

University of Mississippi

eGrove

---

Electronic Theses and Dissertations

Graduate School

---

2012

## Immersion Within Call

Jaime Ann Jones

Follow this and additional works at: <https://egrove.olemiss.edu/etd>



Part of the [Educational Technology Commons](#)

---

### Recommended Citation

Jones, Jaime Ann, "Immersion Within Call" (2012). *Electronic Theses and Dissertations*. 156.  
<https://egrove.olemiss.edu/etd/156>

This Dissertation is brought to you for free and open access by the Graduate School at eGrove. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of eGrove. For more information, please contact [egrove@olemiss.edu](mailto:egrove@olemiss.edu).

IMMERSION WITHIN CALL

THESIS

A thesis  
presented in partial fulfillment of requirements  
for the degree of Master of Arts  
in the department of Modern Languages  
The University of Mississippi

By

JAIME JONES

May 2012

Copyright Jaime Jones 2012  
ALL RIGHTS RESERVED

## ABSTRACT

The purpose of this research study was to explore the idea of immersion and what constitutes immersion in Computer Assisted Language Learning (CALL). CALL has increasingly become important in the field of SLA (Second Language Acquisition) and continues to grow in usage each year.

As a graduate instructor of a basic level French course, my research focused on the immersion factor of CALL programs. This research was designed to obtain and analyze first year French students opinions of a CD-ROM CALL program by asking the following questions: (1) Did the participants feel immersed in the French language using the CD-ROM? (2) Had the participants visited a French speaking country or did they plan on studying in a French speaking country in the future? (3) Did the participants enjoy using the CD-ROM to learn French? (4) What did the participants like most and least about using the CD-ROM CALL program?

The most substantial finding of the study was that a majority of the participants did feel immersed in the French language while using the CALL program. A secondary finding was that many of the likes and dislikes mentioned specifically by the participants coincide with the main advantages and disadvantages of CALL.

## ACKNOWLEDGMENTS

I would like to thank my advisor Dr. Daniel O’Sullivan III and my committee members, Dr. Olivier Tonnerre and Dr. Esim Erdim. I am grateful for all the help they provided me inside and outside of class.

In addition, I would also like to thank Julia Bussade for her help with my statistics and for helping me at a moment’s notice. I would not have known where to proceed with my final chapters if it had not been for her.

Lastly, I would like to thank my fellow master’s students in the dungeon and my students in my French 111 classes.

## TABLE OF CONTENTS

ABSTRACT.....	ii
ACKNOWLEDGMENTS.....	iii
TABLE OF CONTENTS.....	iv
LIST OF FIGURES.....	v
CHAPTER 1 INTRODUCTION.....	1
CHAPTER 2 GENERAL ADVANTAGES AND DISADVANTAGES OF CALL .....	9
CHAPTER 3 METHODOLOGY.....	32
CHAPTER 4 FINDINGS.....	38
CHAPTER 5 DISCUSSION ANALYSIS.....	55
CHAPTER 6 CONCLUSIONS.....	63
BIBLIOGRAPHY.....	67
APPENDIX A PILOT QUESTIONNAIRE.....	72
APPENDIX B SURVEY QUESTIONNAIRE.....	74
VITA.....	83

## LIST OF FIGURES

1. Background Data of Participants.....	34
2. Number of Years Studying French.....	39
3. Self-evaluated Levels of Participants.....	40
4. Attitudes Towards Using the CD-ROM.....	42
5. Reasons Cited for Liking the CD-ROM.....	44
6. Reasons Cited for Disliking the CD-ROM.....	47
7. Participants Perceived Immersion Within CALL.....	50
8. Level of Self-reported Improvement .....	53

## CHAPTER 1

### INTRODUCTION

Since the 1980's Computer Assisted Language Learning (CALL) has increasingly become important and prevalent in educational paradigms. Today's students use CALL programs on a regular basis, and this has many educators in the ESL/SLA field becoming concerned that their careers will be replaced with CALL programs (Blake 20). The idea of using technology in the classroom setting is exciting yet frightening at the same time for many educators (Ferneding 140). Blake states however that due to the minority of students who study abroad CALL programming may be the best alternative for getting students to communicate in the target language and will be the closest chance they will have to a true immersion experience (2).

#### Purpose of the Study

As a graduate instructor of French, I was often approached with the question of did I believe that a computer program could actually teach someone a language? This question intrigued me and this question led to the basis of my research for understanding how technology is used for SLA. The goal of this paper is to examine and provide insight into opinions of individual students who used the same CD-ROM to learn French and the impact that this CD-ROM had on their perceptions of immersion while using technology. The opinions obtained from the survey questionnaire reveal the impact of CALL on the idea of immersion and the



impact that technology has on the second language learner in general. The data collected comes from survey questionnaires obtained from students in the French 111 intensive courses taught at the University of Mississippi and from two graduate students in the Department of Modern Languages. Although there is a plethora of literature about CALL and its advantages and disadvantages, there is little written about the immersion experience. The goal of this paper is to mention the limitations of CALL in the area of immersion, but also mention the advantages of a CALL program in lieu of a true immersion experience, for example, study abroad.

### Research Questions

This study asked the participants ten questions with a survey questionnaire, one of the questions, the first question listed below, being the main dependent variable of the study and the others supplying interesting insights into the analysis of the dependent variable.

1. Did you feel like you were immersed in the French language using the CD-ROM? On a scale from 1-5 (One being the most immersed and five being the least immersed how immersed did you feel using the CD-ROM?)
2. How many years have you studied French? Have you spent time in a French speaking country or do you plan on studying abroad in a French speaking country in the future? If so, when and where?
3. Did you like using the CD-ROM to learn French (yes or no)? On a scale from 1-5 (One being the highest and five being the lowest) how much did you like using the CD-ROM to learn French?
4. What did you like most about using the CD-ROM? What did you like least about using the CD-ROM?

The first question is the dependent variable and the purpose of this question is to gain insight into how immersed the students felt using a French CD-ROM CALL program. The questionnaire used questions to ask the participants about their personal immersion experience while using the CALL program in the study conducted.

The second question was background information about the participants. The question was related to the dependent variable, the question was if the student had already had an immersion experience with French before or if the student planned on having an immersion experience in the future.

The third question was designed to see if the participants enjoyed using technology to learn a language, and the fourth question relates to the third question by asking the participants to write about their likes and dislikes of the CALL program. The fourth question was an open-ended question so the participants could write about how they felt using technology as a medium of second language learning.

### Significance of the Study

This study is significant because of the specific focus on immersion and what constitutes an immersion experience. Conducting this study was important to me as a second language educator and helped me to personally understand what an immersion experience is for different people. Blake states that due to the students who are unable or unwilling to study abroad CALL programs may be the best alternative for learning an L2 (2). The goal of this study was to add knowledge and insight into the attitudes of the participants in the area of immersion.

## Definition of Terms

The following terminologies are used intermittently throughout this research study as taken from *Brave New Digital Classroom: Technology and Foreign Language Learning* by Robert J. Blake pages 151-153.

**ACMC (synchronous CMC):** Asynchronous computer-mediated communication programs in deferred time allow students to exchange text messages and or sound recordings in the format of an electronic bulletin board organized around threads or topics.

**Affective filter:** A term coined by Stephen Krashen to refer to the psychological inhibitions that students erect when learning a foreign language.

**Affordances:** This term refers to the advantages and disadvantages that every technological tool provides its users. Some tools predispose users to doing things in a particular way, which could be both positive and negative.

**Apperception:** This is a process whereby someone learns new information by relating it to the previous knowledge base. In terms of learning language, linguists talk about students' needing to realize the gap between where they are now and where they need to go.

**ASR (automatic speech recognition):** The process of using computers and their programs to render speech signals into words represented through digital data.

**Authoring tool:** A program that allows nonprogrammers to produce sophisticated software quickly and without extensive knowledge of the programming language that makes it possible. Authoring tools usually have certain preset programming routines or templates that are easy to produce but are relatively inflexible in terms of their design.

**Blended or hybrid format:** A blended or hybrid language class mixes a reduced number of classroom sessions with individual work done outside of class and assisted by technology.

**Browser:** A program that intercepts HTML code to create a graphics user interface that is visually oriented.

**CALI:** Computer-assisted language instruction is similar to CALL and refers to stand-alone programs that aid language learning.

**CALL:** Computer-assisted language learning refers to any software program that aids students in learning another language.

**CBI:** Content-based instruction for language learning asks students to focus on the subject content first and approaches learning the linguistic features as a by-product of content work.

**CD-ROM:** Compact Disc Read-Only Memory refers to a medium that holds digital information, games, programs, and music.

**CGI scripts:** Common gateway interface is a programming protocol used with servers to pass information or requests collected by the server to external applications or other individual users.

**Chat:** This is a form of CMC communication that most often refers to synchronous online communication.

**Chatterbot program:** The chatterbot program provides users with a conversational agent that stimulates having artificial intelligence. Most chatterbot programs match key words to a stock set of responses in order to feign interactivity.

**CMC (computer-mediated communication):** Any program that allows users to exchange language through text or audio. For example, e-mail, blogs, wikis, forums, IM, and chat

**CMS/LMS:** Course management systems or learning management systems (for example Blackboard) are a suite of authoring tools that allow teachers and students to organize their online e-learning materials, complete with content posting, grade books, and communication tools.

**DVD:** The Digital Video Disc provides large amounts of optical storage of information. DVDs are the same physical dimension as CD-ROMs but with six times the amount of storage capacity.

**Forums, discussion boards, or electronic bulletin board:** This term refers to an online message board where posts are displayed chronologically or in threaded discussions.

**FTP:** The file transfer protocol is used to transfer files from local areas (a single computer) to a server where files can be made publicly available through the Internet.

**GUI:** A graphics user interface turns machine code into a visual metaphor that can be modified and manipulated.

**Hosting:** Programs that are accessible on the Internet must be publicly published on a server connected to the World Wide Web. Someone or some institution must offer hosting on a server for their users where they can store their programs.

**HTML:** Hypertext markup language is the programming language that browsers can interpret in order to create web pages with a graphics interface.

**HTTP:** Hypertext transfer protocol is the programming convention used for publishing pages on the Internet.

**iCALL:** Intelligent computer-assisted language learning refers to programs that exhibit a modicum of artificial intelligence, the ability to respond to users' needs and demands.

**ICC (intercultural communicative competence):** As a counterpoint to Chomsky's notion of linguistic competence, ICC refers to knowledge of another people's culture as mediated through language.

**Interlanguage:** When people learn a second language, the developing internal grammar, albeit incomplete, is referred to as their interlanguage.

**Internet:** The Internet is a worldwide, publicly accessible network of interconnected computers that transmit data by packet switching using the standard Internet protocol (IP). It includes millions of smaller domestic, academic, business, and government networks.

**JavaScript:** This programming language can be used in conjunction with HTML code to enhance a web page's interactivity.

**Link rot:** When the address of a web page is no longer operative.

**MOO:** A MUD (multiuser domain) Object Oriented is a type of domain that allows users to connect to each other via the computer and share a virtual reality.

**PERL (practical extraction and reporting language):** A dynamic programming language that is used to create highly interactive programs and web pages.

**SCMC (synchronous CMC):** Refers to chat in real time that includes the exchange of text, audio, and/or video.

**Tandem language teaching:** This term refers to the pairing up of two speakers of different languages so that each one can teach the other his or her native language.

**Unicode:** Unicode is a standardized protocol that permits computers to represent the text of any language in a constant way. Only Unicode-compliant programs allow users to type in non-Romance languages such as Chinese, Arabic, or Korean.

**URL:** The uniform resource locator is the address for a web page that follows the HTTP protocol.

**VoIP:** A program that implements voice over Internet protocol or Internet telephony allows users to speak to one another via computer as if they were using a telephone (for example, Skype).

**Webquest:** This is an educational research activity where students use the web to investigate and analyze assigned topics.

**WWW (World Wide Web):** A system of interlinked hypertext documents available through the Internet.

**WYSIWYG:** What You See Is What You Get refers to a system that makes the content editing appear identical to the final visual product.

## CHAPTER 2

### An Overview of CALL

Technology is redefining what it means to be literate. Literacy is not only the ability to read and write, but also the ability to understand music, video, hypertext, and networked communications, et cetera (Stinson and Claus). The electronic classroom is supposed to enhance both the quality of instruction and the learning experience of the students as opposed to the traditional face-to-face interaction in the classroom (Stinson and Claus; Burrus).

The electronic classroom is not completely a new idea. The audio-lingual method, which began in the 1930's, has similar elements to today's CALL (Burrus). In the late 1950's and early 1960's the audio-lingual method paved the way for CALL by transitioning to the use of language labs (Desmarais). The language lab focused only on audio and at the time offered the best language learning technology for the classroom (Desmarais). The language labs of the past have rapidly changed with the rise of new multimedia technologies and the focus of these labs are also changing. As schools and universities have become better equipped with technology, students will be exposed to a broader language experience (Burrus).

With technology in classrooms becoming more readily available, students and instructors have new opportunities to collaborate and express themselves more spontaneously and creatively, and the more technologically advanced classroom settings provide students with a physical environment conducive to authentic student-centered learning (Stinson and Claus). When it comes specifically to teaching a foreign language, some instructors believe that total



immersion in the language and culture of the target language is the best way to learn (Desmarais, Blake 12). This approach has been fairly popular since World War II and further popularized in the 1980's with Krashen's  $i+1$  model, this model emphasizes learning languages at your own pace using comprehensible input (Desmarais, Blake 16).

Most CALL software builds upon the communicative method and monitor theory and; therefore, focuses mostly on spoken and auditory vocabulary skills, while other CALL programs are more comprehensive, but still mostly traditionally grammar-oriented (Desmarais, Burrus). CALL has improved dramatically since it's origins in the late 1950's but many of the same limitations of CALL still apply today. CALL is still mostly used as "the notion of the teacher in the machine rather than the teacher working with the student alongside the machine." This quote means that instructors still use call as a tool instead of a tutor and usually are not using CALL programs to their full potential (Levy 130). Since instructors and students are not using CALL programs to their full potential, CALL programs are less effective and this limitation has to be taken into consideration (Burrus).

