# Technology as a Motivational Tool for Foreign Language Learning

A Special Project

Presented to

Dr. Gretta Merwin

Heritage University

In Partial Fulfillment
of the Requirement for the Degree of
Master of Professional Studies
with National Board Certification

Karen Nagle

2011

# FACULTY APPROVAL

Technology as a Motivational Tool for Foreign Language Learning

Approved for the Faculty	
	, Faculty Advisor
	, Date

## **ABSTRACT**

Technology has become a common part of the world today and was visible in almost every facet, including education. Teachers, faced with the task of providing effective and motivating activities in the classroom, needed to recognize the importance of using technology. This study explored the use of technology to motivate students in learning a second language. This study examined the achievement and motivation of two first year Spanish classes using web-based activities in one while using text-based activities in the other to teach regular verbs. The hypothesis was that students who used the web-based activities would be more motivated and demonstrate higher achievement. While the related literature supported the hypothesis, the results of this study did not.

## PERMISSION TO STORE

I, Karen Nagle, hereby irrevocably consent and authorize Heritage University Library to file the attached Special Project entitled, *Technology as a Motivational Tool For Foreign Language Learning*, and make such Project and Compact Disk (CD) available for the use, circulation and/or reproduction by the Library. The Project and CD may be used at Heritage University Library and all site locations.

I state at this time the contents of the Project are my work and completely original unless properly attributed and/or used with permission.

I understand that after three years the printed Project will be retired from the Heritage University Library. My responsibility is to retrieve the printed Project and, if not retrieved, Heritage University may dispose of the document. The Compact Disc and electronic file will be kept indefinitely.

 , Author
 , Date

# TABLE OF CONTENTS

Page
FACULTY APPROVALii
ABSTRACTiii
PERMISSION TO STORE
TABLE OF CONTENTSv
LIST OF TABLESviii
LIST OF FIGURESix
CHAPTER 1 1
Introduction
Background for the Project
Statement of the Problem
Purpose of the Project
Delimitations
Assumptions
Hypothesis4
Null-Hypothesis4
Significance of the Project
Procedure5
Definition of Terms
Acronyms6

	Page
CHAPTER 2	8
Review of Selected Literature	8
Introduction	8
Technological Innovations for Second Language Learning	8
The Internet as a Motivational Tool	10
The Internet as an Effective Tool for Second Language Learn	ing10
Limitations and Cautions of Using Technology	12
Conclusions of the Related Literature	14
Other Benefits of Technology in Second Language Learning.	15
Summary	15
CHAPTER 3	17
Methodology and Treatment of Data	17
Introduction.	17
Methodology.	17
Participants	18
Instruments	18
Design	19
Procedure	21
Treatment of the Data	22

	Page
Summary	25
CHAPTER 4.	27
Analysis of the Data	27
Introduction	27
Description of the Environment.	27
Hypothesis	28
Null-Hypothesis	28
Results of the Study	28
Findings	32
Discussion	32
Summary	33
CHAPTER 5	35
Summary, Conclusions and Recommendations	35
Introduction	35
Summary	35
Conclusions.	36
Recommendations	36
REFERENCES	38
APPENDICES.	40

# LIST OF TABLES

	Page
Table 1: Class Activities	21

# LIST OF FIGURES

		Page
Figure II.	Passing/Non-Passing Scores.	29
Figure II.	Grades	30
Figure III.	Survey	31

#### CHAPTER 1

#### Introduction

# Background for the Project

Technology was part of every facet of today's world. Technology was in our homes, in our schools, and in our places of work. Technology was used for business, pleasure and communication. Our society was becoming more dependent on technology to function and to connect to and interact with other societies. Technology provided immediate and up-to-date access to other nations and cultures. Today's students couldn't remember a world without technology and yet many foreign language classrooms still limited their use of technology to a TV- VCR (and/or DVD player) and a couple of computers in the back of the room with the teacher front and center (Niemuth, 2010). Technological innovations like Skype, podcasts and the internet had given teachers a wealth of opportunities to bring the classroom alive with language and culture. Using technology to give students the opportunity to improve their computer skills while learning and practicing a foreign language was beneficial, if not necessary, for their success in high school and beyond.

#### Statement of the Problem

Today's students lived in a world of fast-paced video games and a high level of stimuli. Were traditional methods of teaching engaging today's students

as well as using current technology could? Traditional methods like text-based activities were often viewed by students as static. According to Niemuth (2010), students were expected to be able to communicate proficiently in their target language simply by reading the text and completing the exercises which may be supplemented by a few video or audio clips, an occasional movie, or computer practice. The text was often outdated and any accompanying audio/video was irrelevant or unreal to today's students. Computer technology offered flexibility and motivation in foreign language learning.

Teachers were faced with the difficult task of providing a relevant and motivating context for second language acquisition (Lin, 2009). According to Lin (2009), current technology provided new opportunities to increase the effectiveness of language learning and teaching. Language teachers needed to recognize the importance of how to effectively and efficiently integrate technology into their design for not only helping students acquire second language easily but also enhancing their motivation.

#### Purpose of the Project

This study explored the use of web-based activities to motivate students in learning a second language. The researcher examined the effect of using internet-based activities on the motivation and achievement of students learning Spanish as a second language compared to using traditional, text-based activities. The researcher wanted to examine the difference, if any, of the time students

spent on task when the activities were web-based and the impact the use of the activities had on their proficiency using the language.

