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# Through the Looking Glass: A Case Study of Photovoice and Digital Storytelling with Fourth Grade English Learners

Judy A. Wright

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Running head: PHOTOVOICE AND DIGITAL STORYTELLING

THROUGH THE LOOKING GLASS: A CASE STUDY OF PHOTOVOICE AND  
DIGITAL STORYTELLING WITH FOURTH GRADE ENGLISH LEARNERS

by

Judy A. Wright

A Dissertation

Presented in Partial Fulfillment of Requirements for the

Degree of

Doctor in Education

In

Leadership for Learning

Instructional Technology

In the

Bagwell College of Education

Kennesaw State University

Kennesaw, GA

2015

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### **Dedication**

I dedicate this dissertation to Dan, my best friend and husband. His support and continuing encouragement have been tremendous sources of inspiration and strength, not only throughout this dissertation process, but also in everything I have set out to accomplish. He is a caring husband and a loving father. I look forward to a lifetime of memories with him.

I also dedicate this work to my son, Aaron, who inspires me to continue dreaming, my sister, Jennifer, who lives life by her own rules, and my parents, Julie and Paul, who taught me the value of hard work and dedication to family, education, and one's personal beliefs. The only thing better than being always "Wright" is being Dr. Wright!

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### **Abstract**

The recent evolution of ICTs has sparked a catalyst of action that has led the way to the creation of innovative user experiences and created a climate for on demand learning anytime and anywhere. These experiences, at both the individual and collective level, have expanded student access and interaction to information in a way that would have been unconceivable years ago. Students who are learning English for the first time, better known as English learners (ELs), make up a greater proportion of the K-12 population than ever before. Georgia specifically has experienced a 291% growth of ELLs from 1995 to 2005. ELs, relative to their English-speaking peers, underperform on standardized tests, drop out of school at significantly higher rates, and decline to pursue postsecondary education. Technology can help these students make connections to relevant educational topics while working simultaneously to acquire a second language. This study analyzed whether participation in digital storytelling and photo voice, as a method of photo analysis, can enhance academic intrinsic motivation and perceived language acquisition in these English learners.

## Table of Contents

Dedication.....	3
Acknowledgements.....	4
Abstract.....	6
LIST OF TABLES.....	12
LIST OF FIGURES.....	13
Chapter 1—Introduction.....	15
Research Questions.....	17
Purpose of the Study.....	17
Definition of Relevant Terms.....	18
Chapter 2--Literature Review.....	20
Theoretical Framework.....	20
Self-Efficacy and SDT.....	21
Second Language Acquisition.....	22
English Learners.....	24
English Learners in Georgia.....	25
Acquiring an Additional Language.....	27
Information and Communication Technologies.....	30
English Language Learners and Technology.....	31
Motivation.....	34
L2 and Intrinsic Academic Motivation.....	36
Photovoice.....	37
Strengths.....	38



Limitations.....	41
Storytelling.....	41
Digital Storytelling.....	42
Strengths.....	45
Limitations.....	47
DST and PV That Support Language Learning and Learning Motivation.....	47
Chapter 3—Methodology.....	52
Setting.....	55
Sampling.....	57
Participant Selection.....	58
ACCESS.....	59
<i>ACCESS Composite Scores</i> .....	59
<i>ACCESS Tiers</i> .....	61
Participants.....	63
Obtaining Informed Consent.....	66
Project Implementation.....	66
Development of theme for Taking Pictures.....	67
Visual Storytelling and Camera Training Session.....	67
Taking Photographs.....	68
Photo Analysis.....	69
Going from Photo to Photo Story.....	70
<i>Storyboarding</i> .....	71
<i>Movie Maker and Videolicious</i> .....	72

Data Collection.....	73
Interviews.....	73
Coding.....	75
Analysis of Photographs.....	77
Researcher Journal.....	77
Validity, Reliability, and Trustworthiness.....	78
Internal Validity.....	79
External Validity.....	79
Reliability.....	79
Limitations.....	80
Ethical Considerations.....	81
Researcher Role and Positionality.....	81
Summary.....	84
Chapter 4—Findings.....	86
Meet the Participants.....	87
Bella.....	85
Matias.....	96
Javier.....	101
Jacenta.....	111
Benita.....	120
Collective Analysis: Drawing Meaning from Individual Stories.....	128
Interviews.....	128
Photograph Analysis.....	129