The use of CALL can be categorized into two main categories: tutor and tool. The difference between using CALL as a tutor and as a tool depends mostly upon the goal of the learner and the specific functioning role of the computer (Levy and Hubbard). Using computers as a tutor allows the students to complete language learning exercises and these teaching exercises are usually in the form of multimedia programs which include grammar, reading, listening, and speaking activities. Using computers as a tool means that students are using them more for communication in the L2, such as discussion boards, chat forums, emails, et cetera. These tool-derived activities are more closely related to socio-cultural aspects of language learning (Burrus). Whichever category of CALL an institution or instructor chooses the main

goal of the curriculum is to be truly learner-centered and unless the learner's subjective needs and perceptions relating to the process of learning are taken into account the CALL program will be ineffective (Nunan 177).

The pedagogy associated with CALL has undergone a few important phases. Most of the phases correspond directly to shifts in pedagogical paradigms that defined each era. The three phases of CALL are behaviorist, communicative, and integrative (Blake 15; Burrus).

The first pedagogical phase of CALL was behaviorist. This phase began in the 1950's, but was primarily assimilated to CALL in the 1960's and 1970's. The main component of CALL at this time was repetitive language drills, which used the computer as a tutor (Burrus).

The second pedagogical phase of CALL was communicative. In concurrence with advancements in technology and an overall rejection of behaviorist approaches in education, the 1970's and 1980's began an era of what we now call communicative learning. Advocates of this learning approach felt that language drills did not provide an authentic form of language learning. Drills were replaced with paced readings, text reconstructions, and language games (Burrus).

The current pedagogical phase of CALL is integration. Integrative CALL began in the late 1980's and still continues today. A main component of integrative CALL is the combination of computers and the Internet to assist in language learning. What is referred to as Web 2.0 is all inclusive of integrative CALL; for example, software programs, websites, email, and chatting just to name a few Web 2.0 examples (Blake 22, Burrus).

## General History of CALL

CAI (Computer Assisted Instruction) was the predecessor of CALL and began in the late 1950's and is associated with the response to Soviets launching Sputnik, because most early CAI programs dealt with Russian. CAI uses the behaviorist approach and was mainly drill exercises for vocabulary and grammar, these exercises could also be found in similar workbooks. The main difference between CAI and CALL is that CALL is more associated with the communicative method and integrative method, whereas CAI is only associated with the behaviorist drill exercises (Blake 49; Burrus).

Even though CAI was replaced by CALL they still share many of the same disadvantages. Early CAI programs were used with central computer systems such as PLATO (Programmed Logic for Automatic Teaching Operations) (Blake 50; Burrus). The activities used on this program were similar to programs still used today, for example, the program would provide students with a question, and the student would answer the question, and then the computer would supply feedback or help the student correctly answer the question (Burrus). CAI is heavily criticized for its drill-and-kill exercises where the emphasis is on any given subject matter, but aspects of CAI still exist today in current CALL programs (Blake 50).

CALL rose out of the need for more intelligent computer language programs. The goal of CALL is to give contextualized feedback that is similar to human feedback, at this time period ASR (automatic speech recognition) was developed to assist in pronunciation practice (Burrus; Seidel et al). An ASR processor has the ability to analyze student responses and compare them to the target language recordings and identify areas of improvement for the student. The goal of ASR is to mimic teaching pronunciation as an instructor would do, however ASR can only attempt to imitate a human response (Seidel et al).

With the development of Unicode, languages with characters (Chinese, Japanese, Korean) or syllaberies (Cherokee, Sumerian, Assyrian) could be typed and coded for CALL programs. This groundbreaking invention led to CALL development projects for non-Romance languages and opened the doors for Asiatic and dying languages to be studied by students (Blake 50).

In the early 1980's the Macintosh computer became readily available to the public as a microcomputer. Students now had access to smaller computers with their own internal computing abilities as opposed to giant super computers with one centralized station. Macintosh computers ran off of a HyperCard application that allowed for a nonlinear way of organizing multimedia materials, information, and activities that were much different from the predecessor CAI, which worked in a linear mode and with the invention of Macintosh computers this launched a new era that could be referred to as CALL (Blake 50).

In the 1980's along with the invention of microcomputers such as the Macintosh, laserdiscs and VHS tapes also became a popular CALL medium. Laserdiscs and VHS tapes were replaced later on by CD-ROMs and DVDs, which have a larger capacity for multimedia storage (Blake 50-51). In the late 1980's BYU (Brigham Young University) began using laserdiscs for Spanish programs where the students were asked to watch the laserdiscs and follow the plot of the laserdisc story (Blake 51). MIT (Massachusetts Institute of Technology) had a similar program in their French and Spanish departments where they used laserdiscs to simulate multiple characters, multiple plots, knowledge-based choices, surprises, multimedia presentations, and an intrinsic motivation to complete the materials. Although the only authoring tool available at that time was HyperCard and the only medium available to transfer the CALL

program to was a laserdisc, these developments were important because it marks the transition from routine drill exercises to creative programming for language learning (Blake 51).

With the advancement of micro-computing new authoring tools also became available other than just HyperCard for Macintosh. Some of the new authoring tools that emerged were Tool Box (PC), Libra (Mac/PC), and WinCalis (PC) and with these new authoring software's instructors and institutions were able to author their own in-house products. The ability to create your own programs helped spawn considerable interest in CALL (Blake 51).

Commercial products also started being created around this time. CD-ROMs became a popular medium for CALL, which became a friendlier way of teaching languages than CAI. The technologies involved in producing CALL have changed dramatically with many improvements being made as technology has advanced, but CALL still has many disadvantages, but also many noteworthy advantages over face-to-face interaction (Blake 53; Burrus).

#### Advantages of CALL

There are a great many advantages of CALL over traditional classroom methods, which include but are not limited to: greater learner autonomy, instant and various forms of feedback, helps build and retain vocabulary, ASR and listening exercises which help with pronunciation, computer data logs help with feedback for instructors, students, and program developers, CALL programs are even easy to create yourself to meet personalized needs, and with the creation of MALL computer mediated learning can now be done anywhere at anytime.

One of the many advantages of CALL is learner autonomy. CALL has a strong emphasis on student-centered learning materials and students are able to access these materials at their own convenience and are able to complete the assignments at their own pace. Learner autonomy has been one of the driving forces of commercial products such as Rosetta Stone®, Eurotalk®, and

Berlitz®. The consumers who purchased these products can complete the CD-ROMs or online activities at their own pace without the stress of time restraints and they can control the speed of their learning, which is a great advantage for adult learners who do not want to take time-consuming classes (Lai and Kritsonis; Burrus). CALL programs are also great for remedial learners who have already taken classes, but need a refresher course, since they can work at their own pace (Rosetta Stone).

Feedback from CALL programs is also another clear advantage over face-to-face interaction with an instructor. Computer-based activities have to their advantage the ability to provide interactive and individualized instruction as well as feedback to responses with computer-based activities instantaneously. Feedback from instructors, especially with written assignments, is not as instantaneous and usually instructors do not have the time to individualize their student's feedback.

The feedback students receive is continuous as they work through the activities. The feedback can be in many forms, from simple right or wrong answers to more complex and individualized suggestions and guidance to help understand why a given answer is incorrect, and suggestions for how the correct answer can be obtained (Nelson; Burrus). Current CALL programs use many types of feedback such as automatic scoring, e-mail feedback, randomization, and percent- to- pass, just to name a few.

Automatic scoring is the most common type of feedback, where the score is calculated as a percentage and the students are intrinsically motivated to do their best because they want to achieve a higher percentage. E-mail feedback is a type of confirmation that the activity was completed and is often submitted to the instructor of a course, so the student will be more

motivated to achieve a better score. E-mail feedback is often used in conjunction with other kinds of feedback such as automatic scoring (Nelson; Burrus).

Randomization is used mostly in commercial products licensed for institutions and the order of the questions is randomized, ensuring that each student sees the questions in a different order from the person sitting at the next computer and if the student has to recomplete the assignment it is harder for the students to memorize the answers (Nelson; Burrus).

Percent- to- pass is the ability to set a minimum percent score needed to finish the exercise and is mostly used by institutions (e.g. universities, schools, language schools). If a student receives less than this percent they must either begin the activity again or review the questions missed. The main point of the percent- to- pass feedback option is to get students to think carefully about their answers and to try their best to answer each question correctly the first time (Nelson; Burrus).

CALL also has an important role in assisting in vocabulary acquisition because computers can make available to the students on-line dictionaries, examples of usage, and definitions in context. Student's acquisition of new vocabulary can be strongly facilitated by the use of a range of metacognitive strategies such as inferencing and noticing (Komori and Zimmerman).

CALL based vocabulary activities can help place new words into context, for example, using a new word in a meaningful sentence, a conversation, or a story. CALL vocabulary activities help use mechanical techniques to memorize new words (Nelson). When studying vocabulary, studies have shown that vocabulary exercises which have repeated exposures over time intervals or spaced repetition work best. CALL offers a sensible solution to this and also

helps free up class time for instructors so that they do not have to spend too much time on repetitive vocabulary lessons (Loucky).

In a study conducted by Zapata and Sagarra, the researchers compared students taking elementary Spanish's vocabulary acquisition. Part of the students in the study used a traditional workbook and the other half used an online workbook as part of a blended (hybrid) learning class. The students were given one pre-test, two tests during the semester, and one post-test to determine which group of students performed best on a vocabulary acquisition (Zapata and Sagarra).

The pre-test and first test showed that the students with the traditional paper workbook slightly outperformed the students using the online workbook, but the second test and post-test showed a dramatic increase by the online workbook students over the traditional paper workbook students (Zapata and Sagarra).

The researchers felt that the online workbook students may have outperformed their traditional workbook counterparts due to receiving immediate feedback and multiple opportunities for improvement, as opposed to the paper workbook where the students on average had to wait one week to see any feedback from the instructor. Another advantage of the online workbook was that it freed up tedious grading time for instructors, which at the basic level are usually graduate instructors or instructors who teach multiple courses (Zapata and Sagarra). Multi-media CALL programs, such as online workbooks, can serve as a core for language courses that instructors can build on, or serve as supplemental curriculum. In other cases, language-learning programs may substitute for a teacher who may be unavailable or beyond budget (Desmarais; Ferneding 64).



The online workbook in this study promoted better lexical knowledge because it used better lexical processing and helped the L2 learners engage in employing deeper processing when needed (Zapata and Sagarra). In a study conducted in 1995 by the US Military, the participants also cited similar results as the students in Zapata and Sagarra's study that the CALL program forced them to practice more than they usually would and that they also improved in their pronunciation as well (Kaplan et al.)

The online workbook also helped relieve stress from the students and also helps promote higher self-esteem ratings. The online workbook used fun and communicative activities to help build a lexical repertoire (Zapata and Sagarra; Lai and Kritsonis).

CALL programs also have the advantage in that they are more entertaining and fun than the traditional classroom games and activities. Commercial products such as Eurotalk®, which I also used in my study, also believe that in order to teach to both hemispheres of the brain; the left-brain, which is logical, and the right brain, which is creative, you must be relaxed and enjoy learning. The enjoyment of playing communicative games helps with motivation by releasing dopamine and this reward center helps you learn because it raises your self-esteem (Eurotalk; Desmarais).

Another strength of CALL in the area of pronunciation is the ASR (Automatic Speech Recognition) component. ASR can also help free up valuable class time spent on pronunciation drills (Ehsani and Knodt). CALL helps automate these aspects of language training. Prolonged and focused practice of a large number of items is still considered an effective means of expanding and reinforcing linguistic competence (Ehsani and Knodt; Kaplan et al.) Most commercial products such as Rosetta Stone®, Eurotalk®, and Berlitz® as well as CMCs use

ASR to aid in pronunciation practice and generate feedback to help with mispronunciations (FAQ's, Eurotalk).

ASR also can be logged for better feedback. The advantages of the powerful recording capacities lie in its accuracy, reliability, and compact storage space. Some scholars have also used the computer to record the language learning process while learners are using the computer software for language learning purposes (Liou). Developers can also use data from user logs to determine the effectiveness, usability, and comprehensibility of the system and make improvements to the system (Koedinger et al.).

There are three main advantages of logging computer data to track student progress. The first advantage is that it records learner behavior over different sessions systematically and consistently so it is easy to obtain an average performance. The second advantage is that the data is not based on imagination; the data is recorded while learners are actually using the learner materials. Finally, the data also shows observable behaviors that can help diagnose problem areas for individual students (Liou).

Although commercial CALL software and course related software such as online workbooks are great supplemental activities to the classroom, commercial CALL software and course related software often do not meet the needs of instructors. Many teachers use a CMS (Course Management System) and author their own programs using simplistic designs such as templates to create and customize, in the shortest possible time, their own online lessons (Armitage and Bowerman).

Instructors who have a basic working knowledge of word processing software can easily leverage that knowledge to exploit their word processor in a more sophisticated and creative way to benefit their students by helping with student writing, providing feedback, and aiding with

revision cycles in writing (Otto and Pusack). Presentation software, such as PowerPoint, is widely used in classrooms everywhere and represents a step up from the traditional uses of static chalkboard and overhead projectors to portray information in a more dynamic, effective, and engaging fashion or to stimulate or guide class activities or tasks. Presentation software can be used by itself as a teaching tool or can be uploaded to a CMC for the students to view (Otto and Pusack).

Since teaching content varies from instructor to instructor, instructors use readily customizable software of considerable flexibility to create their own CALL programs (Armitage and Bowerman). For more sophisticated CALL authoring, instructors can use web page creation programs, such as Dreamweaver or FrontPage, as authoring tools. These tools allow for more student-centered, constructivist learning models (Otto and Pusack). More customized programming can be made using generic programming languages such as C++, PERL, and Java. These authoring tools are flexible and powerful tools that can be used to create your own CALL programs (Otto and Pusack, Blake 52). CALL authoring for instructors has also shifted more from authoring your own programs to using Web 2.0 technologies in the classroom, such as blogs, wikis, podcasts, Delicious, Skype, Twitter, Facebook, YouTube, and Flickr (Otto and Pusack; Lai and Kritsonis).

Another easy way for instructors to create their own CALL programs is to use pre-designed templates from an authoring program. The advantage of this approach is that instructor-authors can readily learn the tricks of authoring and assemble helpful interactions. These activities will often be standalone grammar or vocabulary exercises, but they may also incorporate the use of video clips from YouTube, images from the web, and links to web sites (self-developed or external). Groups of exercises can then be assembled into a meaningful

sequence using additional utilities or a Web page development tool. These templates are designed to be easy to use and use WYSIWYG (what you see is what you get) CALL authoring principles (Otto and Pusack; Seidel et al).

