Hamline University DigitalCommons@Hamline

School of Education Student Capstone Theses and Dissertations

School of Education

Spring 5-7-2015

The Impact of Computer Assisted Language Learning on Language Proficiency

Shelley Lyn Sorenson Hamline University, ssorenson06@hamline.edu

Follow this and additional works at: https://digitalcommons.hamline.edu/hse all



Part of the Education Commons

Recommended Citation

Sorenson, Shelley Lyn, "The Impact of Computer Assisted Language Learning on Language Proficiency" (2015). School of Education Student Capstone Theses and Dissertations. 123.

https://digitalcommons.hamline.edu/hse all/123

This Thesis is brought to you for free and open access by the School of Education at DigitalCommons@Hamline. It has been accepted for inclusion in School of Education Student Capstone Theses and Dissertations by an authorized administrator of DigitalCommons@Hamline. For more information, please contact digitalcommons@hamline.edu, lterveer01@hamline.edu.

THE IMPACT OF COMPUTER ASSISTED LANGUAGE LEARNING

ON

LANGUAGE PROFICIENCY

by

Shelley Sorenson

A Capstone submitted in partial fulfillment of the requirements for the Master of Arts in English as a Second Language degree

Hamline University

Saint Paul, MN

May 2015

Committee:

Mari Rasmussen: Primary Reader Ann Mabbott: Secondary Reader Kim Beckman: Peer Reader Copyright by
SHELLEY L. SORENSON
2015
All Rights Reserved

To the language learners in my school district who inspire me to challenge myself and deserve the best that they can be given.

TABLE OF CONTENTS

| CHAPTER ONE: INTRODUCTION | 7 |
|--|----|
| NEED FOR RESEARCH | 11 |
| SUMMARY | 12 |
| CHAPTER OVERVIEW | 14 |
| CHAPTER TWO: LITERATURE REVIEW | 16 |
| STANDARDS BASED EDUCATION | 17 |
| ENGLISH LANGUAGE PROFICIENCY STANDARDS | 23 |
| FEDERAL AND STATE ACCOUNTABILITY | 20 |
| ENGLISH LANGUAGE PROFICIENCY ASSESSMENT | 22 |
| CAI | 24 |
| CALL | 24 |
| USING TECHNOLOGY FOR DIFFERENTIATED LANGUAGE | |
| LEARNING | 27 |
| CHAPTER THREE: METHODOLOGY | 33 |
| CHAPTER OVERVIEW | 33 |
| SUBJECTS | 34 |
| DATA COLLECTION | 35 |
| METHOD | 36 |
| CONCLUSION | 36 |
| CHAPTER FOUR: RESULTS | 38 |
| CHAPTER OVERVIEW | 38 |

| DATA DISCUSSION | 39 |
|--|----|
| LANGUAGE PROFICIENCY DATA | 40 |
| AMAO DATA | 44 |
| IMAGINE LEARNING ENGLISH DATA | 45 |
| STUDENT SURVEY DATA | 46 |
| DISCUSSION OF RESULTS | 50 |
| SUMMARY | 52 |
| CHAPTER FIVE: CONCLUSION | 53 |
| PURPOSE AND QUESTIONS | 53 |
| LITERATURE | 54 |
| LIMITATIONS | 55 |
| RESEARCH RESULT SUMMARY AND NEW KNOWLEDGE | 57 |
| THE QUESTIONS ANSWERED | 58 |
| RECOMMENDATIONS | 59 |
| APPENDIX A: Assessment Reports, Time of Use Report | 62 |
| APPENDIX B: Student Survey | 64 |
| REFERENCES | 66 |

LIST OF FIGURES

- Figure 1 Kindergarten ACCESS test scores
- Figure 2 First Grade ACCESS scores during the research period
- Figure 3 Second Grade ACCESS scores during the research period
- Figure 4 AMAO 1 Percentage of Students Progressing in English Language Acquisition
- and AMAO 2 Percentage of Students Reaching English Language Proficiency
- Figure 5 Time of Use by Grade Level
- Figure 6 Summary of questions 1, 2, 3 and 10
- Figure 7 Summary of questions 4 and 5
- Figure 8 Summary of questions 6, 7, 8 and 9

CHAPTER ONE: INTRODUCTION

This research study seeks to explore the effectiveness of Computer
Assisted Language Learning (CALL) for young English Learners (ELs) who are
beginning to acquire English. The study looks at the role of CALL in a standards
based educational environment in which students must make regular progress
towards state English language proficiency and academic achievement goals.
The focus is to find out if students' language growth is accelerated by using
CALL together with teacher instruction versus teacher instruction alone.

School districts across the country are experiencing a growth in numbers of students who are not native English speakers. According to the Digest of Education Statistics (2013), the percentage of students participating in programs for ELs in the United States grew from 8.7 percent in the 2002-2003 school year to 9.1 percent in the 2011-2012 school year. In addition, ELs in the State of Wisconsin where I teach grew from 2.9 percent to 5.1 percent in the same time frame with a peak of 5.5 in the 2008-2009 school year. (U.S. Department of Education, September, 2013). The district where I live and work with ELs in grades k-2 is no different. In fact over the last 12 years my district has had an increase from 1% in total ELs per grade level to 60% ELs per grade level in the primary grades. The projected nation-wide percentage of ELs over the age of five in the United States is 21.7 percent for the year 2015 and 23.0 for the year 2020. (Shin, 2011).

This rapid increase in ELs has led to many challenges. It has been a struggle in my district to find qualified staff to work with our ELs. Teachers with an ESL licensure are in short supply resulting in large caseloads for ESL teachers. Resources are stretched thin in these challenging times leading to even more reason to use research based interventions as a tool for ESL teachers in enhancing their instruction. Large caseloads for ESL teachers and limited budgets are common elsewhere as well.

In addition, school districts are under pressure to meet rigorous educational standards and goals. ELs must meet both state English language proficiency goals and academic achievement goals. Many states, including Wisconsin, have adopted challenging college and career ready standards and will also be implementing the corresponding college and career ready assessments. These standards and assessments place greater emphasis on higher order thinking skills, informational reading and writing and English language skills that demand high levels of proficiency in what is commonly known as academic English.

Assessment of academic and language standards varies by state. According to the WIDA Consortium, ("Consortium Members," n.d.), Wisconsin is a member of WIDA and uses the WIDA English language proficiency standards and assessment system for state language standards and assessment for ELs. Academically, Wisconsin has adopted the Common Core College and Career Ready standards ("Common Core State Standards," n.d.) for English language arts and math. The state science standards follow the format and content of the National Science Education Standards, (Wisconsin's Model Academic Standards for Science" n.d.) in effort to meet college and career ready requirements for

science standards. Wisconsin has joined the Smarter Balanced Assessment Consortium for College and Career Ready Assessments and will be implementing the assessment as the Badger Exam in the spring of 2015. ("Badger Exam 3-8" n.d.) ELs are required to make progress and meet Annual Measurable Achievement Objectives (AMAOs) set by the state for English language proficiency along with participating in the state accountability system for academic achievement and meeting state achievement goals together with the other students.

As teachers and administrators struggle to provide services and support students in achieving success in meeting standards and objectives, there is a need for high quality instructional materials and programs that are aligned with state standards. The limits on teachers' time, lack of funding and pressure to meet goals further exacerbates the need for materials and programs that will support achievement. Unfortunately, standards based educational materials and programs for ELs that have been shown to support success are not readily available.

One way that our district has attempted to address these issues is to take advantage of the ability of computers to extend and support learning. Computer Assisted Instruction (CAI) is especially beneficial in supporting language growth and differentiation. Differentiation, a method of instruction that allows for the needs of individual students to be met is particularly effective with ELs and consistent with the WIDA standard based educational approach for English language proficiency that Wisconsin has adopted. The area of CAI has an increasing number of program options available that support teacher instruction, student skills and classroom management.

CALL is considered to be an area within CAI, but focuses specifically on language. There are a number of different educational programs that use CALL. In my district, specifically, the program, Imagine Learning English ® (Imagine Learning English, 2014), (ILE) has been utilized in an effort to meet the needs of our lowest level students. Use of this program with the intention of increasing English language proficiency quickly and efficiently began in the spring of 2012.

Several researchers have studied the impact of adaptive computer language learning programs on language growth. In studies by Keengwe and Hussein (2013) and also White (2013) it is apparent that ELs who are using CALL progress in language learning at a greater rate than those who do not. Do students make more rapid gains in language proficiency by using CALL in conjunction with best practices in the classroom? Previous research has focused on whole programs rather than level 1 and level 2 learners. It is not clear what the impact of CALL is on early learners' language growth.

/

Need for Research

On the surface it appears that the system the district in which I work involving a standards based instructional program that uses CALL is working well to engage students and move them quickly from low levels of language proficiency to higher levels and even fully proficient. As stated, CALL has great potential as an instructional approach to be used in conjunction with classroom instruction for ELs in a standards based educational environment. It has the ability to differentiate for language proficiency and background knowledge. In addition it possesses an intrinsic appeal for children. Also there is a lesser need for ESL trained personnel during the time frame that students are utilizing the program because supervision of the program use can be done by para professionals. CALL can be used by ESL teachers to preview, review, reinforce and enhance their direct instruction to students and does not require constant involvement of that teacher.

ILE, the CALL program that the focus district has chosen, has great potential for use in a district that is interested in implementing a strong, research-based instructional program for ELs aligned to state standards. There is documentation of its effectiveness in research cited by the Imagine Learning Company, ("Imagine this!" n.d.) as well as documentation of alignment with WIDA standards. ("Instructional Materials" n.d.) In addition, informal information is available on success with students since it has been adopted.

Even though it appears that ILE is a good system for several reasons, we need more information. The focus district needs more concrete evidence that the system is working. This evidence will be beneficial to administration when making budgeting and

programming decisions. There is a need to use cost effective and successful materials in a system with limited resources. Currently the ILE program is underutilized and could be used more universally by classroom teachers to enhance their regular classroom curriculum. We need to provide more information on the potential of supporting a successful educational program in a standards based environment which will lead to college and career readiness.

