

The effects of digital audio files and online discussions on student proficiency in a foreign language

by

Krista Stutzman

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Program of Study Committee:
Denise Schmidt, Major Professor
Ann Thompson
Frankie Laanan

Iowa State University

Ames, Iowa

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ABSTRACT

One of the biggest struggles a foreign language teacher faces is moving her students from reading and writing in the target language to speaking and listening in the target language. This study focuses on how the use of digital audio files (e.g. Podcasts), online discussions and student anxiety can affect a student's ability to comprehend and speak in a second language. Students gained experience with native speech in the foreign language by listening to weekly audio files and held weekly discussions both in the traditional face-to-face format as well as in online discussions. Students also participated in pre- and post-study self-analysis of anxiety levels. The findings showed improvement in both comprehension and speaking abilities in the target language. The findings also brought to light the interconnectedness of all literacy areas (reading, writing, listening, speaking) and how improvement in one area can also bring improvement in another.

CHAPTER 1

INTRODUCTION

About four years ago, my principal forwarded to me information about Iowa State's Master in Education at a Distance Program in the Department of Curriculum and Instruction. He had heard me speak of my interest in curriculum many times, which was often followed by a lamentation for not having the time to travel for classes since I had recently given birth to my third son. The idea of being able to do my college work on my own schedule and without having to drive a distance to get there was immediately appealing. The fact that my degree would come from a reputable university like Iowa State cinched it for me.

When my work with Iowa State began, I had ambitions of moving from teaching high school Spanish classes to a position as Curriculum Director. Interestingly though, through my experiences at Iowa State, my ambitions have changed. I am now a high school Spanish teacher with hopes of a future position in Educational Technology. Although I am something of a "digital immigrant" (Pensky, 2001, pg 1), I am very much an educator with a passion for technology. Fortunately, a foreign language class lends itself well to the use of technology to improve student learning, and has been doing so with its language labs for over a century.

With the understanding that the purpose of technology integration is to make improvements in a classroom situation, I looked for an area to research where I believed my students might reach further academic success in my classes. One area that has been consistently disappointing to me is the lack of student success in understanding native speakers of Spanish. Because I am not a native speaker and because we live in an area with relatively few native Spanish speakers, I saw the potential for technology to bring some

“virtual” native speakers into my classroom. And so, I decided to study the effects of digital audio files, such as Podcasts, on my students’ oral comprehension of the Spanish language.

Area of Focus

As a foreign language teacher, I find myself struggling to find ways of getting my students over the “hump” of moving from reading and writing in the target language to speaking it and comprehending it when they hear it spoken, especially by a native speaker. I have worked to include many oral activities and discussions in my classes and I believe there has been improvement, but there is still room for more experiences that elicit the comprehension and speaking of the target language.

Having taken many technology courses as a part of my degree program, I wondered how incorporating some of the tools introduced into that instructional routine might help our K-12 situation. I knew from experience that using technology with my students adds interest and motivation to their (and my) work. And, through personal discussions I knew that many students share my interest in listening to music on Mp3 players. So, my purpose in this research was to find out how the use of technology, specifically digital audio files and online discussions (synchronous as well as asynchronous), would affect my students’ levels of auditory comprehension and oral production of a foreign language. I wanted to know:

- How will integrating the use of online discussions affect my students’ anxiety of producing the target language in face-to-face discussions?
- How will integrating the use of online discussions and digital audio files affect the proficiency of my students’ oral communication in the target language?
- How will the use of digital audio files (e.g. Podcasts) affect my students’ levels of auditory comprehension?

CHAPTER 2

LITERATURE REVIEW

This review of the literature addresses several topics associated with the use of technology in foreign language classes. First there is a review of the history of the language lab and its effects on foreign language classes. Second, an overview of the most recent technologies is presented along with a discussion on how they might be used in a modern language lab to affect a foreign language class. Finally, research that describes the effects that anxiety can have on students learning a foreign language is shared.

The Language Lab

Ever since Thomas Edison invented the phonograph in 1877, foreign language teachers have been using audio recordings in their classes (Roby, 2006). Language labs were first used to increase students' pronunciation. For example, students would listen to a native speaker and then attempt to mimic what they heard. It was during this time that the field of phonetics began an effort to teach proper foreign language pronunciation, yet there is no evidence that documents a controlled study of the role that the phonograph had in foreign language classes (Roby, 2006). Such a lack of empirical evidence of student improvement is a problem that would continue to plague the language lab for years to come. Soon, the invention of the phonograph-recording machine made it possible for the students to listen to their own voices and compare them to the native speaker models.

Although the eventual invention of the phonograph-recording machine made it possible for students to listen to their own voices and compare them to the native speaker models, the 1930s saw a decline in the use of the phonograph in the language lab in

preference to the radio. The literature explains that this invention was used for a variety of education-related purposes, such as on-campus school and university broadcasts, in-service teacher support and training, adult literacy and basic education campaigns (Chan, 2005). However, it does not explain how the radio was used for foreign language classes, specifically.

The year 1946 marked the beginning of the modern language laboratory movement (Roby, 2006). It was during this time that the military achieved success from its language-training program during the war. In fact, the language training techniques the military used were not even their own creation. It was actually a wartime civilian creation called *The Intensive Language Program of the American Council of Learner Societies*, funded by the Rockefeller Foundations (Roby, 2006). But, the Army got the credit. Motivated by what had been seen from the military, many universities began using their own laboratories. They had modified the set up of the labs to introduce booths or carrels for acoustic isolation, a move that would make their students feel isolated from the rest of the class.

The language lab made considerable progress in the 50s and 60s, thanks to federal dollars flowing in for the National Defense of Education Act that was written specifically for the improvement of math, science and foreign language classes. The audiocassette was also introduced at this time. The cassettes were lower priced and used lighter machines, but had poor audio quality and difficult editing issues. Eventually, the repeat, skip-back function, and the speech compressor-expander were added features to the audiocassette player (Roby, 2006). But, even with those improvements, the cassettes would not become heavily used in language labs for nearly two decades, partially due to the quality and editing issues, but also because it seemed to not be a worthwhile investment for many schools. A cut in the federal

funds ended the boon of language labs in the late 60s and many sat empty or became glorified study halls for nearly a decade.

Then, in the 1980's, thanks to the domestication of the tape recorder (invented 20 years earlier), the language labs began gaining interest. Once again, federal monies flowed for the use of technology in foreign language programs. But, the language labs of the 80s were not like the phonetics labs of previous years. These labs were multi-media creations. The VCR added video capabilities to lab sessions and the personal computer was becoming more widespread, allowing for activities of reading and writing in the labs as well (Roby, 2006).

Many things happened in the field of education at this time that helped the language lab hold its interest through the 1980s. For example, The U.S. Department of Education funded the first National Foreign Language Resource Centers and workshops offering instruction for teachers on how to use the technology were now available. This support for teachers was instrumental in preparing foreign language teachers to use technology.

Unfortunately for the labs, but maybe fortunately for students isolated in corrals, language labs once again drifted out of the popular lexicon of foreign language programs in the early 1990s. This time was different, though. It did not happen because federal monies were cut or because the public thought the labs were a waste of money due to poor research results. This time, it was the computer's fault. The tools and software that were developed for use with the computer made the number and quality of possible uses in the language lab increase dramatically. So, schools moved from having a lab dedicated to only foreign language study, to a computer lab to be used by any curricular area, including foreign language.

Research in Language Lab Use

The ebb and flow of interest in the language laboratory is symbolic of the research on its effects on language learning. According to Roby (2006), “There are many articles written about the benefits of using language labs, but they contain very little validated research to back the claims they make,” (p. 530). And, of the few methodological research projects that were done, the results are very ambiguous. One researcher may have found results to validate the effects of the lab, while another would find just the opposite. And, in many cases, critics questioned the research protocol used, or information that was used or left out of the reports causing cynicism toward their claims.

One example of such research was conducted by Keating in 1961-1962 on 5000 foreign language students in 21 New York City school districts. The study compared lab users and non-lab users on measures of reading comprehension, listening comprehension and speech production. Keating’s results showed favorable results by the lab groups on speaking among first year students, but there were many other times when the non-lab groups scored significantly higher than the lab groups (Keating, 1986). Keating’s results were quickly disputed for numerous methodological flaws, and because there was no literature showing a defense of his claims, Roby suggests that the study was simply “dismissed by the scholarly community of the day” (2006, p. 533). As a result, the public seemed to hold the belief that language laboratories were not useful and were a large waste of money (Roby, 2006).

Soon after Keating’s study, Lorge (1964) conducted two studies in New York City that seemed to be more accepted by the scholarly community of the day. His purpose was to see “whether the teacher improves the teaching-learning situation by using the lab as a teaching aid and to determine in which areas it had proved to be successful, and how its use

could be made more effective” (Lorge, 1964, p. 409). The results of the first study indicated no differences between the two groups on a cooperative test. However, on the proficiency component, the first and second year lab groups scored significantly higher than the control group. On intonation, the second year lab group also scored significantly higher, and the third year laboratory group was significantly superior in listening (Roby, 2006).

Lorge’s second study tested two kinds of lab equipment: audio-active (head set with a microphone) and recording-playback (head set with a microphone and tape recorder). His results report that both groups using the technology scored similarly to each other, and both scored better than the control groups on both oral and written measures of vocabulary and grammar (Roby, 2006). What is interesting is that these results indicate that the use of audio technology not only seemed to help the students on listening and speaking skills, but on writing skills as well. Lorge believed that in looking at these two studies together, there is an indication “of an overall advantage for the language lab” (Lorge, 1964, p. 419). Finally, he noted that “a higher percentage of students in laboratory sections continued studying French beyond the three years required for high school graduation and college admission” (Lorge, 1964, p. 419).

Regarding previous research on language labs, Roby (2006) suggests that although it does not always confirm the usefulness of the labs, “neither does it suggest that they are detrimental to language learning” (p. 537). This might imply that the usefulness of a language lab depends on the teacher using it and how that teacher uses it for language learning experiences.

Recent Technologies

As the research of the language laboratory suggests, foreign language teachers have been using technology in their classes for over a century. There is no doubt that the domestication of the personal computer has had a great impact on foreign language classes. Just looking through the multi-media resources that come packaged with foreign language textbooks is proof of the potential of using such resources in classrooms.

Years ago, education majors were taking educational technology classes that instructed them on the proper use of the overhead projector. Now, there are degrees offered in educational technology that instruct them on various technologies, many of which are used via the personal computer. Practicing teachers, too, have become educated on the uses and benefits of technology in the classroom through in-services or continuing education courses. Oblinger (2005) notes, “an increasing number of instructors are experimenting with alternative media formats in their classrooms” (p. 72). She goes on to report the various reasons behind the use of technology in the classroom, saying that it can...

- Motivate students to participate
- Integrate multiple skills
- Create practical reasons for reading, writing, and revising communication
- Require students to analyze sources and think about evidence in new ways
- Require higher-order thinking and problem-solving skills
- Let faculty address multiple intelligences and learning styles
- Lead faculty to think about their students, classes and lessons in new ways (p. 72).

All of these reasons for using technology are applicable in every content area, including the foreign language class. Moreover, when students are asked about what they do

with technology in their free time, they usually answer with some form of social interaction, such as conversing, collaborating or playing games (Oblinger, 2005). All of these computer activities could take place in the foreign language class as well. The following three sections describe specific technology tools and their uses that have been introduced to the foreign language classroom.

Digital Voice Files

The phonograph was the first technology used in language labs (Roby, 2006). Its purpose was to allow students to hear native speaker pronunciations and to compare them to their own. Over the years this process was made easier with the cassette recorder, but gains in ease of use were paid for by loss in sound quality. Today, digital voice recorders surpass the cassette recorder in convenience, mobility, and sound file sharing.