# **Delimitations**

This study examined the achievements of two first year classes of Spanish students in a Pacific Northwest high school. The total enrollment for the school in the fall was 1,399. The students were 76% white, 17% Hispanic, 2% Black and 5% other ethnicities. The number of students receiving free or reduced lunch was 31 percent. Migrant or Transitional Bilingual students was six percent. The percent of students served by Special Education programs was nine. The instructional staff for the school was made up of 77 teachers, four counselors and 20 other staff members such as librarians and paraprofessionals. There were four administrators in the school and 23 other non-instructional staff such as custodians, secretaries and security staff (SRHS Annual Report 2008-2009). The study was conducted during the second semester of study. Both text-based activities and internet-based activities were used to instruct and review with students certain language skills and proficiencies.

#### Assumptions

For this study the researcher assumed that the students had similar prior knowledge of the content and that the students had competent computer skills to do the internet activities. The researcher further assumed that the attitudes of the learners affected their learning process. Students who liked the activities and

spent more time practicing the verb conjugations should have performed better than students who were less motivated or engaged in the practice activities.

## **Hypothesis**

The hypothesis proposed by the researcher was that students who used activities on the internet to practice and learn Spanish verb conjugations were more motivated and demonstrated a higher proficiency in using the verbs than students who used text-based activities.

#### Null-Hypothesis

The null-hypothesis was that there would be no significant difference in the motivation and achievement between students who used internet-based activities and students who used text-based activities to learn and practice Spanish verbs.

# Significance of the Project

The results of this project were intended to inform the researcher which type of activities better served the students of a foreign language classroom. If students were more motivated by the internet-based activities and spent more time on-task and were attentive, and if their proficiency improved as a result, then the researcher could suggest that there was a need for more of these activities be used in the foreign language classroom for better student learning. If there was no significant difference then the internet might still be used to supplement the

current curriculum but there would be no need to emphasis the need for such integration as it did not significantly improve student learning.

# **Procedure**

The study was conducted by using two similar Spanish 1 classes. In mid-February students in both classes were introduced to a group of regular Spanish verbs and taught how to conjugate them. The conjugation of the verbs were practiced for four weeks by students in both classes. In one class the verbs were practiced using only text-based activities. The other class practiced the verbs using only web-based activities. In the fifth week of practice students filled out a questionnaire regarding their attitude and perceptions of their own learning to examine their motivation. After five weeks of practicing the verbs students were given an assessment of their performance using them. The assessment was given in three parts. One part required students to conjugate verbs into various forms. The second part asked students to use the verbs in a spoken context by speaking about activities they do each week. In the third part of the quiz students used the verb conjugations in writing about their weekly activities.

## **Definition of Terms**

computer assisted language learning. Computer assisted language learning referred to programs and websites that practiced language skills and/or immersed the learner in the target language.

English as a foreign language. This term referred to teaching English to students who spoke a language other than English as their native language.

English as a second language. This term referred to students who spoke a language other than English as their native language and were learning English as their second language.

English language learner. English language learners were students who spoke a language other than English as their native language and were learning English as their second language.

foreign language learners. Foreign language learners were English speaking students who were learning a second language such as Spanish or French.

the internet. For the purpose of this study, the internet was confined to websites and podcasts.

second language acquisition. This term referred to language immersion.
second language learners. Second language learners were students who
were English speakers learning a foreign language and to speakers of a native
language other than English learning English.

second language learning. This term referred to learning a language that was being purposefully taught.

## Acronyms

<u>CALL.</u> Computer assisted language learning.

- EFL. English as a foreign language.
- ELL. English language learner.
- ESL. English as a second language
- FL. Foreign language
- <u>L1.</u> Native language (primary language, heritage language).
- <u>L2.</u> Target language (second language)
- SLA. Second language acquisition.

#### CHAPTER 2

#### Review of Selected Literature

# Introduction

There were a variety of technologies being implemented to teach foreign language learners (FL) and English language learners (ELL). There have been many innovations in technology in the last fifty years (Hill & Slater, 1998). However, the integration of these technologies into the foreign language classroom had been a slow process. Carrió Pastor (2007) stated that technology was a part of our lives and teachers should use all the tools in order to motivate students to learn any topic. The literature supported the idea that the use of the internet improved both students' proficiency and motivation in second language learning. According to Goertler (2009), technology motivated students with engaging materials, made current and authentic materials available to students as well as enabled students to become computer literate. However, there were some limitations and concerns about students using the internet in the educational setting such as computer literacy, access and logistics, and privacy and security (Goertler, 2009).

## Technological Innovations for Second Language Learning

There was a variety of different technologies that were being used to enhance second language learning. Chats, scanning texts, games and filling forms were just some of the activities that could be used to complement content learning

(Carrió Pastor, 2007). Computer software for practicing the language could be bought and used in the classroom. Using computer programs like Microsoft word, powerpoint or excel to create presentations for the class was another way teachers could take advantage of technology. Using recording programs like Audacity gave students the opportunity to record themselves speaking in the target language allowing both teacher and student to hear how students were performing in pronunciation.

The internet was a valuable tool for second language learning. According to Castleberry and Evers (2010) there were at least 20 ways a teacher could implement the internet to make the communication real. Blogging could be used for journal-style writing by students. Finding pen-pals and emailing or video-conferencing allowed students to interact with each other in the target language. The internet offered a wealth of websites that could be used for second language learning as well. Websites could take students on a virtual fieldtrip, could provide up-to-date information for research, and could allow students to play games that immersed them in the culture and/or language. The potential offered by network technologies was open to exploitation in a variety of ways and at different educational levels (Hill & Slater, 1998).