Researcher Journal Analysis.....	129
Cross-case Analysis: Themes.....	133
Self-perception As a Learner.....	133
Importance of School and Education.....	135
Bilingualism.....	136
<i>Language preference</i> .....	136
<i>Home language</i> .....	139
<i>School Language</i> .....	139
Technology and Personalization of Instruction to Support Learning.....	141
Motivation.....	146
Chapter 5: Discussion, Conclusions, Limitations, and Implications.....	150
Summary.....	150
Discussion of findings.....	152
Participant Self-perceptions as Learners and Importance of School.....	153
Bilingualism.....	154
Acquiring English.....	155
Home Literacy and Language Achievement.....	157
Close Ties to Language and Culture.....	158
Bilingual Student vs. Monolingual Teacher.....	159
Digital storytelling as Second Language Learning Activity.....	160
Technology to Personalize Instruction.....	162
Motivation.....	164
Peer Partnerships and Cooperative Groups.....	165

Limitations of Findings.....	166
Implications for Future Practice.....	167
Teach Language everywhere: A Cross-curricular Approach.....	169
Technology to Differentiate Instruction.....	170
Strategies to Make English Comprehensible.....	173
Build Bridges for Dual Language Instruction.....	173
Student- centered Instruction.....	175
Culturally Responsive Teaching.....	176
Implications for Future Research.....	177
Implications for Future Leadership and Advocacy.....	179
Teacher to Researcher: Words from the Researcher.....	180
Summary and Final Thoughts.....	184
References.....	186
Appendices.....	205
Appendix A-Project Timeline of Research Process.....	205
Appendix B- Parent Consent Form in English & Spanish.....	208
Appendix C- Student Assent Form.....	212
Appendix D-Student Interview Protocol- Pre-Project.....	214
Appendix E- Student Interview Protocol: Post-Project.....	215
Appendix G- SHOWeD Worksheet.....	216
Appendix H- Researcher Journal and Field Notes.....	217
Appendix I- Final Code List.....	241
Appendix J- Code for Families/ Subcategories.....	242

Appendix K- Super Families/Categories.....245

**LIST OF TABLES**

Table

3.1 School Technology.....56

3.2 Participant Information and ACCESS scores.....63

3.3 Participant Bilingualism in Speaking, Writing, and Reading.....63

## LIST OF FIGURES

Figure		
2.1	Stages of Second Language Acquisition.....	28
2.2	Seven Elements of Digital Storytelling.....	44
3.1	ACCESS composite scores.....	60
3.2	ACCESS Tiers of English Proficiency.....	61
3.3	English Language Proficiency levels and tier Descriptions.....	62
3.4	Photo Analyses SHOWeD Method.....	69
4.1	Bella Photo 1.....	90
4.2	Bella Photo 2.....	91
4.3	Bella Photo 3.....	92
4.4	Bella Sample Storyboard .....	93
4.5	Bella Digital Story .....	94
4.6	Matias Photo 1.....	98
4.7	Matias Photo 2 .....	99
4.8	Matias Photo 3 .....	100
4.9	Matias Sample Storyboard .....	101
4.10	Matias Digital Story .....	102
4.11	Javier Photo 1.....	106
4.12	Javier Photo 2 .....	107
4.13	Javier Photo 3 .....	108

4.14	Javier Sample Storyboard .....	109
4.15	Javier Digital Story .....	110
4.16	Jacenta Photo 1.....	114
4.17	Jacenta Photo 2.....	115
4.18	Jacenta Photo 3.....	116
4.19	Jacenta Sample Storyboard.....	117
4.20	Jacenta Digital Story.....	118
4.21	Benita Photo 1.....	122
4.22	Benita Photo 2.....	123
4.23	Benita Photo 3.....	124
4.24	Benita Sample Storyboard.....	125
4.25	Benita Digital Story.....	126
4.26	Technology Used by Students at Home.....	141
4.27	Technology Used by Students at School.....	141