Most computers come with a voice-recording tool already installed. The teacher needs only to plug in a microphone and possibly headphones to allow students to listen and record very easily. Another possibility is to use a portable digital voice recorder. With this device, the students' recordings could be downloaded to the computer for future work and assessment.

Because the recording and listening process is so quick and easy, the students are able to listen to their own recording and re-record if they choose. The production of the voice files offers the student a "command of the moment that is tempered with deliberation and increased self-awareness," (Gamlin, 2005, p. 53) making the learning more student-centered and meaningful. It is equally as easy for the teacher to listen to and assess the short student files, so they can offer "frequent glimpses into students' interlanguage development" (Volle, 2005, p. 156).

Gamlin (2005) suggests many positive aspects of using digital voice files, such as:

- Personalizing content and thus making it more meaningful to learners
- Lending permanence to learners' creative, though not always original, performance
- Manipulating and heightening self-awareness
- Having an intrinsic playful appeal to the learner
- Providing instructors with opportunity to listen to each individual student output regardless of class size or time, while students can be sure that their effort will not go unnoticed
- Transitioning from analog to digital voice media at this stage paradoxically brings with it increased individualization for the learner along with an expansion of the learner's community (p. 54)

Today, foreign language classes are sometimes offered online. A common complaint of using this format for a language class is that it does not allow for students to practice their speaking skills in a way that allows them to receive feedback from their instructor. Felix (2001) reported that students listed the "lack of speaking practice" first on their list of disadvantages for using Web-based programs (Barr, Leakey and Ranchoux, 2005, p. 55). Other negative responses were "distraction," "no interaction with peers," and "absence of teacher" (p. 47). The incorporation of digital voice files has seemed to help this situation. Voice files can be saved on the computer and uploaded to the online courseware or submitted via email to the instructor. The instructor may also produce her own recordings (or download some from another site) and use them as content within the online class. According to

Gamlin (2005), “Once digital sound becomes part of the online learning environment, it may also be considered as an oral text within a visual interface” (p. 53).

Electronic Discussion

Another technology that has been recently introduced to the foreign language classroom (virtual or not) is online discussion and chat areas. These are natural inclusions to online learning environments, but they are just now starting to be seen for their value in face-to-face foreign language classes as well. Many researchers suggest that electronic communication differs linguistically from both traditional written and spoken discourse, and that these differences can be exploited for pedagogical advantage.

Warschauer (1996) conducted a study comparing online discussion with face-to-face discussion in foreign language classes. His findings indicate that electronic discussion can be a good environment for fostering the use of more formal and complex language, both lexically and syntactically. For example, the electronic discussions tended to include more formal expressions, such as “in my opinion,” “over all,” “based on my experience,” “such as,” and “therefore,” which Warschauer reports were virtually absent from the face-to-face discussions (p. 20). However, in contrast, he reports that the face-to-face discussions used more informal expressions, such as “because,” “like,” “you know,” and “I guess” (p. 20). Warschauer also suggests that these results are not surprising, as written communication has generally always been more formal than face-to-face discussion.

Another important difference Warschauer noted in this study was that the electronic discussion had fewer interactional features such as questioning, recasting, confirmation checks, and paraphrasing. These features are often found in face-to-face interactions and are viewed as important for language learning. Comparatively, the electronic discussion

exchanges were longer with the interactions sometimes being less direct. This indicates that the electronic discussion participants were focusing more on meaning making than on the interchange in communication. Abrams also confirms that training with synchronous chat can help students produce more “idea-units” than training with face-to-face discussion and asynchronous discussion (Volle, 2005, p. 147).

Other researchers have found similar results that might prove beneficial to the foreign language learner. Chun (1994) believes that electronic discussion is much like written texts in terms of language complexity, yet it resembles face-to-face discussion in terms of functions performed. And, Beauvois (1998) and Kim (1998) also suggest that there is a link between written and oral production.

Kern (1995) compared synchronous chat with face-to-face oral discussion in a second semester French class and noted that there was a larger quantity of language use in the electronic chat as opposed to the face-to-face oral discussion. He suggests that network-based chat should be used to facilitate classroom discussion, but not as a replacement of face-to-face oral discussions (Kern, 1995). And, Payne and Whitney (2002) compared the amount of time students spent in face-to-face discussions to that in synchronous chats. They found that by participating half of the time in a synchronous online environment and the other half in face-to-face discussions produced more oral proficiency development than for those students in face-to-face discussions only (Payne & Whitney, 2002).

One other important finding regarding the use of online discussion is that it may create opportunities for more equal participation in the classroom. Further, this may be achieved without disadvantaging more verbal students. Warschauer (1996) reported that the lack of oral fluency and discomfort in speaking out are important factors in determining

students' relative participation in face-to-face and electronic communication. Although those students who lacked confidence in their fluency still participated less than those with confidence, the amount that they did participate was still more in the electronic format than it was in face-to-face discussion. And, students reported feeling less stress during the electronic discussions (Warschauer, 1996).

Email

Additional studies exist that examine the use of email to foster communication in authentic ways in the foreign language classroom. However, the results have been mixed. For example, Van Handle (1998) used email with intermediate foreign language German students for learner-to-learner exchanges. It was found that the quality of messages was enhanced but not the accuracy (Volle, 2005). The Gonzalez-Bueno (1998) study looked at third semester foreign language Spanish students' use of emailed journal entries and found no effect on accuracy. However, the quantity of words used in the entries did increase.

In 1999, Aitsiselmi used email with first and second semester foreign language French students in a non-native speaker to native speaker exchange. Here, the email pattern of communication resembled oral face-to-face chats. The students reported that the activity was similar to speech, saying that the message was more important than grammatical accuracy (Volle, 2005). This is a variance to the electronic discussion results that showed the online discussions to be more formal than face-to-face discussions. Finally, Stockwell and Harrington (2003) studied a five-week email exchange between advanced learners of Japanese and native speakers and found significant increases in syntax, lexicon, and proficiency.

In conclusion, the fact that electronic and face-to-face communications differ so greatly does not mean that one should be used in place of the other. The more complex and formal language in the electronic mode can potentially be beneficial to all students since it may help them to learn more sophisticated communicative skills. Warschauer (1996) suggests that they are probably best used with different purposes in mind. Additionally, Chun (2005) suggests that electronic discussion be used as a prelude to oral discussions and that they should be used in different ways to highlight the advantages of each.

Mp3 Players and Podcasting

Two of the newest technologies available to foreign language teachers are Mp3 players and Podcasts. According to Chan (2005), this may offer the “best of both worlds” in audio by combining the benefits of the broadcast nature of radio with the flexibility, learner control and personalization afforded by the recorded audio (p. 64). Through Podcasting, audio content from one or more subscribed feeds (channels) can be automatically downloaded to one’s computer as it becomes available, then later transferred to an Mp3 player or other portable media player, to be listened to at a time and place convenient to the owner. Users who do not have access to a portable music player can simply listen to the content on their personal computer (Chan, 2005). Chan (2005) explains the benefits of using an Mp3 player by saying,

Podcasting provides a low-cost, low-barrier tool for disseminating content across the Internet. The prohibitively large bandwidth requirements of streaming audio and video, which by definition involves playing this media while it downloads from across the Internet, often lead to poor performance for many users, leading to a “click

and wait” situation that negatively affects the quality of the listening/viewing experience. (p. 65)

Faculty members across the country are discovering that Podcasting allows them to share lectures, updates, or additional material with students in a format that provides the flexibility desired by a highly mobile, busy student population (Oblinger, 2005). Among the educational institutions that have begun using Podcasts are Georgia College and State University, Duke University and Drexel University (Chan, 2005).

Different from the “image problem” the language labs of the past have had, the Mp3 players are quite popular with the American population. Mp3 players are “socially acceptable” in public places. They fit into today’s students’ lifestyles and have a tremendous consumer appeal (Chan, 2005). Teachers may have an opportunity to use this appeal and popularity to their advantage.

Creating a Podcast is simple and inexpensive. One only needs to use the same voice-recording program from their personal computer mentioned previously and possibly some editing software to create the files. However, Chan offers a word of caution when creating them. He suggests designing the audio learning material in adherence to the metaphor of a song, saying “there’s a reason most songs are less than four minutes. If you haven’t gotten to the hook by then, you’re not going to make it the next nine” (p. 67). This suggests that students will begin to tune out if the material takes too long to get the important information.

Chan (2005) further suggests that a teacher think about the lives of her students and when they might be listening on the go. My students, for example, will often travel between two nearby towns to get from school to home. This trip would take them approximately 10 minutes. So, following Chan’s advice, I might consider making a Podcast no longer than

seven or eight minutes. This would allow my students to listen to the entire Podcast before reaching their driveway.

One final suggestion from Chan (1997) that I hope to use in my research is to allow students to be involved in the creation of Podcasts. As of yet, I have not found any research on the effects on learning that creating Podcasts can have on students, but I have heard and read of schools that are doing it now. It will be interesting to see the results. I can see the possible value of allowing students to hear native speaker models as was used with the phonographs and cassettes of years passed. But, I can see the Podcasts going further into the culture of the foreign languages. Students might listen to a lecture from a foreign country, or perhaps a poetry reading, a popular song of the day, or a press release on a current event in the target language. Anything that the teacher provides for her students could then be used as a discussion prompt, either via electronic discussions or face-to-face discussions in the classroom. The possibilities seem endless.

As most educators would agree, whatever technology is used in a classroom, it should be used in support of the learning activity and not be independent of it. As seen with technology tools of past language labs, there are many research studies on the effects of technology in foreign language classes and not all of them show a significant increase in the amount of student learning (Roby, 2006). As a result, teachers need to be somewhat pragmatic in their use of technology, using it when it actually makes a positive impact on the learning process. Oblinger (2005) states, "It is not the technology that is most important, but the activity it enables; the activity, not the technology is what advances learning" (p. 72).

Student Anxiety in a Foreign Language Class

One of the biggest steps a foreign language teacher can make to allow the best learning situation for her students, is to be mindful of the amount of anxiety a student is feeling during class. There can be no doubt that asking a student to speak in a foreign language—using words, grammatical structures and sounds to which they are not accustomed—can be extremely stressful. The fact that we ask them to do this in front of their peers and that their performance will be assessed only makes the situation worse. Add to that the use of technology for students that are not comfortable using it, and it seems amazing that foreign language classes have any students at all!

The Learner-Centered Psychological Principles of the American Psychological Association (1997) states that anxiety can be both beneficial and harmful to learning quality. They suggest that a mild level of anxiety can improve the quality of learning for a student, while a strong, or high level of anxiety can decrease it. Students of a foreign language tend to experience what has been called situation specific anxiety, which is brought about by well-defined situations such as speaking in public or participating in class (Ellis, 1999). Yet, for many years, research on the effects of anxiety on language achievement have been mixed. Scovel (1978) attributes this lack of conclusive findings to the difficulty in defining the variable of anxiety, and the failure of previous research to distinguish between facilitating and debilitating anxiety.

Horwitz et al. (1986) also mention the issue of mixed findings in prior research, but attribute the reason to a lack of a unified measure of language anxiety. In response, they developed the Foreign Language Classroom Anxiety Scale (FLCAS), a tool developed to identify anxious students in language classrooms. Since then, the research has been more

consistent in showing the negative relationship between anxiety levels and language acquisition success. And, although the research showed a strong relationship between language anxiety and achievement in all skills, many researchers found that speaking activities caused the greatest anxiety levels (Poza, 2005). More over, several researchers found the source of the anxiety not to be the act of speaking itself, but the fear of negative evaluation, whether from instructors or peers. Horwitz (2002) adds that a common reaction to this fear is the learner's avoidance of those situations that can cause anxiety, which can be detrimental to oral communicative competences since it prevents the learners from participating in oral communication.