## The Internet as a Motivational Tool

Network technologies had the power to stimulate, excite and motivate learners in ways which were far beyond the reach of a teacher working alone in a traditional classroom (Hill & Slater, 1998). A conclusion from a study done by Genc and Aydin (2010) stated that foreign language learners had a high level of motivation towards computer use in the English as a foreign language (EFL) learning process. Second language learners saw the internet as a universal library, the fastest way to teach knowledge, a place that created close relationships among societies, and as an effective training tool (Aydin, 2007). Students found that learning a second language through websites was interesting and engaging. They preferred the web-based activities to the text-based ones, as the dynamic characteristics of the tasks were more stimulating (Carrió Pastor, 2007). The internet changed the interaction between language learners and teachers, making the learning more student-centered (Means & Olson, 1997) and increasing participation (Warschauer, Turbee, & Roberts, 1996). One study indicated that students felt more confident to use a specific second language after the web-based activities (Carrió Pastor, 2007).

#### The Internet as an Effective Tool for Second Language Learning

Much of the research indicated that the internet had great potential in foreign language learning. Lee (2000) indicated that computer technology provided students with experiential learning, motivation, enhanced student

achievement, authentic materials for study, greater interaction, individualization, and global understanding. The internet provided the opportunity for interaction between students, communicative activities and real audiences (Lin, 2009). According to Lin (2009) providing real visuals obtained from the internet increased student comprehension of abstract concepts. Activities from the internet were more dynamic, interactional, and meaningful. Communicative activities from the internet were more real-world. According to Butler-Pascoe (1997), the internet provided a "multi-sensory collection of text, sound, pictures, video, animation and hypermedia to provide meaningful contexts to facilitate comprehension" (p.20), which strengthened students' second language learning. Computer assisted language learning (CALL) helped students improve their language skills rapidly, allowed them to study at their own pace and gave them immediate feedback, corrections and even error analysis (Hanson-Smith, 1997). The internet addressed the different learning styles of students and often allowed them to work at independent paces. With internet activities students got immediate feedback on the skill(s) they were practicing. Skills included correct pronunciation, vocabulary learning, grammar drills, speaking ability, and reading proficiency. Using web-based activities developed other abilities beneficial to the learning of language, for example, looking for further information, providing quick answers, curiosity, and autonomy in the learning process (Carrió Pastor, 2007). The internet required learners to use a variety of speech discourse

(Sullivan & Pratt, 1996) and made learners use more complex language (Warschauer, 1996). The use of the internet also met the affective needs of students (Lin, 2009). Using Audacity, podcasting or Skype allowed students to speak without making them speak in front of others. This helped them overcome their anxieties and developed their confidence which then increased their success in creating the oral language (Lin, 2009). The internet offered access to other countries and their cultures in a variety of ways. Students could interact with the people and places of other countries and find a wealth of information about foreign countries that fostered an understanding and appreciation of the target language and culture. The internet gave the opportunity to learn about target culture and improved higher thinking (Mike, 1996).

# <u>Limitations and Cautions of Using Technology</u>

There were some disadvantages of internet use in foreign language (FL) learning. Students' unfamiliarity and lack of training in using the internet was one limitation. The students' access to computers and/or sites both in the school and at home could limit how much technology should be incorporated in the curriculum.

The lack of funding could inhibit a teacher's ability to integrate technology into the curriculum. Difficulties in technology implementation in a foreign language classroom could also occur when teachers lacked sufficient technology training and basic technology knowledge to effectively assist students

(Lin, 2009). Although there was a wealth of materials and information on the internet, the integration of the materials into the curriculum was not always easy. Language teachers had to know how to effectively and efficiently integrate technology into their curriculum. When determining what technology to implement teachers had to consider carefully what would be effective for the educational goal. As suggested by Oxford, Rivera-Castillo, Feyten and Nutta (1998),

Technology will only be effective if some conditions are met: (a) if it deals with students' needs and interests and finds ways to increase learns' motivation; (b) if the appropriate technology is used for each aspect of foreign/second language learning and acquisition, and the educational goals and the kind of learners are considers; (c) if it provides a meaning-focused learning environment and abundant authentic language input, and uses relevant themes and meaningful tasks; (d) if the technology is effectively exploited in the particular instructional situation; and (e) if it deals effectively with the difficulties that students may encounter. (p173)

According to Niemuth (2010) there were many concerns about student safety, privacy, and inappropriate behavior as well as wasted time and other issues of internet use in education. These concerns were valid and needed to be addressed. The best way to address this was with education – students had to be taught internet safety and what constituted appropriate internet activity (Niemuth,

2010). Teachers had to have very clear expectations of how time online was to be spent and clear guidelines for students' online behavior. Students were already spending hours online each week regardless of whether or not teachers encouraged its use so it was better to give them the tools and resources to further their education and to give them something productive and learning-related to do during those hours (Niemuth, 2010).

## Conclusions of the Related Literature

The research supported that student achievement and proficiency in foreign language were closely and directly related to attitude. According to Niemuth (2010), a foreign language professor at Seton Hall University found that weekly interaction with a native speaker online did more to enhance a second language learner's fluency and accuracy than an entire additional semester of class. The findings of her study indicated that online communication provided real-life, interactive situations, increased the motivation of students to truly understand the proper usage of the language and gave immediate feedback and correction for improvement of accents and pronunciation (Niemuth, 2010). According to the conclusions of a study done by Carrió Pastor (2007), "webbased tasks have definitely influenced the improvement of the understanding and the communication of students" (p. 606).

# Other Benefits of Technology in Second Language Learning

In addition to improving their language skills, many activities on the internet required task-based learning developing students' problem-solving abilities (Lin, 2009). The use of the internet improved higher thinking (Mike, 1996). The use of the internet (and other technological innovations) also improved students' computer skills (Means & Olson, 1997). The use of technology in (and out) of the classroom was inevitably producing new generations of learners who were technologically sophisticated (Hill & Slater, 1998). The new technologies enabled students to develop the concept of life-long learning. Students could continually improve their acquisition of vocabulary, their ability to communicate effectively and their competence in using the language with internet activities that were always available. Teachers, too, could maintain their own language skills, awareness of new methodological approaches and their cultural understanding of the countries that used the language (Hill & Slater, 1998).