## **Chapter 1--Introduction**

Technological progress, when combined with a parallel evolution in the pedagogical sciences, fosters the belief that the integration of information and communication technologies (ICTs) in learning interactions may bring about a new era in educational practice (European Commission, 2001). Since the beginning of this century, education has faced a variety of social, cultural, economic, and technical challenges. Educational technology has sought to overcome these challenges by developing new approaches and frameworks. In this context, information and communication technologies (ICTs) represent a new approach for enhancing the dissemination of information and helping to meet these challenges. ICT involves the use of at least a computer and the Internet, including computer hardware and software, networks, and a host of devices, to convert information (text, images, sounds, and motion) into general digital formats (ISTE, 1999). As the focus of education continues to shift and emphasize 21st century learners, it is essential to understand that how we use technology is of greater importance than the technology itself.

According to the National Clearinghouse for English Language Acquisition (2007), in the 10 years between 1996 and 2006, the number of EL students enrolled in U.S. elementary and secondary schools has grown approximately 57 percent while the general school population has grown only 3.7 percent. By the year 2030, 40% of the school population will speak English as a second language (Albers, Hoffman, & Lundahl, 2009). English learners (ELs) are the most rapidly growing student population in U.S. elementary and secondary schools, and this growth rate will continue throughout the next few decades (Sheng, Sheng,



and Anderson, 2011). English learners, or students with limited English proficiency (LEP), are defined in Title IX of the No Child Left Behind Act of 2001 (*NCLB*, Public Law No. 107–110), as someone who was not born in the United States or whose native language is a language other than English; someone who is a native American or Alaska native or who is a native resident of outlying areas and comes from an environment where a language other than English has had significant impact on that individual’s level of English language proficiency; or someone who is migratory and whose native language is other than English and comes from an environment where a language other than English is dominant (U.S. Department of Education, Section 9101, 2004).

On average, ELs, relative to their English-speaking peers, underperform on standardized tests, drop out of school at significantly higher rates, and do not pursue postsecondary education (Great Schools Partnership, 2013). Research has shown that language learners need to be able to make personal connections with the instruction that takes place in the classroom (Dörnyei, 2005; Edwards-Groves, 2012; U.S. Department of Education, 2010). When learners develop and connect to concepts and ideas in their own way, the depth of their learning and their capacity for further understanding will increase, which then helps them to more fully develop the skills necessary for successful second language acquisition (Dörnyei, 2005). Technology can be a beneficial tool in helping students make connections to relevant educational topics while they work simultaneously to acquire a second language (Noeth & Volkov, 2004; TESOL, 2008). This study analyzed whether participation in digital storytelling and photo voice, as a method of photo analysis, could enhance academic intrinsic motivation and perceived language acquisition in English learners. Motivation is just one lens through which educators can investigate factors that contribute to students’ interest,

engagement, and persistence in their learning activities (Gilman & Anderman 2006).

Underlying this focus, this study also addressed how students perceived themselves as learners in an elementary school setting. The semester long, case study focused on the following research questions:

### **Research Questions**

- RQ1. How do ELs perceive themselves as learners?
- RQ2. What are students' perceptions of their self-efficacy in relation to their technology usage?
- RQ3. How does participation in a photovoice and digital storytelling project impact ELs' academic intrinsic motivation to learn English?
- RQ4. How does participation in a photovoice and digital storytelling project impact ELs perception of their own English language acquisition?