Chan (2005) suggests that the issue of student anxiety can be addressed by the use of "appropriate teaching methods and the demonstration of effective teaching behaviors within the classroom" (p. 61). Some activities suggested by Chan (2005) are peer instruction, mentoring and pair/group work.

Another idea is to use technology as a pre-class "ice-breaker." For example, the foreign language lab at Purdue was used for "pre-drilling the students on the French text of the basic grammar or reading lesson that was to be covered in class" (Roby, 2006, p. 531). The use of Podcasts as an introductory activity is another idea. This would allow students to enter a class already having an idea of what each class would entail (Barr et al., 2005). This is similar to the idea of asking a class to read a chapter in a textbook before the next class. But, with the idea being to alleviate anxiety, students might see this as an opportunity to feel more comfortable in class and actually be self-motivated to prepare themselves accordingly.

Given the great impact anxiety can have on language achievement, educators must keep in mind the importance of attitudes and motivation in the foreign language learning

process. Affective factors determine the effort a student makes in and outside of the classroom to obtain input and to use the language for communicative purposes (Schulz, 1991). They can also interfere with memory, attention, and concentration, not to mention be emotionally draining (Chan, 2005). What is abundantly apparent from the research on anxiety and foreign language classes is that it is imperative that a foreign language teacher find ways to reduce anxiety so that the learners will be willing to communicate in the target language so that acquisition can take place.

Summary

The language labs of the past are nothing like those of today. The current levels of technology allow students to practice every area of the language from listening and speaking to reading and writing. Unfortunately, the literature of the past does not help us to understand fully the value of the labs or the ways in which they can best be used. Further, many of the tools used today are so new that there has not even been time for research studies to be completed, as is the case with Podcasts.

As for the technology tools, one can expect that they will be forever changing and improving their uses for educational purposes. Just as the labs moved from phonograph to computer, the tools of today will likely be “old news” in just a few years. A major implication of the constantly changing technology is that teachers must be provided with the proper training for their uses, or else the teachers simply will not use them. As for the purposes of the current study, the literature made an important point that students will do best when given a mixture of technology and face-to-face activities and that a good use of the technology might be as preparatory work for in-class activities to help reduce student anxiety.

CHAPTER 3

THE ACTION RESEARCH PROJECT

As a practicing teacher, I had not thought of myself as “a researcher” until I learned about the concept of action research. The idea that it is done “*by and for* those doing the research” (Sagor, 2000, p. 3) makes it especially appealing as it could be considered a less formal form of research. Often, teachers are already doing their own kind of action research

as they test out new teaching strategies, make adjustments to their plans and share their experiences with other teachers. What this process does is make their research more focused, driven and valid.

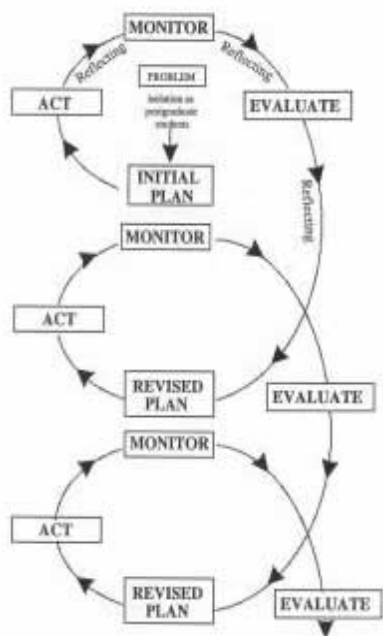


Figure 1: A spiral of action research cycles

The model of action research used in this project is a common one. It involved each of the seven steps as Sagor (2000, p. 3-4) lists them, from selecting a focus, clarifying theories, identifying questions, collecting and analyzing data, to reporting results and taking action.

What Sagor’s list does not explain, however, is that

action research is often a cyclical process. Because I knew that the problems I focused on in this project were ones I

would want to continue to focus on whether or not the actions of this study proved beneficial, I chose a model that included constant reflection and repeated cycles of research. The model I chose to follow is shown in Figure 1. It was published by Fisher, et al (2007) and is based on a model by Kemmis (1983). The model shows continuous cycles of planning, acting,

monitoring and evaluation with reflection occurring throughout the process. This action research study will show the results from only the first cycle of research for the current study.

Purpose

The purpose of this action research study was to examine the effects that digital audio files and online discussions might have on foreign language students' oral and aural proficiency in the second language. As a Spanish teacher, I am often disheartened to watch my students struggle to the point of frustration with their inability to speak and understand Spanish with fluency. This problem is especially prevalent when my students interact with native speech. Although I have attempted many remedies to the situation and have seen some improvement, I continue to find myself searching for a breakthrough.

With the recent influx of digital audio files, or Mp3 files, into our culture and indeed into our school hallways, I was intrigued with the idea using them in the classroom. As a college student, I used cassette tapes in the language lab to practice speaking and listening skills. Personally, I dreaded it and did not feel any progress I had made with the language could be attributed to their use. As a Spanish teacher, I came into a classroom that was using textbooks that were nearly fifteen years old and that, at one time, did contain a cassette program. But, the majority of those cassettes were long gone by the time I arrived. Had I opted to use the few cassettes I had, their use would have been sporadic and I would have played them for the entire class all at once, not being able to allow for much differentiation in their use. Choosing not to use them, I was also limiting my students' interactions with native speech.

I saw the use of digital audio files as a possible remedy to this situation. Not only would I be giving my students more frequent access to native speech, but because my students would listen using individual computers, they would have more control over their learning by listening and re-listening to the files as needed in order to reach the full benefit of their use. And, the use of recent content, such as Podcasts, from the Internet might add some real-world relevance and interest to our work, possibly motivating the students to do better.

Description of Negotiations

Permission to conduct this study was obtained from Iowa State University (see Appendix A). My school district also granted me permission to conduct the study in my classroom (see Appendix B). Signed consent forms were also collected from students, who volunteered for the study and their parents (see Appendix C).

The majority of these research procedures took place within the classroom, making use of a mobile computer lab at our school. However, Internet-based courseware was used for the online discussions and downloading Mp3 files, so some activities included in this study were given as homework assignments and most students participated from an Internet-connected computer other than at school. Others used the school's computer lab outside of class time to complete the activities. Because of this, a letter to parents explaining the use of the Internet for class assignments associated with this study was sent prior to the beginning of the study (see Appendix D).

Timeline

The timeline presented here shows the process and progression of this study from the initial planning and research stages to the point of the project's findings.

Phase 1 (June 2006-January 2007)

- Review related literature
- Search for appropriate pronunciation and comprehension test(s)
- Search for appropriate Podcast channels.

Phase 2 (February 5-9).

- Collect initial data
- Record & rate 1st SOPI recordings
- Administer 1st anxiety analysis survey
- Administer 1st listening comprehension test
- Conduct trial online discussion
- Begin study journal

Phase 3 (February 12-March 2)

- Continue rating 1st SOPI recordings
- Begin weekly audio listening activities
- Conduct online discussions (appr. weekly)
- Administer in-class audio files, as appropriate
- Begin observing weekly small group discussions (journal)

Phase 4 (March 5-9).

- Administer 2nd anxiety analysis (survey)
- Record and rate 2nd audio files (SOPI)
- Administer 2nd listening comprehension test

Phase 5 (March 12-April 15)

- Complete data analysis
- Write up study results

Phase 6 (April 30-May 4)

- Present findings to ISU Committee, building principal and other Spanish teachers
- Discuss the next plan of action based on the findings of the study

Participants

The participants of this action research project were members of two third-level Spanish classes, consisting of 34 students in total. There were a total of 21 females and 13 males in these two courses. These students ranged in age from 15 to 17 years, and had at least two years of Spanish study experience (many also participated in exploratory Spanish classes

in middle school). I chose to conduct this study with my Spanish 3 class because I wanted to reach them at the earliest possible time if the results proved beneficial, yet I wanted them to have enough vocabulary and grammar experience to be able to communicate during the study activities.

Research Procedures

During the planning stage of this action research project, I mapped out my plan for changing my usual classroom procedures to incorporate the digital audio files and online discussions. As I mentioned before, my students would only get rare glimpses of native Spanish speech in my pre-test practices. Usually, these would come from sources that I had found on the Internet, such as in songs I would play for them, or interviews of famous actors or artists. But, I did not feel these experiences happened often enough for my students to truly benefit from them. During the study, I planned to have my students listen to a native speaker either through a downloaded Podcast or other digital audio files at least once a week.

Students would access these audio files via the school server or an online courseware product. After listening to the audio files, the students would then participate in small group, online discussions where they would answer questions posed by me about the content of the audio file. Conducting online discussions is not something I had done in my usual class practices, so I knew I needed to plan to include a practice session (or two, if needed) into my research timeline.

During the first and last weeks of the study, I would analyze these online discussions for indications of aural comprehension of the audio files (research question #3) as well as for indications of increased proficiency in Spanish (research question #2).

A final change I planned to make to my usual classroom procedures was to assess my students' speaking abilities (research question #3). To conduct these assessments, students would listen to an audio file of the test administration on the computer. The audio file would set up various speaking scenarios with the student. The students' speaking would be recorded on the computer for later analysis. These assessments would occur at the beginning of the research project and at the end.

Once these plans were set, I needed to prepare myself for conducting this research project. I searched the Internet for appropriate audio files on Podcast sites, such as iTunes (www.itunes.com). This was a little perplexing as I was unable to find many Podcasts in Spanish that seemed to be a good fit to my Spanish 3 curricular vocabulary and grammar. So, I chose a few that I felt used enough grammar and vocabulary from previous Spanish lessons that would allow my students some initial recognition, but where they would still be challenged with new information. I was concerned about this because I did not want students to become overwhelmed at the start and then shut down saying, "I don't get it!" before they were able to benefit from the use of the digital audio files at all.

I also searched for a voice-recording program to use with my students. Since I was planning to use a mobile computer lab for the audio files, I also wanted to use the computers to record the students' voices. I was able to find a free software download called "Audacity" (<http://audacity.sourceforge.net>) and I spent some time becoming familiar with its use. Because this is a computer-based program, the students would be able to listen to the audio files using Windows Media Player, while also recording their oral responses using the Audacity program. They would simply switch between programs as needed.

Choosing an oral assessment was also a concern in my preparations for this study. Not only was I looking for an assessment to use for the current study, but I was also interested to find an assessment that might prepare my students for possible foreign language assessments in their higher education experiences. For this, I chose to use the Simulated Oral Proficiency Interview (SOPI) (Stansfield, 1989).

The SOPI assessment has its basis in *The Intensive Language Program of the American Council of Learner Societies*, as mentioned in the Literature Review. A previous version, known as the Oral Proficiency Interview (OPI) was conducted orally between a student and a certified rater. The SOPI, however, was created to allow the interview to be done via a tape recorder, or as in my case, a recorded digital audio file to be used with a computer. Then, a teacher, aid, or any educational person, would conduct the rating after having completed a rater training course (Stansfield, 1989).

Both the OPI and the SOPI were created to correlate with the American Council of Teachers of Foreign Language's (ACTFL) speaking guidelines. (1999) Stansfield (1989) reports on five studies showing the SOPI to be "a valid and reliable surrogate to the OPI," with correlations ranging from .93 to .95. In addition, the Center for Adult English Language Acquisition (2007) reports that inter-rater reliability studies were conducted to determine the consistency of scores among SOPI raters. The inter-rater reliability has ranged from .91 to .97.

Over the course of the usual SOPI assessment (15 sections), the students should experience questions that would enable them to show their true speaking proficiency ratings. Knowing that I would be limited in the amount of time I could use to assess my students, especially since this would be our first experience with the SOPI, I chose to limit the sections

to three. I also chose to use SOPI sections that came with the training program, as I did not feel confident enough with my assessment writing capabilities at the time to create my own.