#### Summary

Given the abundance of technology students were already integrating into their daily lives outside of school, the studies indicated that it was better to give purposeful instruction on how to use these technologies more productively and for educational purposes. If student motivation influenced student achievement and if the internet was an effective tool for both, then it should become an integral tool in any teacher's toolkit. There were limitations and concerns that needed to be

taken into consideration and compensated for, such as student safety and privacy as well as efficient use of time. However, the additional benefits of making students life-long learners, equipped with the necessary computer skills and the ability for higher thinking and problem-solving, made the use of technology even more attractive.

#### **CHAPTER 3**

## Methodology and Treatment of Data

# Introduction

In order to examine the effect technology had on student motivation and achievement in learning a foreign language, the researcher used two groups of students practicing verb conjugation with different activities. One set of activities was text-based and the other set was internet-based. After being given the same instruction on how to conjugate regular verbs in Spanish, the groups were given five activities over the course of several weeks to practice their proficiency in translating the verbs, conjugating the verbs, and using the conjugated verbs in correct context. The activities for one group were all internet-based while the other group used similar text-based activities. Students in both groups were given an assessment on their proficiency in using the verbs. Students using the internetbased activities were given a survey about their perception on the effect of the activities on their learning, their interest and confidence in using the activities. If students demonstrated higher achievement and expressed greater interest, then the hypothesis would be supported. No significant difference in either their performance or their motivation would support the null-hypothesis.

## Methodology

For this study the researcher used a QUANqual research method. In this model the quantitative data was collected first and was more heavily weighted

than the qualitative data which helped to explain the quantitative results (Gay, Mills & Airasian, 2009). The researcher created and used an assessment of student proficiency in conjugating and pronouncing verbs in context. The scores of students in each class were compared to determine if there was a significant difference in achievement between the students using internet-based activities in Class A and those using text-based activities in Class B. To elaborate on the results of the achievement, the researcher used numerical data from a survey filled out by the participants regarding their attitudes about the activities used to practice the Spanish verbs.

## **Participants**

The participants for this study were first year Spanish students. Students were divided into two classes. Class A had 27 students and Class B had 21. Class A consisted of 16 girls and 11 boys. Class B had 8 girls and 13 boys. Students in both Class A and B were between 14 and 17 years old. Most of the students were from mono-lingual English speaking homes although in Class A there were 2 boys who had Spanish-speaking parents and one boy in Class B had Spanish speaking parents as well.

#### Instruments

The assessment used by the researcher to evaluate student achievement was a three part assessment. In the first part students had to correctly translate the Spanish verb given. Students conjugated the verbs to fill in the blanks of a

sentence in the second part. In the third part students had to translate five sentences correctly by using the correct verb in the correct form. Students were given a point for each correct verb choice for meaning (15 points) and a point for each correct verb form (15 points) used in each section of the assessment.

The researcher followed up on the results of the assessment with a survey asking students about their use of the websites in Spanish to practice the regular verbs. The survey used was a questionnaire that asked the students of Class A about their perception on the effect of using the web-based activities on their learning, their perception on interest and relevance and their perception on confidence as a learner, in their technical skills and class assessments.

Participants were asked to respond to each question to indicate whether they strongly agreed, agreed, disagreed or strongly disagreed. Participants could also choose "no opinion" as their response. The questions were scored so that a four indicated strong motivation/interest, a one indicated no motivation/interest and no opinion was scored as a zero. The survey questions were valid. They pertained only to student perception of interest, achievement, and confidence.

#### Design

The design of the study was a single-variable design. This study involved two non-randomly formed groups, one that received a new treatment and another that received a traditional treatment and then both groups were post-tested.

According to Gay and others (2009), this was a quasi-experimental design

because it was not possible to assign individual participants to groups randomly because the classes were already formed. This study had a nonequivalent control group design which used the random assignment of intact groups to treatments rather than a random assignment of individuals (Gay et al., 2009). The two groups selected were as equivalent as possible in their prior knowledge of Spanish verbs order to reduce validity threats and strengthen the study as suggested by Gay and others (2009). The treatment, the independent variable, was the type of drill and practice of the Spanish verbs used in class. The experimental group, Class A, received computer-assisted drill and practice of Spanish verbs and the control group, Class B, received worksheet drill and practice. "The terms experimental and control are commonly used to describe the groups but it is probably more appropriate to call them both comparison groups because each serves as the comparison for the other" (Gay et al., 2009, p. 220). Each group received some form of the independent variable, in this case the drill and practice and then both groups were post-tested with a written and oral assessment.

The survey used in this study was a cross-sectional survey. It was given to the students of Class A during the fifth week of study. This survey was a single, stand-alone study that was effective for providing a snapshot of the current behaviors and attitudes of the students (Gay et al., 2009). From this survey the researcher was given data from the participants regarding their perceptions on interest, achievement and confidence.

## Procedure

The researcher introduced the same set of regular Spanish verbs to both classes. After giving both classes the same instruction on meaning, conjugation and pronunciation of the verbs, the students were asked to study the verbs at home. The researcher used a series of activities to provide students opportunity to practice the pronunciation, meaning and conjugation of the verbs. One set of activities was traditional text-based activities and the other was internet-based activities. The activities were used on the same day and for approximately the same amount of time. The researcher chose internet-based activities to practice the same skill as the text-based ones. Each week Class A was given an opportunity to use an internet-based activity to practice the meanings, conjugation or pronunciation of the verbs. Class B practiced the same skill but with a text-based activity.