Productivity tools and CMS, such as, Blackboard are familiar options that many teachers choose for developing CALL materials relatively quickly and easily (Otto and Pusack, Blake 58-59). CMS' have become pervasive in higher education and there is encouragement and support to use them in the classrooms. CMS' include mechanisms for managing and presenting course content, for example, authoring exercises and quizzes, gathering homework, providing feedback, keeping performance records, and hosting chat sessions and threaded discussions (Otto and Pusack, Blake 76).

Specialized commercial tools, such as, Wimba Voice, which is a set of tools that can augment the language curriculum by enabling instructors and students to produce voice recordings and presentations, voice e-mail, voice discussion boards, and podcasts. Components of such programs can also be implemented independently (Web 2.0) or embedded in a CMS to support language instruction (Otto and Pusack; Armitage and Bowerman).

CMC (Computer-Mediated Communication) can be used in conjunction with CMS', and provide the potential for improving speaking and writing skills through interaction with human interlocutors. The CMC tools allow for specialized support for interaction with the media and control over media provides structured tasks and offers aids to learning such as glossaries and grammar references (Otto and Pusack; Blake 70).

A new development and advantage within CALL is MALL (Mobile Assisted Language Learning), which is CALL software and downloadable applications for mobile devices such as iPods, iPads, cell phones, tablets, etc. MALLs advantage is that it can be used on the go and

usually incorporates fun communicative games for learning a language (Chinnery). Most students, even small children, are what we consider to be multi-literate and have some sort of portable device that can support a MALL program (Ajayi; Stinson and Claus). Rosetta Stone® and Eurotalk® as well as similar companies now have MALL commercial programs (FAQs, Eurotalk®). MALL has also helped create programs for diminishing languages like the Mohawk language to help these diminishing languages survive for future generations (Bittinger; Burrus).

### Disadvantages of CALL

While there are many advantages of CALL, there are equally as many disadvantages and some of these disadvantages have persisted since the early days of CAI. Some issues that persist in CALL are: motivation issues, availability and cost of programs (especially for lower income families and school districts), vocabulary overload and boredom with activities, not using activities to their full potential, limited interaction and impersonalized feedback, and it is expensive and time-consuming to author individual programs.

Student's interest is often maintained using more innovative multi-media CALL materials, but it is not yet clear in the minds of many language professionals how effective CALL is for students (Burrus). Sometimes students do not make use of all the software components. A study conducted by Fischer in 1997 showed that students skipped whole sections in computer language programs, in order to advance more quickly through the lesson. The research from this study indicates that students often choose to make only marginal use of various software components and therefore the feedback obtained can be inaccurate. Research findings cannot successfully argue that CALL is effective unless this limitation is taken into consideration (Fischer; Burrus; Ferneding 116).

Also fixed scripts, which are used in virtually any kind of CALL program, have their disadvantages. Fixed scripts, particularly when implemented in a computer environment often provide overly coercive control of the collaboration, which may decrease learner motivation. An issue referred to as over-scripting can also reduce student motivation to interact with the CALL program. Most CALL programs have fairly good internal collaboration scripts, therefore, they might not need as much external support (Hwu). For students, with little collaboration experience, on the other hand, weak interaction support will not produce the expected interactions (Hampel and Stickler). Providing adaptive collaboration support that responds to the individual needs of students may therefore be an improvement over fixed script approaches (Burrus; Koedinger et al).

CMS/CMC course related programs are not always ideal systems to use either. The hardest part about using a CMS or CMC is getting the students to be motivated to use programs to their full potential, and this is not always easy. In other words, learner autonomy and learner control do not necessarily yield optimal uses of materials (Hwu). Left to their own devices, students do not always make good choices while using CALL programs (Burrus). Learners may not be doing what the program designer or the instructor intends for them to do in their CALL activities, thus monitoring and guiding their learning is needed (Hwu; Burrus; Hampel and Stickler). CMS, CMC, and course related software often treat all mistakes as equal whether it was a slight error or a serious error, which in turn also affects their motivation to use the program (Byrne; Ferneding 214).

Commercial software is not always available for advanced speakers thus advanced speakers are often not motivated to use CALL for language learning purposes like other beginner

students. Even the so-called advanced levels of commercial software are not usually challenging enough for advanced speakers, and they easily become bored with the software (Xu and Bull).

Another disadvantage is that the need for language learning may be stronger than ever, but most schools face budget restraints that make serving these needs difficult (Ferneding 214). One solution could be the use of implementing more technology, but unfortunately, schools also have personnel and hardware barriers to using CD-ROM based language titles. Finding qualified teachers with both foreign language and computer teaching skills may be difficult or impossible in some areas, and few schools have enough computers available for classroom use. Even today, many teachers consider themselves fortunate to have one CD-ROM computer, much less a computer lab (Desmarais).

Much effort and cost in creating online materials can be wasted without the adequate training of teachers to present and support the learning. A course whose subject matter is communication necessitates this training and support even more: online language courses, especially at lower levels need to focus on form of the interaction as well as the content (Hamperl and Stickler, Blake 66). The time to train instructors to use CALL software, CMS, CMC, and course-related software can be time consuming and expensive to an institution, and since CALL programs change periodically this can become rather expensive to maintain.

The activities assigned by commercial CALL programs, CMSs, CMCs, and course-related software are also expensive for students. Access to the Internet and CALL programs for low-income families, lower income school districts, and in third world countries may not be within budget (Lai and Kritsonis).

Another cost disadvantage is that the more complex and sophisticated the CALL program is the greater the personnel costs and technical costs are (Otto and Pusack). Instructors and

institutions often want the best available CALL products, which means authoring their own personalized programs, but even authoring your own in-house CALL program is extremely expensive and time consuming (Blake 58-59).

Even commercial CMS products can be quite costly and are usually adopted at the institutional level where decisions are not driven by discipline specific needs (Otto and Pusack). Many commercial CALL products may not meet specific needs for a language program and this leads to instructors working around the software instead of vice-versa (Otto and Pusack; Ferneding 136-137).

A major disadvantage for instructors of languages to help author programs, is that CALL authoring does not usually count as professional development; therefore, many language instructors do not want to help with CALL authoring and the development of better CALL products because of the lack of professional recognition within this field (Otto and Pusack). The instructors and researchers who do choose to work on CALL authoring often also have fierce competition for funding to support their ongoing development projects (Otto and Pusack; Blake 58).

CALL programs can be extremely expensive to author even for in-house programs, a program can cost anywhere from \$150,000 to over a million depending on the amount of work and programming involved in designing and developing a friendly interface and in procuring appropriate media. The costs of shooting video, for example, can add significantly to development costs. Finding native speakers who have clear and distinct voices can also present a big challenge. Language titles that can better integrate the multiple media for which CD-ROM has become so widely known also take more time and effort to produce (Desmarais; Otto and Pusack).



Another issue for instructors who want to create their own CALL programs is creating online activities that keep the integrative and communicative method in mind. It's very easy for instructors just to resort to creating the drill-and-kill exercises of the former CAI days, but these exercises are not helping students reach their full potentials, which was one of the major setbacks of CAI (Burrus).

In order to fulfill their role, CALL programs have to not only help students, but also to develop their technical skills in using the virtual environment and be constantly aware of the benefits and challenges of learning. The students and instructors have to be familiar with the technology and know about the implications that the medium has in the context of learning a language. The instructors have to be able to rely upon their expertise as a language instructor as well as know how to use virtual environments in the context of useful approaches to language learning (Hampel and Stickler).

Facilitating communicative competence will be easier within a successful online community; nevertheless, emphasis needs to be placed on the training of the instructors to effectively use the CALL program. Training instructors to use the CALL programs and language labs requires additional funding from institutions, and then once the instructors are trained they must then teach the students to effectively use the CALL program (Lai and Kritsonis; Burrus). It is necessary to emphasize the importance of conducting training in the medium for teaching, and training is especially important for teaching on-line classes (Hampel and Stickler).

Instructors also need to be more aware of students' opportunities to engage in communication during online interaction and identify ways of facilitating students' participation and increasing students' actual language production. One way of achieving this is by creating

and adapting communicative language tasks into the CALL medium. CALL programs used in higher education are thus encouraged to develop as “reflective practitioners rather than technical experts,” which use different ways of achieving this, such as, working with others, self-evaluation, peer observation, and even tutor-led classroom research (Hampel and Stickler). Although these approaches are rather simplistic and easy to achieve they are also time-consuming and require creativity on the part of the instructors.

Another big disadvantage of commercial CALL programs and course-related software programs is that no one program fits perfectly under the “immersion” umbrella, although several companies provide what might be best described as a hybrid form that spans both language teaching traditions of immersion and traditional grammar-oriented style (Desmarais). In particular, course-related software programs main limitation is that the exercises are static and after completed once the exercises are futile to complete again (Galloway and Bidoshi).

Vocabulary overload, especially in the earlier forms of CAI programs, has been one of the main limitations of CALL programs and course-related software programs and has inhibited progress in pronunciation. This overload stimulates the mind to translate rather than to participate spontaneously in communication. Many new innovative programs are trying to overcome these limitations and help the learner to think in concepts other than translation; however, these programs only cover most introductory courses and the more popular languages, thus advanced learners and learners of less popular or dying languages do not benefit from these types of programs (Desmarais; Galloway and Bidoshi).

The use of CMSs, CMCs, and course-related software programs also raises the question of what exactly is the instructor’s role when using these types of programs. Hwu believes that the responsibility of the instructor who has adopted the textbook and the theory, for example, the

communicative method, is to conduct the activities in the classroom. The instructor may in addition provide confirmation of the grammar rule or more activities of the same category. Thus the instructor's role seems to only consist of providing aural inputs (reading the sentences to the students) and controlling the pace of the activities. Consequently, a logical question that follows is whether or not the instructor is the sole figure that is suitable to deliver these activities (Hwu).

Investments in technology come with certain expectations such as replacing instructors with technology and reducing face-to-face time in the classroom (Otto and Pusack; Ferneding 64). No matter how intelligent a CALL program is it cannot answer specific questions that students will have while learning (Lai and Kritsonis; Burris). Currently a CALL program does not exist that meets all the needs of a learner especially in the area of vocabulary and reading acquisition (Loucky). All current CALL programs still have limited functions mainly in the areas of reading, listening, and writing skills (Lai and Kritsonis; Kaplan et al). Certain CALL programs also cannot assess learner's individual levels or change levels according to student advancement (Nelson).

Teaching writing in particular with a CALL program is difficult because it's not only checking for grammar and spelling, but also the context and content must be judged for accuracy (Shei). CALL programs are designed to alleviate the work of the instructor, but they have often failed to provide the support necessary for successful independent learning and are not always less work for the instructor (Hampel and Stickler).

CMSs, CMCs, and course-related software programs help support teaching writing with CALL, but they can also pose just as many challenges. For example, communication in a discussion thread or blog is limited to one single mode and happens in a delayed fashion, and the skills that are required of an instructor to engage the learners and motivate them to interact with

one another in such an environment are very different compared to a face-to-face setting (Hampel and Stickler).

Another factor especially for teaching completely online in an audio-graphic environment is the fact that it does not allow for body language, a mode of interaction that is particularly important for L2 instruction. This lack of body language has a number of consequences in the areas of classroom management and learner anxiety (Hampel and Stickler).

CALL software design and authoring issues are also a noteworthy disadvantage of CALL. Language teaching professionals rarely become courseware programmers. One solution to this problem is templates, which provide a framework that can be filled with instructional content, usually by an instructor.

Their advantage is that they permit rapid development and delivery of lessons to learners; their disadvantage lies in the way they may tend to limit instructional creativity (Otto and Pusack). When using templates there is a reliance on a very few standard screen layouts, which means that the inherent inventiveness of language teachers cannot rise to the surface; students may tend to find interaction with the materials rather redundant. In other words, there is high authorial efficiency, but low variety and interest value, and this leads to low learner motivation (Otto and Pusack; Komori and Zimmerman).

Learning to write programs using scripting languages such as C++, PERL, or Java is a major undertaking that can be both daunting and time consuming for language professionals (Otto and Pusack; Blake 64). Generic authoring systems like Java can constitute as an additional resource for authors who are prepared to invest more time in material development (Otto and Pusack). Most instructors do not have the time, knowledge, or resources to develop an application on their own using a scripting language (Blake 64). Programming in non-

alphabetical languages is even more difficult to author and even more time consuming (Komori and Zimmerman).

Another option for CALL authors is CMSs and CMCs, but the major weakness of these CALL authoring tools are the lack of interaction types and natural language processing power embedded in them such as ASR (Otto and Pusack). ASR and text-to-speech applications in CALL software is not 100% reliable and intelligible pronunciations are often not recognized (Ehsani and Knodt).

To author an ASR application, there must be a considerable amount of linguistic knowledge input. The lexicons for the ASR cannot be too big or too small. If the lexicon is too big the ASR will confuse words that sound similar and if the lexicon is too small the ASR will not recognize a correct word outside of its programmed algorithms (Loucky; Ehsani and Knodt). ASR's also cannot correctly process speech that differs from the speech it has been trained on (for example, if an ASR has been programmed in British English, but the student has an American English accent it will say the word or phrase is mispronounced) (Burrus).

The brief life span of CALL products also is a disadvantage. The life span of any kind of software is relatively brief and to maintain an existing software program routine maintenance and downloads have to be made on a regular basis (Otto and Pusack). The initial costs and maintenance costs of hardware and software components can be expensive, and often times commercial CALL products receive inadequate revenue streams from software distribution to offset development and maintenance costs (Otto and Pusack; Komori and Zimmerman).

The US Military developed CALL programs for Arabic and Spanish in the 1990's that were successful, but the costs of creating the programs and maintaining the programs were so great that the US Military outsourced their CALL programs to Rosetta Stone®. The US

government felt that authoring it's own language learning software for military and government positions was too expensive and time consuming (Seidel et al).

### Summary

Since the 1950's CALL has become a prevalent part of education. The recent trend in educational institutions is to move to more hybrid classes where technology is an integral part of the course, and online classes have increased in popularity even on traditional campuses. College degrees can now be obtained completely online and even language classes are taught completely online, and this trend is likely to increase in our technology driven future.

The main distinction between traditional face-to-face interactive classrooms and CALL are the different approaches to learning. Traditional classrooms are more teacher-centered and use a more passive approach to learning. CALL provides students for more direct and active learning. CALL has enabled students to be in control of their own learning and it gives them the freedom to choose how, when, where, and what to study. For all of the shortcomings of CALL, student's attitudes towards CALL are generally positive, even though they may not particularly enjoy using them to help learn a language or feel as immersed while using them.