In the first section, the students were asked to imagine they are preparing for a foreign exchange trip. A woman who will be leading the group asks them several personal questions to which the students are to respond. The second section used four pictures about which the students were to create as many questions as they could. The third section used a series of pictures about which the students were to create and tell a story. All of the directions for the sections were given in English, but the speaking prompts were given in Spanish. The first and second sections were written to illicit Intermediate proficiency responses, while the third was rated Advanced.

The use of the SOPI, however, also required that I be able to rate my students' oral performances in a consistent and reliable manner. To do this, I purchased the "Multimedia Rater Training Program" through the Center for Applied Linguistics (CAL) (CAL, 2005). This is an interactive software program that teaches professionals to rate oral language proficiency using the American Council on the Teaching of Foreign Languages' (ACTFL) Speaking Guidelines (ACTFL, 1999). The ACTFL ratings are novice, intermediate, advanced and superior, with sub-areas of high, mid, and low for each level. A description and further explanation of the ACTFL ratings used for this study can be found in Appendix E.

To rate my students scores, I used a rater sheet from the Rater Training Program (see Appendix F). For each section, the students' responses were rated on task accomplishment, and quality and quantity of speech. For statistical analysis, these ratings were converted to a numerical scale as follows:

Below Novice High	1
Novice High	2
Intermediate Low	3
Intermediate Mid	4
Above Intermediate Mid	5

To figure a students' Global Rating as directed by the Rater Training Program, I looked for the highest rating given at least two times. By earning the same rating twice, the student can be expected to consistently perform at that level. If, however, a student earned three different level ratings, his or her Global Rating would be the lowest rating assigned. This would indicate the student exhibits features of the next level, but not in a sustained manner. Each student's pre-test Global Rating score was then compared to his or her post-test Global Rating score.

Because this would be my first experience as a rater, I enlisted the help of a second Spanish teacher to ensure the validity in my ratings. Each of us completed the Rater Training Program and compared our ratings on the sample audio files included in the program. Then, as the students completed their pre-test and post-test voice recordings through the SOPI assessment, the second Spanish teacher rated a 10% sample of each to validate my ratings.

Data for this study were collected from multiple sources. Table 2 illustrates how data were used to answer each research question.

Table 2: Data sources for research study.

Research Questions	Data Source #1	Data Source #2	Data Source #3
1. How will integrating the use of online discussions affect my students' anxiety of producing the target language in face-to-face discussions?	Student self-analysis of anxiety levels (pre-test)	Teacher observation of small group discussions	Student self-analysis of anxiety levels (post-test)
2. How will integrating the use of online discussions and digital audio files affect the proficiency of my students' oral communication in the target language?	Teacher ratings on pre-test SOPI files.	Teacher ratings on post-test SOPI files.	Teacher observations of small group online discussions regarding proficiency in the target language.
3. How will the use of digital audio files (e.g. Podcasts) affect my students' levels of auditory comprehension?	Listening comprehension pre-test	Teacher analysis of online discussions regarding aural content of Podcasts or other listening files.	Listening comprehension post-test

For research question #1, the triangulated data came from a student self-evaluation of anxiety levels taken just after an oral activity. The students used a Likert scale to rate their feelings of stress, anxiety and motivation. A copy of the anxiety evaluation can be found in Appendix G. This activity took place at the beginning of the research project and at the end. The data from the two surveys were compared to show what effects the online discussions had on students' anxiety levels during second language (L2) speech.

In addition, teacher observation notes from in-class, small group discussions were analyzed to see if they correlated to the findings of the student self-evaluations. Although the student discussions took place periodically throughout the research period, the recorded teacher observations were done only two times (beginning and end). During the analysis of

these discussions, I used the “Signs of Anxiety” rating sheet included in Appendix H of this study. The resulting data were charted over time to show any trends in anxiety levels and quantities of speech and how those changes might relate.

For research question #2, the triangulated data came from administration of the Spanish Oral Proficiency Interview (SOPI) assessment. Students took the assessment via laptop computers where they listened to a recorded test administrator and recorded their responses using the Audacity voice-recording program. Like the self-evaluations of anxiety, these assessments were given twice during the research period, once at the beginning and once at the end. The results were then compared to show any change in the students’ speaking abilities over the course of the project.

Another source of data used for research question #2 was from teacher ratings of proficiency for small-group, online discussions (see Appendix I). Using a web-based courseware, the students were assigned to small groups and were given discussion questions. They were also given a specified date or time by which the discussion was to be completed. Afterward, I rated the student responses on the quantity, complexity and accuracy of the linguistic output by the students. Once again, the online discussions occurred periodically throughout the study, however only the first and final discussions were analyzed using the evaluation tool.

Finally, for research question #3, data were gathered using a listening comprehension pre-test and post-test and from teacher analysis of the content in online student discussions. The listening comprehension tests required that the students listen to an oral passage in the target language and then to answer content questions written in the target language. The

questions were short answer. The results of the pre-test and post-test were compared and analyzed for evidence of any change in the students' auditory comprehension skills.

In addition to the comprehension tests, the teacher evaluated the students' online discussion of audio file content for research question #3. These evaluations also occurred at the beginning and end of the study. However, as mentioned before, online discussions took place throughout the study. I looked for evidence of understanding of the ideas discussed in the audio file, rather than second language proficiency. The findings from these evaluations were analyzed and compared to those of the listening comprehension tests.

CHAPTER 4

RESULTS AND DISCUSSION

This section marks the beginning of the evaluation stage in my action research project. Here, the data gathered during the study will be shared and discussed. First, the results from the pre- and post-test anxiety surveys, as well as teacher observation notes, will be analyzed to see any effects that online discussions had on oral language production. Secondly, pre- and post-test SOPI ratings will be compared and analyzed to see any effect that using the digital audio files had on their proficiency in the L2 language. Teacher observations of pre- and online discussions will also be used to see any relation between what was observed and what the rating results showed. Next, the results of pre- and post-test listening comprehension tests will be analyzed and compared to pre- and post-test online discussions to see the effects of using the digital audio files on the students' levels of auditory comprehension. A general discussion of the results will conclude this section.

Research Question #1

How will integrating the use of online discussions affect my students' anxiety of producing the target language in face-to-face discussions?

At the start of this action research project, I asked my students to complete a self-analysis survey on their levels of anxiety when speaking Spanish (see Appendix G). The students were given the same survey five weeks later, at the end of the study. The students were purposefully given this survey immediately following an oral activity in hopes that they would be more in-tune with their true feelings of anxiety. To further understand student responses on the self-analysis survey, I also asked my students to respond in writing to some short answer questions using a Clarifying Survey (see Appendix K).

An independent t-test was used to determine if there were any significant differences between the pre-survey mean responses and the post-survey mean responses for each question on the survey. There were no significant differences found between pre- and post-survey means on any of the survey items for respondents' anxiety levels. However, the analysis did garner a few interesting results.

On the survey, students were asked to respond to the statement, "I get nervous when speaking Spanish in class." On the pre-survey, 23 students (68%) indicated they agreed or strongly agreed with the statement. However, on the post-survey, 20 students (58%) agreed or strongly agreed. This shows a decrease of 9% of students who reported strong feelings of anxiety when speaking in the target language between taking the pre- and post-survey.

Teacher observations taken during in-class small group and large group discussions indicate similar results. Although I did not notice a large change in the amount of observable anxiety characteristics, I did note a marked increase in the amount of speaking going on during the discussions. Also, the speaking that was going on sounded a bit more fluent. While I did not have a place on my observation chart for it, I noted during the post-test observation that there seemed to be less "processing speech" going on. Generally, when students are learning to produce a second language orally, there is still a lot of mental processing going on. They are still translating from English to Spanish in their heads before they are ready to produce the speech orally. It has been my experience that when this occurs, students will hold one word longer than normal while they are figuring out what their next word will be. Orally, this might sound like, "Me haaaaabblo español," as opposed to, "Me hablo español."

A second interesting result from the data for question #1 came from responses to the statement, “I feel that the other students are better than me at speaking Spanish.” On the pre-survey, 26 students (77%) agreed or strongly agreed, while only 22 (65%) students responded similarly on the post-survey. This survey statement speaks to the students’ feelings of self-confidence with their ability to speak in the target language. The decrease of 12% of the students indicating feelings of low self-confidence may have a lot to do with the fact that the pre-survey was given right at the start of the semester. This means many of my students had not been in a Spanish class for seven months. Our school follows block scheduling, which makes it very difficult for students to schedule all four Spanish class levels consecutively. Because of this, it is entirely possible that some students had not been in Spanish class for over a year. It is conceivable, however, that most students, no matter how long it had been since they were actively studying Spanish, will likely feel less confidence at the start of a new class because the feelings of class community and comfort levels have not been given enough time to establish.

A third interesting statistic from the anxiety survey came from the statement, “I get nervous if I haven’t prepared for Spanish class.” Here, 24 students (71%) agreed or strongly agreed with this statement on the pre-survey. That number dropped by 12% on the post-survey with 20 students (59%) agreeing or strongly agreeing. I have to wonder if this result might be from the use of the digital audio files and students receiving more experience with native Spanish speech.

Typically, when students are exposed to native speech, they make comments such as, “They speak too fast!” In fact, on the clarifying survey, one student wrote, “I need to know what every specific word means or else I panic and then lose focus.” It is my hope though,

that with increased experience with the language (especially native speech) the students will realize that it is sometimes enough to simply get the gist of what someone is saying. I think some students are getting that through our work with the audio files as one commented, "...we need to understand that Spanish speakers don't speak slowly, pronouncing every syllable." This gets directly to the point of my research focus of my students' inability to comprehend native speech. They are used to hearing me speak in such a way that will help them understand. Perhaps, though, it would be better if I did not.

Finally, there was one result from the anxiety survey that was a bit disheartening. The statement was, "The Spanish class makes me most nervous (more than other classes)." On the pre-survey, 15 students (44%) agreed or strongly agreed to this statement. That number rose to 18 students (53%) on the post-survey. While there are many variables that could have caused this result, such as the content we were focusing on in class at the time, the difficulty levels of the students' other classes, etc., the point I need to remember is I have a significant number of students in my class feeling great anxiety. And, although the American Psychological Association (1997) says that anxiety can be beneficial to learning, too much can also be quite harmful. I need to do what I can to keep the numbers of students feeling great anxiety to a minimum. Chan (2005), Roby (2006) and Barr, et al. (2005) have all suggested ways of reducing anxiety through effective teaching methods and technology.

During this study, I put one of those suggestions to the test as I used the online discussions as a pre-class review prompt. Knowing that we would be reviewing a grammar concept in class the following day, I assigned an online discussion where the students talked about what they remembered regarding the grammar concept the previous day. Interestingly, the students' discussions went beyond what they had they had learned in Spanish 2 and

brought in several new verbs that we would learn in our new lesson. That was a great way to introduce the new vocabulary for the following day. This online discussion was beneficial to me as a teacher because it saved me time in review the following day, but it was also beneficial for the students as they came to class already having reviewed much of the information and feeling more comfortable. One student commented on the clarifying survey, “The online discussions helped a lot for review...I felt more prepared for class after we did those.” Another student said, “The online things we did...made me more confident in Spanish class.” Because of this, I will definitely continue to use online discussions in the future.

Research Question #2

How will integrating the use of online discussions and digital audio files affect the proficiency of my students’ oral communication in the target language?

At the start of this action research project, I conducted an oral assessment of my students’ speaking proficiency using the SOPI program. The students were given the same assessment five weeks later, at the end of the study.

A dependent t-test was used to determine if there was a significant difference between the pre-test mean score and the post-survey mean score for the students’ SOPI ratings. Dependent t-test results indicate a significant difference between pre- and post-test means for the students’ ratings on the SOPI speaking assessment (Table 3).

Table 3. Pre- and post-test results on students' performance on the SOPI.

