

Use of Computer Assisted Language Learning

by

Nelson Enrique Morales Querales

May 2014

A project submitted to the
Department of Education and Human Development of the
State University of New York College at Brockport
In partial fulfillment of the requirements for the degree
of
Master of Science in Education

Use of Computer Assisted Language Learning

by

Nelson Enrique Morales Querales

APPROVED BY

Advisor

Date

Director, Graduate Program

Date

Table of Contents

Abstract	1
Chapter One:	3
Introduction.....	3
Problem Statement.....	4
Significance of the Problem.....	7
Purpose.....	11
Rationale.....	12
Definition of terms.....	14
Summary.....	15
Chapter Two:	17
Literature Review.....	17
Importance of technology to second language learning.....	17
Kinds of technology available to teach-learn a second language.....	19
Importance of CALL.....	21
Uses of CALL to teach/learn the four language skills of L2.....	22
Speaking.....	23
Reading.....	25
Listening.....	26

Writing.....	28
Research on effective CALL teacher trainings.....	29
Chapter Three: Application.....	32
Introduction.....	32
Description of the project.....	33
Summary.....	35
Chapter Four: Conclusion and Recommendations.....	37
Summary.....	37
Limitations.....	39
Recommendations.....	40
Conclusion.....	41
References.....	43
Appendix A.....	52
Appendix B.....	55
Appendix C.....	56

Abstract

The lack of consistent computer assisted language learning (CALL) trainings for second language teachers has a negative impact in the second language teaching/learning classroom. The goal of this study is to demonstrate the positive impact that technology has in second language teaching/learning, and how the lack of training for second language teachers deprives the students of the potential benefits that technology can bring to L2 classrooms. The data for this research were collected from eight fulltime high school foreign language teachers. The results of the study demonstrate that teachers tend to use technology in second language teaching/learning in an inconsistent way due to the lack of appropriate training and their unfamiliarity with the technology. Additionally, the lack of frequent CALL usage as an important tool by teachers and students diminishes the potential for students of become more independent learners due to the technology ease of access beyond the classroom and the absence of time-limitations to learn and practice L2. CALL has the possibility to enhance the second language learning experience when teachers are

well-trained to use it, and it is done consistently throughout the school year.

Chapter One:

Introduction

It is important to look at how technology is gradually taking over American classrooms at all levels and the impact technology has on L2 learners in this country. In the last thirty years, several research studies have been done in order to establish the advantages of the use of computers for reading, listening, writing and lately speaking for students that are learning a second language. School districts generally assume that second language teachers and students already know how to use the computer technology and the programs that are needed to be efficient teachers (web browser, Microsoft Office, etc.) but the reality is that districts usually do not provide the necessary training and suitable programs to complement the curriculum of each level for optimal implementation of the educational technology.

Frequently, students and teachers have positive thoughts about the use of the technology in the classroom and how it presents a more open format, flexibility and creativity on language learning. Undoubtedly, its accessibility in and out of the classroom is viewed as

beneficial by teachers and students because the learning process keeps taking place without walls and time limitations. Second language teachers are confronted with the challenge of how to reach the computer generation. Today's American children and immigrants from other countries in one way or another are being exposed to some form of technology. Desk computers, laptops, smart phones and tablets are technologies that are evolving rapidly into the classrooms. These technologies are becoming second nature to today's second language learners but leaving educators behind on technology's updates and specialized program training which are tailored to teach a second language. Encouraged "by rapid developments in information and communication technologies, diverse tools are now being used in a rich variety of ways to support teaching and learning" (Yun, Chee-Kit, & Wenli, 2012), especially second language learning, therefore, teachers have to move forward with the implementation of the use of technologies in second language teaching and learning.

Problem Statement

Despite America producing the latest technology and the most advanced software in the world, American schools are facing a lack of appropriate computer programs and

proper teacher training to use such programs; as a consequence the lack of CALL use in second language learning is depriving second language learners of a broader learning experience.

To find out the usage of CALL in a high school a fifteen question survey was given to seven out of the eight foreign language teachers. The participants were one French teacher, one German teacher, one Latin teacher and four Spanish teachers. All the teachers are fulltime employees from the Webster Central School District in New York State. All the teachers surveyed were from the Schroeder High School and each teacher has a class load of five courses with an average, more or less, of eighteen students per class. The estimated number of students studying a second language is six hundred fifty. Findings from the survey highlighted the inconsistency on the usage of CALL software provided by the school district; four out of seven said they use a program provided by the school as three said the district does not provide a software to support language learning/teaching. Of those surveyed, four out of seven of the teachers said they use any program available to them for learning/teaching L2. Only three out of seven

participants said the programs used by them are supplied by a reputable and trusted educational company but one of the participants expressed that she did not know.

Respectively, only four out seven of the participants acknowledge that the software is used by all the teachers and one said not enough formally. When asked if the software used by them was tailored to their curriculum need only three answered yes and one said no. Four teachers said the software meets the New York State common core standards. When asked if they received professional development on how to use CALL software only two participants said yes (29%) versus three that said no (43%). It is important to see that only three (43%) said they need more professional development to master the using of CALL programs, two answered no (29%).

Surprisingly, six (86%) of the participants agree that teachers that know and use CALL programs have an advantage over teachers who do not. In a scale from one to ten, where one was none, five was somewhat and ten a lot, five (71%) out of the seven survey's participants agreed that the lack of CALL program could be affecting the practice and learning of speaking, reading, writing and listening of L2, (five (71%)out of seven participants

answered five or higher). Survey data indicate that 100% of the participants think that because of the increasing use of technology by the students this platform should be used more inside and outside of the classroom to assist language learning. Also, 100% of the participants think that making programs available outside the classroom could have an impact in student preparation for assessments. Lastly, 71% of the participants acknowledge that CALL could have significant impact on language learning.