CHAPTER 3  
METHODOLOGY

The Sample

The sample body was comprised of 34 participants from the University of Mississippi. A vast majority of the participants were students from one of the five sections of French 111, which is an intensive six-hour credit course that meets Monday through Friday. Each participant was given a corresponding number (1-34) as a pseudonym and the participants are henceforth referred to by their number.

Some of the participants in this study are what L2 instructors call false beginners, where they are not true beginners of the language, they have studied the language prior to this class, but they have serious gaps in their language ability. For the purpose of this study all of the participants are in the beginner to intermediate level, the students rated what level they currently believed that they were.

The Setting

Most of the students with the exception of 2 out of the 34 participants, were French 111 students, who had class Monday through Friday in one of the sections of French 111. The students have class Monday, Wednesday, and Friday for 50 minutes and on Tuesday and Thursday for 75 minutes. The other two students were graduate students who volunteered to be in the study, but were not enrolled in French 111. I was an instructor for one of the sections of French 111, but the participants came from five different sections.

The participants were asked to complete the Instant Immersion® Disc 2 Level One CD-ROM for French made by Eurotalk®. The CD-ROM disc took on average about one hour to complete. I chose the Disc 2 Level One CD-ROM because it used vocabulary similar to the vocabulary used in their textbook for French 111, *Chez Nous Edition Four* published by Pearson®.

After the participants completed the CD-ROM they were given a questionnaire to fill out regarding their experiences using the CD-ROM. Some of the questions asked the participants to rate their experience, some questions were open-ended, and some were simple yes or no questions (see questionnaire in Appendix B). The questionnaire took about 10-15 minutes to complete. I was present to answer and clarify possible questions during the process. I briefly explained what immersion was to the participants by using the most simplistic and general of terminology as possible, since immersion is the dependent variable in the study. The participants were allowed to answer the open-ended questions however they felt; therefore, I sometimes received incomplete or fragmented answers.

A significant portion of the study data comes from the descriptive statistics that I collected using the questionnaires. I use the open-ended questions to clarify some of the descriptive statistics, and while some answers to the questions were vague and fragmented, some participants wrote elaborate answers that were quite insightful.

I used descriptive statistics to correlate the participants' answers with the number of participants. The open-ended questions are not used to validate the findings of the statistical data, they are just interesting insights.



ID number	Gender	Race	Level of French	Yrs of French	Age
1	Male	Caucasian	Beginner low	0 years	20
2	Female	Caucasian	Beginner advanced	2 years	20
3	Female	Caucasian	Beginner mid	4 years	19
4	Female	Caucasian	Beginner mid	0 years	18
5	Female	Caucasian	Beginner advanced	2 years	19
6	Female	Other	Intermediate-low	2 years	19
7	Female	Caucasian	Beginner mid	0 years	20
8	Female	Caucasian	Beginner mid	0 years	21
9	Female	African American	Beginner advanced	4 years	21
10	Female	Caucasian	Beginner advanced	0 years	19
11	Female	Caucasian	Beginner mid	2 years	20
12	Female	Caucasian	Beginner mid	2 years	20
13	Female	Caucasian	Beginner mid	2 years	19
14	Female	African American	Beginner mid	0 years	43
15	Female	Caucasian	Beginner mid	4 years	18
16	Female	Asian/ Pacific Islander	Beginner mid	1 year	19
17	Male	Caucasian	Intermediate-low	5 years	22
18	Male	Caucasian	Beginner low	0 years	19
19	Male	Caucasian	Beginner low	5 years	21
20	Female	Caucasian	Beginner low	0 years	18
21	Female	African American	Beginner mid	2 years	21
22	Female	Caucasian	Beginner mid	2 years	20
23	Female	Caucasian	Beginner low	2 years	21
24	Female	Asian/ Pacific Islander	Beginner mid	0 years	21
25	Male	Caucasian	Intermediate-low	2 years	21
26	Male	Caucasian	Beginner mid	4 years	20
27	Male	Hispanic/ Chicano	Intermediate-low	0 years	19
28	Male	Caucasian	Beginner advanced	6 years	23
29	Male	Caucasian	Beginner advanced	4 years	26
30	Female	Hispanic/ Chicano	Beginner low	0 years	20
31	Female	Caucasian	Beginner mid	2 years	19
32	Female	Caucasian	Beginner mid	3 years	20
33	Female	Caucasian	Beginner advanced	2 years	19
34	Female	Asian/ Pacific Islander	Beginner low	0 years	21

Figure 1: Background Data of Participants

## The Participants

The questionnaire began by asking the participants to give basic demographic information (See Figure 1). This basic information included gender, sex, ethnicity, their age, how many years they had studied French, and at what proficiency level that they felt they were. The names of the participants were not written on the questionnaire, the students signed a consent form and were assigned a number at the top of their consent form, and the number was then placed at the top of the questionnaire as to keep the surveys anonymous.

In this study, 73.5% of the participants were female (n=25) and 26.5% of the participants were male (n=9) with a total of 34 participants. The participants were predominantly Caucasian females and the sample used for this study is representative of this, since Caucasian females are the majority in the French 111 intensive classes.

The proficiency levels of French self-evaluated by the students ranged from beginner low to intermediate low. At the beginner low level 20.59% (n=7), the beginner mid level 47.06% (n=16), the beginner advanced level 20.59% (n=7), and at the intermediate low level 11.76% (n=4).

The years studied by the students ranged from 0 years to 6 years of French. Most of the participants are what we call false starters, since they have previously taken a French course, but they have gaps in their learning. The participants who had 0 years of French were 35.29% (n=12), one year of French at 2.94% (n=1), two years of French at 35.29% (n=12), three years of French at 2.94% (n=1), four years of French at 14.71% (n=5), five years of French at 5.88% (n=2), and six years of French at 2.94% (n=1). The majority of the participants in this study had no prior French courses or around two years of French.

Also obtained in this questionnaire was information regarding the participant's background experience using computers to learn a language, as well as their likes and dislikes of the CD-ROM which will be discussed in my findings section. This information was needed to establish a comparison among the participants.

### The Instrument

The survey questionnaire (see Appendix B) consisted of ten questions. Some of the questions were written in two parts. Eight of the questions were open-ended and their second parts and the other two questions were closed-ended questions. All of the questions will be analyzed in this paper. The close-ended questions contained Likert-type scales, yes or no responses, or a list of choices. The participants of the study were required to fill out the questionnaire in English, because this was either the L1 language of the participants or their lingua franca. The questionnaire asked basic information about questions concerning the connection between French language learning and immersion. These questions included such topics as prior programs used to learn a language, and how immersed the participants felt while using the CD-ROM program.

The pilot questionnaire (see Appendix A) asked similar questions, but did not contain Likert-scales. While the responses to the open-ended questions were interesting, it was impossible to obtain quantifiable knowledge using open-ended questions. The survey was changed in order to have quantifiable statistics that could be analyzed. The participants in the pilot questionnaire also came from the French 111 intensive courses and were at similar proficiency levels to those who received the actual questionnaire.

## Data Analysis

I used descriptive statistics for the analysis of my data. I decided to use descriptive statistics because a majority of my questionnaire was of a qualitative nature. By using descriptive statistics, I was able to summarize major findings from the study and the implications that they might have for CALL and immersion. Also, the quantitative questions benefited from using descriptive statistics because the information needed from those questions revolved around the mean and range of the answers. The mean and the range were the given qualitative meanings to support the research questions and provide insight into further research needed in this area of CALL.

## CHAPTER 4

### FINDINGS

#### Study Questions

The goal of these research questions was to gain insight into learner perception of immersion while using a CALL program. The questions asked were as follows:

1. Did you feel like you were immersed in the French language using the CD-ROM?  
On a scale from 1-5 (One being the most immersed and five being the least immersed how immersed did you feel using the CD-ROM?)
2. How many years have you studied French? Have you spent time in a French speaking country or do you plan on studying abroad in a French speaking country in the future? If so, when and where?
3. Did you like using the CD-ROM to learn French (yes or no)? On a scale from 1-5 (One being the highest and five being the lowest) how much did you like using the CD-ROM to learn French?
4. What did you like most about using the CD-ROM? What did you like least about using the CD-ROM?

#### Question Results

In question number one the students were asked how many years they had studied French and the students wrote however many years that they had studied (see Figure 1). The students

ranged from having 0 years of French to 6 years of French, zero years (no prior French) being at 35.29% (n=12), one year of French at 2.94% (n=1), two years of French at 35.29% (n=12), three years of French at 2.94% (n=1), four years of French at 14.71% (n=5), five years of French at 5.88% (n=2), and six years of French at 2.94% (n=1).

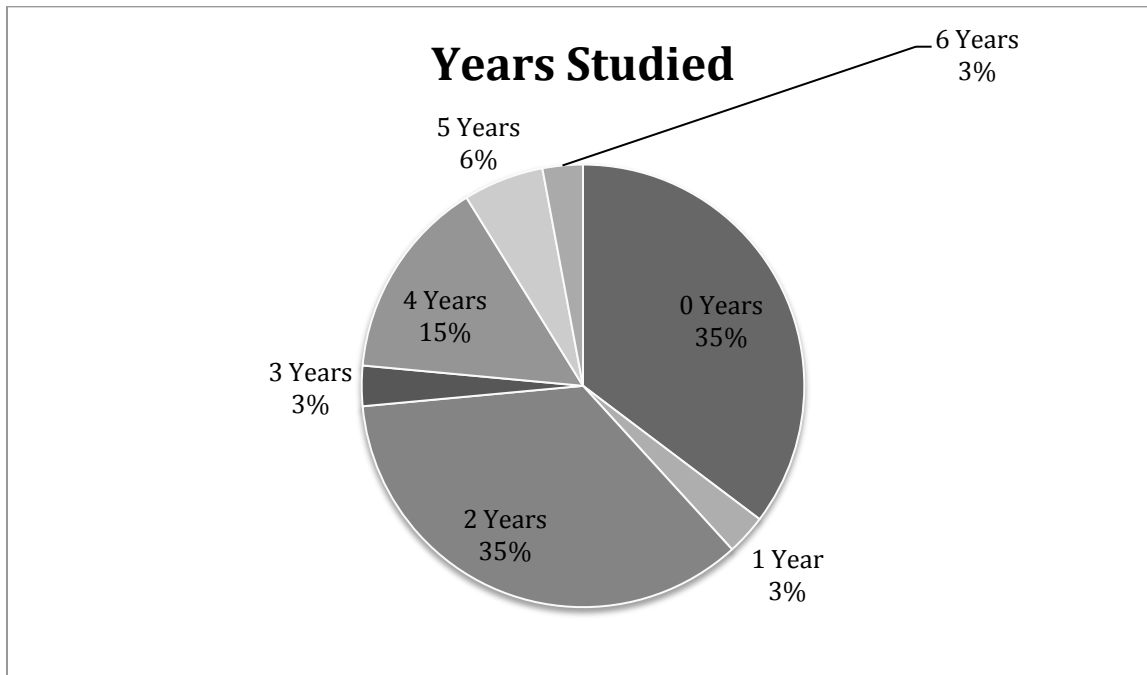


Figure 2 Number of Years Studying French (Note: This pie chart rounds to the nearest decimal place).

In question two the students circled what level they currently believed that they were and the options ranged from beginner low to advanced high (see figure 1). I used the ACTFL scoring rubric as the self-evaluation levels. The students that self-evaluated at beginner low were 20.59% (n=7), beginner mid at 47.06% (n=16), at beginner advanced 20.59% (n=7), and at intermediate low at 11.76% (n=4). No one in this survey evaluated himself or herself to be higher than intermediate low.

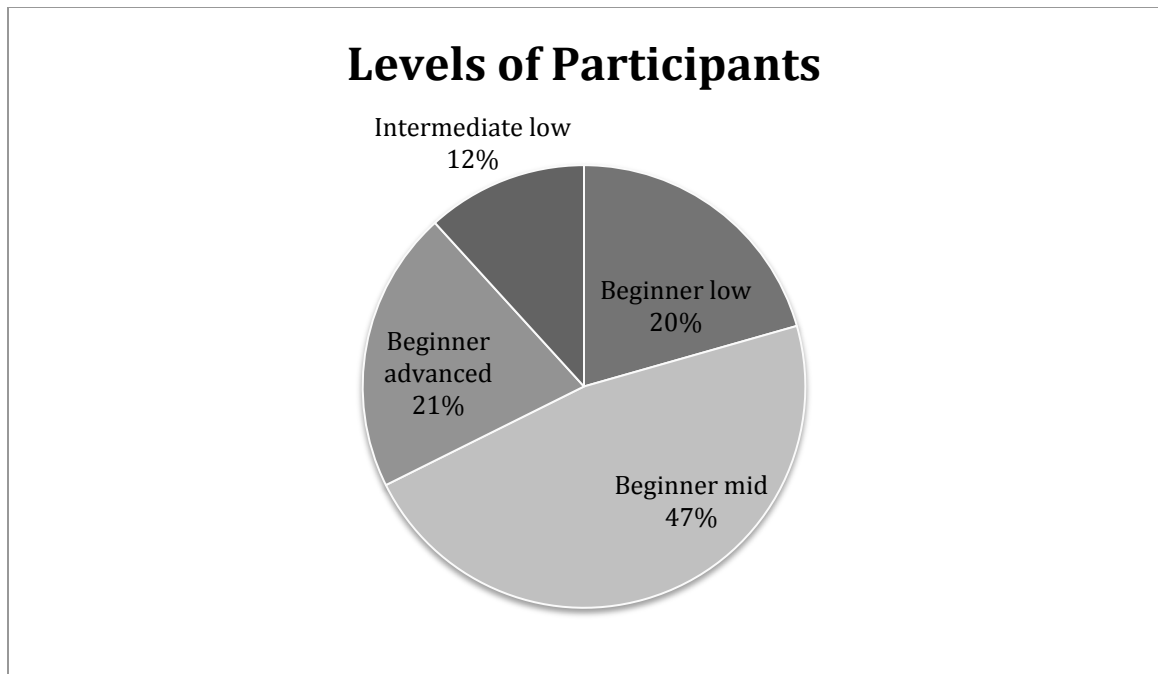


Figure 3 Self-evaluated levels of participants (This pie chart rounds to the nearest decimal place).