**TABLE 1: CLASS ACTIVITIES** 

Week:	Class A Activity	Class B Activity	Skill(s) practiced
	(internet-based)	(text-based)	
1	Conjuguemos	matching	translation
2	Conjuguemos	Manipulatives	conjugation
3	Studyspanish	Fill in the blank	Conjugation
4	Crossword.com	Crossword	translation
5	Crossword.com	Crossword	Translation/conjugation

During the fifth week of study, students were given a written assessment of their proficiency in selecting the correct verb and conjugating the verb into the correct form. The assessment was followed by a survey of participants in Class A to examine their motivation during the drill and practice of the verbs.

#### Treatment of the Data

Participants of both Classes A and B took the assessment for student achievement using regular Spanish verbs. There were three sections to the assessment and each section had a subtotal of 10 points. In the first section one point was given for each correct translation of 10 verbs. In the second section one point was given for each correct conjugation of 10 verbs. In section three one point was given for each correct verb choice and one point for correct conjugation of the verb chosen in five verb phrases. The scores were tabulated and put into two categories, passing and failing. Scores of 18-30 were passing and scores of 17 and below were failing.

In Class A there were 27 participants who took the assessment and in Class B there were 20 participants. The researcher categorized results into what percent of participants got scores of 90% (27-30 points); 80% (24-26 points); 70% (21-23 points); 60% (18-20 points); 50% (15-17 points) and less than 50% (14 or less points) on the assessment. Those scores were then condensed into what percent of participants got passing scores (60-100%; 18-30 points) and what percent of participants got failing scores (0-59%; 0-17 points).

The participants of Class A followed up the assessment with a questionnaire regarding their use of three different websites to practice the meaning and conjugation of the regular Spanish verbs used in five different activities over the course of five weeks. The questionnaire contained 20 questions divided into three sections. Participants chose a response of whether they strongly agreed, agreed, disagreed, strongly disagreed or had no opinion. The first section asked five questions about their perception on the effect on learning regular verbs. Questions one through four were phrased so that a four was given to responses of strongly agree, a three to the response of agree, a two to the response of disagree and a one to responses of strongly disagree. Question five was phrased so that a four was given to the response of strongly disagree, a three to the response of disagree, a two to the response of agree and a one to the response of strongly agree. All responses of no opinion were scored with a zero. A subtotal for the section was a 20. Scores 17-20 indicated that participants strongly agreed that there was a positive effect of web-based activities on learning verbs. Scores between 14 and 16 indicated that participants agreed that there was a positive effect on learning. Scores between 11 and 13 indicated that participants disagreed that there was a positive effect and scores of 8 or lower indicated that participants perceived little to no positive effect on their learning.

In the second section participants were asked about their perception on interest and relevance of the internet activities used. These were questions six

through sixteen on the questionnaire. Questions six through fourteen were phrased so that a four was given to responses of strongly agree, a three to the response of agree, a two to the response of disagree and a one to responses of strongly disagree. Questions fifteen and sixteen were phrased so that a four was given to the response of strongly disagree, a three to the response of disagree, a two to the response of agree and a one to the response of strongly agree. All responses of no opinion were scored with a zero. The section had a subtotal of forty-four. Scores between 38-44 indicated that students strongly agreed that there was interest and relevance; scores between 31-37 indicated that students agreed that there was interest and relevance; scores between 24-30 indicated that students disagreed and scores between 17-23 indicated that they strongly disagreed that there was interest and relevance in using the web-based activities. Scores 16 and under indicated that participants perceived little to no interest or relevance.

The third section asked four questions about their perception on their confidence as a learner, with technical skills and on class assessments. Questions one through three were phrased so that a four was given to responses of strongly agree, a three to the response of agree, a two to the response of disagree and a one to responses of strongly disagree. Question four was phrased so that a four was given to the response of strongly disagree, a three to the response of disagree, a two to the response of disagree, a

responses of no opinion were scored with a zero. A subtotal for the section was a 16. Scores 13-16 indicated that participants strongly agreed that they gained confidence. Scores between 11 and 12 indicated that participants agreed that there was a gain in confidence. Scores between 9 and 10 indicated that participants disagreed that there any gain in confidence and scores of 7 or lower indicated that participants perceived little to no gain in their confidence.

Results of the assessments and the survey were charted in a bar graph to compare scores for Classes A and B. The first graph showed the percent of students from each class that passed the assessment with a score between 60%-100% (scores of 18-30) and the percent of students from each class that failed the assessment with a score between 0% and 59% (0-17 points). A second graph showed scores in increments of 90%, 80%, 70%, 60%, 50% and under 50% to give a more detailed indication of student achievement.

The results of the survey were charted in a bar graph showing the results of each section. The results were graphed to show how many students strongly agreed, agreed, disagreed or strongly disagreed that using web-based activities had a positive effect on their learning, were interesting and relevant and gave them confidence as a learner, in their technical skills, and on class assessments.

#### Summary

In this study the researcher examined the effect of technology on student achievement and motivation. The researcher used a QUANqual research method in a quasi-experimental design that used already formed groups. The groups used were first year Spanish students in two classes, Class A and Class B. The researcher introduced the same verbs to both classes and then gave Class A webbased activities to practice the meaning and conjugation of the verbs while giving Class B text-based activities that practiced the same skill(s). After a period of five weeks the researcher gave students in both classes a written assessment of skills in translating and conjugating verbs and gave students in Class A a survey about their perceptions on achievement and motivation in using the web-based activities. The results of the assessments and surveys were scored and displayed in bar graphs.

#### **CHAPTER 4**

# Analysis of the Data

## Introduction

Today's students have been inundated with technology in every aspect of their lives. In education technology has become more prevalent but its use in foreign language classrooms has continued to be limited. This study examined the use of technology in learning a foreign language to see if student achievement was improved or if motivation was increased when compared to traditional methods.