The information gained in this study will be of benefit to the focus district, which is my district, but also beneficial to the other states and school districts that are using WIDA standards. Over half of the states in the nation are members of The WIDA Consortium. Though the states and school districts benefit from the availability of professional development and training on the standards and assessments provided by The WIDA Consortium, there is a need for materials and programs that can enhance, support and extend the activities that teachers are implementing in the classroom.

Further exploration needs to be conducted to address and explore the effectiveness of CALL instruction for ELs in a standards based environment. Also, the success of CALL in assisting districts in meeting state goals and student engagement needs to be examined.

Summary

There is a great need for instructional approaches and materials for ELs, including methods that use CAI in today's educational world with its emphasis on high stakes assessments and rigorous standards. ELs specifically are under great pressure to make progress in English and achieve success. Teachers and administrators are challenged by

increasing numbers of students and limited budgets. CALL has great potential for supporting classroom instruction and assisting students in developing academic English language proficiency. This study will explore one CALL program, Imagine Learning English® (ILE), in an effort to determine the effectiveness it provides for teachers in assisting student to meet achievement goals. The results of this research will enable our district as well as districts across the country to determine the best approach to increasing English language proficiency for their beginning ELs in primary grades.

Research questions include:

- Can computer assisted language learning be an effective instructional support toward increasing English language proficiency for primary grade, beginning level English learners in a standards based educational curriculum?
 - Can computer assisted language learning assist school districts in successfully meeting state standards and goals for English language learners?
 - Do beginning English language learners in primary grades respond well to computer assisted language learning as an instructional tool?
 - Does the use of a computer assisted language learning program with documentation showing close alignment between itself and state English language proficiency standards support success for participating students?

Chapter overviews

In the next chapter, literature related to the research questions will be explored.

Included in the literature review is an overview of standards based education, what it is

and what is required of students at the national and state level. A discussion of standards based education involves academic content standards, including college and career ready standards, such as the Common Core State Standards and English language proficiency standards. The literature review also includes a discussion of the accountability systems implemented along with the standards, including the assessments for the content standards and the English language proficiency standards. Also presented is information on CAI, with a specific focus on CALL and ILE. A brief discussion on the student population involved in the research will be included. This review will include current understandings of English language proficiency in today's current environment of college and career ready standards and high levels of academic achievement.

The chapters that follow will describe provide the following: In chapter three, the methodology of the study, and the data what will be included, the subjects and how the data will be collected will be presented. Chapter four provides the data including language proficiency growth, AMAO data, the time of use in the CALL program, the student survey and a discussion of the results. Finally chapter five concludes with the purpose and questions limitations of the research, results of the study, new knowledge and recommendations.

CHAPTER TWO: LITERATURE REVIEW

Administrators and teachers across the nation are exploring teaching methods, materials and programs that are effective in supporting students in meeting English language proficiency standards and assessments. Several researchers have studied the impact of adaptive computer language learning programs on language growth. In studies by Keengwe and Hussein (2013) and also White (2013) it is apparent that ELs who are using CALL progress in language learning at a greater rate than those who do not. These studies have focused on all ELs. The impact of CALL on early ELs is unclear. Do these early ELs develop language proficiency more quickly by using CALL together with best practices in the classroom? Previous research has not narrowed its focus to young level 1 and level 2 learners.

The purpose of this study is to explore the effectiveness of a standards aligned CALL program for increasing language proficiency with young ELs. These are the questions that will be explored:

- Can computer assisted language learning be an effective instructional support toward increasing English language proficiency for primary grade, beginning level English learners in a standards based educational curriculum?
 - Can computer assisted language learning assist school districts in successfully meeting state standards and goals for English language learners?
 - Do beginning English language learners in primary grades respond well to computer assisted language learning as an instructional tool?

 Does the use of a computer assisted language learning program with documentation showing close alignment between itself and state English language proficiency standards support success for participating students?

In order to address these questions it is important to review the literature and research in a number of areas related to the subjects. I will be reviewing standards based education, English language proficiency standards, assessment of each of these standards and state and national accountability requirements. In addition, I discuss CAI, CALL and one specific CALL program for young low level ELs.

Standards Based Education

Standards based education according to Ravitch (2007), is an approach to schooling that begins with agreement among educators about what students should learn in each grade level, what level of achievement should be expected, and how academic performance will be evaluated. Standards for content, for performance, and for evaluation should be aligned so that what is taught determines what is tested. Standards-based education aims to improve achievement by establishing clear and challenging benchmarks; to ensure that teachers know what to teach and students know what they are expected to learn; and to make learning expectations fair and accessible, so that all students have the same opportunity to achieve them. ELs must meet criteria of the standards in content areas and also language standards in order to meet college and career ready initiatives. Meeting the criteria in all of these areas is a difficult task for students and for the teachers who must make modifications and locate appropriate materials which are aligned to the standards as well as to assure that material is comprehensible and

accessible to the students at their language level. An added pressure is that teachers of ELs often have a large caseload of students that they are working with. Because of challenging accountability systems, when students do not meet the standards, it puts school funding and district status at risk.

The implementation of college and career ready standards and adoption of the CCSSs has added to the challenges educators face. The goal of CCSS is to provide a clear, consistent understanding of what students are expected to learn. Wisconsin has adopted internationally-benchmarked CCSS for mathematics and English language arts as well as Standards for Literacy in all subjects. The Wisconsin Department of Public Instruction (DPI) (2013), states that Academic Content Standards are the sets of expectations that students should know and be expected to do in grades K-12 in the areas of mathematics and English language arts. (p. 3). These standards include college and career readiness initiatives. College and career readiness is defined as the ability of students who graduate from high school to become independent adults and informed citizens able to continue to higher education or begin careers in the workforce without the need for remediation.

According to the Wisconsin DPI, the state of Wisconsin adopted Common Core State Standards as Wisconsin's mathematics and English language arts standards in 2010. In addition, standards for 21 separate content standards have been adopted. ("Academic Standards", n.d.). The Common Core State Standards for English language arts, mathematics and literacy in all subjects have been adopted by 42 states. ("Common Core State Standards", 2011). The fact that so many states have adopted CCSS again

emphasizes the importance of the need for materials that are designed to meet the standards.

States are also expected to develop or adopt college and career readiness standards for science. A group of organizations developed a set of science standards meeting college and career readiness expectations for rigor and content. The final draft version of the standards was published in April 2013. Wisconsin's Model Academic Standards for Science follow the format and content of the National Science Education Standards and the Next Generation Science Standards. Three of the content standards address the knowledge base of science while the remaining ones address science application. (Wisconsin DPI, 2014).

English Language Proficiency Standards

WIDA standards for language proficiency are used for instruction and assessments in 35 states. The WIDA standards without assessments have also been adopted by 2 additional states. The WIDA standards have also been adapted by TESOL and are used by thousands of educators to set curricular goals, plan differentiated lessons, and measure student language growth. ("Language learners have unique assets and potential" n.d.). The WIDA Standards framework supports a philosophy of equity and inclusion and high expectations for achievement. These approaches are used in turn to describe the language that learners need in order to participate successfully in school. According to The English Language Development Standards (WIDA, 2012), The Standards Framework includes five interactive and interdependent components:

- The Can Do Philosophy- which states that all language learners possess assets, have potential and can make contributions in linguistic, cultural, experiential and socio-emotional areas.
- Guiding Principles of Language Development -are a synthesis of literature and language development research together with effective educational practices for language learners.
- Age-appropriate Academic Language in Socio-cultural Contexts the interaction between people for specific purposes across different learning environments influences how language is used.
- Performance Definitions explain what the levels of language proficiency look like supported by features of academic language.

 Standards of Model Performance Indicators - Assist educators to see what language development may look like in pre-k - grade 12 classrooms when scaffolded across the language proficiency and within the five standards.

Federal and State Accountability

States and school districts are required under federal law to assess students' progress in meeting state standards for academic achievement and English language proficiency. The new college and career ready standards require updated assessments that meet the new standards' expectations for greater academic and complex thinking. Wisconsin has been a participant in the Smarter Balanced Assessment Consortium- a multi-state project to develop these standards. (State Department of Public Instruction 2014). ELs will be participating in the new assessment that will be administered this spring.

ELs in my state also participate in the English language proficiency assessment ACCESS which is then used as a part of the state accountability system for English language proficiency as Annual Measurable Achievement Objectives (AMAOs).

According to the Wisconsin DPI website ("Accountability for English language learners" n.d.), AMAOs are Title III of the federal Elementary and Secondary Education Act (NCLB) which requires states to:

Establish English Language Proficiency (ELP) standards aligned to state
 academic content standards, yet suitable for ELs learning English as a second
 language;

- Annually assess the English Language Proficiency of each EL student using a valid and reliable assessment of English-language proficiency aligned to ELP standards;
- Define AMAOs to measure and report on progress toward and attainment of
 English proficiency and academic achievement standards; and
- Hold local education agencies accountable for meeting increasing AMAO targets for English language proficiency over time (NCLB 2002, Public Law 107-110,115 Statute 1425).

Two of the three specific AMAOs established under this law address English language acquisition and proficiency:

AMAO 1: Progressing in English language acquisition, AMAO 1 is annual increase in the number or percentage of students who make progress in English. The targeted progress rate is .04 percent at or above the gain criterion for each consecutive school year with the current school year 2014-2015 being 43% and increasing to 55% for the 2020-2021 school year.

AMAO 2: Exiting or reaching English language proficiency, AMAO 2 is an annual increase in the number of students or percentage of students that attain English language proficiency by the end of each school year. Attainment of proficiency is based on the number of ACCESS for ELs scores that are at a composite score of 5.0 or higher divided by all of the ELs enrolled in the district. The targeted progress rate for this AMAO is 1.5% per year with the current school year 2014-2015 being 12.5% and increasing to 20% in the 2019-2020 school year.