### **Purpose of the Study**

The purpose of this study was to analyze whether participation in digital storytelling and photo voice, as a method of photo analysis, could enhance motivation and academic achievement in English learners. Students who are learning English for the first time, better known as English learners (ELs), make up a greater proportion of the K-12 population than ever before (Great Schools Partnership, 2013; Waters, 2007). Current research, however, lacks enough specific studies on academic intrinsic motivation, elementary ELs perception of their language acquisition, and their perception of themselves as learners. There is a need to undertake research in elementary schools who have EL learners because ELs are among the fastest growing student population in U.S. schools today. Vygotsky (1978) views language as a tool that has the ability to transform individual development as the “mechanism of

individual developmental change rooted in society and culture” (p. 7). This study thus employed a case study to provide a rich description of contexts, participants, and research methods that can inform learning practices in many areas (Merriam, 2001; Yin, 1994). It provided an in-depth look into the perceptions and experiences of students participating in this study. The researcher in this study took on a participant-observation role (Creswell, 2014; Yin, 2009), and in that capacity the researcher assumed various roles. As a participant-observer, the researcher was able to understand the setting as an insider, while still describing it for precise understanding by outsiders (Patton, 1990). Specifically, the purpose of this study aimed at discovering how participation in digital storytelling and photovoice, as a method of photo analysis, could enhance academic intrinsic motivation and language acquisition in five fourth grade English learners. Additionally, this case study developed new ways to understand and conceptualize the value of technology as a tool to facilitate communication among students, both visually and verbally, and personalize the instruction for ELs.

### **Definition of Relevant Terms**

- Critical Thinking
  - Forms of learning, thought, and analysis that go beyond memorization and recall of information and facts (Great School Partnership, 2013).
- Digital Storytelling
  - Digital storytelling is the practice of combining still images with a narrated soundtrack that includes both voice and music (Bull & Kajder, 2004; Robin, 2008; Sadik, 2008).
- Digital Media

- Digitized content (text, graphics, audio, and video) that can be transmitted over the Internet or computer networks (Lam, 2012)
- Information and Communication Technologies
  - ICT refers to the use of a computer and the Internet, including computer hardware and software, networks, and a host of devices to convert information (text, images, sounds, and motion) into general digital formats (ISTE, 1999).
- Language Acquisition
  - The process of learning a native or a second language (*Language Acquisition*, 2013).
- English Learners (ELs)
  - Students who are unable to communicate fluently or learn effectively in English and who often come from non-English-speaking homes and backgrounds and thus typically require specialized or modified instruction in the English language (Great School Partnership, 2013).
- Photovoice
  - Photovoice is a participatory action research (PAR) method based on healthy promotion principles and the theoretical literature on education for critical consciousness, feminist theory, and non-traditional approaches to documentary photography (Wang, 1999, p.185).
- Meaningful Technology Integration
  - Curricula that utilizes authentic tasks that intentionally and actively help learners to construct their own meanings from thinking about experiences and allows more interdisciplinary project-based instruction (Jonassen & Carr, 2000).

## **Chapter 2--Literature Review**

“Education is the kindling of a flame, not the filling of a vessel” –Socrates

Increasing the quality of teaching and learning has long been an important concern for education. Since the beginning of the 21<sup>st</sup> century, education has faced a variety of social, cultural, economic, and technical challenges. Therefore, as the population of the United States continues to increase and become more culturally and linguistically diverse, public schools are reflecting those trends and expanding to meet learner demands (Echeverria, Short & Powers, 2006). Klinger, Artiles, and Barletta (2006) have estimated that by the 2030 approximately 40 percent of our K-12 school population will speak English as an additional language. As the needs of all learners have become increasingly diverse, teachers are turning to technologies to meet their academic and educational needs. This literature review thus examined the current literature on this theoretical framework, which includes Self-Determination Theory (SDT) and Krashen’s Theory of Cognitive Development, English learners, English learners in Georgia, second language acquisition, information and communication technologies, and also provided relevant information about the growing use of digital storytelling and photovoice, as a method of photo analysis, to enhance academic intrinsic motivation and English learners’ perceptions of themselves in the elementary school setting.

### **Theoretical Framework**

This study utilized Self-Determination Theory (SDT) and Krashen's Theory of Cognitive Development as its lens for data analysis. These theories focused on determining whether participation in digital storytelling and photovoice as a method of photo analysis could impact English learners' perceptions of themselves as learners, enhance their academic intrinsic motivation, and thus increase student-perceived language acquisition overall.