In question number 3 the students were asked if they ever used a computer to learn a language (this includes grammar, dictionary, and translation help e.g. Google Translate)? The overwhelming answer was yes, 94.12% (n=32) had used a computer to help learn a language. The students who were enrolled in French 111 ideally should have put yes, because they use myfrenchlab.com, which is the online course workbook for our textbook *Chez Nous* published by Pearson®. Myfrenchlab.com has online exercises for: listening, reading, writing, vocabulary, etc. that correspond with our textbook *Chez Nous*. For each chapter in the French 111 course the students are assigned mandatory homework using myfrenchlab.com.

The second part of this question asked the students if yes, then which computer/Internet programs do you use? This open-ended question elicited multiple responses. A majority of the students at 91.17% (n=31) mentioned specifically myfrenchlab.com their online course workbook. The second most used program was Google Translate, an online translator powered

by Google, at 26.47% (n=9). The third most used program was Rosetta Stone® at 14.70% (n=5). Rosetta Stone® is a commercial CALL software.

Other programs mentioned were: online French dictionaries such as wordreference.com, Pimsleur, aboutfrench.com -- a website written by Laura K. Lawless with online lessons, quizzes, fun facts, blogs, etc., Quia an online workbook published by McGraw-Hill® publishing company that is similar to myfrenchlab.com by Pearson®, Mindsnacks, busuu.com, Instant Immersion® a commercial CALL software program (which was also used in this study), English learning software (the type or name of the software was not specifically mentioned in the questionnaire), and a French translator application for iPhone, which is a MALL program.

The fourth question is a two-part question; the first part asks “did you like using the CD-ROM (in this case Instant Immersion® level 2 disk 1) to learn French?” This question is a yes or no response, and the second part asks, “On a scale from 1-5 (one being you really liked the CD-ROM to five you did not like the CD-ROM) how much did you like using the CD-ROM to learn French?” A majority of the students at 74.47% liked using the CD-ROM to learn French (n=26).

The second part of the question asked the students to rate how much they liked the CD-ROM on a scale from 1-5: 1 being strongly liked, 2 being liked, 3 being neutral (neither liked nor disliked), 4 being disliked, and 5 strongly disliked. The amount of students who answered that they strongly liked the CD-ROM was 8.82% (n=3), liked the CD-ROM at 29.41% (n=10), were neutral (neither liked nor disliked the CD-ROM) at 32.35% (n=11), strongly disliked the CD-ROM at 23.53% (n=8), and strongly disliked the CD-ROM at 5.88% (n=2). The significant finding for this question was that a majority of the students were neutral towards this particular CD-ROM at 32.35%, but the second highest percentage was that the students liked the CD-ROM at 29.41%.



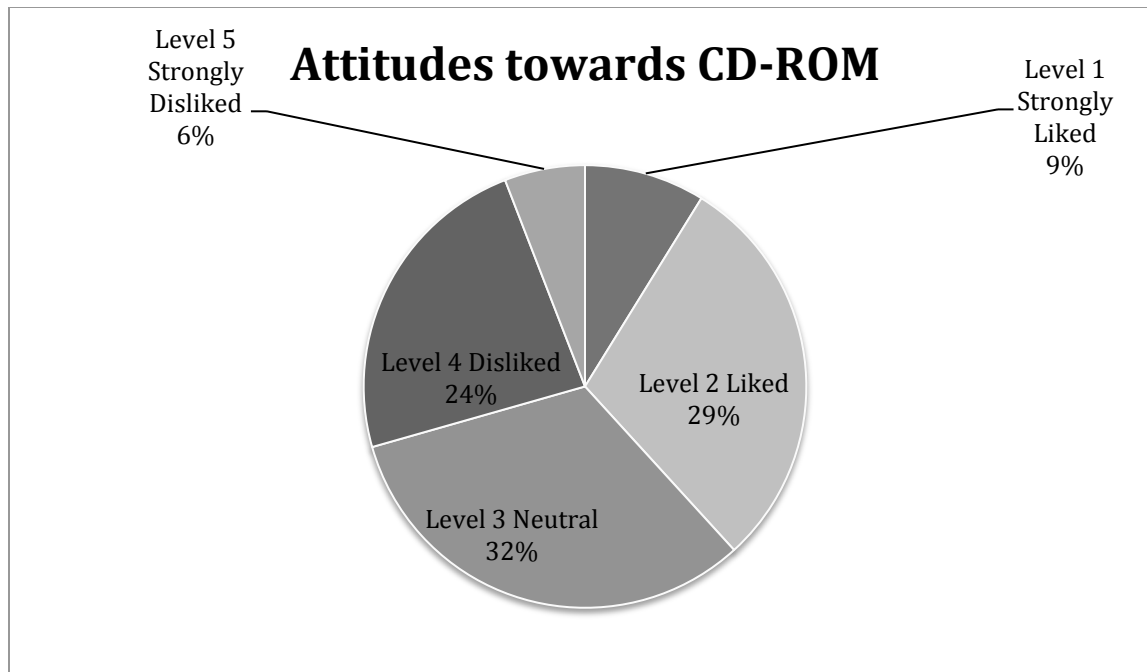


Figure 4 Attitudes towards using the CD-ROM (Note: This pie chart rounds to the nearest decimal place.)

The fifth question is an open-ended question asking the students what they liked most about using the CD-ROM. This open-ended question elicited interesting responses from the participants, many of the responses correspond with the many advantages of CALL.

The most common cited response was that the participants liked the visual aids (e.g. pictures, photos, etc.) 58.82% (n=20) mentioned in their response that they liked the visual aids. Some of the responses were: “good visual elements,” “seeing pictures of what they were saying,” “I am a visual learner, so seeing the phrases written out, with a relatable picture, while the phrase was being said helped me learn the phrase,” and “the pictures were great, it helped me associate pictures that I am familiar with words and phrases.”

The participants who cited that the visual aids were what they liked about the CALL program mentioned various reasons; predominantly the visual images helped them associate the phrases and vocabulary with the picture, thus this helped them learn the new phrases and

vocabulary. Another cited reason was that the phrases and vocabulary words were juxtaposed onto the picture so this helped them better associate the phrase or vocabulary word with the picture.

The second most common cited response was in relation to pronunciation and listening. The CD-ROM program also has an ASR feature, which was not used by the participants due to time restraints in the study; nevertheless, many participants 55.88% (n=19) mentioned that the CD-ROM helped them with pronunciation and listening. The participants wrote: “they speak clearly so that you can understand,” “I really got a good idea of how a French accent should sound,” “The pronunciation is what I liked most about the CD. There was never a time when I was second guessing what was said.” The most cited reason was that the native speakers used in the CD-ROM spoke clearly and distinctly and were easily understood, thus the participants cited that they learned better pronunciation and listening skills.

The third most common cited response was that the participants felt the phrases used in Level 2 Disk 1 of Instant Immersion® by Eurotalk® were useful and practical at 26.47% (n=9). Some of the responses elicited from the survey questionnaire were: “I liked the useful phrases we were learning,” “it teaches you common phrases,” “the information provided would be very useful in France, as a tourist,” “[it] was helpful if you are trying to learn French to go on vacation or a business trip,” “It teaches the sentences that you need to use in different locations useful for daily life communication.” The participants who responded felt the phrases and vocabulary were practical and useful for real life applications.

The fourth most common cited response to question five at 14.7% (n=5) was that English could be used to clarify meaning. Instant Immersion® has help languages in multiple languages; the student at the beginning of the program chooses what help language they would like to use.

Some responses written on the survey were: “I liked how they repeated the question and answer in English and in French,” “it says the sentence in English first,” “spoke it in English first.” The participants who listed this reason for what they liked about the program felt that having help in their L1 language was useful and helped them learn the French phrases and vocabulary.

Other less commonly cited responses were: user friendliness at 8.82% (n=3), feedback in the form of quizzes and percentages 8.82% (n=3), repetition at 5.88% (n=2), good review tool or good tool for self-study at 5.88% (n=2), autonomous learning 5.88% (n=2), and motivation (the answers to questions are not given) at 2.94% (n=1). The participants wrote responses such as: “it [the program] was not confusing,” “I also liked how there were quizzes after each section so you could test your knowledge,” “I think this would be a good review program/tool, but not in replace of a teacher,” “I can study by myself, it is good for self-study.” Several of the reasons that the participants liked the program are also main advantages of CALL programs in general.

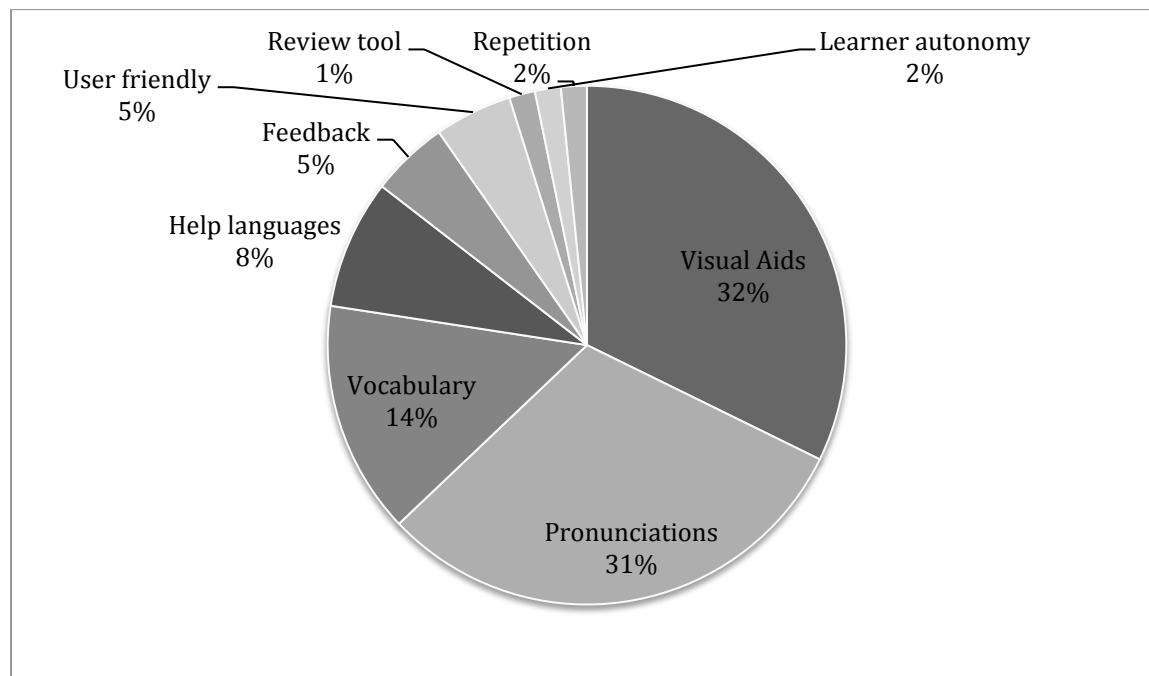


Figure 5 Reasons cited for liking the CD-ROM (Note: This pie chart rounds to the nearest decimal place.)

Question number six, an open-ended question, asked the participants what they liked least about using the CD-ROM. The answers elicited from the survey questionnaires correspond with the many disadvantages that persist in CALL.

The two main cited dislikes for this CD-ROM program were motivation and feedback for wrong answers. The participants who cited motivation as a dislike were 23.53% (n=8) and the same percentage cited that they disliked the lack of feedback for wrong answers at 23.53% (n=8).

The participants wrote that the CALL program was boring, annoying, and took too long. The participants were asked to complete Level 2 disk 1, which on average takes about one hour, and this disk is one disk out six discs; there is also included in the Instant Immersion® software pack a DVD, an audio CD, and an interactive game. Some of the responses from participants were: “it was kinda long,” “The CD-ROM was just time consuming. I got a little bored toward the end.” Other similar responses were: “some of the phrase practices were too long,” “the people speaking French were annoying,” “boring, the people talking,” “I did not like the quizzes at the end of each section, I found it to get annoying after awhile.” The participants cited that motivation was a dislike while using the CD-ROM some of the participants felt that it was too time consuming, too boring, or too annoying.

Along with motivation, the participants also mentioned that feedback on wrong answers was a dislike. Some of the responses from participants were: “It would only give one chance to answer the question,” “I didn’t like how they didn’t tell you the answer on the quiz if you got the answer wrong,” “when I got things wrong I didn’t get an explanation why,” “It does not tell you the right answer when you get it wrong, I like to know what I got wrong and why I got it wrong.” This CALL program does not give the correct answers to the incorrect answers; the user must

redo the question until they guess the correct answer. The participants did not like the lack of feedback from this CALL program and wanted explanations for wrong answers.

The next most cited dislike was that there was a lack of focus and depth in the CALL program at 17.65% (n=6). Some of the responses about this dislike were: “It seemed like the lessons were not as focused on one theme as I would have liked it to be,” “I didn’t like listening to the word or phrase and having to identify it in a picture. If it were a written phrase I could see, it would be better,” “I did not feel like it helped with spelling. I also did not like that it was mainly conversational and it did not teach grammar or vocabulary.” Other responses were: “it could go into more depth, maybe repeat some of the vocab[ulary].” One participant wrote an in-depth answer,

It only encouraged the user to memorize the phrase being said/associate it with a picture. It did not teach why the words used were chosen, why they were written the way they were (order in the sentence/conjugation), and added unnecessary words in sentences that were not in the spoken version.

Another participant gave an example, “Some questions include other words not said in English, i.e., which platform? Quel est le quai pour Marseille? Some people may not know this is a place not included in the English phrase.” Some of the participants felt that this CALL program did not go into enough depth and that the lessons were unfocused.

The participants also cited at 14.7% (n=5) that the CALL program was too passive. Some of the reasons stated on the survey were: “the lack of human interaction,” “limited opportunities to write and speaking seems artificial,” “wish it were more hands-on concerning the phrases,” and “There wasn’t anything specific I didn’t like but I prefer learning a language by speaking it rather than just listening.” Some of the participants felt that the CALL program was

too passive and there was not enough authentic interaction, which is interesting because CALL is usually perceived as being more active than a traditional classroom (Burrus).

Another dislike mentioned by the participants dealt with technical problems while using the CD-ROM at 14.7% (n=5). Most of the participants who wrote about this dislike mentioned that the software was too slow. The software was purchased in 2010 and this is a main limitation of CALL products is their short lifespan (Otto and Pusack).

Other dislikes mentioned were: more variety at 2.94% (n=1), activities were not helpful at 2.94% (n=1), and that you are unable to ask questions like you can in face-to-face interaction at 2.94% (n=1). Some of the responses given as dislikes were: “it seemed targeted for children,” and “if I have a question, I can’t ask the teacher.” Several of the dislikes mentioned by the participants in this study are also main disadvantages of CALL.