English Language Proficiency Assessment

The ACCESS for ELLS® (Assessing Comprehension and Communication in English State-to-State for English Language Learners) is defined as a "secure large-scale English language proficiency assessment given to Kindergarten through 12th graders who have been identified as English Language Learners (ELLs). It is given annually in WIDA member states to monitor students' progress in acquiring academic English." ("ACCESS for ELLs summative assessment" n.d.). The ACCESS for ELLS® test is a standardsbased assessment that has been developed together with the Center for Applied Linguistics (CAL) and the member states of the WIDA Consortium. It is a comprehensive test that assesses the five areas of English Language Proficiency (ELP) standards: language of language arts, language of mathematics, language of science, language of social studies and social and instructional language. The test is divided into five grade level clusters – kindergarten, grades 1-2, grades 3-5, grades 6-8 and grades 9-12. Within each of these grade- level clusters except kindergarten there are three forms – tier A (beginning) tier B (intermediate) and tier C (advanced). In each of the tiers scores of 1 to 6 can be assigned. This structure helps to keep the test more suitably leveled for individual students' scope of skills. Reading, writing, listening and speaking are assessed in each of the levels and tiers of the test. Students are considered to be proficient in English when they have scored a composite 5.0 or greater on the tier C test and are demonstrating academic language proficiency in the classroom. The ACCESS for ELLs® test is used to measure and report the growth of students identified as ELs in compliance with the Elementary and Secondary Education Act (ESEA)("Elementary and secondary

education act", n.d.). The results can be used as one criterion in determining English language proficiency and student readiness to participate in content area classes without language support, and to take part in state academic content testing without accommodations. Results of the ACCESS for ELLS® test provide individual districts with information that assists in evaluating effectiveness of their EL or bilingual programs. The information provided by the ACCESS for ELLS® test can also be used to drive and enhance instruction for ELs. (WIDA, 2014).

The ACCESS for ELLs ® test is regularly refreshed and updated to ensure that the assessment is fresh, valid and reliable. It is also being updated to meet college and career readiness requirements. The 2015-2016 school year will see the addition of ACCESS 2.0. This is a new online annual summative assessment. This new online assessment will replace the current paper-based assessment for grades 1-12. However, the paper based assessment will remain available for districts that do not have adequate technology available to administer it. ACCESS 2.0 will continue to allow educators, students, and families to monitor students' progress in acquiring academic English in the domains of speaking, listening, reading, and writing and will be aligned with WIDA's English Language Development (ELD) Standards.

According to the ACCESS for ELLs 2.0 summative assessment fact sheet, the purposes and uses are:

- Students understand their current level of English language proficiency along the developmental continuum.
- Serve as one of multiple measures used to determine those students prepared to exit English language support programs.
- Provide teachers with information they can subsequently use to enhance instruction and learning in programs for their English language learners.

- Provide districts with information that will help them evaluate the effectiveness of their ESL/bilingual programs.
- Meet federal requirements, such as Annual Measurable Achievement Objectives 1 and 2, for the monitoring of ELs' progress toward English language proficiency.

ACCESS for ELLs 2.0 will continue to assess each of the four language domains of listening, speaking, reading, and writing separately. ("Access for ELLs 2.0 summative assessment," n.d.)

CAI

Computer Assisted Instruction (CAI) has an increasing number of program options available that support teacher instruction, student skills and classroom management. It is an area of technology use which assists learning across the spectrum of academics. Computer Assisted Language Learning (CALL) is a sub-category of CAI with a focus specifically on language. For the purposes of this research where ELs in a standards based environment are the focus, CALL rather than CAI will be in discussed.

CALL

CALL is learning language with the help of a computer or other technology. The term Computer Assisted Language Learning (CALL) became established in language education in the early 1980s. Chapelle (2001, 2009) But, what is language learning? As stated by Chapelle (2009), language learning is "the acquisition of the ability to construct communicative meaning in a new system" (p. 741). With the wide ranging use of computers and other technology in our society it is beneficial for language learners to use this technology to assist them in their quest to acquire their new communicative system - English. Not only will it benefit their language growth, but it will also assist them in gaining skills with using technology. They will also need to be savvy in computer usage

for school, the workplace and for standardized testing in content area and language beginning in the 2014-2015 school year.

Technology is being used more and more in all areas of education to engage learners and to differentiate instruction. As defined by Convery (1993), differentiation is the process of providing opportunities for students working at their own pace through a variety of relevant learning activities which help them to achieve their potential.

Godzicki, Godzicki, Krofel and Michaels (2013) studied student engagement and motivation of elementary students and found that both are greatly increased by incorporating technology into the classroom. Increased motivation and engagement are certainly viewed as positive aspects in increasing student learning. In addition the range of technology available for classroom use is ever-expanding from computers, net books and chrome books to I-pads, I-pods and interactive whiteboards. The possibilities for incorporating technology into the classroom are endless. Because using technology is motivating for students, they become more active in their learning and attain information better and more efficiently.

The area of language learning is no different. Technology offers ELs the ability to define vocabulary, give meaning to abstract concepts and acquire visual images swiftly which adds to internalization and comprehension. According to LaCornu (2009) internalization is making meaning of and understanding ideas on a personal level, while comprehension is making meaning of ideas without the personalization. Chapelle, C.A., (2009) studied the potential of computers as related to Second Language Acquisition (SLA) and, based on best practices in SLA found that computers have a valid place in the

language learning classroom and are effective for students. In a study by Meskill (2005), technology was found to be used effectively for ELs and furthermore, the programs that students use for SLA do not need to be specifically written for language learners if the programs are carefully selected by skilled knowledgeable teachers. McBride (2007) conducted research centered on the rate of speech for second language learners who incorporated CALL into their program. This research indicated improvement for students using CALL primarily because of the adaptability of the computer program, but was done with college age students and is not directly applicable to this study. Finally, in a study of using open source Web 2.0 tools, Green and Inan (2011) found that this is a convenient way to apply effective strategies toward meeting ELs needs and can be effective. The research by Green and Inan is encouraging however, I believe that it would be time consuming for teachers to determine the relevance and alignment to standards of web tools when searching for appropriate materials to use in standards based environments.

It is established that CALL is a benefit to language learning; however, many schools lack sufficiently trained staff to make decisions on appropriate programs to use with ELs. In addition, appropriate programs are not sufficient. Programs need to support CCSS and language standards as well. I want to explore whether or not there is a positive effect of daily sessions with the Imagine Learning program in increasing language growth and early literacy as reflected in ACCESS scores, AMAOs, Imagine Learning English progress reports and a student opinion survey in order to assist with future program choices.

USING TECHNOLOGY FOR DIFFERENTIATED LANGUAGE LEARNING

According to Tomlinson (2000), differentiation is the simple answer to tailoring instruction to meet the individual needs of students. Certainly a key piece to successful differentiation is teaching to a student's zone of proximal development (Vygotsky 1978). In addition Baumgartner, Lipowski, and Rush (2003) found that using differentiated instruction strategies improved reading achievement as well as student attitudes about their abilities. When differentiation is combined with technology the range of options for student programming grows significantly. There are numerous software programs that can be used for learning language and assisting in learning language. Each one has benefits and is effective in guiding students of all ages and language levels to language proficiency. Generally the software takes the learner through a series of steps strategically leading them to an end point where they should be able to use the target language effectively. This research focuses on Imagine Learning English® (ILE) because it is the program that is used in my focus school.

Imagine Learning English® was established in 2004 and is suitable for early level 1 and level 2 English learners. The program's structure is centered on a system of basic, academic and grammar work leading to comprehensibility of text. In addition ILE is structured to address CCSS and is instructionally differentiated with checkpoints determining how a student receives instruction or, if they indeed need instruction.

Imagine Learning English has been reviewed by WIDA—trained correlators

("Instructional materials", n.d.) using the WIDA English language proficiency standards

(Board of Regents of the University of Wisconsin System 2014) and Protocol for Review

of Instructional Materials for ELLs (PRIME). The results of this study demonstrated that ILE is indeed closely aligned with WIDA standards and supports WIDA's philosophy of academic English language proficiency which is closely connected with content standards. Thus, Imagine Learning English could be considered to be an appropriate piece in a complete language program for a district using WIDA standards. An important added feature of the program for students who are initially placed at the lowest levels of the program is that new vocabulary is supported and scaffolded in 15 languages. Students whose native language is one of the 15 supported by ILE receive support in their native language that gradually decreases as the student becomes more proficient in English. (Imagine learning English language learner support n.d.). This method is quite successful for newcomers in my focus district who have limited English. I have observed an increased amount of engagement when students are working with this program where they understand the audio.

An independent study conducted by JointStrategy Consulting examined the Otay Elementary school in southern California to determine whether there was a difference in CELDT (California English Language Development Test) scores for students using ILE and those who did not after one year using the program. (JointStrategy Consulting, 2008). The results showed that students using ILE scored three times higher on the CST (California State Test) than those who did not use ILE. In addition, a majority of students using ILE increased 2 levels in the listening, speaking, reading and writing subtests of the CELDT. Furthermore, a study of schools in Miami Dade (2008) looked at students in grades K-5 and found a significant gain for those students who were using ILE. In this

determine growth were DIBELS (Dynamic Indicator of Early Literacy Skills), which measures and assesses the acquisition of early literacy skills for students in grades kindergarten through six, ESOL (English for Speakers of Other Languages) a test administered by and assessed by teachers giving students a rating from 1 to 5 on their English level, and the Stanford Achievement Test (Reading Stanines). Students were grouped by those using the program a minimum of 900 minutes compared to those using the program at a 500 minute level. There were no students in either group who did not improve. All groups showed improvement and moved from being at some level of riskhigh, moderate or low to average in DIBELS with the greatest gains for students spending the most time in the program. On the Stanford Achievement Test, ILE students made greater gains than the non ILE students and were able to achieve a stanine level of 3 or 4 which was the level where non- ILE students began and remained. Finally, the ESOL students gained at least 48% and as much as 83%.