## Description of the Environment

This study was conducted in the second semester of the year, during the months of February and March, in two first year high school Spanish classes. The participants were mostly second language learners with no Spanish background. The participants were divided into two non-randomly formed groups, Class A and Class B. Class A practiced regular verbs using a web-based activity each week for five weeks while Class B used text-based activities. The different activities were used on the same day to practice the skill(s) and lasted approximately for the same amount of time. At the end of five weeks, both classes were assessed on their ability to translate Spanish verbs, conjugate them and use them to translate English verb phrases. Class A was also given a survey regarding their perceptions on the effect and relevance of the activities.

#### **Hypothesis**

The hypothesis proposed by the researcher was that students who used activities on the internet to practice and learn Spanish verb conjugations were more motivated and demonstrated a higher proficiency in using the verbs than students who used text-based activities.

# Null-Hypothesis

The null-hypothesis was that there would be no significant difference in the achievement and motivation between students who used internet-based activities and students who used text-based activities to learn and practice Spanish verbs.

# Results of the Study

The results of the assessments for Classes A and B were identical when comparing passing to non-passing scores. In each class 70% of the participants scored between 60%-100% (18-30 points) and 30% of the participants scored between 0%-59% (0-15 points) as shown in Figure I: Passing/Non-passing Scores.

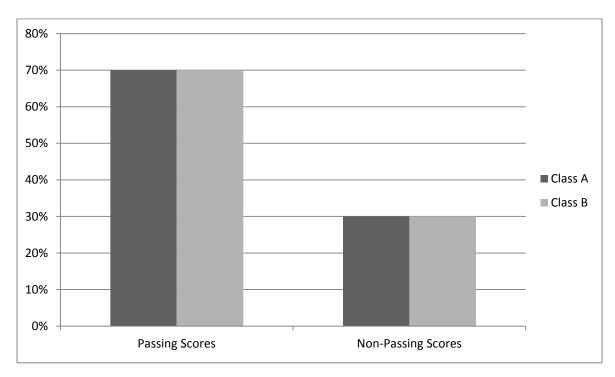
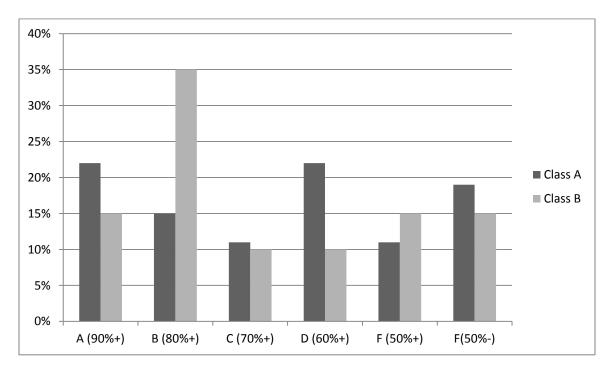


Figure I: Passing/Non-Passing Scores

In Figure II: Grades, Class A had a higher percentage of students who received As but also had a lower percentage of Bs and a higher percentage of Ds. For those participants who received a non-passing grade in Class A there were a higher percentage of participants who received scores under 50% than in Class B. The percentage of participants who received a C was about the same in both classes (10-11%).

Figure II: Grades



When surveyed about their perceptions on the effect of using technology on their learning, 39% of the participants agreed or strongly agreed that the webbased activities positively affected their learning. Fifty-eight percent disagreed or strongly disagreed that there was any positive effect and three percent had no opinion. Student perception about the interest and relevance of the activities had similar results. Thirty-five percent of the participants agreed or strongly agreed that the activities were relevant and interesting. Fifty percent disagreed or strongly disagreed and 15% had no opinion. The results of the third section of the survey indicated that more students perceived a gain in confidence as an

independent learner, in their technical skills and/or on class assessments. On that section 50% of the participants agreed or strongly agreed that they became more confident, 35% of the participants disagreed or strongly disagreed and 15% had no opinion.

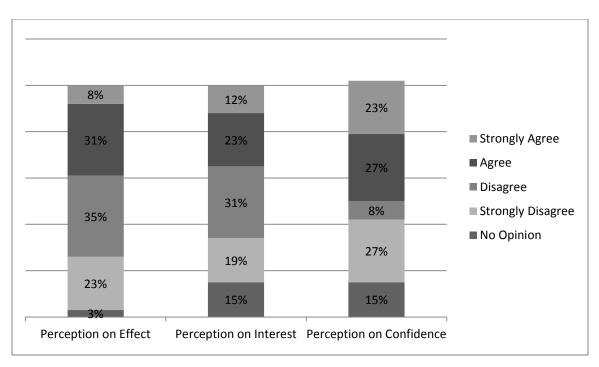


Figure III: Survey

The results of the assessments do not indicate that technology improved student achievement or motivation and therefore the null hypothesis that there was no significant difference was accepted.

# **Findings**

The results of the assessments and survey did not support the hypothesis that technology improved student achievement or motivation. Student achievement did not improve with the use of technology. Students who practiced the verbs did about the same in performance regardless of the type of activity used (web-based or text-based). Most of the students who participated in the survey did not perceive any notable effect or higher level of interest or relevance although one-half of them perceived gains in confidence in learning and performance.

# Discussion

The results of this study did not support the common findings of much of the literature. Much of the research indicated that the internet had great potential in foreign language learning and that activities from the internet were more dynamic, interactive, and meaningful. The participants of this study who used internet-based activities neither performed better nor perceived the activities they used to practice as more effective or interesting as the participants that used text-based activities. Students in Class A overall performed the same as those of Class B (70% passing) but as shown in Figure II: Grades, their individual performances were scattered indicating that their performance was more dependent on the student than the activities used. Students who did better were more likely to have done so due to better study habits, more linguistic skill or higher level of prior

knowledge. Another possible limitation was students' unfamiliarity with or inaccessibility to using the internet.