Inconsistency on the use of the CALL resources and lack of teachers training could put students and teachers at a disadvantage with other schools using the latest resources in second language teaching and learning as this technology makes its way into the classroom and students' everyday life.

The discrepancy among teachers using educational software and lack of training on how to use it to assist second language teaching and learning could create a gap among students at the same level that have different instructors using different CALL programs.

Significance of the Problem

This inconsistency is totally against the CCLS approach set by New York State Department of Education. The lack of a standard CALL program used by all the teachers at all levels could deprive students and teachers from the teaching-learning benefits highlighted by studies like the one done by Green, Sha, Liu, and RTI which was conducted on 3,500 students learning English as L2 during the school year 2009-10. The study compared five schools using CALL and five schools not using CALL. Green, Sha, Liu, and RTI's study shows that,

"Students in treatment schools with relatively low levels of initial proficiency evidenced larger gains in reading and listening than did similar students in comparison schools. This finding was statistically significant for both reading and listening. Students in the treatment group reported higher levels of motivation to learn English than students in the comparison schools. At the end of the year, 51 percent of students in the treatment schools reported that their motivation to learn English had improved compared with 40 percent of students in the comparison schools. Teachers in treatment schools also reported that students' motivation improved." (Green, Sha, Liu, & RTI, 2011).

Another example is a study done by Lin, Chan, & Hsiao with 91 eighth graders using and not using CALL in groups. The study's results state that,

"the forgetting rate of vocabulary revealed that the two collaborative groups were able to retain the target vocabulary longer. Furthermore, of the two collaborative groups, the computer group even forgot

less than the group without computers in the delayed posttest. This finding suggested that the combination of technology and collaboration in language learning had a long-term effect." (Lin, Chan, & Hsiao, 2011).

Given the data, different levels of computer training among teachers creates disadvantages in how second language teaching is delivered and how program's instructions used by students could be implemented mistakenly or not implemented at all. Unfortunately, when teachers are not well trained to use CALL applications nor taught how to use computer programs, the lack of training could translate into poor teaching techniques and poor student performance. It is very important that second language teachers be able to use all the support and materials available in their area to engage students, enhance teaching and improve learning outcomes. "Teachers who are less confident with technology feel threatened by CALL, in spite of some recognizing it as an effective means of instruction" (Kessler, 2010). Gaps in computer assisted second language learning in the high school observed do not give the second language learning students all the tools available to reach their full potential. It does not allow the students to use technology that is familiar to them as a positive

learning tool and experience. As the use of computer, laptop, tablet and smart phone are becoming a daily routine in society, "everyday language use is so tied to technology that learning language through technology has become a fact of life with important implications for all applied linguists, particularly for those concerned with facets of SLA." (Chapelle, 2001). Overwhelmingly 100% of teachers surveyed said that more training to learn how to use second language educational software is needed. A study conducted by Jarvis and Achilleos acknowledges the importance of CALL as a tool in L2 learning by students using computers, Jarvis and Achilleos pointed out that "data suggest that they are the preferred tools for conscious learning activities." (Jarvis and Achilleos, 2013). Additionally, a research study by Genc (2012) indicated that,

"necessary pedagogical and technical skills required by the CALL applications should be provided to teachers for the successful integration of the technological materials into the classroom. School administrators and program designers can arrange an in-service training which includes skills necessary for teachers to function appropriately in the CALL classroom before the academic term begins. Thus, familiarization with the CALL application helps teachers to integrate the program into the instruction properly and fruitfully." (51).

Purpose

This research has two main purposes: (1) understand the benefits that CALL brings to second language instruction in the classroom and create a list of trustworthy resources to be used by second language teachers, and (2) design a workshop to train L2 teachers how to use effectively the sources listed and how to use a basic program like PowerPoint to create electronic flashcards for students to use as a learning tool once it is posted on the classroom's web page. The study will help teachers to better understand how computer programs are being used as engaging tools to teach and learn a second language to the social media generation. Usually teachers spend a lot of time looking for computer programs that they can use as teaching/learning tools on a regular basis. As a result of this research second language teachers will have one main source of reference to help them to find trusted sources to be used for pedagogical purposes in their teaching practice and student learning. Sources will be collected from studies where it has been previously shown to be useful in second language teaching/learning.

Rationale

Second language teachers are the driving force in the classroom and continuous professional development is a must to face the new challenges that teaching a second language brings to today's classrooms. Teaching a second language to L2 student needs to change from the traditional lecture in order to reach and engage a technology-savvy student body. As school districts promote student-centered learning, CALL becomes an important tool to allow students to work for themselves. It is undeniable that just the use of programs to teach or learn a language could leave out the richness of the human factor but denying that computer programs could be a powerful tool to learn a second language is ludicrous. Today there are programs that can just translate to another language simultaneously at the speaker's request. Companies in the educational field have developed engaging memory games and other formats that could catch the second language learner's attention and interest. Nowadays, programs are very advanced and more dynamic than twenty years ago. Technology's capacity to reach a broader audience is undeniable. The possibilities are endless, from recording activities to watching foreign

language videos and movies, video chat, texting, etc. The pedagogical use of computer programs to teach and learn a second language relied on the second language teacher and how the teachers implemented the use of these programs. This technology is becoming more and more affordable to the masses and it is already being used at several educational levels. At the end of this project, teachers will have a comprehensive guide with a list of second language sources of programs commonly used to teach/learn a second language. This guide will be provided to the foreign language teachers to be used by them to teach L2 and to give to the students a source to practice L2. On the other hand all the teachers will have common CALL tools giving all the second language students the opportunity to learn at the same level required by the second language curriculum. Last but not least, the common CALL teaching resources will be accompanied by a workshop that will give clear instructions on how to use two selected resources and what is available within each one to help teachers navigate through each of the resources presented to them.