Again in two separate studies conducted by ClearVue Research Inc. (2007), where I.L. was the focus for ELs, I.L. was shown to be of benefit to students. The first in El Monte, CA looked at kindergarten English language development as measured by the standardized English language proficiency test CELDT. The group was pretested with the CELDT as required by the state of CA. Then, a group of 34 students was divided into two groups of 17 each. One group used the I.L program and one did not. At the end of the school year, the full group was post tested with the CDELT. The research found that the students who used the I.L program had greater overall gains in English learning

proficiency that those who did not. The second study by ClearVue, was in the Alsip Hazelgreen, IL district with kindergarten and first grade students. The goal of this study was to determine literacy development and was again measured with a standardized literacy test. The Illinois Snapshot of Early Literacy (ISEL) was the standardized test used in this study. This study included 326 students in kindergarten and first grade where 38 of them were in the treatment group who received I.L. instruction. From pretest to posttest, the students who were in the treatment group the gains in English literacy were found to be clearly greater than for those who were not.

Finally, in a study of students in grades 2-5, conducted by SEG Measurement (2013) reading achievement was the focus. The performance of the students on the Scantron Performance Series, was used to determine reading growth. There were 484 students in the control group and 333 students in the treatment group in this effectiveness study. The treatment group used the I.L program and the control group did not. The study found that ELs who used the I.L. program showed greater reading achievement gains than those who did not.

Each of the studies indicates that students make gains when using the program. Do ACCESS scores also indicate this growth? I want to explore whether there is a direct positive effect of daily sessions using the ILE program. I also wish to assist educators and administrators who are challenged by increasing enrollments and limited budgets in determining whether or not the program is beneficial for increasing students' language growth and enhancing their overall learning as reflected in their ACCESS scores, AMAO, Imagine Learning English progress reports and a student opinion survey.

The literature reviewed in this chapter summarized the required CCSS, language standards and their assessments for ELs. Literature reviewed in this chapter also indicates that CALL is effective in assisting students to increase their language growth. However there are still questions to be answered. Are computer based adaptive language learning programs effective for young Level 1 and level 2 ELs?

- Can computer assisted language learning be an effective instructional support for beginning level English learners in primary grades in a standards based educational curriculum?
 - Can computer assisted language learning assist school districts in successfully meeting state standards and goals for English language learners?
 - Do beginning English language learners respond well to computer assisted language learning as an instructional tool?
 - Does the use of a program with documentation showing close alignment
 between a computer assisted language learning program and state English
 Language proficiency standards support success for participating students?

My research investigates how the ILE program impacts early elementary level 1 and 2 language learners. This study seeks to discover the effectiveness of daily sessions using differentiated computer language programs on language proficiency and on enhancing regular classroom learning as reflected in ACCESS scores, AMAO, Imagine Learning English student use reports and a student opinion survey. This chapter indicates that CALL is indeed useful for ELs and further that a program intended specifically for

ELs is successful in increasing scores on standardized tests for language learners. The following chapter will describe the participants and methods used to determine the effectiveness of the adaptive language program Imagine Learning English® for early elementary level 1 and level 2 students.

CHAPTER THREE METHODOLOGY

I sought to answer the following questions:

- Can computer assisted language learning be an effective instructional support toward increasing English language proficiency for primary grade, beginning level English learners in a standards based educational curriculum?
 - Can computer assisted language learning assist school districts in successfully meeting state standards and goals for English language learners?
 - Do beginning English language learners in primary grades respond well to computer assisted language learning as an instructional tool?
 - Does the use of a computer assisted language learning program with documentation showing close alignment between itself and state English language proficiency standards support success for participating students?

Chapter Overview

This chapter will describe the subjects, methods, materials and data that I used in order to answer these questions. Qualitative data will serve as the best tool to answer my questions because qualitative research as defined by Key (1997) emphasizes the importance of studying variables in the setting where they are found. I examined data that is existing rather than generating it from an artificial setting. Existing data, as well as a researcher designed tool producing original data was used to collect evidence of program success. The existing data was taken from a six year time span, while the original data was collected over approximately two week's time.

I collected students' standards based English language proficiency data for those students who have been assessed as level 1 or level 2 learners. In addition the students were those who are in kindergarten, first and second grade. This was collected from tests that were taken during the time period of 2009 - 2014. Secondly, the AMAO data for the focus district for the same six year time frame was obtained. The third piece of data came from the ILE program from the time that it was implemented in the focus district (2012-2014). The ILE data that I focused on is the amount of time that students have spent using the program. Finally, I have created a student survey that was given to students who are currently using the program.

Subjects

The focus of my research was native Spanish speaking ELs whose beginning proficiency level on the ACCESS for ELLS® Test was level 1 or level 2 and who were in grades kindergarten, one or two and are between 5 and 8 years old. I also included students in these same grades and age ranges who had not yet taken the ACCESS because they moved to the focus district during the interim between ACCESS test cycles and scored at level 1 or level 2 on the WIDA ACCESS Placement Test (W-APT). The W-APT is given to students who may need English language support upon entry and is used as a tool for determining language placement needs. The second identifying factor for students included in this research is that they were currently using the ILE program. The number of students who fell into this category was 62. The school that these students attended was a pre-kindergarten through grade eight building in a school district of rural

Wisconsin. The percentage of language learners in these grade levels is approximately 63% of the population.

Data Collection

For this qualitative study I collected the ACCESS for ELLS® test data of level 1 and level 2 ELs in grades 1 and 2 for six years. The ACCESS test is taken in January in my focus district, so students had taken the test before ILE was initiated in the spring of 2012. Therefore, I collected ACCESS data for 2009-2014. This will include 4 years of ACCESS data (2009-2012) without using the program and 2 years of data with the program in place. When comparing the ACCESS scores for these years, a trend may emerge indicating the impact of the program on ACCESS scores. I gathered this ACCESS data from the Director of Student Services in my focus district.

The district AMAO data for the years 2009-2014 was also available from the Director of Student Services in my focus district. This piece of data may indicate the impact of the ILE program by showing student growth trends over time.

I also collected the records from the ILE program itself which are available to me as an ESL teacher directly from the online program to observe the average amount of time that students spent using the program and if there was a correlation to language growth as measured by the ACCESS test. This would indicate if there was a minimum of time needed in order to make larger gains than without the program. A larger gain is defined as a gain of more than the average of 1.2 ACCESS test points which is the average gain that a student makes on the ACCESS test when they begin at a level 1 or 2. (WIDA, 2007)

Finally, I looked at student impressions of using the ILE program through the use of a student opinion survey. I created a survey (See Appendix B) using a Google form. The student survey was read with each student. For each question, the student chose yes, maybe or no by touching a smiling face for yes, a straight face for maybe and a frowning face for no on an iPad screen. Results were collected in a spreadsheet for analysis of group opinion.

Method

The materials that I used are reports from the ACCESS for ELLS® test results, district AMAO data, reports from the ILE program and a student survey. See appendix A for examples of details that these reports include.

The treatment in this study was for students to use the ILE program every school day for 20-30 minutes per session. When using the program, students practice language and pre-literacy skills. The program features differentiated interactive activities, games and videos. The amount of time that students used the ILE program before taking the ACCESS test was an average of four months. A figure showing the breakdown of time using the program follows in chapter 4.

Conclusion

This chapter has focused on how data was collected for a qualitative study involving early elementary Level 1 and Level 2 ELs participants, how this data was used to determine the difference in growth between students using the ILE program and those who are not. ACCESS scores are a strong indicator of student success, however, they are only one annual snapshot of student ability, so I also analyzed AMAO, student's amount

of time using the ILE program and a student opinion survey. These areas together create a clear window into what level of success students are having in acquiring and using English when using CALL. Do students gain language by using an interactive program more rapidly than with only teacher instruction? In the following chapter I will discuss the results of these comparisons and summarize the ACCESS, AMAO and ILE data as well as the student survey.

CHAPTER FOUR: RESULTS

Chapter Overview

This chapter will explain the results of the research and how the data relates to my questions:

- Can computer assisted language learning be an effective instructional support for beginning level English learners in primary grades in a standards based educational curriculum?
 - Can computer assisted language learning assist school districts in successfully meeting state standards and goals for English language learners?
 - Do beginning English language learners respond well to computer assisted language learning as an instructional tool?
 - Does the use of a computer assisted language learning program with documentation showing close alignment between itself and state English language proficiency standards support success for participating students?

The first group of results includes testing data for young EL students' language growth and the AMAO data for the district. These results can indicate overall impact of instruction on meeting standards. The second group of results reveals student interaction with the standards aligned program and their feelings toward the program.

The collection of data for this research was expected to occur over a two week time period. The AMAO, ACCESS and I.L data were readily available and attained within a week's time. However, there were difficulties when it came to acquiring

signatures giving permission for participation by parents of students who were to be included in the student survey. A majority of the parents did not return the permission letters when they were delivered the first time. I then printed the permission letters a second time and made them available to parents at parent - teacher conferences. The survey was intended for 62 students. After the second attempt to gain permission to survey students the total number that I could include was 56. It took an additional two days to complete the survey with students after final permission letters were signed. This extended the total time of data collection to four weeks including the gap in time between the original survey permission deadline and the final survey collection.

Data Discussion

The District Profile Report for the focus district contained the AMAO determinations, both prior to and during the use of the I.L. program. The ACCESS Overall Performance by Grade Level report revealed the changes in language levels for level 1 and 2 students in grades kindergarten through grade two after adding the I.L. treatment. The time of use reports from the I.L. program indicate how consistent use of the I.L program can influence standardized language level scores. Finally, the student survey suggests student attitudes toward using the I.L. program which in turn will impact motivation.