The results of the survey pertaining to students' perceived confidence as learners was expected as indicated in the research that suggested that the internet addressed the different learning styles of students and often allowed them to work at independent paces. For example it was stated in one study by Carrió Pastor (2007) that using web-based activities developed other abilities beneficial to the learning of language, for example,...autonomy in the learning process. Also their perceived confidence in technical skills was a common topic of the research as in a study by Hill and Slater (1998) who stated that the use of technology in (and out) of the classroom was inevitably producing new generations of learners who were technologically sophisticated.

#### Summary

This study examined the internet as a motivational tool for improving student achievement in learning regular Spanish verbs. The participants were students in two existing first year Spanish classes. They were instructed on regular verbs in the second semester of study and then for five weeks were given an activity to review and practice the meaning and/or conjugation of the verbs. The activities for Class A were web-based and those for Class B were text-based. During the fifth week students of both classes were assessed. In each class 70% of the students passed the assessment. These results did not support the hypothesis

that student achievement would improve and therefore the null-hypothesis was accepted. The participants in Class A were also given a survey to evaluate their perception on the effect on learning, interest and relevance of the activities and their confidence as learners, in technical skill and on classroom assessments. The results again did not support the hypothesis with only 30-50% agreeing or strongly agreeing that it increased their motivation and therefore the null-hypothesis was accepted. These findings did not support what was in much of the research. Other factors in student achievement and motivation might have been student ability, study habits and prior knowledge as well as expertise and availability of the internet.

#### **CHAPTER 5**

# Summary, Conclusions and Recommendations

# <u>Introduction</u>

In a world where students were used to fast-paced, stimuli-rich environments and teachers were faced with the difficult task of providing a relevant and motivating context for second language learning, were traditional methods like text-based activities engaging students as well as technology could? According to Lin (2009), current technology provided new opportunities to increase the effectiveness of language learning and teaching. The researcher of this study examined whether students who used technology to review and practice Spanish verb conjugations and meaning would be more motivated in their learning and/or perform better on their assessment.

#### Summary

For this study the researcher used students in two high school first year Spanish classes. In one class students used web-based activities for five weeks to practice translating and conjugating verbs. In the other class only text-based activities were used. The research in the current literature indicated that the class using the more innovative and engaging web-based activities would be more engaged in the learning and perform better on the assessment. In this study both classes performed the same and according to the results of the survey the students did not perceive the web-based activities as more effective or engaging.

# Conclusions

The literature supported the idea that the use of the internet improved both students' proficiency and motivation in second language learning. Much of the research indicated that the internet had great potential in foreign language learning. In the literature it was often stated that computer technology provided students with greater interaction, individualization and self-pacing and immediate feedback that enhanced student achievement. In this study there was no difference in the student achievement between students who used technology and students who used traditional methods of reviewing and practicing verb meaning and conjugations.

According to current literature, technology motivated students with engaging materials as well as enabled students to become computer literate. In the survey, 50% of students did agree or strongly agree that they gained confidence in their technical skills but only 35% agreed or strongly agreed that the activities were interesting or relevant.

#### Recommendations

There was a variety of different technologies that were being used to enhance second language learning. The researcher of this study examined only the effect of web-sites used for learning regular verbs. The web-sites used for this study did not enhance student achievement or motivation but other types of activities may. Chats, scanning texts and games are just some of the activities that

could be used. For future research it is recommended that a broader scope of technologies be explored for its effect on student learning and motivation.

This study looked at the effects on student achievement after five weeks. Future studies might have different results if conducted for a longer period of time.

# References

- Aydin, S. (2007). Attitudes of EFL learners towards the internet. *The Turkish Online Journal of Educational Technology*. 6,3.
- Butler-Pascoe, M.E. (1997). Technology and second language learners. *American Language Review*, 1(3), 20-22.
- Carrió Pastor, M.L. (2007). The Internet as a tool to learn a second language in a technical environment. *European Journal of Engineering Education*. 32,5. p599-612.
- Castleberry, G.T. & Evers, R.B. (2010). Incorporate technology into the modern language classroom. *Intervention in School and Clinic*, 45,3, 201-205.
- Gay, L.R., Mills, G. & Airasian, P.W. (2009). Educational research: Competencies for analysis and applications. 9<sup>th</sup> Edition. Saddle River, NJ: Prentice Hall.
- Genc, G. & Aydin, S. (2010). Students' motivation towards computer use in EFL learning. *IETC*.
- Goertler, S. (2009). Using computer-mediated communications (CMC) in language teaching. *ProQuest Educational Journals*; 42(1), 74-87.
- Hanson-Smith, E. (1997). Technology in the classroom: Practice and promise in the 21<sup>st</sup> century. TESOL Professional Papers, Alexandria, VA: Teachers of English to Speakers of the Other Languages.
- Hill, B. & Slater, P. (1998). Network technology and language learning. *Education & Training*, 40,8; ProQuest Education Journals, p. 374.
- Lee, K.W. (2000). English teachers' barriers to the use of computer assisted language learning. The Internet TESL Journal. Retrieved October 20, 2010, from <a href="http://iteslj.org/Articles/Lee-Callbarriers.html">http://iteslj.org/Articles/Lee-Callbarriers.html</a>
- Lin, L. (2009) Technology and second language learning. Alliant International University. Retrieved October 8, 2010, from <a href="mailto:lilylin1524@hotmail.com">lilylin1524@hotmail.com</a>