**Self-Efficacy and SDT.** According to Bandura (1982), self-efficacy is the self-judgment of one's ability to perform a task within a specific domain. It is grounded in a larger theoretical framework known as social cognitive theory. Learners gain and develop their personal sense of self-efficacy based on their performance, feedback from others, and their own physiological reactions. Other factors that can influence self-efficacy include outcome expectations, self-concept beliefs, motivation, and perceived control. Pajares and Schunk (2001) found that those students who believed they were capable of performing tasks used more cognitive and metacognitive strategies and persisted longer at learning tasks than those who did not hold that belief.

Coinciding with Bandura's views on self-efficacy is the Self-Determination Theory (SDT), which represents a broad framework for the study of human motivation and personality (Ryan & Deci, 2000, 2002). SDT articulates a meta-theory for framing motivational studies, namely, a formal theory that defines intrinsic and varied extrinsic sources of motivation and a description of the respective roles of intrinsic and types of extrinsic motivation in cognitive and social development and the individual differences that focus largely on how social and cultural factors facilitate or undermine an individual's sense of volition and initiative as well as their well-being and the quality of their performance (Ryan and Deci, 2000).

Underpinning this theory is a focus on an individual's experience of autonomy, competence, and relatedness. These key factors impact motivation and engagement for activities, including enhanced performance, persistence, and creativity (Ryan & Deci, 2000, 2002). In Self-determination Theory (Ryan & Deci, 2000, 2002), the need for autonomy, together with the need for competence and relatedness, is proposed as one of three psychological needs that must be met for healthy development. Autonomy refers to a sense of volition and the self-determined behaviors necessary for intrinsic motivation (Ryan & Deci, 2000, 2002). Motivation specifically impacts not only student self-efficacy, but also academic achievement. Motivation, also referred to as academic engagement, refers to "cognitive, emotional, and behavioral indicators of student investment in and attachment to education" (Tucker, Zayco, & Herman, 2002, p. 477). While much research has been done on the topic, Dornyei (2003) argues that motivation is one of the most elusive concepts in applied linguistics and educational psychology.

**Second Language Acquisition.** Several authors (Bruner, 1966; Piaget, 1967; Vygotsky, 1962; 1986; & Yuvaraj, 2009) have examined the link between cognitive development and language development in children as both relate to their age. While each has varying views on whether language exerts an effect on children's structural thinking, all concede that a child's individual needs and interests are of paramount importance when seeking to further develop communication in any language. Second language learning was driven early on by Chomsky (1965) offering the theory that people are pre-programmed with a specialized linguistic blueprint or template that allows them to construct the rules of their first language within the first few years of life. This aspect is known as Universal Grammar, and it is a powerful framework that is descriptive, but yet does not factor in socio-cultural

factors and the role of social interaction (Vitanova, 2013). Using Chomsky's Universal Grammar framework distinction between language learning and acquisition, Krashen (1981; 1985) applied the same distinction between language learning and acquisition to his Monitor Model (Vitanova, 2013). The model suggested that there are two ways to develop language ability: Acquisition and learning.

Second Language Acquisition, (SLA) research prior to the 1970s emphasized addressing such cognitive variables as intelligence, language aptitude, and learning styles in order to drive instructional design. Gardner and Lambert changed this prevailing thinking when their research showed the importance of considering language learners' emotional variables as additional factors that may either facilitate or hinder language acquisition (1972). Krashen's (1987) theory of second language acquisition and subsequent affective filter hypothesis showed how such factors as learner anxiety, motivation, and self-confidence, can either facilitate or impede acquisition by raising or lowering the learners' affective filters. Technology can help bridge these variables and provide learners with new, personalized, and interactive methods that will support SLA in the classroom (TESOL, 2008).

Indeed the *Columbia Electronic Encyclopedia* (2013) concludes that:

Traditional methods for learning a second language involve some systematic approach to the analysis and comprehension of grammar as well as to the memorization of vocabulary. The cognitive approach, increasingly favored by experts in language acquisition, emphasizes extemporaneous conversation, immersion, and other techniques intended to simulate the environment in which most people acquire their native language as children (para.1).