Language Proficiency Data

Standards based English language proficiency student data for level 1 and level 2 in grades kindergarten through grade 2 over 6 years' time (2009-2014)

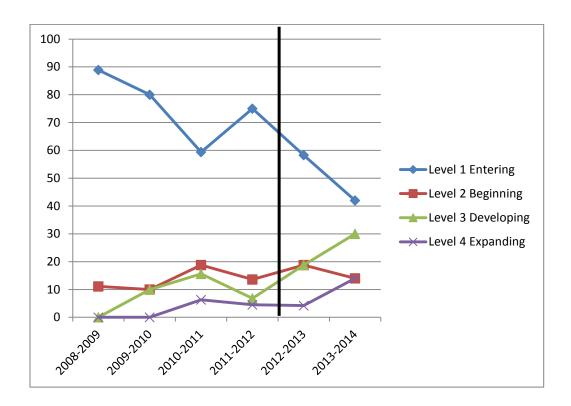


Figure 1: Kindergarten ACCESS test scores (2009-2014)

*Vertical line indicates beginning use of the Imagine Learning Program

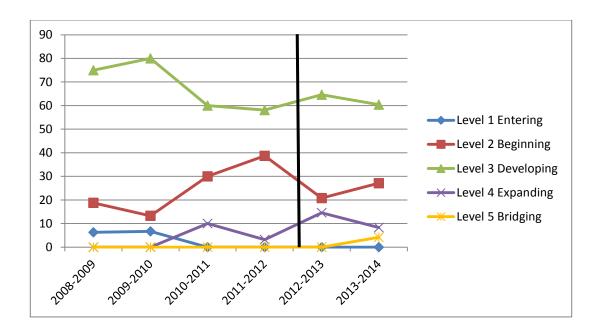


Figure 2: First Grade ACCESS scores during the research period (2009-2014)

*Vertical line indicates beginning use of the Imagine Learning Program

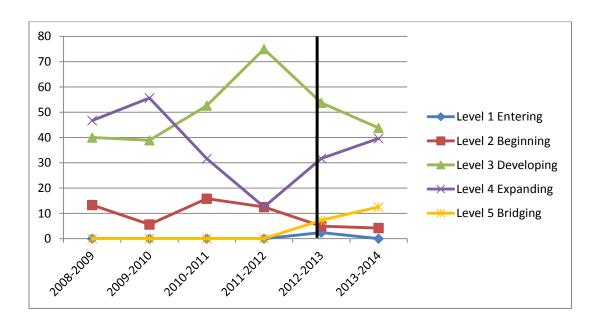


Figure 3: Second Grade ACCESS scores during the research period (2009-2014)

*Vertical line indicates beginning use of the Imagine Learning Program

During the first four years of the study, we see that the kindergarten students began with a very large percentage at the entering level. There are fluctuations, but this percentage is decreasing while the percentage of students in the beginning, developing and expanding levels is growing, which is the desired outcome. First graders also show a movement toward increasing percentages of students in the higher levels of language beginning with 20% in the beginning and 80% developing and ending with 39% beginning, 58% developing and 3% expanding. There is some fluctuation, but students are slowly moving toward higher levels of language. Finally, the second grade group begins with 12% at the beginning level, 41% developing and 47% at expanding. There is a promising trend toward larger percentages in the developing and expanding areas, the second graders are showing a large gain in the mid to higher levels of language proficiency.

The data for the first two years after implementing the I.L. program shows that kindergarten begins with 59% of the students at the entering level, 18% at the beginning level, 18% at the developing level and 4% at expanding. In the second full year of using the program, the number of students in the entering level has decreased to 42% while beginning students are at 14%, developing at 29% and there are now 15% in the expanding level. The percentage of students in developing and expanding levels is increasing impressively. For first graders in the first year using the program, we see 20% at the beginning level, 65% at developing and 15% expanding. In the second year 27% beginning, 59% developing, 10% expanding and 4 % bridging. This is the first time that we have seen students in the first grade reaching the bridging level. Finally for second

graders, there are 2% entering, 5% beginning, 54% developing, 31% expanding and 8% bridging. The second year of data for second graders indicates a continuation of higher levels of language with 4% beginning, 43% developing, 41% expanding and 13% bridging. These are the highest levels of language recorded overall for this age range to date.

The overall proficiency scores on the ACCESS test show that since the implementation of I.L. students in grades k, 1 and 2 are trending toward fewer students at the entering level and increasing numbers in the beginning, developing, expanding and bridging levels.

AMAO data

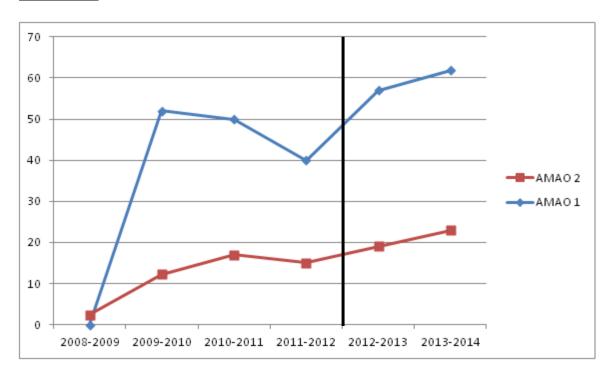


Figure 4: AMAO 1 - Percentage of Students Progressing in English Language

Acquisition and AMAO 2 - Percentage of Students Reaching English Language

Proficiency (Score 5.0 or greater on the ACCESS and showing language proficiency in the classroom)

*Vertical line indicates beginning use of the Imagine Learning Program

For a district to meet AMAO 1, the ELLs taking the ACCESS must have a target percentage of students make progress of at least 0.4 on the test. Figure 4 shows that this requirement was met in the target district for all of the years in which data was collected. In the 2008-2009 school year, the status for AMAO 1 is "TOO FEW". This means that fewer than 20 ELLs had composite scores on the ACCESS for two consecutive years. Thus the chart shows AMAO 2 at 0%.

AMAO 2 focuses on language proficiency. It requires districts to meet a target percentage of ELs achieving proficiency when measured by the ACCESS for ELLs assessment. Proficiency is defined as students who score a composite score of five or above. Once a student achieves a proficient score, they no longer take the ACCESS test. The percentage of students achieving proficiency shows a steady increase from 2.4% in the 2008-2009 school year to 23% in the 2013-2014 school year.

Imagine Learning English data

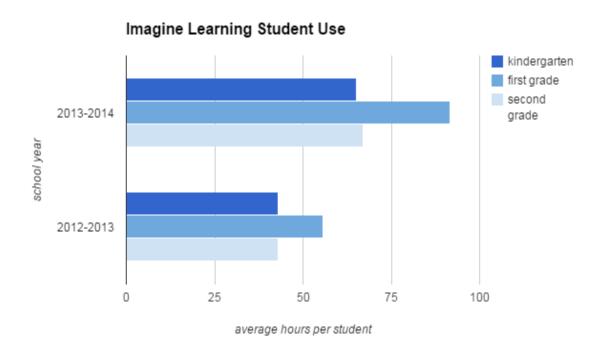


Figure 5: Time of Use by Grade Level

The time of use data shows that students spent increasing amounts of time with the Imagine Learning Program from the first full year to the second full year in the program.

The increase may appear to be small at first evaluation. However, it is important to note

that the number of students using the program is flexible depending on student needs.

Therefore, when students reach grade level in core curriculum as measured by summative classroom assessments and benchmarks, their intervention time with the Imagine

Learning program is reduced. This can occur at any time during the school year. When this is considered, the average amount of time spent using the I.L. program is pivotal.

Student Survey data

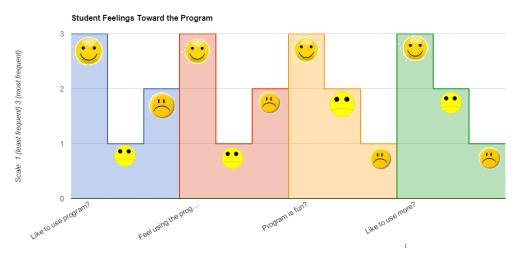


Figure 6: Summary of Questions 1, 2, 3 and 10

The questions students were asked that reflect their feelings toward I.L. were: Do you like to use Imagine Learning? How do you feel when you are using the Imagine Learning program? Is it fun to use Imagine Learning? Would you like to use Imagine Learning more often? These questions give an overall impression of whether students are enjoying the program or not.

The questions included in this figure point to student likes and dislikes and feelings toward the program. The graph shows us that students like the program and have fun

using it. They show a slightly higher negative response to the question about feeling good when using the program. Their feelings could be affected by several things including poor success with a program game, feeling as though they did not have enough time to engage in the game or even interpersonal factors which are not addressed in this survey. Overall this section of questions shows a positive attitude toward program use.

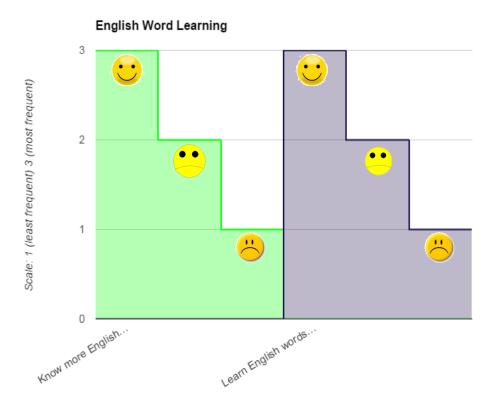


Figure 7: Summary of questions 4 and 5

The questions that students were asked about their increase in vocabulary were: Do you think that you know more English words because you use Imagine Learning? Do you

learn English words fast with Imagine Learning? Asking students how they feel about learning more vocabulary allows insight for teachers about what students think that can be compared to what assessment data is showing.

The questions summarized in figure 7 indicate the students' impression of increased vocabulary and how quickly they are acquiring it. Here, the majority of students felt that they not only know more English words but also learn them more quickly than without the program. The students that felt that they know more words and learn them faster are smaller. The smallest group of students felt that they do not learn more words and do not learn words faster with I.L.

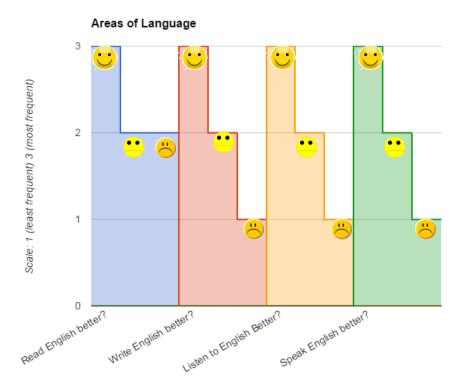


Figure 8: Summary of questions 6, 7, 8 and 9

These questions addressed student feelings about the areas of language. The questions were: Does Imagine Learning help you read English better? Does Imagine Learning help you write English better? Does Imagine Learning help you listen to English better? Does Imagine Learning help you speak English better? Understanding students' thoughts on their gains in the four areas of language will assist teachers to work with students in areas where they feel that they are lacking.