Definition of terms

- CALL, Computer Assisted Language Learning. Computers or electronic devices used to teach/learn a language. Devices are used as tools to promote and enhance the learning of a language.
- CCLS, Common Core Learning Standards. It is a set of rules and procedures established by the New York State Department of Education. It established a set of learning expectations on what students should learn and be able do at the end of a course.
- CMC, Computer-Mediated-Communication.
- L2, Second Language. It is a language learned after the first language (L1) or mother tongue. It is the primary language learned from parents.
- LOTE, Language Other Than English.
- Pedagogy, it is the "art, science, or profession of teaching." (Merriam-Webster.com, 2013).
- SLA, Second Language Acquisition. It refers to the subconscious learning of a second language by a student after his/her first language.
- Student-centered learning. Teaching concept where "the learner has full responsibility for his/her own

learning and where the teacher acts as facilitator and a resources-person." (Brandes& Ginnis, 2001).

Summary

This thesis project looks at the findings from a survey given to seven foreign language teachers from a high school in the Webster School District, in Upstate New York State. Teachers expressed the lack of a standard computer assisted language learning tool in their school as well as a lack of training to use properly the technology available to them. Independently, each teacher uses any CALL tool available on line, which is not provided by the district nor proven to be an appropriate tool to complement the curriculum of each level. The inconsistency of CALL tools among teachers creates an instructional disparity between teachers at the same level, which could affect the students' learning of the same instructional material. This project looks at an extensive body of research to show how CALL and teachers' training are a very important part of L2 teaching and learning nowadays. The main concern of this project is to look at the CALL applications available today to create a standardized guide to be used by the second language teachers in the district. At the same time, the

researcher will develop two workshops and will present them to the Webster Schroeder High School foreign language teachers in the LOTE department. The researcher will present to the teachers the guide's content and how to use the tools listed in the CALL guide.

Chapter Two:

Literature Review

This investigation will look at research done within the last five years. The research will look at work on each one of the literacy components (speaking, reading, listening and writing) of a language and how Computer Assisted Language Learning (CALL) is used as a tool for learning and its positive impact on students' achievement. After the year 2000 CALL platforms evolved very rapidly and the applications reached the four components of language teaching/learning. It is a fact that educational settings have changed by the widespread use of computers (Park, & Son, 2009). With the help of the Internet, software programs became more accessible than ever before. In the last thirteen years school districts across America have been encouraging the use of technology in the different disciplines and language learning has not been the exception.

Importance of technology to second language learning

Teaching/learning technologies have increased in popularity during last 20 to 30 years. It is one of the most dynamic areas in the education system, especially second language learning with a variety of tools

(Reinders, & Thomas, 2012). Today the number of teachers and students using computers and the Internet to teach/learn a second language has increased due to the technology advances (Han, 2008). The use of technology in teaching language can be effective as long as teachers use the technology efficiently; an effective use of the technology takes into consideration language pedagogy practices to use any sort of technology to support and increase language teaching and learning (Hoopingarner, 2009). Computers are tools used to let students experience a second language and culture like they could not experience firsthand before; computers allow students to access a wide range of material in the target language such as videos, podcasts, blogs, and they provide more opportunities to interact with native speakers (Dickinson, Brew, & Meurers, 2012). Technology used to teach/learn has the power of improving students' learning and students' motivation while offering students the opportunity for individuality of technology access and interaction in order to be able to communicate ideas using the new L2 vocabulary/grammar learned (Díaz, Jansson, & Martínez, 2011). When implementing a hybrid of language teaching/learning, face-to-face and

technology usage, teachers must teach students learning strategies to succeed when using the technology independently (Salinas, Cabrera, & Ríos, 2012). Technology has fostered learning settings where language and cultural learning and teaching are becoming learner-centered; content is becoming more customized by the student's use, as the student is learning not only a second language, but also technological literacy (Poureau, & Wright, 2013). When technology is used properly it could be a powerful tool that could have positive effects on the second language learning skills (Gill, 2011).

Kinds of technology available to teach/learn a second language

Teaching and learning is changing from a conventional classic classroom environment to an increasingly technology dominated one, where students are not passive learners, but on the contrary, students are engaging themselves with technology familiar to them (Edwards-Groves, 2012). It is important to point out that technology has changed a lot with the development of new formats and the arrival of the era of the Internet, use of multimedia, and mobile devices (smart-phone, tablets,

etc.), which have been changing the way we interact and collaborate with each other. Furthermore, the computer applications available to L2 teaching/learning are more diverse and complex than twenty years ago (Levy, 2009). In the past decade technology has increased its role in L2 learning with the use of new formats to deliver L2 teaching, which provide more interaction, such as live chat or discussion boards (Gill, 2011). Because the technology available is varied and growing, teachers have to choose hardware and software that meet the teachers' and the students' needs. The teachers' selection depends on several reasons, such as personal preferences which are based on their familiarity with the technology and their ability to implement the technology to use it to teach/learn L2. Another important element that is taken into consideration by teachers when selecting hardware and software is pedagogical purposes, which are based on learning goals. Technologies should make it possible to reach those goals. Finally, institutional judgment is another important factor in the selection of technology; such judgments are based mostly on the school's budget (Stockwell, 2007). Teaching a second language has dramatically changed due to new technology and its

availability in and out of the classroom with the use of mobile devices by the L2 students (Abdollahpour, & Maleki, 2012).