Test	N	Mean	Std. Dev.	t	df	Signif. (2-tailed)
Pre-test SOPI	30	1.17	.874	3.60	29	.001*
Post-test SOPI	30	1.80	.961			

*p<.05

The mean score for the students' SOPI ratings was 1.17 (close to Novice High) on the pre-test SOPI assessment. The majority of the ratings (32%) were at level 2 (Intermediate Low), while a close 31% of the pre-test ratings were at level 1 (Novice High). The lowest rating of 0 was given to 25% of the pre-test assessments, and only 3% earned a rating of 3 (Intermediate Low).

The post-test SOPI mean score was 1.8 (close to Intermediate Low). Once again, those earning a rating of 2 (Novice High) comprised the majority with 41%, an increase of 9%. Student ratings of level 1 (Below Novice High) made up 21% of the total ratings, a decrease of 10%. With 9% of students earning a rating of 0 (Below Novice High), the number of students earning the lowest rating possible decreased by 16%. Conversely, 15% of students earned a rating of 3 (Intermediate Low), an increase of 12%. Figure 2 shows the results for both the pre- and post-test SOPI ratings.

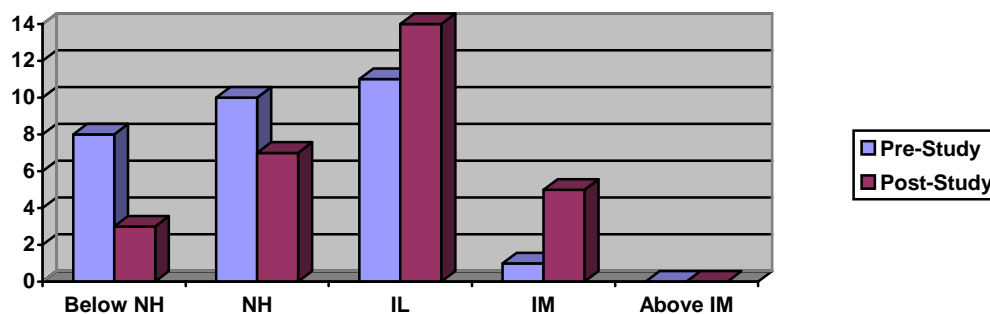


Figure 1 Pre- and post-test results on students' SOPI ratings.

When I first looked at the pre-test results of the SOPI assessments, it was difficult not to feel discouraged. I knew that my students could speak Spanish better than these results showed. They had answered many of the same questions the previous day of class in our review of Spanish 2 material! But, I was the person asking the questions (sometimes speaking at a slower-than-normal pace, and using gestures when it might have helped them to understand), and I had given them a handout previously with the questions printed on them. All they were required to do was recognize enough of the question to find it on their sheet and then read it for themselves. Once they fully understood the question, they were able to answer it aloud in Spanish. During the SOPI assessment, I had not forewarned them on what questions to expect and they were listening to a native speaker, whose speech was much more fluid and quick. I had no doubt that had they been able to read the questions instead of listening to them, they would have scored much higher. One student corroborated this on the clarifying survey by saying, “The listening and voice recordings were hard because we had to listen and not read the conversations.”

Another concept that was newly introduced to the students with the first administration of the SOPI was responding to questions by speaking into a microphone on a computer. As is always the case, we had some technology problems with files not opening correctly or microphone sound levels being set too high or too low, for example. With the students already feeling anxious about being assessed on their oral speaking, it did not help our situation when students were not comfortable with the technology. This undoubtedly had an impact on the students' ratings as well.

The issue of scheduling might also be to blame here. As I mentioned previously, this study began at the start of our semester. These students had been in Spanish 3 for only a matter of days. And, most had not been in a Spanish class setting for at least seven months prior to this class. So, they only had the benefit of a few days' review. Fortunately, by the end of the five-week study, we had completed our review of the Spanish 2 material and the students had become somewhat accustomed to speaking Spanish again. One student explained why she felt she performed better on the second SOPI assessment with "...the first time I had forgotten a lot of Spanish that we had learned in Spanish 2, but most came back by the 2nd time."

Even with the completion of our review material and my students' feeling more accustomed to speaking aloud again, the second set of SOPI ratings were not groundbreaking, but they did make me feel much better for my students. The second assessment went much more smoothly with the technology and I noted in my journal that there was much more "noise" in the room. With the first test, the students mostly sat silent because they had not understood the questions being asked. But, the second time, I heard much more speaking going on. I would attribute this, at least in part, to the students' use of

the audio files. They had gained more experience in listening to and understanding native speech. When the last of the second assessments was complete, I asked the students for a show of hands from those who felt they performed better the second time. A clear majority of hands were raised high in the air and I could tell my students were feeling pretty good about their performances.

Teacher analysis of pre- and post-test online discussions was also used to see if student writings showed any improvements in proficiency. Using the “Online Discussions Rating Sheet” (see Appendix I), I looked for increases in quantity and quality of students’ online postings. These results do not corroborate the findings of the SOPI assessments. The students’ quality of speech remained the same between the pre- and post-test analysis. Students tended to use basic speech patterns in simple sentences for both the pre- and post-test online discussions. There was no use of higher proficiency skills, such as paragraph level discourse, or elaboration of ideas.

In hindsight, I think the types of questions used as writing prompts for the students proved to be a limitation of this study. The prompts did not allow for students to create meaningful expressions with the language. In an effort to be efficient, I used one online discussion for the pre-test analysis and another online discussion for the post-test analysis for both the aural comprehension analysis (research question #3) and for the language proficiency analysis (research question #2). Because of this, the question prompts the students used aimed to get evidence of aural comprehension and as such were questions that only elicited lower-level discourse. In future uses of the online discussions, I will work to incorporate writing prompts that elicit higher level thinking skills and therefore will allow the students to express higher levels of proficiency.

With that being said, a clear majority of students did improve their proficiency scores over the course of this study. When I saw these results, I immediately began thinking about the second phase of this action research project with excitement. If my students can show improvement in just five weeks, what are the possibilities over the remainder of the semester?

Research Question #3

How will the use of digital audio files (e.g. Podcasts) affect my students' levels of auditory comprehension?

At the start of this action research project, I asked my students to complete a short-answer comprehension test after listening to an audio file recorded by a native speaker (see Appendix L). The students were given the same test five weeks later, at the end of the study.

A dependent t-test was used to determine if there was a significant difference between the pre-test mean responses and the post-test mean responses for the students' listening comprehension tests. Dependent t-test results indicate a significant difference between pre- and post-test means for the students' listening comprehension tests (Table 4). The mean score for the students' listening comprehension test was 4.78 (60% or D-) on the pre-test. On the post-test, mean score was 6.66 (83% or B-). These results indicate that by adding the use of digital audio files to my current Spanish curriculum, I can further affect my students' oral comprehension skills in a positive manner.

Table 4, Pre- and post-test results on students' performance on the listening comprehension test.

Test	N	Mean	Std. Dev.	t	df	Signif. (2-tailed)
Pre-test	32	4.78	1.84	5.80	31	<.001*
Post-test	32	6.66	1.21			

*p<.05

During the five-week study, the students were divided into small groups in order to participate in weekly online discussions over an assigned audio file. Three audio files were downloaded Podcasts, while the rest were audio files that accompanied the new textbook series. Teacher observations were recorded for the first and last online discussions using the "Evaluation of Discussion" tool (see Appendix J). Results from these observations are consistent with the ttest results, as they indicate a positive effect on the students' aural comprehension.

First, the number of questions answered correctly (and indicating aural comprehension) by each group increased by 28% on the post-test results. I would feel comfortable stating that these improved results are due, in part, to the increased experience with native speech through our work with the digital audio files over the course of the study. However, I would also expect that part of the improvement can be attributed to the increased comfort levels the students had with the use of the online discussion technology, as well as our continued work in the classroom.

Increased comfort levels with the technology may also be a large contributor to the results in the numbers of postings each group made. For the pre-test online discussion, the average number of postings per group was 6.6. However, for the post-test, the average number of postings was 12.6. The amount of postings doubled!

It is difficult to say if these results are inline with Kern's (1995) findings of increased language quantity in online discussions. In my analysis of my students' online and face-to-face discussions, I would say yes, there was more quantity per student in the online discussions as compared to the face-to-face discussions, but not necessarily in quality. In other words, during the online discussions, more students participated, but there were not necessarily more ideas expressed. Often times, a student might post a similar response to a previous posting, but use different, or corrected wording.

The fact that there was increased quantity would seem to go along with Warschauer's (1996) belief that online discussions create opportunities for more equal participation. The data seem to indicate that the reason for the large growth in numbers of postings would seem to be due to increased participation and increased chat.

First, more students from each group participated in the discussion during the post-test online discussion. During the pre-test discussion, there were some students that did not participate. Some students discussed with me the following day that they had forgotten the password or had other technology problems. But they would not account for all the students missing from the pre-test online discussion. It might be that some students were afraid of the idea of being in an online chat, and so chose not to participate.

Secondly, during the post-test there was a marked increase in the number of informal communications going on during the discussion. For example, one student announced that

she had found her long-lost iPod that had been missing for weeks. Others were complimentary remarks for another student's previous posting, or announcements of when they were planning to post their share of the discussion. There were even some comments suggesting they liked doing the online discussions, such as "Spanish rocks!" and "This is fun!"

Another area I was interested to see was how much of a learning community might develop within the small groups. By focusing on this area, I was looking to see how much the students would use each other to get their questions answered and how much they might clarify each other's answers. In other words, I was looking for a dialogue. Unfortunately, I did not observe much dialogue-type conversing within the pre- or post-test discussions (with the exception of some of the chatting mentioned previously). Most discussions read something like a list of information.

The fact that the discussions read like a list actually makes sense, though, considering the kinds of questions the students were being asked to answer. I wanted them to show me through their discussions if they understood the native speech in the audio files, so the questions were very straightforward, low-level questions. And, if they did have questions about the meaning of certain words or phrases, rather than asking their classmates for a translation and risk "looking stupid," the students likely went to an online translation site or to their Spanish-to-English dictionary to figure them out.

One final piece of analysis from my observations of the online discussions is in regard to the number of times students reported that they re-listened to the audio files. During the pre-test online discussion, students re-listened to the files an average of 2.3 times. For the post-test, that number dropped 37% to 1.9 times. This drop might be attributed to the fact

that, over the course of the five-week study, the students had gained valuable experience in listening to native speech through the audio files. They had likely become more accustomed to the flow of the language.

Students seemed to appreciate the ability to re-listen to the files, as this allowed them control over their own learning needs. One student commented, “Spanish is a hard class, but the audio files helped a lot because you can play them over and over again.”

Another student’s comment regarding the SOPI assessments suggests that listening to the audio files helped her as well. She wrote, “At first they seemed like they were talking way too fast, but the second time it moved along at a more comfortable pace.” This is interesting considering the fact that the students listened to the same recordings for both the pre- and post-test SOPI assessments.

Student comments regarding the online discussions from the clarifying survey were quite positive, as well. Students appreciated the fact that the online discussion arrangement allowed them time to formulate their Spanish responses before posting. In response to the question, “Were you nervous when participating during the online discussions in Spanish?” one student wrote, “Not really, because I was able to think without pressure.” Another student made similar comment writing, “No. I had plenty of time to think about what I was going to say.” These results would indicate agreement with Warschauer’s (1996) statement that students feel less stress during the electronic discussions. Finally, one student brought the purpose for the use of the audio files and online discussions together by writing, “The listening and online discussions helped a lot for studying and understanding speaking.”

General Discussion

When this study began, I wanted to find out if the use of online discussions would lower my students' anxiety levels and increase their speaking proficiency. And, I wondered if their aural comprehension would be increased due to gaining more experience with native speech through listening to the audio files. What the results of this study have shown me is just how interconnected each of the literacy areas can be.