The questions summarized in figure 8 seek student feelings toward their growth in the four areas of language, reading, writing, listening and speaking. As in the other tables, the majority of students feel that they read, write, listen and speak better as a result of using the I.L. program. One small change is that the same number of students responded 'maybe' as responded 'no' to whether they read English better because they use the I.L. program. It is possible that because these are young students just learning to read at the same time as they are learning English, they do not have a frame of reference to compare their past reading learning to and how quickly they learned it in the past. The other three areas show that students' responding 'maybe' is the smaller number while those responding 'no' is the smallest.

Discussion of the Results

Researchers have found that CALL is successful for language growth with EL students in a full range of age levels. Keengwe and Hussein (2013), White (2013). In addition, Godzicki, Godzicki, Krofel and Michaels (2013) found that student engagement and motivation in elementary students are greatly increased by incorporating technology into the classroom. This discussion will connect the results with the research questions as

well as discuss the meaning of those results. The first research question is: Can computer assisted language learning be an effective instructional support for beginning level English learners in primary grades in a standards based educational curriculum? The measure for language learning in the focus district is the ACCESS test. The results show that students' scores on the ACCESS test have increased at a steady rate in grades k through 2 showing more students scoring at higher language levels at all grades.

The second research question is: Can computer assisted language learning assist school districts in successfully meeting state standards and goals for English Language Learners? The AMAO data indicates the rate with which students are meeting state standards. The percentage of students meeting AMAO 1 and AMAO 2 has been growing as well.

The third question is: Do beginning English Language Learners respond well to Computer Assisted Language Learning as an instructional tool? According to the student survey, students enjoy using the program and feel that it is assisting them to learn quickly in all areas of language. In addition they feel that it is enjoyable to use, and they feel good when using the program.

The fourth question is: Does the use of a computer assisted language learning program with documentation showing close alignment between itself and state English Language proficiency standards support success for participating students? Imagine Learning is the program of focus for this study, and it has gone through the protocols to show its alignment with the WIDA standards as presented in their Protocol for Review of Instructional Materials for ELLS PRIME. As with any program, students must be actually

using it for it to be successful. The time of use table shows that the average number of hours students used the Imagine Learning program increased an average of 23 minutes for kindergarteners, 41 minutes for first graders and 24 minutes for second graders from the 2012-2013 school year to the 2013-2014 school year. All of the data examined indicates that it seems to support success for participating students. Those successes are indicated in the ACCESS test data as well as the AMAO data presented.

Summary

The ACCESS and AMAO data shows that students are making greater gains in language acquisition and proficiency after implementation of the CALL program I.L.

The student survey indicates that students enjoy using the Imagine Learning program, feel good when using it and agree that it is assisting them to learn quickly in the language areas of listening, speaking, reading and writing. Students have increased the average amount of time that they use the program from the first to the second full year using it. The following chapter will conclude the study with findings of the research and recommendations for the future of the focus district.

CHAPTER FIVE: CONCLUSION

This chapter will restate my purpose for conducting this research, review literature applicable to chapter 4 data results, discuss limitations of the study, summarize the results and what was learned. It will also answer the research questions, make recommendations for the focus district, suggest possibilities for the ESL field, and recommend future research possibilities.

Purpose and Questions

The purpose of this research study has been to explore the effectiveness of CALL for young English Learners who are beginning to acquire English. There is a need in many districts, including the focus district, for cost effective and successful materials in schools with limited resources. Today's educational world is placing emphasis on high stakes assessments and rigorous standards which will prepare all students to be college and career ready, which is an added pressure for ELs and ESL teachers. All of these issues have led me to seek the answers to these questions:

- Can computer assisted language learning be an effective instructional support toward increasing English language proficiency for primary grade, beginning level English learners in a standards based educational curriculum?
 - Can computer assisted language learning assist school districts in successfully meeting state standards and goals for English language learners?

- Do beginning English language learners in primary grades respond well to computer assisted language learning as an instructional tool?
- Ones the use of a computer assisted language learning program with documentation showing close alignment between itself and state English language proficiency standards support success for participating students?

Literature

When recalling what the literature shows about EL students, we are reminded that each EL student brings different background knowledge and language to the school classroom (Meskill, 2005). This varied background creates a challenge for teachers in instructing groups of students while meeting individual language needs. Research done by Keengwe and Hussein (2013) and also White (2013) has addressed this challenge with their findings that adaptive CALL programs have assisted EL students to grow their language at a faster rate than students not using this type of program.

The literature surrounding the implementation of I.L. has shown time and again that is successful in assisting students in achieving at faster rates than without using the program. It was revealed that students using I.L. in grades 2-5 increase their reading skills at a greater rate than those who do not use the program. (SEG Measurement, 2013). Additionally, in studies by ClearVue (2007) in two separate districts and by JointStrategy Consulting (2008) that considered language growth as measured with standardized English literacy and proficiency

testing, it was again found that there were noticeable gains for students who were using I.L. as opposed to those who did not.

The findings of these researchers come together with the addition of educational standards in this study. Standards based education has been defined by Ravitch (2007) as an approach to school that starts with educator agreement about what students in each grade level should learn what level of achievement to expect and how to evaluate academic performance. This is the key to determining success or failure of the CALL program in the spotlight here. With language and common core standards in mind, the CALL program studied in this research was chosen because it is used in the focus district and is closely aligned to WIDA language standards.

Limitations

This section addresses limitations that arose during the research, defines them and discusses how they may affect the outcome of the study. The limitations are the factors that I could not control and that had the potential to impact the research. I will explain why these factors were uncontrollable, and how these factors may affect the outcome of the research.

One uncontrollable factor was that I found that there was missing data in the AMAO 1 for the 2008-2009 school year. Because there were fewer than 20 students with two years of consecutive years of composite scores on the ACCESS test, there is not a percentage of students gaining at least .4 on the ACCESS test provided by the state department of public instruction. At first glance this can

appear to be a large growth during the first year of the study and it is difficult to see what the baseline should be in this area.

A second limitation was student understanding of survey questions. As I was conducting the survey, even though I strived to make the questions comprehensible to young, low level ELs, there were times that I felt that they were not truly thinking about the questions and what they meant, but just touching a response on the iPad. Sometimes students seemed to hesitate before making an answer choice as if they did not understand what was being asked or that they wanted to give a correct answer. Student of this age have a difficult time understanding what an opinion is and are striving to give the answer that the teacher wants. I did my best to read the questions with the students and give no reaction to the answer that they chose so as not to influence the tendency to pleasing the teacher. At other times they seemed to be in a rush to choose an answer and move to the next question. The limited experience that these young learners have with surveys and giving opinions could limit the reliability of the survey. There is no way to account for percentage error in this feedback. I have to assume that the answer given was the student's true feeling in response to the question.

Other uncontrollable factors include the amount of time that students have been in the U.S., bilingual teachers, a new reading program and student personal lives. Some of the students in the study have spent all of their education years in U.S. schools, while others have been here only a short time. The focus district has

hired some bilingual teachers in the grade levels included in the study which could affect student's rate of growth in their new language. There has been a change in the reading curriculum which has a more intense focus on language learners in small groups than the former program included. Lastly, there is no control over situations in students' personal lives that directly or indirectly affect their academic performance and language growth.

Finally, I was unable to survey all of the students that are in the parameters of the study because they did not have parent permission. Even though I was able to survey the majority of students, it is possible that those not surveyed could change the outcome of the survey.

All of these factors could affect the outcome of the study if they occurred several times. However, when looking at the overall trends there is enough data to make these limitations insignificant overall. Because AMAOs have several components, it is possible to retain the bigger picture of the focus district's growth pattern. In addition, because I know the students that were surveyed, I am confident that they did their best to answer the survey questions and the data shows an overall reaction to the I.L. program.

Research Result Summary and New Knowledge

After gathering the data on student assessments using ACCESS and AMAO progress over the years of the study as well as collecting survey results from students currently using the I.L. program, we can see the trend in growth. It appears that student language growth is occurring more rapidly by using this

CALL program than it was prior to incorporating it. Additionally, larger percentages of students are reaching proficient and advanced levels on state standardized tests which indicates an increased rate of academic growth as well. Finally a survey of students currently using the program indicates that they enjoy using this tool and feel that it is assisting their language and academic growth. Looking at all of these aspects has shown me that students are indeed benefiting from the use of the I.L. program.

The Questions Answered

The primary question in my research was: Can computer assisted language learning be an effective instructional support toward increasing English language proficiency for beginning level English learners in primary grades in a standards based educational curriculum? The answer to this question appears to be yes. All of the data collected shows that students in the focus district had an increased rate of language and academic growth when using I.L. The supporting questions are: Can computer assisted language learning assist school districts in successfully meeting language standards and goals for English learners? Do beginning English learners in primary grades respond well to computer assisted language learning as an instructional tool? And, Does the use of a CALL program with documentation showing close alignment between itself and state English language proficiency standards support success for participating students?

The answers to these questions all seem clear. Data indicated that the answer to the first supporting question concerning successfully meeting language

standards and goals is yes. The same is true of the question regarding students responding well to the CALL instructional tool I.L. They do respond well and do indeed enjoy interacting with the program. Finally, the AMAO data showed that ELs who are participating in the PRIME aligned program I.L are growing their English at a quicker rate than without the program.

Recommendations

The results of the research have led me to the conclusion that this CALL program is beneficial for young language learners who are at L1 or L2. My recommendations for the focus district are that they:

- Continue to use the program for this group of learners because of the benefit that appears to be portrayed in the data.
- Consider it as a temporary supplemental support for students who show stagnated growth in the classroom. This program is an additional tool that teachers in the focus district already have at their disposal. Using it for these students may assist them in getting past their developmental stall and continue on in their learning.
- Study the time of use data for individual students and make informed
 determinations about time on task. In this study, time of use data was
 averaged and analyzed for grade level groups. The district could look at
 time of use data on an individual basis to create more individualized plans
 for students.