Importance of CALL

Without doubt digital media is impacting how second languages are taught/learned today. "It can now be argued that computer-assisted language learning has come of age, and that we are now entering a fully integrated and naturalized phase of CALL." (Reinders, & Thomas, 2012). CALL has made its way into the mainstream teaching of L2 and LOTE, nationally and internationally, and the future of CALL is directly related to language teaching (Hubbard, 2008). A number of research studies found that students using CALL performed better than students not using CALL (Grgurovic, Chapelle, & Shelley, 2013). The use of technology has the possibility to enrich the L2 teaching/learning by keeping the quality of instruction with a minimum amount of teacher-student contact and not affecting negatively the learning objectives (Hoopingarner, 2009). Bush's (2008) research concluded that computers facilitate L2 learning for the students because computers can be used by the students when they need them and when the time is right. New technologies in

education are prompting deep changes in teaching, which are surpassing the traditional lecture and group work and changing them into learning environments with games and activities; these new learning environments prompt the students to use L2 in situations that re-create life circumstances as close as possible to the real ones and such an environment allows L2 learners to assume control of their own learning without depending on the teacher (West, 2013). According to Warschauer (2010), one important benefit of using technology in L2 is the fostering of self-technology-based learning due to its daily accessibility, which gives participants the opportunity to use L2 more often. Lin's (2010) research concluded that students favored a computer-supported learning environment when they are learning L2. Incorporating technology to learn a target language is very important in today's multicultural and multilingual global society (Godwin-Jones, 2013).

Uses of CALL to teach/learn the four language skills of L2

In general, teaching practice has been changed by the integration of technology in the classroom,

technology will keep changing second language teaching as new technologies are being introduced faster than ever (Hoopingartner, 2009). CALL technology and its uses are broad in the second language teaching; some technologies can be used with more than one language skill (Stockwell, 2007). In a research study conducted by Lin, he concluded that a video-based CALL had positive impact on learning L2 verbs, nouns, and adjectives among students with diverse levels of proficiency (Lin, 2010). Sites such as Facebook and Wikipedia provide teachers with material to expose the language learners with realistic use of a second language; social media provides important interaction with L2 (Istifci, Lomidazde, & Demiray, 2011). CALL based language teaching/learning offers quite a few benefits to the learner, such as interactive activities and multimedia applications, which are engaging (Genc, 2012). Computer technology has unique multifunctional and multiuse aspects, which brings to CALL several levels of intricacy and applications in L2 learning (Levy, 2009).

Speaking

Among the language skills, speaking is the one that has been having the most CALL technology usage with

several voice applications, which include not only audio but also video, recorded or live. Users have the opportunity to interact with other participants and the pedagogy that goes together with the process makes it a good tool in L2 learning (Levy, 2009). Kirkgoz (2011) used a Task-Based Speaking Course to enhance the speaking skill of L2 learners by using technology to record themselves speaking L2, which provided a meaningful way of technology use allowing students to listen and make correction to improve pronunciation where it was needed. The Task-Based language learning focuses more on the meaning than the structure of L2. When L2 students produce L2 to accomplish the task assigned by the teacher (Littlewood, 2004). Students' pronunciation can be improved due to the interaction with new computer programs with voice recognition (Hoopingartner, 2009). I-movies software gives the students the chance to video record themselves role-playing so they can practice L2 pronunciation (McNulty, & Lazarevic, 2012). Kim's (2012) research concluded that CALL helped to improve L2 learners' pronunciation. Participants in Kim's study improved their L2 pronunciation by using the Technology Enhanced Accent Modification software, which gave them

visual feedback to improve second language pronunciation. Lord's (2008) study confirms that L2 students have the potential to improve their L2 speaking pronunciation using podcasting technology. Also important is that students acquired awareness of the phonetic aspects of the second language. According to Bahrani's study (2012) exposing L2 students to audiovisual technology in casual settings can improve their L2 speaking skill. CALL usage together with peer interaction helped to improve the L2 students' speaking skills (AbuSeileek, 2007).

Reading

According to Levy's research (2009), technology provides the reader with assistance to better understand L2 texts when reading, by providing more material on the activity or exemplifying information to ensure the reader's learning. Plenty of reading material in the target language can be found on the Internet and those readings can be enhanced by the computer technology due to the vocabulary building, text reading and comprehension. While reading, students can use the computer to look up concepts and other information which could help to strengthen the learning activity (Hoopingartner, 2009). Chun (2001) concluded that helping

tools available to L2 learners such as Internet glosses, on-line bilingual dictionary, hyperlinked words and audio narration were very helpful to the reading and understanding, some were used more than others, but it was very important to have several alternatives in order to reach more than one learning style. Vocabulary acquisition and reading comprehension are intertwined; good vocabulary knowledge translates into better L2 reading and comprehension. Integrating technology to vocabulary learning and reading comprehension makes it a powerful tool with lots of possibilities (Constantinescu, 2007).

Listening

The latest technology has given CALL a broader access to a wide range of not only audio, but video as well. Audio files can be accessed at anytime and anywhere by the teacher and the student. The accessibility to these computer programs provides so much flexibility for the student as s/he can replay, stop, and slow down the audio/video as the student learns intonation and sounds of L2 (Levy, 2009). L2 learners expand their exposure to native speakers of L2 by using CALL, particularly the Internet (Hoopingartner, 2009). O'Brien (2013) pointed out

that CALL programs like podcasts allow the repetition of listening activities that students can access outside the school and work with activities individually to improve listening and understanding. Second language listening can be enhanced by new CALL technology as the framework used can get intermediate L2 learners to the advanced level (Mayor, 2009). Research conducted by Sato found that listening to CALL audio software enabled faster vocabulary recall by the second language students (Sato, Matsunuma, & Suzuki, 2013). On the other hand Verdugo's and Belmonte's study reported that by using target language digital stories, students were able to improve their L2 listening comprehension skills at the level studied (Verdugo & Belmonte, 2007). New technologies allow teachers to add captions to real live videos. When L2 students listened to a video twice, the first time using L2 captions and the second time without captions, the students' anxiety was minimized. The use of captions helped the students to have a better understanding, reinforced previous knowledge, and improved the listener's attention (Winke, Gass & Sydorenko, 2010). Videos with captions have shown to be a helping tool for L2 listening and understanding. Video captioning is also

an important strategy to reach L2 students with different learning styles (Grgurovic & Hegelheimer, 2007).