In language learning, the literacy areas (reading, writing, listening, speaking) can greatly affect each other. By improving reading skills, for example, writing skills will also likely improve. Conversely, if a student is lacking aural skills, he is also apt to be lacking speaking skills. And, because my classes are in a foreign language, there is also the strong inhibitive factor of anxiety. Figure 3 shows how I view these issues in my pre-study instructional situation.

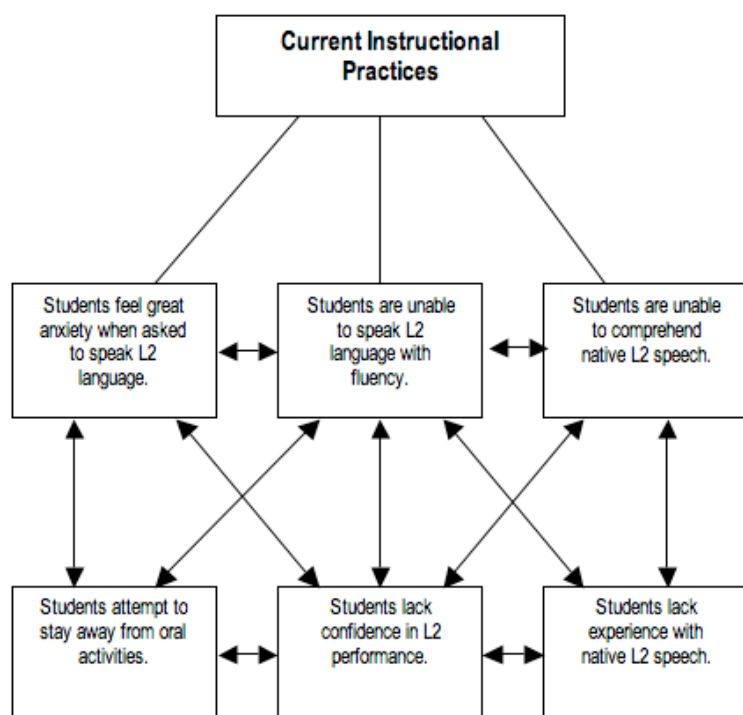


Figure 2. Pre-study classroom situation. Adapted from Sagor (2000) p. 34.

As the Figure 3 suggests, each box affects and is effected by all the other boxes. For example, if a student feels great anxiety when asked to speak Spanish, he will likely be unable to speak it with fluency. He will also likely attempt to stay away from oral activities. By staying away from oral activities, he will also lack experience with L2 speech (listening). By lacking experience with aural activities and L2 speech, he will also be inhibited from gaining confidence in his speaking abilities.

My error in thinking about the purposes of this study was that I was viewing the literacy areas of listening and speaking, as well as anxiety, as separate entities. I was attempting to use one technology tool to resolve each of the upper-level boxes in the figure 2. What the results of this study have shown me, though, is that although I was looking for

results from one technology tool in one area, I often saw results in the other areas as well. In other words, my students' experiences within one area transferred to another area.

One example of this transfer can be seen with research question #1 (How will integrating the use of online discussions affect my students' anxiety of producing the target language in face-to-face discussions?). The results of the self-analysis and teacher observations showed no change, but the students did report that the online discussions helped them by making them feel more prepared for class. They also stated, however, that the use of the audio files helped reduce their anxiety on the SOPI assessments. Another example can be seen with research question #2 (How will integrating the use of online discussions and digital audio files affect the proficiency of my students' oral communication in the target language?). The SOPI ratings improved, while the proficiency of the online discussions remained static. So, it would be difficult to say that the improved SOPI ratings had much to do with online discussions, but I feel sure that the students' increased experience with listening to the target language via the audio files did make an improvement. I stated previously that I knew the students could answer the questions asked of them on the SOPI assessment. The problem was that they had not understood the question they heard, and this negatively impacted their speaking proficiency ratings. With the second assessment, the students had more experience with listening as well as reduced anxiety, and so their ratings improved.

Likewise, with research question #3 (How will the use of digital audio files affect my students' levels of auditory comprehension?), areas of transfer have also been shown. As has already been discussed, the increased experience with the audio files of native speech has

been shown to not only affect my students' auditory comprehension, but also their anxiety levels and language proficiency.

In summary, what this action research project has shown me concerning my current classroom situation is that by incorporating digital audio files and online discussions into my current curriculum, I can positively affect my students' levels of anxiety, speaking proficiency and auditory comprehension, as shown in Figure 4.

The three bottom boxes show those positive effects that this study has shown for the use of digital audio files and online discussions. The arrows between them indicate they share the same type of interconnectivity as was previously discussed with the literacy areas. For example, if a student feels less anxiety, he or she is more likely to experience increases in L2 performance and then will also feel more confident with his or her abilities.

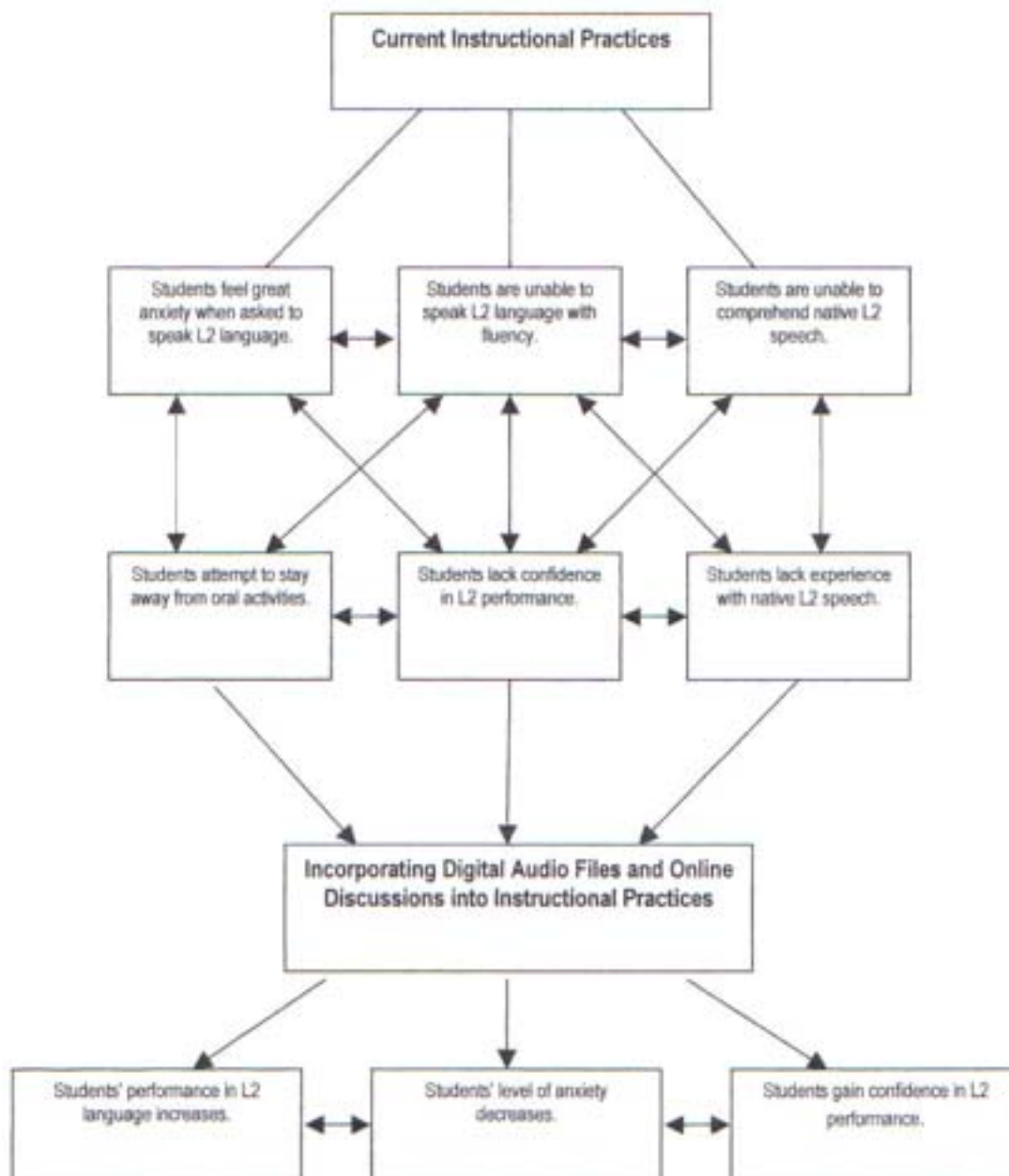


Figure 3. Post-study classroom situation. Adapted from Sagor (2000) p. 34.

CHAPTER 5

NEXT STEPS

The next steps for me with this action research project will be to share the results with my principal and the remaining members of the Spanish department in my school district. It is my hope that our department will adopt the use of the SOPI assessment because I believe it is a valid assessment of students' oral proficiency. This would make a lot of sense, as we have recently decided to revamp our curriculum standards and benchmarks in order to be more aligned with the National Standards for foreign languages. The National Standards are also aligned with ACTFL's proficiency guidelines (the same as used for SOPI ratings). In our discussions, we have talked about using ACTFL's proficiency guidelines as measures of success within our curriculum. The SOPI would seem to be a natural selection of assessment for this purpose.

As for the remaining members of the department adopting the use of the audio files and online discussions, I'm not very optimistic. One is very technology-phobic, and I know from experience that incorporating new technology into her classroom makes for a very stressful time for her. The other is at a disadvantage because she teaches in four different buildings and does not have her own classroom in any of them. However, I see her as being a person that would be willing to try. If she agrees with the possibilities of their use, she will likely find a way to make it work.

My principal will likely be pleased that this study has shown positive results for my students. He will also be pleased that I have collected data and used it to inform my teaching...a feat he has been trying to get our staff to make for years! Specifically, though, I see him being interested in the SOPI ratings. I imagine he will like the idea of using a rating

system and assessment that is used across the country in K-12 settings, as well as higher education as he will see it as a way to compare our students' achievements with others'. He very much strives to make our school a model school and is always looking for ways to measure our school against others.

Beyond my discussions with my principal and department, I will move this action research project into its second phase, beginning with planning. Whether or not the other Spanish teachers decide to incorporate these technologies into their classes will not effect me for the remainder of the current school year as there is simply not enough time left in the year for them to become trained to rate the students' audio files and to become acquainted with the online courseware. If they are interested, however, I will plan to work with these teachers over the summer to prepare them for using the online discussions and digital audio files at the start of the next school year.

For me, phase 2 will be to continue as we have been doing. Five weeks is simply not enough time to show the results that I think these tools are capable of producing. I will likely not hold myself to the strict schedule of using the online discussions and digital audio files on a weekly basis as I found that to be somewhat overwhelming. And, I will likely not return to the SOPI assessment again until the end of the year. It will be very interesting to see how much improvement my students will have made by then.

All in all, I feel this study was very beneficial to my instructional practices. Going through the process of action research has shown me how to make the planning, acting and evaluating stages that I already do more valid and informational.

APPENDIX A. DOCUMENTATION OF HUMAN SUBJECTS APPROVAL

PART K: CONFIDENTIALITY

27. Describe below the methods that will be used to ensure the confidentiality of data obtained. For example, who has access to the data, where the data will be stored, security measures for web-based surveys and computer storage, how long data (specimens) will be retained, etc.)

Each student will have access to their own specific data, but only the principal investigator will have access to all research participant information. Data will be stored on computer, discs and on paper records. The data will be retained until September 1, 2007.

PART L: REGISTRY PROJECTS

To be considered a registry: (1) the individuals must have a common condition or demonstrate common responses to questions; (2) the individuals in the registry might be contacted in the future; and (3) the names/data of the individuals in the registry might be used by investigators other than the one maintaining the registry.

☐ Yes ☒ No Does this project establish a registry?

If "yes," please provide the registry name below.