Use other data available within the program. Time of use data was the
most applicable to this study. However, the I.L. program also provides
group and individual skill data. The district could utilize this to target
specific skills for groups of students as well as individuals for added
impact.

The results of this study indicate to the ESL field that it is beneficial to include closely aligned CALL programs when designing curriculum programs for young low level language learners. Specifically the I.L. program has proven itself to be useful in assisting young L1 and L2 learners to grow their English. It is also important to note that programs aligned to standards should also address the needs of the student, not just align to standards. In this research, CALL has proven to be an effective tool toward assisting students and districts to meet their educational goals. This research can be a used by educators when considering appropriate tools for their own students. It can also be used as a stepping stone into the world of possibilities of using CALL programs to meet student goals within standards based educational environments.

At the close of this research study, I find myself wondering about some things that could be future research questions. Do middle level language learners (L3 and L4) benefit equally from standards aligned CALL programs? Could incorporating CALL programs for L3 and L4 students assist them in a steady language growth rate without having the plateau that is often seen by ESL teachers? Are growth rates even more rapid with more efficient use of the

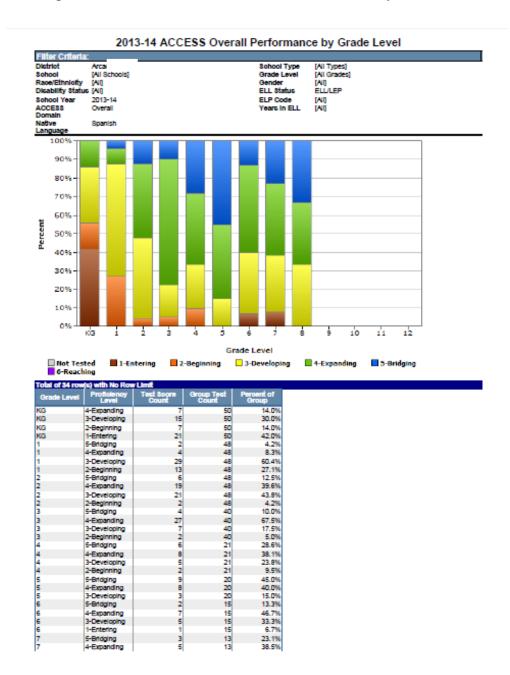
features of this particular program? Further research needs to be done on the benefits of incorporating additional aspects of the I.L. program. I am interested in pursuing the inclusion of more pieces of the program and exploring the possibilities for additional benefits for students and educators alike.

APPENDIX A

Assessment Reports, District AMAO Data Reports and Time of Use Reports

* Please note that these are examples of the data reports that were used to create the charts displayed in chapter 4. I have not included every piece of data collected.

Report 1 ACCESS Assessment Overall Performance by Grade Level 2013-2014



AMAO 1 Data Report



District Annual Measurable Achievement Objectives (AMAOs)

District Code: 0154 School Year: 2013-14

AMAO 1 Progressing in English Language Acquisition Detail

Group: Arcadia

2013-14 Target: 41.0% of ELLs gaining 0.4 or more in composite English language proficiency (ELP) level score

The Purpose of this AMAO

AMAO 1 focuses on student progress in learning English. It requires that districts meet a target percentage of ELLs making progress, defined differently for the two ELP assessments: ELLs taking the ACCESS for ELLs® who gain at least 0.4 composite ELL proficiency level count as progressing while ELLs taking the Alternate ACCESS for ELLs® assessment who gain at least one point in scale score count as progressing.

Method

AMAO 1 is calculated two ways: 1) in the current year, and 2) across two years. AMAO 1 is met if the percentage of ELLs making progress meets the target using either calculation.

Steps for the current-year calculation:

- 1. Count the number of ELLs in the current year that made progress from the prior year.
- 2. For ELLs who do not have a prior year score but do have a score from two years prior, count the number of ELLs in the current year that made progress from two years prior. ELLs in this group have their score from two years prior subtracted from their current year score and then divided by two to produce average growth across two years.
- 3. Add together the counts from steps one and two and divide that count by the total number of ELLs. This results in the percentage of ELLs making progress.

Steps for the two-year calculation:

- 1. Count the number of ELLs in the prior year that made progress from two years prior.
- 2. Add the number of ELLs making progress from the current year calculations above.
- 3. Divide the count of ELLs making progress calculated in step two by the total number of ELLs. This results in the percentage of ELLs making progress.

Targets

| _ | | | | | | | | | | | | | |
|---|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| | | | | | | | | | | | | 2021 | |
| | NA | 35.0% | 37.0% | 39.0% | 41.0% | 43.0% | 45.0% | 47.0% | 49.0% | 51.0% | 53.0% | 55.0% | |

Results

| Current or Two Year Calculation | Number of ELLs Making Progress | Number of ELLs with Two Composite Scores | Percent Gaining 0.4 Composite ELP Level Score | Percent Gaining 0.4 Composite ELP Level Score Upper Confidence Interval | Target | Met Target | AMAO 1 De- termination |
|---------------------------------------|--------------------------------------|--|---|--|--------|------------|---------------------------|
| Current Year | 125 | 202 | 61.9% | 68.3% | 41.0% | Yes | Yes |
| Two Year | 211 | 353 | 59.8% | 64.8% | 41.0% | Yes | 163 |

[&]quot;Too Few" indicates that the target is not applicable because the district had fewer than 20 ELLs in the current year, the prior year or both years. "Yes-CI" means that the target was met only after applying a 95% confidence interval.

AMAO 2 Data Report



District Annual Measurable Achievement Objectives (AMAOs)

Pil-trict: Arcadia District Code: 0154 School Year: 2013-14

AMAO 2 Reaching English Language Proficiency Detail

Group: Arcadia

2013-14 Target: 11.0% of ELLs reaching English language proficiency (ELP)

The Purpose of this AMAO

AMAO 2 focuses on English language proficiency. It requires that districts meet a target percentage of ELLs achieving proficiency as measured by the ACCESS for ELLs® assessment. ELLs who score a composite ELP level score of five or above are considered proficient.

Method

AMAO 2 is calculated two ways: 1) in the current year, and 2) across two years. If the percentage of ELLs achieving English language proficiency meets the target using either calculation then AMAO 2 is met.

Steps for the current year calculation:

- 1. Count the number of ELLs scoring proficient.
- 2. Divide by the number of ELLs enrolled. This results in the percentage of ELLs scoring proficient.

Steps for the two year year calculation:

- 1. Count the number of ELLs scoring proficient across two years.
- 2. Divide by the number of ELLs enrolled across two years. This results in the percentage of ELLs scoring proficient.

If a student is enrolled in both the current year and prior year their test scores from both years are included in the calculation. ELLs taking the Alternate ACCESS for ELLs[®] assessment cannot score proficient but are included in the number enrolled.

Targets

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | ı |
|---|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|------|---|
| 1 | 5.0% | 0.5% | 8.0% | 9.5% | 11.0% | 12.5% | 14.0% | 15.5% | 17.0% | 18.5% | 20.0% | NA | 1 |

Results

| Current or Two Year Calculation | Number Reaching English Language Proficiency | Number Enrolled | Percent Reaching English Language Proficiency | Percent Reaching English Language Proficiency Upper Confidence Interval | Target | Met Target | AMAO 2 De- termination |
|---------------------------------------|--|--------------------|--|---|--------|------------|---------------------------|
| Current Year | 04 | 278 | 23.0% | 28.3% | 11.0% | Yes | Yes |
| Two Year | 108 | 513 | 21.1% | 24.8% | 11.0% | Yes | 1163 |

"Too Few" Indicates that the target is not applicable because the district had fewer than 20 ELLs in the current year, the prior year or both years. "Yes-CI" means that the target was met only after applying a 95% confidence interval.

Data on page one of this report are public information. All other data are intended for use within the district and are not for public review. Because this report may contain personally identifiable student information, the report is for internal use only. Distribution within your district must be in accordance with state and federal privacy bees, and local policy.

A

I.L. Time of Use Report

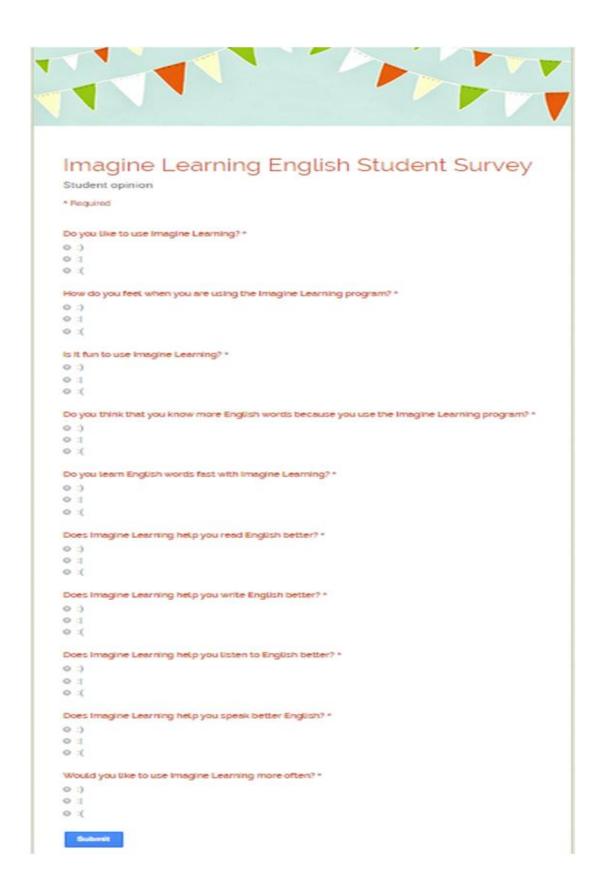
Group Usage: Imagine Learning Elementary School