Writing

Technology provides the students with automatic detection of grammatical errors, such as spell check among other auto corrections when writing in L2. Word processing software prompts students to make corrections when they are writing. The use of this technology promotes collaborative writing when writing is done through e-mails, logs or other formats where other students can review each other's writing and give feedback to each other (Levy, 2009). Writing technology supplies L2 teachers with engaging opportunities to allow students to collaborate on L2 writing at a level never used before (Hoopingartner, 2009). Zha's study (2006) concluded that peer interaction promoted L2 language production and stimulated correction making by the L2 learners in order to use L2 properly when the second language learners used computer-mediated-communication to post writing using the target language. Using L2 to write blogs presents the learners with an interactive format that promotes the L2 learner's motivation and the blogging is complemented with peers' feedback (Vurdien,

2013). New technologies such as Wikis or Blogs offer new tools that can support second language teaching, specially L2 writing (Warschauer, 2010).

Research on effective CALL teacher trainings

Hubbard (2008) stated that employers demand technology-proficient language teachers, but usually future language teachers do not have technology courses in their course load. Usually, teachers think positively about the use of computers, but their knowledge is limited regarding the operations of computers, which brings up the need for training for teachers to build their confidence and provide them with continuous support (Fatemi Jahromi, & Salimi, 2013). Frequently, teachers are not convinced of the usefulness of technology and the benefits technology could provide to the students when learning a second language (Lam, 2000). Teacher training programs should be meaningful and have significance for the teachers attending the CALL training focusing on the benefits CALL can bring to pedagogical practices in L2 teaching (Kessler, 2010). Second language teachers using CALL technology must be acquainted with this technology and be aware of any new choices available and how they can be applied to learning

objectives (Stockwell, 2007). Integrating technology in language teaching must be supported by teachers' training about the benefits provided by such technology and how technology could improve teaching and learning. Technology training provides the teachers with support, preparation, and guidance so teachers can integrate the use of the technology into the curriculum (Pourhosein Gilakjani, 2012). Computer-Mediated-Communication practice to train teachers on CALL is important due to the active cooperative communication that CMC fosters among L2 teachers and their trainers. CMC is the use of computers as a means of communication, to deliver instruction on CALL to teachers. It can be in different formats such as video chat or other long-distance teaching/learning formats. When teachers use technology to communicate with each other, they become familiar with this technology before it is implemented by them in the classroom (Son, 2002). Another CALL training method is the online approach where teachers take online courses on the subject matter. This approach is based on teaching technology with hands-on technology use by L2 teachers. The mentor-based training is another CALL training method; it is based on experienced teachers training

colleagues on the use of technology to teach L2 (Hubbard, 2008). In order to feel comfortable using CALL, teachers should feel at ease creating activities on the computer just as they do when they create materials in the traditional way (Kessler, 2006).

Chapter Three: Application

Introduction

The motivating force for this thesis project was the inconsistency of CALL usage among the foreign language teachers at Schroeder High School in the town of Webster, New York State. Two factors were identified as generators of the problem through the use of a survey (Appendix A) given to each second language teacher individually and at different times with one day for it to be returned to the researcher. The survey had fifteen questions in a paper format. The first factor identified was the lack of a comprehensive training for teachers on the use of technology designed to not only train them to use it, but also have subsequent follow ups to ensure proper use and application in the teaching/learning environment. Such training should help teachers learn how to give feedback to each other to improve the use of the technology. The second factor identified was the lack of information on trusted available L2 resources in the Internet; a common practice among the teachers in the study was the use of any web-based programs. The web-based programs found by each individual teacher were not used by all the teachers. Because some teachers were using CALL programs

and others were not using them, there was an inconsistent practice in the use of CALL. This practice translated into different teaching/learning methods among the same levels of L2.

Description of the project

As a result of this thesis project a manual of resources was developed together with two workshops.

The manual consists of a list of L2 teaching/learning resources available on the Internet. It provides the name for each website, URL or domain name, and a brief description of each one. The manual includes detailed instructions in an easy-to-follow format. This manual provides a reference guide for future use by the individual teachers and the LOTE department as a whole.

The first workshop consists of training teachers on how to navigate through two different websites. Each teacher will receive a handout with the name of each website, the site's link, and detailed directions. In addition, pictures will show how to navigate through each website. During the workshop the trainer will model on a Smartboard, including how to open, navigate, and use the activities available. Then, teachers will have the chance to practice on each one's computer and ask questions. At

the end of the workshop each teacher should be able to use these websites to enhance the students' learning experience of L2 by using these resources. The final goal of this workshop is to make sure L2 teachers become familiar with each website's functions, and what can be done with each one of those utilities to benefit the teaching practice and the learning of L2 to improve the students' four language skill outcomes.

The second workshop consists of training the teachers on how to use a simple non-web-based program such as Microsoft PowerPoint to create electronic flashcards for the students. The trainer will provide a step-by-step printed guide to each workshop participant on how to create electronic flashcards using the PowerPoint Program. The trainer will model on the Smartboard, including how to open, create, and save the file with the set of electronic flashcards and how to post them to the teacher's webpage so students can access them. Later, time will be provided so each teacher will have time to practice creating flashcards and ask questions. These electronic flashcards will provide a new tool for the L2 learners to learn and practice vocabulary anywhere at any time from the teacher's web

page using a desktop computer, laptop, tablet, or smartphone. Another benefit is the availability of downloading the file to be used without an Internet connection.

The detailed information for both workshops is provided in Appendix B (times, days, and activities). Both workshop sessions will be facilitated in a computer lab with Internet access at the Schroeder High School location. Each workshop is divided into two parts. The first part presents the theory, demonstrations, and questions/answers by the participants and the presenter. The second part allows the participants to practice what they just learned to create activities with the programs by language level groups that would satisfy the objectives of a specific unit or units.