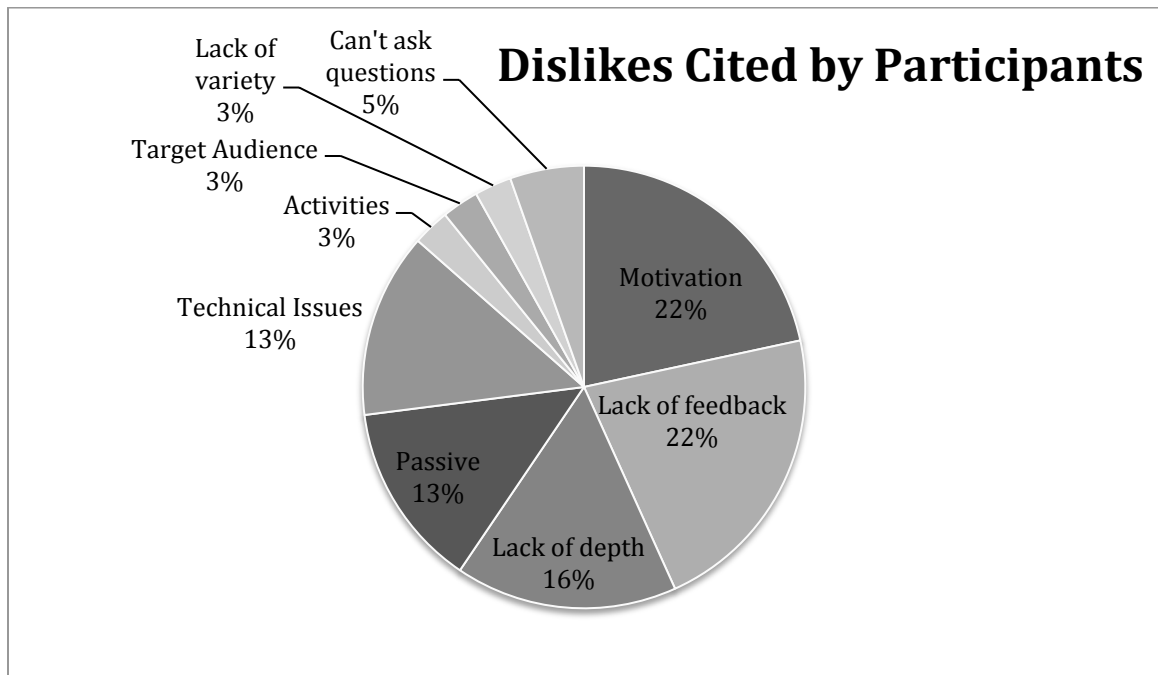


Figure 6 Reasons cited for disliking the CD-ROM (Note: This pie chart rounds to the nearest decimal place.)

The seventh question, which is the dependent variable of this study, is a two -part question. The first part is an open-ended question that asks, “Did you feel like you were immersed in the French language using the CD-ROM?” The second part of question seven asks the participants to rate on a scale from 1-5 (1 being the most immersed and 5 being the least immersed) how immersed did you feel using the CD-ROM. Level 1 being you felt strongly immersed was at 5.88% (n=2), Level 2 being immersed was 41.18% (n=14), level 3 being neutral (neither feeling immerses or not immersed) was at 32.35% (n=11), level 4 being not feeling immersed was at 17.65% (n=6), and level 5 being feeling strongly not immersed was at 2.94% (n=1).

The participants who rated their immersion experience at 1 or 2 wrote answers as to why they felt immersed in the French language in the open-ended question part. Some of the responses were: “I surprisingly did feel that way. I learned a lot of useful information,” “Yes, since [I’ve] been studying, it all make sense, and want to learn more!”, “Yes, I was pretty immersed in the program, I was never bored while going through the program,” “When they spoke French yes, but the English speaking occasionally threw me off,” “Yes, the real life applications of the phrases were useful and easy to remember,” “For the most part, yes, I felt as though I was immersed in the French language,” “Yes, because the phrases being used were phrases that would be helpful in everyday life,” “Yes, because they were native speakers and they made a lot of references to French culture,” and “I felt immersed and closer to the language than in my French class.”

The participants who rated their immersion experience at 3 or 4 wrote answers that confirmed why they were neutral or why they only felt somewhat immersed. The word somewhat is frequently used in writing by the participants. Some of the responses were:

“Somewhat, I felt that having native French speaking people talking helped but it still felt very manufactured/technical,” “I felt immersed a little bit,” “Somewhat, I feel more immersed in French class,” “Somewhat, it kind of limits you to what you can say,” “Somewhat, I would not say completely because I did not get to interact and say things,” and, “I was for a little. I felt like it was interesting for  $\frac{3}{4}$  of the time. The other I was kind of bored. There wasn’t too much interaction.” Some of the participants who had mostly neutral feelings toward the CALL program felt it was only somewhat helpful, but that human interaction was better and that the CALL program could have been better perhaps.

The participants who rated their immersion experience 4 or 5 wrote answers that confirmed that they did not feel immersed using the program. Some of the responses were: “The CD-ROM helped but I would rather learn it in a classroom and interact with other people to understand the language than learn it on a CD,” “Being in the classroom is more realistic,” and “Not at all, only redeeming factor was learning how some phrases were used/said.” Some of the participants felt that the CD-ROM did not make them feel immersed in the least, and that the face-to-face interaction of the classroom was more conducive to learning.



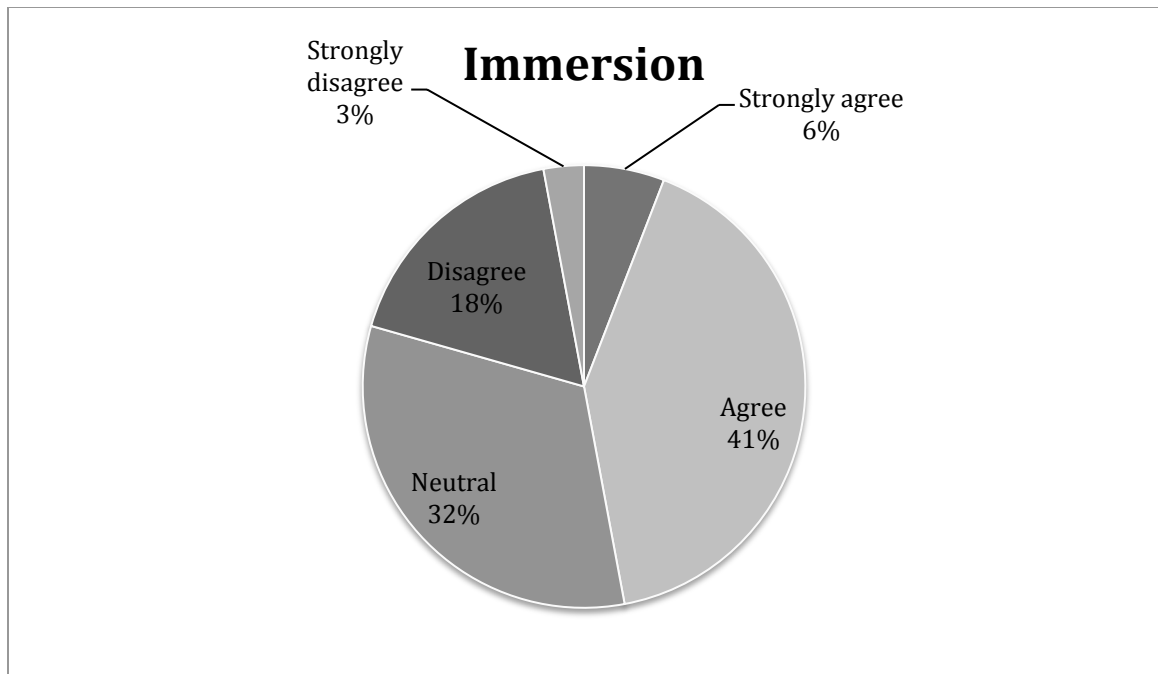


Figure 7 Participants perceived immersion within CALL (Note: This pie chart rounds to the nearest decimal place.)

Question number eight is a two- part question, the first part of the question is open-ended and asks, “Did you feel like your French improved after using the CD-ROM?” The second part of the question is a closed question that asks, “on a scale from 1-5 (1 being you feel you greatly improved and 5 being you feel you did not improve at all) how much do you feel you improved?” The students only used one part of the CD-ROM set, thus I did not expect high ratings of improvement, I simply wanted the students to self-evaluate their perceived improvements.

Level 1 being that the students felt that they greatly improved was at 8.82% (n=3), Level 2 at improved was at 20.59% (n=7), Level 3 being that the students were neutral towards their improvement at 35.29% (n=12), Level 4 being the students did not improve was at 32.65% (n=11), and Level 5 being that the participants strongly did not improve was at 2.94% (n=1). The majority of the participants rated themselves as neutral or not improving, but this is to be expected since the participants only used the program for on average one hour.

Most of the participants on the open-ended question wrote that they felt they slightly improved. Common words that were used to describe their improvement were: “a little bit,” “somewhat,” and “slightly.” A few of the participants gave interesting answers on their surveys such as: “Yes, because I can review it after class,” “a little, I would like this for my class,” “The CD-ROM helped me to improve my knowledge of conversational French,” “over continued use it would,” “I wouldn’t say it improved greatly, but I did learn some new terms,” “Yes, I learned many new phrases while using the program,” and “No, I don’t feel like I really absorbed any real information. It did help review what I already knew.”

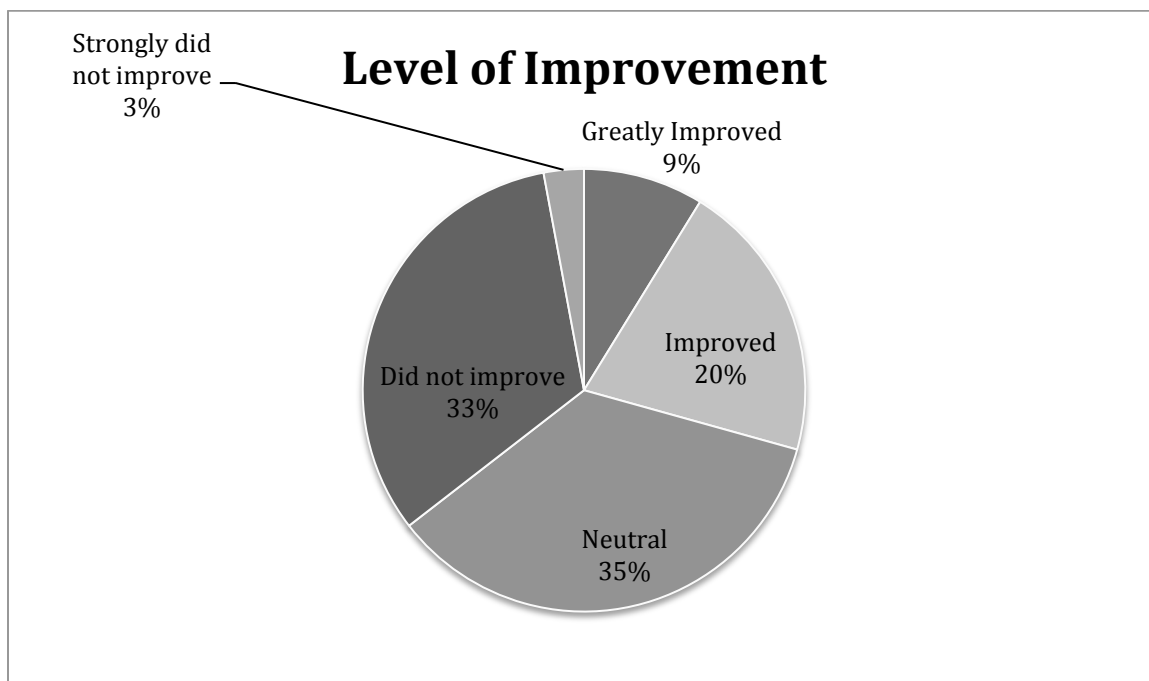


Figure 8 Level of self-reported improvement (Note: This pie chart rounds to the nearest decimal place.)

The ninth question asks, “What aspects of your learning do you feel improved the most? (For example, pronunciation, vocabulary, writing, grammar, etc.)” The participants were allowed to write one or multiple areas of improvement, they were instructed to write about whatever areas they felt they had improved after using the CD-ROM.

The majority of the participants at 79.41% (n=27) wrote that they felt that their pronunciation had improved. Some of the responses given from the survey were: “The CD definitely helped with my pronunciation,” “Pronunciation was helped, very few new words [and] no writing help,” “pronunciation, since it’s a CD it focuses more on listening,” “I believe this CD-ROM helped me to improve my pronunciation,” “I feel my pronunciation was improved, and I also feel my sound recognition of words and phrases improved,” and “I feel that I improved most in my pronunciation and that I can now form better sentences that will actually make sense.”

The second most commonly cited improvement was with vocabulary/phrases at 61.76% (n=21). Some of the responses from the surveys were: “My vocabulary got better, but I could have improved more on grammar and writing,” “Vocabulary, I feel like most of it was just learning vocabulary. Probably focused on writing the least,” and “I do not think it helped me that much in any of the areas listed. I think it helped me with specific conversations.”

The third most commonly cited improvement was grammar at 23.53% (n=8). Some of the responses were: “I feel like I have learned or improved on my grammar,” “Grammar if anything because I had to choose the correct word out of 3 wrong words. Overall the exercise was helpful, very helpful for those who are struggling with French.”

Other areas cited in improvement were: spelling at 8.82% (n=3), word recognition at 5.88% (n=2), listening at 5.88% (n=2), and writing at 2.94% (n=1). Many participants wrote multiple areas of improvement at 52.94% (n=18) the most three common areas of improvement being pronunciation, vocabulary, and grammar. Some interesting responses from participants who wrote more than one area were: “pronunciation and grammar improved a lot. The phrases for asking/responding to questions really hit home,” “My spelling, pronunciation and better

understanding of the spoken language,” “writing and pronunciation also being able to recognize words in a sentence,” and “The biggest thing I improved on was my pronunciation. The program also increased my vocabulary.”

One participant wrote an interesting and rather elaborate answer:

My spelling did not seem to be improved. I understood pronunciation much better though. Vocabulary also improved some. Did not help with verb tenses. People with very little or no experience in learning French may have problems understanding verbs.