- Means, B. & Olson, K. (Ed). (1997). Technology and education reform. Document prepared by the Office of Educational Research and Improvement. U.S. Department of Education.
- Mike, D. (1996). The internet in the schools: A literacy perspective. *Journal of Adolescent and Adult Literacy*, 40(1), 1-13.
- Niemuth, T. (2010). New tools for student engagement. *ProQuest Education Journals*, 39, 3, p 24.
- Oxford, R.L., Rivera-Castillo, Y., Feyten, C., & Nutta, J. (1998). Computers and more: Creative uses of technology for learning a second or foreign language. Paper presented at the Conference Educational Technology in Language Learning, Theoretical Considerations and Practical Applications. Lyon, France.
- SRHS Annual Report. (2008-2009). Retrieved February 16, 2011, from <a href="http://www.ksd.org/schools/secondary/Southridge">http://www.ksd.org/schools/secondary/Southridge</a>
- Sullivan, N. & Pratt, E. (1996). A comparative study of two ESL writing environments: A computer-assisted classroom and a traditional oral classroom. *System*, 24(4), p491-501.
- Warschauer, M. (1996). Comparing face-to-face and electronic discussion in the second language classroom. *CALICO Journal*, 13(2), 7-26.
- Warschauer, M., Turbee, L., & Roberts, B. (1996). Computer learning networks and student empowerment. *System*, 24(1), 1-14.

# Appendices

# Verb assessment

Spanish ½	Nombre: _		
Regular Verbs	Fecha:		Hora:
Translate the follo	wing verbs:		
1. comer		_ 6. leer _	
2. hablar		_ 7. nadar _	
3. bailar		_ 8. escribir _	
4. escuchar		_ 9. cantar _	
5. viajar		10. beber	
Conjugate the verb	os in parenthesis	s to complete each s	sentence.
1. Yo (viajar)			mucho.
2. Tú no (comer)			muy bien.
3. Nosotros (abrir	)		nuestros libros.
4. Ellos (bailar) _			El Tango bien.
5. Yo (vivir)			aquí.
6. Los estudiantes	(escribir)	·	con plumas
7. Ella (necesitar)			pape
8. Nosotros (estud	liar)		españo
9. ¿			tú (hablar) inglés?
10. Juan (leer)			todo el día.
Translate the follo	wing:		
1. I study			
5 Vou live in Ke			

QUESTIONNAIRE: Learning a Foreign Language With the Use of Technology

Dear students,

The purpose of this questionnaire is to give you an opportunity to express your

opinions about the use of technology to learn Spanish. The following survey has

been designed to diagnose your overall attitudes regarding language-learning

activities through computers rather than for the purposes of personal evaluation.

There is no need to identify yourself by name, and your anonymity in responding

to these questions will be safeguarded. I shall be most grateful for time and care

you give to answering all of these questions, which will enable me to accurately

evaluate the results. Thank you for assisting me in this study.

¡Gracias!

Sra. Nagle

The following questions refer to our use of websites in Spanish to practice the regular verbs (-ar, -er,-ir).

Remember the websites we used are:

conjuguemos.com (verb conjugation)

studyspanish.com (verb conjugation)

puzzle-maker.com (verb translations)

# PART I: PERCEPTION ON THE EFFECT ON LEARNING REGULAR VERBS

For each of the remaining statements, please choose the best one that describes you

1= Strongly disagree 2= Disagree 3= Agree 4= Strongly Agree 5=No opinion

1- Strongly disagree 2- Disag	100 3— 11gi	100 4- Bire	nigiy rigiv	<i>JC 3</i> —110 0 <sub>]</sub>	pinion
	Strongly	Disagree	Agree	Strongly	No
	disagree			Agree	opinion
1. I learn Spanish conjugation					
more independently when I use					
a computer.					
2. Using computer-based					
activities make the learning					
process more interactive.					
3. The computer-based					
activities help my performance					
on quizzes.					
4. I enjoy the challenge of using					

a computer in learning the

regular verbs.

5. Technical difficulties					
interfere with my learning.					
PART II: PERCEPTION	N ON INTER	EST AND	RELEVA	ANCE	
For each of the remaining statements, please choose the best one that describes you 1= Strongly disagree 2= Disagree 3= Agree 4= Strongly Agree 5=No opinion					
	Strongly	Disagree	Agree	Strongly	No opinion
	disagree			Agree	
6. The use of computer					
technology for the					
Spanish verb drills in class					
make learning the verbs					
more enjoyable.					
7. I enjoy doing computer-					

based grammar tasks
better than traditional
grammar tasks on paper.

- 8. I appreciate having immediate feedback on computer-based practice conjugating the verbs.
- 9. I enjoy the variety of computer-based activities used in class for learning the verbs .
- 10. The tasks I perform on the Internet are interesting.
- 11. The computer activities are easy to complete.

- 12. The time I spend completing the computer-based activities is well spent.
- 13. The computer-based activities are helpful in learning to conjugate regular Spanish verbs.
- 14. I use on my own theSpanish sites used in classto continue my practice ofSpanish verbs.
- 15. When working on a computer, I find it frustrating.
- 16. My instructor uses too

much technology in the					
classrooms.					
PART III: PERCEPTIO	ON ON CONF	IDENCE	AS A LE.	ARNER	
TECHNICAL SKILLS				THE LETT,	
For each of the remaining	statements, plo	ease choos	e the best	one that d	escribes
you 1= Strongly disagree 2= I	Disagree 3= Ag	ree 4= Str	ongly Agr	ee 5=No o	pinion
	Strongly	Disagree	Agree	Strongly	No opinion
	disagree			Agree	
17. I gained confidence in					
my abilities to translate					
and/or conjugate Spanish					
verbs.					
18. I gained confidence in					

my abilities as an independent learner.

19. I gained technical skills on the computer as a result of this course.

20. I was initially frustrated by the various computer–based activities.