Summary

Levy (2009) pointed out the multiuse of technology in L2 learning and its unique features. CALL usage has been increasing during the last twenty years due to new developments in technology and the increasing affordability and portability of such technology. It is a fact that students use at least a form of technology every single day and to not take advantage of thatto

teach/learn a second language would be a waste of a great opportunity. It is important to note that L2 teachers do not have the chance to become familiar with the new CALL formats in language teaching/learning due to the lack of training. Consequently, they just keep using the traditional language teaching/learning formats. Usually, if the teachers receive CALL training, it is not a well-planned workshop, but rather a quick and short training session. Generally, such gatherings do not include follow-ups to make sure the teachers have understood and can put into practice the material learned. Another important factor in the teachers' mistrust is the lack of well-done and thorough research on the positive impact of the use of CALL on each one of the language skills.

Chapter Four: Conclusions and Recommendations

Summary

The goal of this thesis project was to find out the benefits of CALL usage in L2 teaching/learning and how well prepared L2 teachers are trained to use technology in L2 teaching/learning.

Literature review on the topic of CALL suggests that usage of technology in second language teaching/learning as a tool has lots of potential and benefits. Nevertheless, CALL should be tailored to the teaching/learning goals and the students' needs and teachers should have complete knowledge and understanding of the technology implementation and use. Usually, one program could be used in more than one of the language skills and the teacher should know this to use technology up to its maximum potential.

Although technology has evolved very fast the last two decades, it has impacted some language skills more than others. Two of the L2 skills, which benefitted the most have been writing and listening. The World Wide Web brought a significant revolution on accessibility to readings, videos, and real-time chat in the target language. Lately, speech recognition can be setup for the

target language. Recording using L2 for practice is easier than ever. Some programs can even give feedback on how to pronounce words or point out misspellings.

CALL has given students greater independence and flexibility in the learning process by removing the classroom's walls and the time limitation of student exposure to L2. The ability to play and pause a video or recording at anytime and anywhere gives the students more opportunities to practice and slow down or speed up the learning of L2.

Finally, Language teachers are assuming more and more the role of coaches, moving away from the traditional lecturer role. Based on the research, language learning is becoming more dynamic and student centered. CALL provides a variety of formats and tools to help the independent learner and all the other learning styles. Teachers still provide that needed face to face interaction and guidance. In second language learning the role of the L2 teacher as an educator is going beyond the classroom. L2 teachers become coordinators and facilitators for CALL technology usage. L2 Teachers are becoming more aware of the potential of CALL technology to enhance L2 teaching/learning. To assume this challenge

L2 teachers must be well trained in the use of CALL technology to be able to use all its potential in and out of the second language classroom.

Most of the literature review points out the benefits of CALL in L2 learning. However, most of the researchers agree that it is only a tool and teachers need to use it, taking into consideration the class objectives and goals. Also, teachers need to be well trained before implementing CALL in their course. It is the teachers' responsibility to keep up with the new CALL technology and work as a team with all the L2 teachers to establish a culture of support and to make sure all the students will reach the same level of education in the target language no matter who the teacher is.

Limitations

Even though the literature review shows the advantages of implementing CALL to enhance the teaching/learning of L2, most of the research was done with small samples and many within small lapses of time, which makes it difficult to make a general statement based on the research data. Another important factor is the inconsistency of the groups studied by the researcher. Most of the studies were done in small

settings and based on only one particular language skill. Also, all the students were treated as equal learners without mentioning if there were students with special needs or any classification. In essence, the studies done on CALL benefits are limited by the technology used at the time of the research, while technology is evolving faster than the research being done.

Recommendations

In order to use CALL to its full potential, teachers must become familiar with the technology available and understand how it could improve the teaching/learning of L2. Proper teacher training must be provided to ensure the correct use of CALL in and out of the classroom setting. Teachers should select appropriate technology and programs according to proven data on use and results for each one of the language skills. The objectives are to increase the use of CALL in the L2 classroom, and to train L2 teachers in the use of technology. With the proper training teachers can use CALL and make adaptations that will complement the daily activities in and out of the classroom. Other suggestions for future research would include investigating the points of view between new L2 teachers and veteran teachers regarding

new technology usage-implementation in the classroom. Exploring what kind of training is suitable for each teacher generation. In addition, the latest mobile technology is making its way into the classroom. Research on the latest mobile technology needs to be done in order to find out its potential in L2 teaching/learning.

Conclusion

Based on these findings, the use of technology as a tool to meet the needs of L2 learners has a great potential in the development of the second language skills. The latest advances in computer technology have been providing L2 learners with innovative opportunities to develop each one of the four language skills beyond the classroom's walls. This new technology provides students with autonomy to learn on their own time and anywhere. Overall, CALL provides students with original L2 audio, video, readings, and the possibility of face-to-face interaction with L2 native speakers. Researchers agree that CALL provides unique experiences to the L2 learners since new technology has added new features like on-line dictionaries and e-readers to facilitate L2 learning. Finally, CALL technology would not reach all its full potential if L2 teachers were not receiving proper

training on the use and implementation of CALL technology. L2 teachers must be ready to adapt CALL to the curriculum and the students' needs. Second language teachers will benefit from the study's findings by gaining a better understanding of the importance of CALL trainings, and the benefits of technology use as a tool to learn a second language.