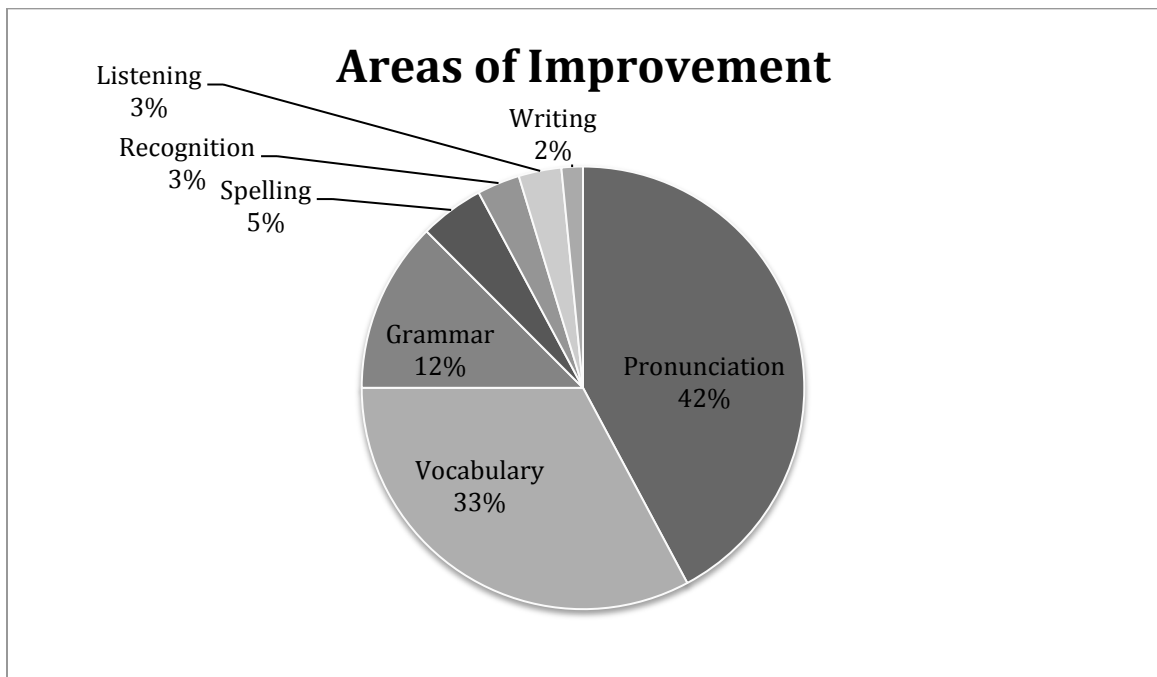


Figure 9 Areas of improvement cited by the participants (Note: Some participants cited multiple areas of improvement and this pie chart rounds to the nearest decimal place.)

Question number ten asks, “Have you spent time in a French speaking country or do you plan on studying abroad in a French speaking country in the future? If so, when and where?” The majority of the participants had been to a French speaking country or planned on going in the future at 55.88% (n=34). The other participants at 44.12% (n=15) cited that they had not

been to a French speaking country and did not have any current plans to go to a French speaking country at this time.

## CHAPTER 5

### DISCUSSION

When I began this study, my goal was to gain insight into how immersed a person feels while using a CALL program. For me, the results of this study show great insight into the practicality of CALL programs. For example, having evidentiary proof that participants in this study felt immersed while using the Instant Immersion® CD-ROM, I can say that I believe that CALL can substitute for an immersion experience and be an important technological aspect of teaching. While a CALL program no matter how sophisticated can never replace a true immersion experience such as a study abroad trip, I can now say that it can be an effective alternative for students who are unable to afford or have time for a study abroad trip. The evidence that I gathered from my study supports Robert J. Blake's statement that,

Most SLA theorists would agree, in some basic formulation of the issues, that formal L2 teaching is often unsuccessful because learners receive impoverished or insufficient input in the target language. Technology, then, if used wisely, could play a major role in enhancing L2 learners' contact with the target language, especially in the absence of study abroad (2).

Question one from the survey indicated how many years of French the students had had and this ranged from no prior French learning to six years of French. Most of the participants had some prior French classes, but there were serious gaps in their education; therefore, the participants were in the French 111 intensive French class. However, two participants who took part in this survey were not in the French 111 program, but had taken prior French classes elsewhere.

Question two asked the participants to rate themselves from beginner low to advanced high. No participant rated himself or herself above intermediate low. For the most part, despite the amount of prior French learning experience, most students would consider themselves to be beginners at the elementary level of French. For students at this level, it takes many years of French classes to reach a level of high fluency. On average it takes 700 to 1,320 hours of instruction to reach a high level of fluency (Blake 1). CALL programs such as the one used in this study are ways of helping students reach high levels of fluency, especially if these students are unable to study abroad.

Question three asks the participants if they have used a computer to study a language and which computer/Internet programs they have used. A majority of the participants cited myfrenchlab.com by Pearson as a computer program that they use. Myfrenchlab.com is the online course workbook used for French 111 that accompanies the textbook *Chez Nous*. Other sources cited were Rosetta Stone®, Instant Immersion®, Google Translate, Pimsleur, online French dictionaries, aboutfrench.com, etc.

This question shows that the participants are familiar with using computers for language learning and help with language learning. One participant even mentioned using a MALL program on his or her iPhone, which signifies that today's students are multi-literate and are comfortable using technology.

Question number four asks the participants if they liked using the CD-ROM and to rate how much they like the CD-ROM on a scale from 1-5. The majority of the participants liked using the CD-ROM and 38.24% (n=13) rated himself or herself as strongly liked or liked the CD-ROM, while 32.35% (n=11) rated themselves as neutral (they neither liked nor disliked the program), and 29.41% (n=10) reported that they disliked or strongly disliked using the program.

Even though the participants were told at the beginning of the survey that they were not using the CD-ROM to its full potential and that they were only using one disk out of a series of disks, I believe this contributed to many of the participants feeling neutral towards the CD-ROM. This limitation due to time could have produced more neutral responses than if the participants had been able to use the full Instant Immersion CALL program.

Question five is an open-ended question that asks the participants to write about what they liked most about using the CD-ROM. The participants wrote various answers indicating their opinions, most of which coincided with an advantage of CALL in general. Some of the advantages of CALL mentioned by the participants were: that the CALL program was visual, that the pronunciations helped, there was a help language available, the vocabulary/phrases were useful, the CALL program provided feedback, and it promoted learner autonomy.

I personally did not expect for so many participants to write about how the visual aids were helpful, since their textbook *Chez Nous* has pictures and illustrations as well to coincide with the vocabulary. Many participants wrote that the words juxtaposed onto the pictures really helped them learn the new phrases and vocabulary being taught.

The participants also cited that they liked the pronunciations from the native speakers on the program at that they felt the pronunciations were helpful. The participants were not asked to use the ASR mode on the CD-ROM due to time restraints, but I believe that if the students had been asked to do the quizzes and the voice recordings that more participants would have cited that they liked the pronunciation part of the program more; however, I am still surprised at the number of participants who said that they enjoyed the pronunciations the most even without using the ASR feature.



Another interesting find was that five participants cited that they liked that they could use English (their L1) as a help language when they did not understand something. The vocabulary/phrases are read in French, but the user can always hit help and the help function will translate the vocabulary or phrase into the help language, in this case English.

Question six asks the participants to write about what they liked the least about using the CD-ROM. The participants wrote various answers about their dislikes, most of which coincide with a disadvantage of CALL.

The most commonly cited dislike was the feedback on wrong answers. The participants were not given the correct answers when they got an answer incorrect, and this frustrated some participants. The participants wanted more feedback as to why they got the answer wrong instead of just a red x that indicated the answer was wrong (if the answer is correct the user sees a green check mark with a high pitched ring sound).

Since I teach a French 111, course one of the most common complaints I receive about myfrenchlab.com, our online course workbook, is that the students do not like the feedback that they receive from it. The students must either do the exercise multiple times in order to figure out the correct answer and or they must complete an activity multiple times in order to receive a passing grade. Feedback is a common disadvantage of CALL since the answers are rather black or white and a computer cannot exercise judgment like an instructor can.

Motivation along with feedback was also the most cited dislike by the participants. The participants wrote that the program was boring, annoying, and time consuming. The students on average only used the program for one hour, so this suggests that motivation is a huge disadvantage in CALL. A user can be given a high quality CALL program with the best

technological features to date, but if the user is not motivated to use the program then the CALL program will be ineffective.

Another interesting find was that many participants noted that there was not enough depth to the program. The disk that the participants used taught phrases and vocabulary for specific situations such as: traveling, shopping, emergencies. Some participants wrote that there were no explanations for the phrases or vocabulary chosen and that this did not help them with their writing whatsoever. The participants may be slightly biased since they are in a French 111 course where grammar and writing are an integral part of their curriculum; therefore, they like having explanations and are used to being able to frequently ask questions from the instructor.

Some participants felt that the program was too passive. This is contrary to some of the literature published about CALL, which states that CALL is more active because the user controls their own learning as opposed to passive traditional classrooms, which are teacher-centered environments (Burrus). The participants cited that the program was not hands-on and that there was no real interaction, and that the program felt mechanical. The participants may also be biased towards CALL programs because they are enrolled in a traditional class, and they may be more comfortable with the idea of learning a language in a classroom than with a computer.

Another dislike cited in the survey was technical issues. Some participants complained about the speed of the software being too slow. The CD-ROM set was purchased in 2010, but one main disadvantage of CALL is the short lifespan of software (Otto and Pusack). Within the next year or so I expect the software that I purchased in 2010 to be completely obsolete, and the software will only function on older computers that were produced around the same time frame as when the CD-ROM set was produced.

Question seven asked the participants if they felt immersed in the French language while using the CD-ROM and to rate their level of perceived immersion on a scale from 1-5 (one being the highest and five being the lowest). The most surprising finding at the basis of this study was that the participants did feel immersed while using the program. The participants who answered level 1 and level 2 were 47.05% (n=16), which is almost half of the participants. The participants only used the program for an hour, so for almost half of the participants to note that they felt immersed using the program is rather significant in my opinion.

The participants that cited they were a level 3 (or neutral) was at 35.35% (n=11). This is also significant because the participants did not feel more or less immersed, while using the CD-ROM. Since the participants only used the CD-ROM for on average for an hour and only used one disk out of the series, they may be more inclined to answer neutrally since one hour is not a significant difference in the scope of language learning. It would be interesting to see in a larger study where the students used the whole program instead of just one disk what their perceived immersion experience would be.

The level of participants who cited level 4 and 5 that they did not feel immersed or strongly did not feel immersed was 20.59% (n=7). There could many possibilities for why the participants did not feel immersed. One of the main reasons I believe is that most of the participants were enrolled in a French 111 intensive class and they may have felt more comfortable with traditional face-to-face instruction; therefore, they were biased against using CALL programs as a learning tool. Some participants may not be as technologically savvy and may become frustrated with computer programs and technology in general, and prefer more traditional methods of teaching.

Question eight asks about the participants perceived level of improvement after using the CD-ROM and to rate their improvement on a scale from 1-5 (one being the highest and five being the lowest). I was not particularly shocked by my findings on this question since the participants only used the CD-ROM for around an hour and only used one disk of the program.

29.41% (n=10) of the participants strongly agreed that they had improved, which is almost one-third of the participants and is rather significant considering the short amount of time using the program. The participants who cited that they were neutral were 35.29% (n=12), which was to be expected considering the brevity of the time spent using the CALL program. The participants who cited levels 4 and 5 that they did not improve was at 35.29% (n=12), which is also to be expected since the participants did not benefit from the full CALL program.

Question nine asked the participants what aspects of their learning that they felt improved the most, for example, pronunciation, vocabulary, writing, grammar, etc. Most participants noted that they felt they improved the most in the area of pronunciation with 79.41% (n=21) mentioning this area. This is significant, for me, because the participants did not use the ASR feature, which helps with pronunciation and gives feedback in the form of sound waves so that the users can see where they are supposed to put the emphasis on each word and syllable. I wonder if the pronunciation improvement percentage would have been higher if the participants had used the ASR feature of the program along with the quizzes.

The next most cited improvement was in the area of vocabulary acquisition, the participants at 61.76% (n=21) mentioned that they improved in vocabulary. Vocabulary acquisition is one of the main advantages of CALL (Komori and Zimmerman). Vocabulary acquisition is a strong advantage of CALL, in that users can learn a large number of lexical items

in a short amount of time, and the games, quizzes, et cetera help with the memorization of the new lexical items and supply feedback instantly.

Other cited improvements were in the areas of grammar, spelling, word recognition, listening, and writing. Many of the participants wrote multiple areas of improvement the most common three that were grouped together were pronunciation, vocabulary, and grammar.

Some participants cited that the CD-ROM did not help them with writing at all. The quizzes given at the end of each section were multiple choice, and there were no sections where the user would have to write anything. This finding coincides with the disadvantage of writing in CALL, in that it is difficult to teach writing using a commercial CALL program like the one used in this study, and while it is less difficult to teach writing with CMCs and CMSs it is still a major disadvantage (Lai and Kritsonis).

Question ten asks the participants if they have previously spent time in a French speaking country or if they plan on studying abroad in a French speaking country in the future and if so, when and where. Many of the participants reported that they had been to a French speaking country in the past or that they plan on studying abroad in the future at 55.88% (n=19). The other 44.12% (n=15) have never been to a French speaking country and do not have any current plans to study abroad in the future, thus CALL programs can be a cheaper and effective alternative to studying abroad (Blake 2). CALL programs can benefit anyone wanting to study a language, but especially those who are limiting their amount of contact hours by not being able to study abroad.

## CHAPTER 6

### CONCLUSIONS

#### Limitations and Possible Ameliorations for this Study

The greatest limitation to this research is the use of self-reported data. As previously stated, the participants often wrote short fragmented answers to the open-ended questions, which did not explain why the participants circled certain responses. In an effort to understand this limitation, I had to incorporate qualitative aspects into the study. I had to place emphasis on the statistical data that the participants gave; as opposed to placing importance on what they said and what they thought. The use of statistical data had to make up for the lack of answers on open-ended questions.

Piloting the actual questionnaire that was given to the students could have also decreased the limitation of self-reported data. The data collected on the pilot questionnaire did not yield specific results, because I failed to have a rating system on the questionnaire; therefore, little statistical data could be drawn from the pilot survey questionnaire. As a result, I added a rating system in the form of a Likert-scale to some of the open-ended questions so that I could have more conclusive data. In hindsight, I wish that I had also piloted the actual questionnaire that was given to the participants, so that I could have made more changes and yielded better results.