Complete History

| Student | Total Time Spent (hr.min) | Number of Days Run | Average Usage on Days Run (min) | Average Usage per Week (Deys) | Average Time per Week (min) |
|---------------|---------------------------------|-----------------------|---------------------------------------|-------------------------------------|--------------------------------|
| | 113.51 | 329 | 21 | 2.8 | 58 |
| | 12:48 | 38 | 20 | 2.7 | 55 |
| | 80:15 | 263 | 18 | 22 | 41 |
| | 98:36 | 291 | 20 | 2.5 | 50 |
| | 70:20 | 200 | 21 | 1.7 | 36 |
| | 106:06 | 304 | 21 | 2.6 | 54 |
| | 13:12 | 47 | 17 | 3.3 | 56 |
| Ĭ | 10:24 | 29 | 22 | 2.5 | 53 |
| | 14:25 | 50 | 17 | 3.5 | 61 |
| Class Average | 57:46 | 172 | 20 | 2.6 | 52 |

APPENDIX B Student Survey



REFERENCES

- "Academic Standards" (n.d.) Wisconsin Department of Public Instruction Website,

 Retrieved from http://standards.dpi.wi.gov/
- "ACCESS for ELLs 2.0 Summative Assessment" (n.d.) WIDA Website, Retrieved from https://www.wida.us/assessment/ACCESS20.aspx#about
- "Accountability for English Language Learners" (n.d.). Wisconsin Department of Public Instruction Website, Retrieved from http://oea.dpi.wi.gov/acct/ellamao
- "Badger Exam 3-8" Wisconsin's Smarter Balanced Assessment. (n.d.) Wisconsin

 Department of Public Instruction Website, Retrieved from

 http://oea.dpi.wi.gov/assessment/Smarter
- Baumgartner, T., Lipowski, M. B., & Rush, C. (2003). Increasing reading achievement of primary and middle school students through differentiated instruction, (Master's research). Available from Education Resources Information Center, (ERIC No. ED479203).
- Board of Regents of the University of Wisconsin System (2011). *Instructional Materials*.

 Retreived from http://prime.wceruw.org/instructionalMaterials/
- Chapelle, C., (2001). Computer applications in second language acquisitions:

 Foundations for teaching, testing and research. Cambridge: Cambridge University

 Press.

- Chapelle, C.A., (2009). The Relationship Between Second Language Theory and Computer-Assisted Language Learning, *The Modern Language Journal* 0026-7902/09/741–753
- ClearVue Research Inc. (2007). Evaluating the Effectiveness of Imagine Learning English

 Level 1 in El Monte City School District of California, ClearVue Research, Inc.
- ClearVue Research Inc. (2007). Evaluating the Effectiveness of Imagine Learning English

 Level 1 in Alsip Hazelgreen School District State of Illinois, ClearVue Research,

 Inc.
- Common Core State Standards, (n.d.). On *Wisconsin Department of Public Instruction*Website, Retrieved from http://commoncore.dpi.wi.gov/
- Common Core state standards for Literacy in All Subjects, (2011). Wisconsin Department of Public Instruction, Tony Evers, PHD, State Superintendent, Madison Wisconsin, retrieved from http://standards.dpi.wi.gov/sites/default/files/imce/cal/pdf/lasstds.pdf
- Consortium Members, (n.d.). On *WIDA Website*. Retrieved from https://www.wida.us/membership/states/
- Convery, A., Coyle, D., & Centre for Information on Language Teaching and Research,L.). (England). (1993). Differentiation--Taking the Initiative. Pathfinder 18. A CILT Series for Language Teachers.
- "Elementary and Secondary Education Act" (n.d.). On Wisconsin Department of Public Instruction Website Retrieved from http://esea.dpi.wi.gov/

- Digest of Education Statistics. (2013). Table 204.20. U.S. Department of Education,

 National Center for Education Statistics, Common Core of Data (CCD), "Local

 Education Agency Universe Survey," 2002-03 through 2011-12. (This table was

 prepared September 2013.) Retrieved from

 http://nces.ed.gov/programs/digest/d13/tables/dt13_204.20.asp
- Godzicki, L., Godzicki, N., Krofel, M., & Michaels, R. (2013). Increasing Motivation and Engagement in Elementary and Middle School Students through Technology-Supported Learning Environments. *Online Submission*.
- Green, L., & Inan, F. (2011). Web 2.0 as Potential E-Learning Tools for K-12 English Language Learners. In B. Czerkawski (Ed.), Free and Open Source Software for E-Learning: Issues, Successes and Challenges (pp. 222-240). Hershey, PA: Information Science Reference. doi:10.4018/978-1-61520-917-0.ch014
- "Imagine Learning English Language Learner Support" (n.d.). On Imagine Learning

 Website Retrieved from

 http://www.imaginelearning.com/programs/imaginelearning/#english_learner_supp

 ort
- Imagine Learning English, (2008). *Miami-Dade County Public Schools and Imagine Learning Data Report*. Provo Utah: Imagine Learning English Report

 Imagine This! (n.d.). on the Imagine Learning English site, retrieved from

 http://www.imaginelearning.com/blog/tag/research-study/
- "Instructional Materials" (n.d.). On WIDA Website retrieved from http://prime.wceruw.org/instructionalMaterials/

- JointStrategy Consulting. (2008). Evaluating the Effectiveness of Imagine Learning

 English in Chula Vista School District State of California. Provo, Utah: Imagine

 Learning Evaluation Report prepared by JointStrategy Consulting.
- Keengwe, J., & Hussein, F. (January-March 2013). Computer-Assisted Instruction: a

 Case Study of Two Charter Schools *International Journal of Information and*Communication Technology Education 9(1), 70-79
- Key, James P., (1997). Research Design in Occupational Education, *On AGED 5983 Website* retrieved from

 http://www.okstate.edu/ag/agedcm4h/academic/aged5980a/5980/newpage21.htm
- Language Learners Have Unique Assets and Potential, (n.d.), *WIDA website* Retrieved from https://www.wida.us/standards/
- Le Cornu, A. (2009). Meaning, Internalization, and Externalization: Toward a Fuller

 Understanding of the Process of Reflection and Its Role in the Construction of the

 Self. Adult Education Quarterly, 59(4), 279-297.
- McBride, K. A. (2007). The effect of rate of speech and CALL design features on EFL listening comprehension and strategy use (Doctoral dissertation, University of Arizona).
- Meskill, C., (2005). Triadic Scaffolds: Tools for Teaching English Language Learners with Computers *Language Learning and Technology* January. Vol 9 Num 1 46-59
- Ravitch, Diane. (2007). Edspeak: a glossary of education terms, phrases, buzzwords, and jargon Alexandria, Va.: Association for Supervision and Curriculum Development
- SEG Measurement. (2013). A Study of the Effectiveness of Imagine Learning on Student Reading Achievement *Imagine Learning Website*

- http://www.imaginelearning.com/blog/wp-content/uploads/2014/01/Imagine-Learning-Executive-Summary_SEG_-09-20-2013-v21.pdf
- Shin, Hyon B. and Ortman, Jennifer M. (2011). Language Projections: 2010 to 2020. (Presentation). *Paper presented at the Federal Forecasters Conference*, Washington, DC.
- State Department of Public Instruction (2014). *Badger Exam 3-8: Wisconsin's Smarter Balanced Assessment*. Extracted from http://oea.dpi.wi.gov/assessment/Smarter.
- Tomlinson, C., & ERIC Clearinghouse on Elementary and Early Childhood Education, C. L. (2000). *Differentiation of Instruction in the Elementary Grades. ERIC Digest*.
- U.S. Department of Education. (2013), National Center for Education Statistics, Common Core of Data (CCD), "Local Education Agency Universe Survey," 2002-03 through 2011-12. (This table was prepared September 2013.) Extracted http://nces.ed.gov/programs/digest/d13/tables/dt13_204.20.asp
- **Vygotsky**, L. S., (1978). Mind in society: The development of higher psychological processes. Cambridge, MA: *Harvard University Press*
- White. E.L.,(2013) Technology- Based Literacy Approach for English Language Learners

 Technology Based Literacy Approach for English Language Learners 263-279
- WIDA (2014). ACCESS for ELLs 2.0 Summative Assessment. Wisconsin Center for Education Research, University of Wisconsin Madison. *WIDA Website* Retrieved from https://www.wida.us/assessment/ACCESS20.aspx

- WIDA (2012). The English Language Development Standards Kindergarten-Grade 12

 Board of Regents of the University of Wisconsin System on behalf of the WIDA

 Consortium-www.wida.us
- WIDA (2007). Focus on Growth. Wisconsin Center for Education Research, University of Wisconsin Madison. Retrieved from file:///C:/Users/Shelley/Downloads/mean-proficiency-annual-growth-WIDA-focus-on-growth.pdf
- WIDA (2014). Standards and Instruction. Wisconsin Center for Education Research,

 University of Wisconsin Madison. Retrieved from https://www.wida.us/standards/
- Wisconsin's Model Academic Standards for Science (n.d.). On *Wisconsin Department of Public Instruction Website*, Retrieved from http://standards.dpi.wi.gov/stn_sciintro
- Wisconsin Department of Public Instruction. (2014). Academic Standards. Madison,
 Wisconsin. Retrieved from http://standards.dpi.wi.gov/
- Wisconsin Department of Public Instruction. (2014). Accountability History. Madison, Wisconsin. Retrieved from http://oea.dpi.wi.gov/acct/historical
- Wisconsin Department of Public Instruction. (2014). Common Core State Standards.

 Madison, Wisconsin. Retrieved from http://standards.dpi.wi.gov/stn_ccss
- Wisconsin Department of Public Instruction. (2013). Transforming Teaching and

 Learning Wisconsin's Journey to College and Career Ready Standards. Madison,

 Wisconsin. Retrieved from

http://commoncore.dpi.wi.gov/sites/default/files/imce/commoncore/8%2030%2013
%20CCSS%20Implementation%20Evaluation_FINAL%20VERSION%20submitte
d%20to%20Gov.pdf

Wisconsin Department of Public Instruction. (2014). Wisconsin's Model Academic

Standards for Science. Madison, Wisconsin. Retrieved from

http://standards.dpi.wi.gov/stn_sciintro