadest sense. It can refer to a person who speaks any dialect of Spanish or a person who speaks no Spanish but is from a Spanish speaking family.

3. Prometheus is copyrighted to Georgetown University in Washington, DC. At some point during the semester the function of the oral chat room ceased to operate and in week 6 we were able to perform oral communication with MSN messenger.

ABOUT THE AUTHOR

Lisa Volle is a professor of Spanish and cultural anthropology at Central Texas College. She is a PhD student in Foreign Language Education at The University of Texas at Austin. Her research interests are in the evolving dynamics of language learning and teaching in distance education.

E-mail: Lisa.Volle@ctcd.edu

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