References

- Abdollahpour, Z., & Maleki, N. (2012). Second language vocabulary acquisition in CALL and MALL environments and their effect on L2 vocabulary retention: A comparative study. *Australian Journal Of Basic & Applied Sciences*, 6(9), 109-118.
- AbuSeileek, A. (2007). Cooperative vs. Individual learning of oral skills in a CALL environment. *Computer Assisted Language Learning*, 20(5), 493-514.
- Bahrani, T., & Sim, T. (2012). Informal language learning setting: Technology or social interaction?. *Turkish Online Journal Of Educational Technology - TOJET*, 11(2), 142-149.
- Brandes, D., & Ginnis, P. (2001). *A guide to student-centered learning*. United Kingdom: Nelson Thornes Ltd.
- Bush, M. D. (2008). Computer-assisted language learning: From vision to reality?. *CALICO Journal*, 25(3), 443-470.
- Chapelle, C., (2001). Computer applications on second language acquisition: Foundations for teaching,

- testing and research. Cambridge: Cambridge University Press.
- Chun, D. M. (2001). L2 reading on the web: Strategies for accessing information in hypermedia. *Computer Assisted Language Learning*, 14(5), 367-403.
- Constantinescu, A. I. (2007). Using technology to assist in vocabulary acquisition and reading comprehension. *The Internet TESL Journal*, 13(2).
- Díaz Larenas, C. H., Jansson Bruce, L. E., & Neira Martínez, A. C. (2011). Percepciones de profesores y estudiantes chilenos de educación media acerca del papel de la tecnología en la clase de inglés como lengua extranjera. *Revista Lasallista de Investigación*, 8(2), 53-60.
- Dickinson, M., Brew, C., & Meurers, D. (2012). Language and Computers. Retrieved from <http://www.eblib.com>
- Edwards-Groves, C. (2012). Interactive creative technologies: Changing learning practices and pedagogies in the writing classroom. *Australian Journal of Language and Literacy*, 35(1), 99-113. Retrieved from: <http://www.alea.edu.au>
- Fatemi Jahromi, S., & Salimi, F. (2013). Exploring the human element of computer-assisted language

- learning: An Iranian context. *Computer Assisted Language Learning*, 26(2), 158-176.
- Genc, H. (2012). An evaluation study of a CALL application: With BELT or without BELT. *Turkish Online Journal Of Educational Technology - TOJET*, 11(2), 44-54.
- Gill, D. (2011). Effects of technology on second language learning. *Journal of College Teaching & Learning (TLC)*, 3(2).
- Godwin-Jones, R. (2013). Emerging technologies: The technological imperative in teaching and learning less commonly taught languages. *Language Learning & Technology*, 17(1), 7-19.
- Green, P. J., Sha, M., Liu, L., & RTI, I. (2011). The U.S.-China e-language project: A study of a gaming approach to English language learning for middle school students. *RTI International*.
- Grgurovic, M., Chapelle, C. A., & Shelley, M. C. (2013). A meta-analysis of effectiveness studies on computer technology-supported language learning. *Recall*, 25(2), 165-198.
- Grgurović, M., & Hegelheimer, V. (2007). Help options and multimedia listening: students' use of subtitles and

- the transcript. *Language Learning & Technology*, 11(1), 45-66.
- Han, W. (2008). Benefits and barriers of computer assisted language learning and teaching. *US-China Foreign Language*, 6(9), 40-43.
- Hoopingarner, D. (2009). Best practices in technology and language teaching. *Language and Linguistics Compass*, 3(1), 222-235.
- Hubbard, P. (2008). CALL and the future of language teacher education. *CALICO Journal*, 25(2), 175-188.
- Istifci, I., Lomidazde, T., & Demiray, U. (2011). An effective role of e-learning technology for English language teaching by using meta communication actors. *Turkish Online Journal Of Distance Education*, 12(4), 201-211.
- Jarvis, H., & Achilleos, M. (2013). From computer assisted language learning (CALL) to mobile assisted language use (MALU). *Tesl-Ej*, 16(4),
- Kessler, G. (2006). Assessing CALL teacher training: What are we doing and what could we do better? *Teacher Education in CALL*, 23-42.

- Kessler, G. (2010). When they talk about CALL: Discourse in a required CALL class. *CALICO Journal*, 27(2), 376-392.
- Kim, A. Y. (2012). Investigating the effectiveness of computer-assisted language learning (CALL) in improving pronunciation: A case study. *Multimedia-Assisted Language Learning*, 15(3), 11-33.
- Kirkgoz, Y. (2011). A blended learning study on implementing video recorded speaking tasks in task-based classroom instruction. *Turkish Online Journal Of Educational Technology - TOJET*, 10(4), 1-13.
- Lam, Y. (2000). Technophilia vs. technophobia: A preliminary look at why second-language teachers do or do not use technology in their classrooms. *Canadian Modern Language Review/La revue canadienne des langues vivantes*, 56(3), 389-420.
- Levy, M. (2009). Technologies in use for second language learning. *The Modern Language Journal*, 93(s1), 769-782.
- Lin, C., Chan, H., & Hsiao, H. (2011). EFL students' perceptions of learning vocabulary in a computer-supported collaborative environment. *Turkish Online*

Journal Of Educational Technology - TOJET, 10(2),
91-99.

Lin, L. (2010). A video-based CALL program for proficient and less-proficient L2 learners' comprehension ability, incidental vocabulary acquisition.

Educational Media International, 47(3), 199-216.

doi:10.1080/09523987.2010.518812

Littlewood, W. (2004). The task-based approach: Some questions and suggestions. *ELT journal*, 58(4), 319-326.

Lord, G. (2008). Podcasting communities and second language pronunciation. *Foreign Language Annals*, 41(2), 364-379.

Mayor, M. (2009). CALL--enhanced L2 listening skills--aiming for automatization in a multimedia environment. *Indian Journal Of Applied Linguistics*, 35(1), 107-120.

McNulty, A., & Lazarevic, B. (2012). Best practices in using video technology to promote second language acquisition. *Teaching English with Technology*, (3), 49-61.