Checklist for Attachments

The following are attached (please check ones that are applicable):

- ☒ A copy of the informed consent document **OR** ☐ Letter of introduction to subjects containing the elements of consent
☒ A copy of the assent form if minors will be enrolled
☒ Letter of approval from cooperating organizations or institutions allowing you to conduct research at their facility
☒ Data-gathering instruments (including surveys)
☐ Recruitment fliers, phone scripts, or any other documents or materials the subjects will see

Two sets of materials should be submitted for each project – the original signed copy of the application form and one copy and two sets of accompanying materials. **Federal regulations require that one copy of the grant application or proposal be submitted for comparison with the application for approval.**

FOR IRB USE ONLY:

Initial action by the Institutional Review Board (IRB):

- ☒ Project approved. Date: 28 November 2006
☐ Pending further review. Date: _____
☐ Project not approved. Date: _____

Follow-up action by the IRB:

IRB Approval Signature

Date

APPENDIX B. DOCUMENTATION OF SCHOOL BUILDING APPROVAL

October 18, 2006

Human Subjects Review Committee
Office of Research Compliance
2810 Beardshear Hall
Iowa State University
Ames, IA 50011

Dear Committee Members:

Krista Stutzman will be conducting an action research study entitled, "The Effects of Using Digital Audio Files and Online Discussion on Spanish Auditory Comprehension and Oral Production," with students enrolled in Spanish 3 at Mid Iowa High School in the Mid Iowa Community School District. The purpose of the study will be to examine the use of digital audio files (e.g. Podcasts) and online discussions and their impact on developing aural comprehension and oral production skills. Krista has Mid Iowa High School's permission to conduct this study in our building.

Sincerely,

John Smith
Principal

APPENDIX C. STUDENT/PARENT PERMISSION FORMS

STUDENT and PARENT INFORMED CONSENT DOCUMENT

Title of Study: The Effects of Using Digital Audio Files and Online Discussion on Spanish Auditory Comprehension and Oral Production

Investigators: Krista Stutzman, Dr. Denise Schmidt

This is an action research study. Please take your time in deciding if you would like your child to participate. Please feel free to contact us at any time with questions about your child's participation in this study.

INTRODUCTION

The purpose of this study is to examine the effects of using digital audio files and online discussion boards in the development of Spanish auditory comprehension and oral production skills with high school students. Many foreign language students lack pronunciation and aural comprehension skills and seem to feel great anxiety when asked to speak in the target language (TL). Your child has been invited to participate in this study because h/she is a student enrolled in my Spanish 3 class. In this class, we spend a considerable amount of time working on Spanish auditory comprehension and aural comprehension skills. Hence, we would like to study the effects of using audio and text-based technologies to develop and improve these targeted skills in learning Spanish.

DESCRIPTION OF PROCEDURES

Your child will be participating in a four-week study, in which the use of digital audio files (ex. Podcasts) and online discussion boards will be incorporated into the daily routine of the Spanish 3 classroom. During the study your child will be involved in a variety of activities and will complete the learning activities as instructed by the teacher. These activities will include: participation in online and face-to-face class discussions in Spanish, listening to digital audio files in Spanish, and personal reflection.

As your child participates in this project, he/she will be asked to participate in pre- and post-test assessments to determine the effectiveness of the activities in the study. These tests will specifically measure your child's auditory comprehension and oral production skills in Spanish and will help me in examining my own teaching practices in Spanish.

RISKS

There are no foreseeable risks identified at this time as a result from participating in this study.

BENEFITS

If your child decides to participate in this study there are some desired outcomes that might directly benefit him/her. These include: increased aural comprehension in the target language and increased oral proficiency including pronunciation in the target language.

It is hoped that the information gained in this study will benefit the educational community by providing valuable information about curriculum development in the area of using digital audio files for increased student aural comprehension and oral proficiency in a foreign language class.

COST AND COMPENSATION

Neither you nor your child will incur any costs from participating in this study. In addition, your child will not be compensated for participating in this study.

PARTICIPANT RIGHTS

Your child's participation in this study is completely voluntary and he/she may refuse to participate in the study at any time. If he/she chooses not to participate, it will not affect his/her grade in class. Your child will still be required to complete the assignments, but any information collected from the pre- and –post tests and surveys will not be used for study analysis.

CONFIDENTIALITY

Records identifying your child will be kept confidential to the extent permitted by applicable laws and regulations and will not be made publicly available. However, federal government regulatory agencies and the Institutional Review Board (a committee that reviews and approves human subjects research studies) at Iowa State University may inspect and /or copy these records for quality assurances and data analysis. These records may contain private information.

To ensure confidentiality to the extent permitted by law, the following measures will be taken: Only the principal investigator and the participating major professor will have access to the data. No student will ever be identified individually. Students will have access to their own data for review and correction purposes. Data will be stored on the principal investigator's computer and any access to files is password protected. Data will be kept until 9/1/2007, which will allow time for the principal investigator to analyze the data. The data will be used to construct a case study description of the effects of digital audio files and online discussion conversations in the foreign language classroom. If the results are published, your child's identity will remain confidential.

QUESTIONS OR PROBLEMS

You are encouraged to ask questions at any time during this action research study. For further information about the study contact Dr. Denise Schmidt, (515) 294-9141, dschmidt@iastate.edu or Krista Stutzman, (319) 646-6091, kstutzman@mid-prairie.k12.ia.us. If you have any questions about the

rights of research subjects please contact IRB Administrator, (515) 294-4566, jcs1959@iastate.edu, or Diane Ament, Director, Office of Research Assurances (515) 294-3115, dament@iastate.edu.

STUDENT and PARENT SIGNATURES

Your signature indicates that you *voluntarily agree* to participate in this action research study, that the study has been explained to you, that you have been given time to read the document and that your questions have been satisfactorily answered. You will receive a copy of the signed and dated written informed consent prior to your child's participation in the study.

Student's Name (printed)

(Signature of Student)

(Date)

Parent's Name (printed)

(Signature of Parent)

(Date)

Your signature below indicates that you *do not agree* to participate in this action research study, that the study has been explained to you, that you have been given time to read the document and that your questions have been satisfactorily answered.

Student's Name (printed)

(Signature of Student)

(Date)

Parent's Name (printed)

(Signature of Parent)

(Date)

INVESTIGATOR STATEMENT

I certify that the participant has been given adequate time to read and learn about the study and all of their questions have been answered. It is my opinion that the participant understands the purpose, risks, benefits and the procedures that will be followed in this study and has voluntarily agreed to participate.

(Signature of Person Obtaining Informed Consent)

(Date)

APPENDIX D. PARENT LETTER

January 16, 2007

Dear Parent,

I am currently working toward completing my Master's degree through Iowa State University in Curriculum and Instructional Technology. As a part of this process, I am planning to do an action research project involving the use of digital audio files, such as Podcasts, to study their effect on students' ability to understand spoken Spanish and their ability to speak Spanish more fluently.

Within this study, I will be asking students to access the audio files both through saved files on our school's server as well as through the Internet. And, we will do this during class as well as outside of class. If your student does not have access to the Internet at home, he or she will be able to access the files by using the school's computer lab.

Also, during the study, I will be facilitating online discussions in Spanish using a tool through Apple Computers called "eBoard." I am able to use this tool with my students through the Technology Integration Mentorship Program (TIMP) in which I am involved through our Area Education Agency, Grantwood, in Cedar Rapids. My eBoard site is password protected and only my students and I can take part in the online discussions.

The students and I have already begun using eBoard, and will continue to use it after the study as I see it as a valuable communication tool for my students and myself. For the purposes of this study, I will use our work on eBoard as a source of data to look at how well students have understood the information received through listening to an audio file and to watch for any changes in quality and quantity of their written Spanish communications.

Participation in this study is voluntary. The attached pages delineate the study further for your consideration. If, after having read through all of the information, you feel you would rather your child not participate in this study, he or she will not miss any learning opportunities within our Spanish class. The teachers at Mid Iowa High School have been learning about and using Differentiated Instruction techniques for the past two years in an effort to better reach all of our students. I will use this approach to ensure that all students will receive equal learning opportunities whether they participate in the study or not.

So, please read through the attached pages and print and sign your name in the appropriate place to indicate your approval or disapproval of your student's participation. Then, please have your student return them to me by this Friday, January 19, 2007.

Thank you for your consideration,

Krista Stutzman
Spanish Teacher
Mid Iowa High School

APPENDIX E. ACTFL RATING NOTES

Personal Notes on ACTFL Ratings

Four major levels of language performance:

Superior, Advanced, Intermediate, and Novice

Criteria used to rate:

- Communicative Task: what the speaker is able to do with language to fulfill speaking objectives
- Contexts and Content Areas: the circumstances or settings, and the themes or topics
- Discourse Type: amount of and organizational aspects of speech (e.g. phrase, sentence, paragraph)
- Accuracy: the degree to which the acceptability, quality, and precision of the message affects its comprehensibility.

Superior

Communicative Tasks

Discusses topics extensively from both a concrete and abstract perspective, supports opinions, hypothesizes, and deals with linguistically unfamiliar situations.

Contexts and Content Areas

Participates in most formal and informal settings on a wide range of general interest topics and some special fields of interest and expertise.

Discourse Type

Uses extended, connected discourse

Accuracy

Maintains a high degree of linguistic accuracy, does not produce patterned errors; errors do not distract or interfere with communication.

Advanced

Communicative Tasks

Handles a wide variety of tasks (e.g. narration and description) with good control in major time frames, and converses in a clearly participatory fashion; deals with situations with complications.

Contexts and Content Areas

Discusses concrete and factual topics of personal and public interest in most informal and some formal situations.

Discourse Type

Produces paragraph-length discourse.

Accuracy

Understood by native speakers not accustomed to non-native speakers.

IntermediateCommunicative Tasks

Creates with language; can convey personal meaning, ask questions, and handle simple transactions.

Contexts and Content Areas

Handles informal and transactional situations on daily activities, personal topics or topics related to the immediate environment.

Discourse Type

Produces simple, discrete sentences, strings of sentences, and some connected sentences.

Accuracy

Understood by those accustomed to non-native speakers.

NoviceCommunicative Tasks

Responds to simple personal questions, lists, and enumerates, with minimal, if any, ability to communicate personal meaning.

Contexts and Content Areas

Can only handle the most common and highly predictable daily personal situations and topics.

Discourse Type

Produces discourse which is characterized by memorized words or lists of words, memorized phrases, or simple personalized recombination of words and phrases.

Accuracy

Even those accustomed to dealing with non-native speakers may have difficulty understanding.

Sub-Levels

High-sustained performance of the features associated with its main level. In addition, such a performance has many elements of the next level up. However, it falls short of the next higher level because the speaker does not demonstrate sustained control of that level's features.

- Exhibits features of the next higher main level more than half the time, but does not demonstrate sustained control of those features
- Demonstrates all basic features of its main level, typically with ease and confidence

Mid-quantity and quality expected at the level of the task.

- Sustains all features of main level, showing more quantity and quality than a "low" performance.
- Exhibits some features of the next higher main level (e.g. an Intermediate-Mid exhibits some Advanced-level features)

Low-exhibits the features of the main level, but does not show much evidence of the features associated with the next higher main level.