Another limitation to this study is the use of convenience sampling. The use of convenience sampling of participants is based on convenience and has low credibility. The vast majority of participants used in this study, except for two students who were colleagues of mine

in the Master of Arts in Modern Languages program, were all students from French 111, and many of the students were from my own class. The students who participated in this study came from five different sections of French 111; one of the sections was my own.

All the instructors of French 111, including myself, offered extra credit for the participants. Although the extra credit was only 25 points, and in the scope of the entire points possible for the class this is not considerably a large amount of extra credit, some of the 111 students may have felt that it was necessary for them to participate in the study, especially the students in my own class.

Although I used a consent form and told the participants that they did not have to take part in this study if they did not want to and that this would have no negative effect on their grade, some participants may have felt that they had to take part in the study anyways. If I had used participants from other classes such as French 211 or French classes from other schools this would have corrected this problem.

An additional limitation to this study is that I used descriptive statistics. I had wanted to use regressive statistics which compare more than one variable, but my lack of statistical knowledge limited me to just using descriptive statistics, since it is the easiest form of statistics to use.

I also had hoped that the participants would have given more clear and concise answers to the open-ended questions. On some of the questions, for example, number seven where it asks did you feel immersed while using the CD-ROM some participants just wrote yes or no. I wanted them to write why they felt immersed or why they did not feel immersed. Therefore, another limitation is the design of the questionnaire. Examples should have been provided to prompt the participants to provide more precise answers.

## Recommendations for Further Study

The focus of this study was CALL and specifically, the aspect of immersion while using CALL. Within the field of CALL there are many areas of research, but I chose to focus this study on the perceived immersion experience. This study was small with only 34 participants total and most of the participants were Caucasian females from the age range of 18-22.

This study could be made more credulous if it was done on a larger scale, with more varied participants, and if the participants used the CD-ROM for more than one hour. The success of this study under other situations may yield different results and this is why I believe the concept of this study merits further investigation. For example, would the results be the same if the participants had used the entire CD-ROM set, as opposed to just using one of the disks?

I believe further investigation should be conducted into exploring the concept of immersion within CALL. Immersion is something CALL software authors claim to possess, therefore, I believe it would be useful to do more studies and research on the concept of immersion in CALL.

## Conclusion

Computer assisted language learning is an area of much discussion in the world of SLA. The idea of implementing technology into the classroom helps supplement the student's education by providing additional outlets to learn languages. CALL has provided students and instructors infinite learning boundaries, which was not available sixty years ago. The primary goal of this study was to evaluate whether or not immersion could be experienced while using a CALL program, since so many CALL authors claim that their products create a real immersion experience. A secondary goal of this study was to study the advantages and disadvantages of



CALL and the open-ended questions of my survey helped shed light on the strengths and weaknesses of CALL.

While this is only a small study undertaken by one person and would require further investigation to make more credulous claims, the results from this study do indicate that the participants felt immersed while using the Instant Immersion® CD-ROM by Eurotalk®. Additionally, the participants cited reasons as to why they liked and disliked the program, which coincided with the advantages and disadvantages of CALL. Overall, this study will contribute to my understanding of immersion within CALL, and the importance of CALL within the field of SLA.

## BIBLIOGRAPHY

- Ajayi, Lasisi. "English as a Second Language Learners' Exploration of Multimodal Texts in a Junior High School." *Journal of Adolescent and Adult Literacy* 52.7 (2009): 585-595. *Academic Search Premier*. EBSCO. Web. 12 Feb. 2012.
- Allen, Denise. "Break the Language Barrier." *Teaching Pre K-8* Feb. 1996: *Academic Search Premier*. Web. 8 Feb. 2012.
- Armitage, Nicholas, and Chris Bowerman. "Knowledge Pooling in CALL: Programming on Online Language Learning System Reusability, Maintainability, and Extensibility." *Computer Assisted Language Learning* 15.1 (2002): 27. *Academic Search Premier*. EBSCO. Web. 1 July 2011.
- Bax, S. "CALL- past, present, and future." *System* 31 (2003): 13-28. Web. *Google Scholar*. 2 Feb. 2012.
- Bittinger, Marion. "Software helps revitalize use of Mohawk language." *Multilingual* 17.6 (2006): 59-61. *Business Source Complete*. EBSCO. Web. 7 June 2011.
- Blake, Robert J. *Brave New Digital Classroom: Technology and Foreign Language Learning*. Washington, D.C.: Georgetown University Press, 2008. Print.
- Burrus, Jillian. "Adult ESL Student Perceptions on Computer Assisted Language Learning." MS Thesis. The University of Nevada, Las Vegas, 2009.
- Byrne, Timothy. "Marrying Two Existing Software Packages into an Efficient Online Tutoring Tool." *Computer Assisted Language Learning* 20.5 (2007): 459-469. *Academic Search Premier*. EBSCO. Web. 1 July 2011.
- Chi-Chiang, Shei. "Integrating Content Learning and ESL Writing in a Translation Commentary Writing Aid." *Computer Assisted Language Learning* 18.1 (2005): 33-48. *Academic Search Premier*. EBSCO. Web. 28 Mar. 2011.

- Chinnery, George. "Emerging Technologies Going to the MALL: Mobile Assisted Language Learning." *Language Learning and Technology* 10.1 (2006): 9-16. *Google Scholar*. Web. 8 Feb. 2012.
- Desmarais, Norman. "Learning Language." *CD-ROM Professional* 8.4 (1995): 44. *Academic Search Premier*. Web. 8 Feb. 2012.
- Diego Giluliani, et al. "The Effectiveness of Computer Assisted Pronunciation Training for Foreign Language Learning by Children." *Computer Assisted Language Learning* 21.5 (2008): 393-408. *Academic Search Premier*. EBSCO. Web. 28 Mar. 2011.
- Ehsani, Farzad, and Eva Knodt. "Speech Technology in Computer-Aided Language Learning: Strengths and Limitations of a New Call Paradigm." *Language Learning and Technology* 2.1 (1998): 45-60. *Google Scholar*. Web. 8 Feb. 2012.
- "FAQs." *Rosetta Stone*. Rosetta Stone Ltd. 2012. Web. 2 Feb. 2012.
- Ferneding, Karen. *Questioning Technology*. New York, Peter Lang Publishing, Inc.: 2003. Print.
- Galloway, David, and Kristen Peterson-Bidoshi. "The Case for Dynamic Exercise Systems in Language Learning." *Computer Assisted Language Learning* 21.1 (2008): 1-8. *Academic Search Premier*. EBSCO. Web. 1 July 2011.
- Gimeno-Sanz A. and Davies G. "CALL Software design and implementation." Module 3.2 in Davies G. (ed.) *Information and Communications Technology for Language Teachers (ICT4LT)*, Slough, Thames Valley University. Web. 2 Feb. 2012.
- Hampel, Regina, and Ursula Stickler. "New Skills for New Classrooms: Training Tutors to Teach Languages Online." *Computer Assisted Language Learning* 18.4 (2005): 311-326. *Academic Search Premier*. EBSCO. Web. 1 July 2011.

- Hubbard, P. "CALL and the future of language teacher education." *CALICO Journal* 25 (2005): 175-188. Web. *Google Scholar*. 2 Feb. 2012.
- Hwu, Fenfong. "Learners' Behaviors in Computer-Based Input Activities Elicited Through Tracking Technologies." *Computer Assisted Language Learning* 16.1 (2003): 5. *Academic Search Premier*. EBSCO. Web. 1 July 2011.
- Jing, Xu, and Susan Bull. "Encouraging Advanced Second Language Speakers to Recognize their Language Difficulties: a Personalized Computer-Based Approach." *Computer Assisted Language Learning* 23.2 (2010): 111-127. *Academic Search Premier*. EBSCO. Web. 1 July 2011.
- Joel Tetreault, et al. "A Computational Approach to Detecting Collocation Errors in the Writing of Non-native Speakers of English." *Computer Assisted Language Learning* 21.4 (2008): 353-367. *Academic Search Premier*. EBSCO. Web. 28 Mar. 2011.
- Jones C. "It's not so much the program: more what you do with it: the importance of methodology in CALL." *System* 14.2 (1986): 171-178. *Google Scholar*. Web. 2 Feb. 2012.
- Kenneth R. Koedinger, et al. "Using Intelligent Tutor Technology to Implement Adaptive Support for Student Collaboration." *Educational Psychology Review* 22.1 (2010): 89-102. *Academic Search Premier*. EBSCO. Web. 26 Mar. 2011.
- Komori, Saeko, and Erica Zimmerman. "A Critique of Web-Based Kanji Learning Programs for Autonomous Learners: Suggestions for Improvement of WWKanji." *Computer Assisted Language Learning* 14.1 (2001): 43. *Academic Search Premier*. EBSCO. Web. 28 Mar. 2011.

- Lai, Cheng-Chich, and William Allan Kritsonis. "The Advantages and Disadvantages of Computer Technology in Second Language Acquisition." *National Journal for Publishing and Mentoring Doctoral Student Research* 3.1 (2006). *Google Scholar*. Web. 8 Feb. 2012.
- Levy, Michael. *Computer Assisted Language Learning*. New York: Oxford University Press, 1997. Print.
- Levy, Michael, and Hubbard P. "Why call CALL "CALL"?" *Computer Assisted Language Learning* 18.3 (2005). *Google Scholar*. Web. 8 Feb. 2012.
- Liou, Hsien-Chin. "Assessing Learner Strategies Using Computers: New Insights and Limitations." *Computer Assisted Language Learning* 13.1 (2000): 65. *Academic Search Premier*. EBSCO. Web. 26 Mar. 2011.
- Loucky, John Paul. "Constructing a Roadmap to More Systematic and Successful Online Reading and Vocabulary Acquisition." *Literary and Linguistic Computing* 25.2 (2010): 225-241. *Academic Search Premier*. EBSCO. Web. 1 July 2011.
- Mallory, Anna L. "Pulaksi County Students Tackle Latin Lessons: New This Year, the School System is Using Computers to Teach Middle and Elementary School Students." *Roanoke Times, The (VA)* 12 May 2009: *Newspaper Source*. Web. 8 Feb. 2012.
- Nelson, Brian. "Web-Based Vocabulary Activities: Pedagogy and Practice." *Computer Assisted Language Learning* 11.4 (1998): 427-435. *Academic Search Premier*. EBSCO. Web. 28 Mar. 2011.
- Otto, Sue E.K., and James P. Pusack. "Computer-Assisted Language Learning Authoring Issues." *Modern Language Journal* 93 (2009): 784-801. *Academic Search Premier*. EBSCO. Web. 26 Mar. 2011.

- Nunan, David. *The Learner-Centered Curriculum*. Cambridge: Cambridge University Press, 1988. Print.
- Rebecca Sachs, et al. "A Balancing Act: How Can Intelligent Computer-Generated Feedback Be Provided in Learner-to-Learner Interactions?" *Computer Assisted Language Learning* 21.4 (2008): 369-382. *Academic Search Premier*. EBSCO. Web. 28 Mar. 2011.
- Robert J. Siedel, et al. "The Military Language Tutor (MILT) Program: An Advanced Authoring System." *Computer Assisted Language Learning* 11.3 (1998): *Academic Search Premier*. EBSCO. Web. 28 Mar. 2011.
- "The Science Behind Eurotalk, Ltd." *Eurotalk, Ltd.*, 2012. Web. 2 Feb. 2012.
- Stinston, Beth MacNeil, and Kenneth Claus. "The Effects of Electronic Classrooms on Learning English Composition: A Instruction and Computer Based Instruction." *T H E Journal* 27.7 (2000): 98. *Academic Search Premier*. Web. 8 Feb. 2012.
- Vesselinov, Roumen. "Measuring the Effectiveness of Rosetta Stone." *Rosetta Stone*. Queens College, City University of New York, 2009. Web. 2 Feb. 2012.
- Zapata, Gabriela, and Nuria Sagarra. "CALL on Hold: The Delayed Benefits of Online Workbook on L2 Vocabulary Learning." *Computer Assisted Language Learning* 20.2 (2007): 153-171. *Academic Search Premier*. Web. 2 Feb. 2012.

## LIST OF APPENDICES



## APPENDIX A

## PILOT QUESTIONNAIRE

Circle One

Gender: Male/Female

Race: Caucasian, African American, Asian/Pacific Islander, Native American, Hispanic/Chicano, Other, I prefer not to answer

Age:

Please write a brief answer for each question (2-3) sentences or circle the response.

1. How many years have you studied French?

2. Currently what level of French do you believe that you are?

Beginner low          Beginner mid          Beginner high

Intermediate low      Intermediate mid      Intermediate high

Advanced low          Advanced mid          Advanced high

3. Have you ever used a computer to learn a language (this includes grammar, dictionary, and translation help)? Yes or No

If yes, then which computer/Internet programs did you use?

4. Did you like using the CD-ROM to learn French?          Yes or No

5. What did you like most about using the CD-ROM?
  
6. What did you like least about using the CD-ROM?
  
7. Did you feel you were immersed in the French language using the CD-ROM?
  
8. Did you feel like your French improved after using the CD-ROM?
  
9. What aspects of your learning do you feel improved the most? (for example, pronunciation, vocabulary, writing, grammar, etc)
  
10. Have you ever spent time in a French speaking country or do you plan on studying abroad in a French speaking country in the future? If so, when and where?

## APPENDIX B



5. What did you like most about using the CD-ROM?

6. What did you like least about using the CD-ROM?

7. Did you feel you were immersed in the French language using the CD-ROM?

On a scale from 1-5 (1 being the most immersed and 5 being the least immersed) how immersed did you feel using the CD-ROM?

1      2      3      4      5

8. Did you feel like your French improved after using the CD-ROM?

On a scale from 1-5 (1 being you feel you greatly improved and 5 being you feel you did not improve at all) how much did you feel improved?

1      2      3      4      5

9. What aspects of your learning do you feel improved the most? (for example, pronunciation, vocabulary, writing, grammar, etc)

10. Have you ever spent time in a French speaking country or do you plan on studying abroad in a French speaking country in the future? If so, when and where?

VITA

Graduate School  
Department of Modern Languages  
University of Mississippi

Jaime Jones

Degrees: Bachelor of Arts, French, 2008  
University of Tennessee at Martin

Thesis Title: Immersion Within CALL

Thesis Examination Committee:

Chairperson and Thesis Advisor: Dr. Daniel O'Sullivan III, Ph.D.

Committee Member: Dr. Olivier Tonnerre, Ph.D.

Committee Member: Dr. Esim Erdim, Ph.D.