- Strickland, B., & O'Brien, M. G. (2013). *A review of the literature on technology in second and foreign language learning*. Calgary: University of Calgary.
- Park, C. N., & Son, J. B. (2009). Implementing computer-assisted language learning in the EFL classroom: Teachers' perceptions and perspectives. *International Journal of Pedagogies and Learning*, 5(2), 80-101.
- Pedagogy. (n.d.). *Merriam-Webster.com*. Retrieved August 5, 2013, from <http://www.merriam-webster.com/dictionary/pedagogy>
- Poureau, L., & Wright, J. (2013). *Owning it: An evaluation of language applications and software for second language acquisition mastery. Online Submission.*
- Pourhosein Gilakjani, A. (2012). EFL teachers' beliefs toward using computer technology in English language teaching. *Journal Of Studies In Education*, 2(2), 62-80. Doi:10.5296/jse.v2i2.1174
- Reinders, H., Thomas, M. (2012). Contemporary computer-assisted language learning. Retrieved from <http://www.eblib.com>

- Salinas, J., Cabrera, A., & Ríos, S. (2012). Autonomía en el aprendizaje de lenguas extranjeras en contextos de enseñanza mediatizados por la tecnología. (Spanish). *Onomázein*, 25(1), 15-50.
- Sato, T., Matsunuma, M., & Suzuki, A. (2013). Enhancement of automatization through vocabulary learning using CALL: Can prompt language processing lead to better comprehension in L2 reading?. *ReCALL*, 25(01), 143-158.
- Son, J. B. (2002). Online discussion in a CALL course for distance language teachers. *CALICO Journal*, 20(1), 127-144.
- Stockwell, G. (2007). A review of technology choice for teaching language skills and areas in the CALL literature. *ReCall*, 19(02), 105-120.
- Verdugo, D. R., & Belmonte, I. A. (2007). Using digital stories to improve listening comprehension with Spanish young learners of English. *Language Learning & Technology*, 11(1), 87-101.
- Vurdien, R. (2013). Enhancing writing skills through blogging in an advanced English as a foreign language class in Spain. *Computer Assisted Language Learning*, 26(2), 126-143.

- Warschauer, M. (2010). Invited commentary: new tools for teaching writing. *Language Learning & Technology, 14*(1), 3-8.
- Warschauer, M., & Liaw, M. L. (2010). Emerging technologies in adult literacy and language education. *National Institute for Literacy*.
- West, D. M., & Bleiberg, J. (2013). Education technology success stories. *Brookings Institution*.
- Winke, P., Gass, S., & Sydorenko, T. (2010). The effects of captioning videos used for foreign language listening activities. *Language Learning & Technology, 14*(1), 65-86.
- Yun, W., Chee-Kit, L., & Wenli, C. (2012). Supporting teachers in designing CSCL activities: A case study of principle-based pedagogical patterns in networked second language classrooms. *Journal Of Educational Technology & Society, 15*(2), 138-153.
- Zha, S., Kelly, P., Park, M., & Fitzgerald, G. (2006). An investigation of communicative competence of ESL students using electronic discussion boards. *Journal Of Research On Technology In Education, 38*(3), 349-367

Appendix A

Survey

Questions:

COMPUTER ASSISTED LANGUAGE LEARNING (CALL) PROGRAMS:

1. The WCSD provides all the foreign language teachers with CALL software to support second language learning/teaching.

yes

no

2. I use any program-s available to me to support my students' second language learning/teaching.

yes

no

3. If you answered "no" to Question 1 and 2, skip to Question 11.

4. If you answered "yes" to Question 2, Is the program-s used supplied by a reputable and trusted educational company?

yes

no

do not know

5. If you answered "yes" to Question 2, is the program-s used by all the teachers?

yes

no

6. If you answered "yes" to Question 2, are the teachers trained to use the program-s?

yes no

7. If you answered "yes" to Questions 2, is the program-s tailored to your curriculum needs?

yes no

If your answer above is "yes" describe how:

8. Does the program-s meet the common core standards for LOTE?

yes no do not know

CALL PROGRAM TRAINING:

9. Have you received professional development on how to use CALL program-s?

yes no

10. Do you still need professional development to master the use CALL programs?

yes no

11. Do you believe that teachers who know and use CALL programs have an advantage over teachers that do not?

yes no

if you answered "no" explain why:

12. To what degree does the lack of CALL program-s affect the practice and learning of speaking, reading, writing and listening of a second language?

none					somewhat					a lot
1	2	3	4	5	6	7	8	9	10	

13. Do you think that with the increasing use of technology by the students, this platform should be used more inside and outside of the classroom to assist language learning?

none					somewhat					a lot
1	2	3	4	5	6	7	8	9	10	

14. Do you think that making program-s available such as virtual learning outside the class could have an impact in student preparation for assessments?

none					somewhat					a lot
1	2	3	4	5	6	7	8	9	10	

15. Based on research done, How much do you know about CALL and its impact on language learning?

none					somewhat					a lot
1	2	3	4	5	6	7	8	9	10	

Appendix B

Agenda Workshop 1

Title: Web-based CALL

Objectives:

- Teachers will learn how to use two different websites to enhance L2 teaching/learning.
- Teachers will be able to explain to the students how to access and use the website features.

Dates: TBA

Time: TBA

05 minutes	Welcome and introduction
05 minutes	First website introduction
10 minutes	Demonstration by trainer
	Questions & answers
10 minutes	Teachers' guided practice
05 minutes	Second website introduction
10 minutes	Demonstration by trainer
	Questions & answers
10 minutes	Teachers' guided practice
05 minutes	Closing

Appendix C

Agenda Workshop 2

Title: E-Flash Cards

Objective:

- Teachers will be able to create L2 vocabulary electronic flashcards using Microsoft PowerPoint.

Dates: TBA

Time: TBA

05 minutes	Welcome and introduction
05 minutes	Introduction
15 minutes	Demonstration by the trainer
	Questions & answers
25 minutes	Teachers' guided practice
10 minutes	Questions & answers, closing