- Demonstrates all features of main level in a sustained manner, though minimally
- Exhibits quality or quantity of the main level features, but generally not both
- Exhibits features of the next high main level sporadically (e.g. an Intermediate-Low sporadically exhibits Advanced-level features)

>IM	IM	IL	NH	<NH
Raters may find one or more of the following features: <ul style="list-style-type: none"> ○ Correct Spanish question intonation and varied question types ○ Connective devices and appropriate vocabulary ○ Paragraph-level discourse ○ Elaboration ○ No miscommunication NOTE: examinees are not expected to demonstrate speech above the	Raters may find one or more of the following features: <ul style="list-style-type: none"> ○ Generally accurate, simple grammar and question formation ○ Series of discrete, unconnected questions ○ Sporadic use of varying question types ○ Two or more questions for each picture ○ Clear, uncomplicated questions 	Raters may find one or more of the following features: <ul style="list-style-type: none"> ○ Standard question formation ○ Little or no variety in verbs or syntax ○ Occasional use of English ○ Task minimally fulfilled ○ Limited vocabulary 	Raters may find one or more of the following features: <ul style="list-style-type: none"> ○ Inaccurate use of grammar and very limited vocabulary ○ English words and English question intonation ○ "Learned" phrases in the questions ○ Occasional non-responses ○ Unintelligible utterances 	Raters may find one or more of the following features: <ul style="list-style-type: none"> ○ High-frequency question words, learned words ○ Unintelligible utterances ○ Incomplete questions ○ Non-responses ○ Use of English

Intermediate-Mid level, as it is not required on this task.	○ Task fulfilled adequately			
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Rating Tips

- As an Intermediate-level task, the examinee need not ask elaborate questions.
- An Intermediate-Mid performance will have more quantity and/or quality than an Intermediate-Low performance.

APPENDIX F. SOPI RATER SHEET

SPANISH SPEAKING TEST

Name of Examinee _____ Date of Testing _____
 Class _____ Instructor _____
 Rater's Name _____ Date of Rating _____

Record scores in the following chart to determine examinee's global rating.

By Item Order:				Global Rating _____
OC	P1	P2		
I	I	I		
—	—	—		

.....
Opening Conversation (Intermediate)

Task Accomplishment:

Quality:

Quantity:

Rating: Above IM IM IL NH Below NH

.....
Picture #1 (Intermediate) Function: *Ask Questions* Topic: *Personal Questions*

Task Accomplishment:

Quality:

Quantity:

Rating: Above IM IM IL NH Below NH

.....
Picture #2 (Advanced) Function: *Narrate in past time* Topic: *Clothing store mix-up*

Task Accomplishment:

Quality:

Quantity:

Rating: Above IM IM IL NH Below NH

APPENDIX G. STUDENT SELF-EVALUATION OF ANXIETY

*How do I feel in class?***Foreign Language Classroom Anxiety**

1 = I strongly agree; 2 – I agree; 3 = No comment; 4 = I disagree; 5 = I strongly disagree

1.	I am nervous when the teacher speaks to me in Spanish class.	1	2	3	4	5
2.	I am embarrassed when I answer the teacher in Spanish class.	1	2	3	4	5
3.	I worry about making mistakes in Spanish class.	1	2	3	4	5
4.	I get nervous when speaking in Spanish class.	1	2	3	4	5
5.	My heart pounds when I do something in class.	1	2	3	4	5
6.	I feel self-conscious when speaking in Spanish with my classmates.	1	2	3	4	5
7.	I am afraid that others will laugh at me when I speak Spanish.	1	2	3	4	5
8.	I feel that the other students are better than me at speaking Spanish.	1	2	3	4	5
9.	I get so nervous in class that I forget everything.	1	2	3	4	5
10.	I get nervous if I haven't prepared for Spanish class.	1	2	3	4	5
11.	I feel anxious even if I have prepared for Spanish class.	1	2	3	4	5
12.	I worry if the teacher corrects me in class.	1	2	3	4	5
13.	The more I study Spanish, the more I get confused.	1	2	3	4	5
14.	I worry if I can't understand every word the teacher says.	1	2	3	4	5
15.	In pair-work, I worry if my partner is better than me at Spanish.	1	2	3	4	5
16.	In pair-work, I worry if my partner is worse than me at Spanish.	1	2	3	4	5
17.	I worry about Spanish tests.	1	2	3	4	5
18.	I worry about failing Spanish class.	1	2	3	4	5
19.	The Spanish class makes me most nervous (more than other classes).	1	2	3	4	5
20.	I often daydream in Spanish class.	1	2	3	4	5

APPENDIX H. SIGNS OF ANXIETY RATING SHEET

Physical Signs of Anxiety	Group 1	Group 2	Group 3	Group 4
Foot tapping, desk drumming				
Balling of fists				
Redness of skin				
Hunching, avoidance				
Sweating				
Shaking				
Tears				
Stuttering				
Giggling				

Signs of Anxiety Rating Sheet

During observation of small-group student discussions in the second language, make a tally mark for each instance of the following behaviors observed.

Pre-test / Post-test

APPENDIX I. ONLINE DISCUSSIONS RATING SHEET - PROFICIENCY

Evaluation of Online Discussion for Proficiency

Group # _____

	IM	IL	NH
Vocabulary Use	Appropriate	Limited	High frequency/learned words or phrases
Grammar	Accurate, simple grammar	Simple grammar with few mistakes	Inaccurate use of grammar
Discourse	Paragraph level	Sentence level	Incomplete thoughts/sentences

Comments:

Group # _____

	IM	IL	NH
Vocabulary Use	Appropriate	Limited	High frequency/learned words or phrases
Grammar	Accurate, simple grammar	Simple grammar with few mistakes	Inaccurate use of grammar
Discourse	Paragraph level	Sentence level	Incomplete thoughts/sentences

Comments:

Group # _____

	IM	IL	NH
Vocabulary Use	Appropriate	Limited	High frequency/learned words or phrases
Grammar	Accurate, simple grammar	Simple grammar with few mistakes	Inaccurate use of grammar
Discourse	Paragraph level	Sentence level	Incomplete thoughts/sentences

Comments:

APPENDIX J. EVALUATION OF ONLINE DISCUSSION - COMPREHENSION

**EVALUATION OF AURAL CONTENT OF ONLINE DISCUSSION
PRE-TEST / POST-TEST**

Group # _____ members: _____

1. Number of questions answered correctly: _____/_____

2. Clarification questions: _____
_____3. Clarification responses: _____

4. Average number of re-plays _____

5. Number of postings: _____

Notes:

Group # _____ members: _____

1. Number of questions answered correctly: _____/_____

2. Clarification questions: _____
_____3. Clarification responses: _____

4. Average number of re-plays _____

5. Number of postings: _____

APPENDIX K. CLARIFYING SURVEY

Name _____ Block _____

1. Explain why speaking in Spanish makes you nervous. (i.e. What are you afraid of?)

2. Do you feel you performed better during the second SOPI assessment? Why (i.e. What made the difference in your performance?) or why not?

3. Why might Spanish class make you more nervous than your other classes?

4. How do you feel your speaking abilities compare to others in this class? How do you know?

5. Were you nervous when participating during the online discussions in Spanish? Why or why not?

6. Please give any comments you might have regarding the things we did for my research study (listening to audio files, recording voices, online discussions, rating anxiety).

APPENDIX L. LISTENING (AURAL) COMPREHENSION TEST

Nombre _____

After listening to the audio file, please answer the following questions based on what you hear the speaker say.

1. ¿Cómo se llama el autor? _____

2. ¿Dónde nació el autor? _____

3. ¿Le gustó vivir allí? ____ ¿Por qué o porque no? _____

4. El tiene _____ hermanos y _____ hermanas.

5. ¿Por qué dijo el autor, “Pobre de mis papas?” _____

6. ¿Dónde vive ahora? _____

REFERENCES

- American Council on the Teaching of Foreign Languages (ACTFL)(1999). *ACTFL proficiency guidelines – speaking*. Retrieved April 9, 2007, from <http://www.actfl.org/i4a/pages/index.cfm?pageid=3325> .
- American Psychological Association. (1997, November). *Learner-centered psychological principles: A framework for school redesign and reform*. Retrieved March 5, 2006, from the American Psychological Association Web site: <http://www.apa.org/ed/lcp.html>
- Barr, D., Leakey, J., & Ranchoux, A. (2005). TOLD Like it is! An evaluation of an integrated oral development pilot project. *Language Learning & Technology*, 9, 55-78.
- Boda, A.S. (1993). Testing Pronunciation. *Forum*, 31(3), 18. Retrieved April 20, 2006, from <http://exchanges.state.gov/forum/vols/vol31/no3/p18.htm>.
- Center for Applied Linguistics. (2005). *Multimedia rater training program workbook*. Washington, DC: Author.
- Center for Adult English Language Acquisition. (CAELA)(2007). Spanish Language Assessment Instruments for Adult Spanish Speakers Learning English. Retrieved July 6, 2007 from http://www.cal.org/caela/tools/program_development/elltoolkit/Part4-53SpanishLanguageAssessmentInstruments.pdf.
- Chan, A. & Lee, M.J.W. (2005). An Mp3 a day keeps the worries away: Exploring the use of podcasting to address preconceptions and alleviate pre-class anxiety amongst undergraduate information technology students.” Charles Sturt University, Australia.

- Good Practice in Practice. Proceedings of the Student Experience Conference*,. 59-71.
- Ellis, R. (1994). *The study of second language acquisition*. New York: Oxford University Press.
- Fisher, K., Levy, J. B. & Irwin, R. (2007). *What a GAS! Action research as a peer support process for postgraduate students.* Southern Cross University, Lismore, Australia. Retrieved March 31, 2007, from ultibase.rmit.edu.au/Articles/nov03/fisher1.htm
- Gamlin, G. (2005). Digital voice recordings in online learning environments. *Paccall Journal*, 1, 53-62.
- Horwitz, E. (1998). The beliefs about language learning of beginning university foreign language students." *Modern Language Journal*, 72, 283-294.
- Horwitz, E., Horwitz, M. B., & Cope, J. (1986). Foreign language classroom anxiety. *The Modern Language Journal*, 70, 125-132.
- Horwitz, B. (2002). *Communication Apprehension*. Albany, NY: Delmar Singular.
- Hoven, D. (1999). A model for listening and viewing comprehension in multimedia environments." *Language Learning & Technology*, 3(1), 88-103.
- Kemmis, S. (1983). *Action Research*. In D. S. Anderson & C. Blakers (eds), *Youth, Transition and Social Research*. Canberra: Australian National University.
- Kern, R. (1995). Restructuring classroom interaction with networked computers: Effects on quantity and characteristics of language production. *The Modern Language Journal*, 79(4), 457-476.
- Oblinger, D. (2005). Learners, learning & technology. *EDUCAUSE, Review*, 40(5), 67-75.

- Poza, M. I. (2005). The Effects of asynchronous computer voice conferencing on learners' anxiety when speaking a foreign language. Dissertation to West Virginia State University. Retrieved November 13, 2006, from <http://languagecenter.cla.umn.edu/wimba/docs/poza.pdf>
- Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon NCB University Press*, 9,(5). Retrieved on April 9, 2007 from <http://www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf>
- Roby, W. (n.d.) Technology in the service of foreign language learning: the case of the language laboratory. *Foreign Language Learning*. Retrieved March 1, 2006 from www.aect.org/edtech/19.pdf.
- Sagor, R. (2000). *Guiding school improvement with action research*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Schulz, R. (1991). Second language acquisition theories and teaching practice: How do they fit? *Modern Language Journal*, 75, 17-26.
- Scovel, T. (1978). The effect of affect in foreign language learning: A review of the anxiety research. *Language Learning*, 28, 129-142.
- Stansfield, C.W. (1989). *Simulated oral proficiency interviews*. ERIC Digest. Washington, DC: ERIC Clearinghouse on Languages and Linguistics.
- Stansfield, C.W. (1996) *The test development handbook*. Washington, D.C.: The Center for Applied Linguistics.
- Vandergrift, L. (2006). Second language listening: Listening ability or language proficiency?" *The Modern Language Journal*, 90, 6-18.

- Volle, L. (2005). Analyzing oral skills in voice e-mail and online interviews. *Language, Learning & Technology*, 9, 146-163.
- Warschauer, M. (1996). Comparing face-to-face and electronic discussion in the second language classroom. *CALICO Journal*, 13, 7-26.

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