According to Krashen (2008) there are two ways to develop language ability--



acquisition and learning. Acquisition is the process of internalizing the vocabulary and rules of a language subconsciously without apparent effort, i.e., the way young children pick up their first language (L1). On the other hand, learning a language that is a planned, conscious study of that language involves memorization and deliberate practice and is associated with how an additional language is learned (L2). Krashen (1981) concluded that L2 acquisition closely resembles L1 acquisition, and thus either acquisition will inevitably occur if learners are exposed to a sufficient quantity of linguistic messages that they can understand. Krashen's theory of cognitive development is based in the holistic paradigm, which has at its core the belief that teaching is most effective when it engages students in authentic, complex tasks rather than only discrete skill-building.

### **English Learners**

Students who are learning English for the first time, better known as English learners (ELs), make up a greater proportion of the K-12 population than ever before (Great Schools Partnership, 2013; Waters, 2007). The number of immigrant students in U.S schools has more than doubled in the past 15 years. Between 1995 and 2005, Alabama, Indiana, Kentucky, Nebraska, North Carolina, South Carolina, and Tennessee have experienced a 300% growth in ELL population (National Clearinghouse of English Language Acquisition, 2010). Georgia specifically has experienced a 291% growth of ELs from 1995 to 2005 (National Clearinghouse of English Language Acquisition, 2010). English learners vary vastly in the length of time they have been in the United States, native language, age, prior educational experience, and background, socioeconomic status, and living situation in the United States (Echeverria et al., 2006). Each of these characteristics shapes both the rate at which that student attains proficiency in English and the individual learning experiences of the student.

Compounding this issue is the development of language policies within schools that have eliminated bilingual instruction or require Standard English only in their classrooms. Also, while states with historically high concentrations of English language learning students have already established school support structures, other states that are now experiencing large growth may not have put such structures in place. Each of these factors impacts how an English learner will fare within a U.S. school as they work to acquire English.

**English Learners in Georgia.** According to the Georgia Department of Education (2009), when a student enrolls in the Georgia public schools and indicates a language other than English as the predominant language spoken in the home, that child must be assessed for English for Speakers of Other Languages (ESOL) services. ELs in Georgia are identified via a home language survey and then assessed with a screening test, the WIDA-ACCESS Placement Test (W-APT). The W-APT (WIDA, 2014) is an English language proficiency screening test given to incoming students who may be potentially designated as English language learners. It assists educators with programmatic placement decisions, such as identification and placement of ELs (WIDA, 2014). W-APT items are taken from the model performance indicators for WIDA's five English Language Proficiency (ELP) standards and include social and instructional language, language of language arts, language of mathematics, language of science, and language of social studies.

If a student demonstrates a limited proficiency in English based on this screening, that student then qualifies for ESOL services. The Georgia Department of Education (2009) specifies several delivery models for this instruction: Within a mainstream classroom (push in or inclusion), pulled out of the mainstream classroom for a portion of time (pull out), in center where a group of students receives language instruction supported by multimedia

sources (a resource center), or at a separate location (a cluster center). Georgia does not mandate which models will be used by local schools (GADOE, 2009).

In addition to the W-APT, students in Kindergarten through 12th grade who have been identified as English learners (ELs) take the Assessing Comprehension and Communication in English State-to-State for English Language Learners (ACCESS). The ACCESS is used by the World Class Instructional Design and Assessment (WIDA) consortium, which is composed of thirty-five member states. It monitors students' progress in acquiring academic English. ACCESS test items are written using the model performance indicators for WIDA's five English Language Proficiency (ELP) standards. They include social and instructional language, language of language arts, language of mathematics, language of science and language of social studies. ACCESS, a large-scale English language proficiency assessment is administered annually.

Drawing on various theories to describe the academic language use that learners must acquire to be successful in school, WIDA (2014) developed a standards framework with five components: Can Do philosophy, guiding principles of language development, age-appropriate academic language in sociocultural contexts, performance definitions, and strands of model performance indicators. In 2012, these indicators were further amplified into the English Language Development (ELD) Standards (WIDA, 2014). The standards are based on WIDA's recent beliefs on the use of language in school and how better to promote language learning. ELD standards promote: (a) a connection between state content standards, including the Common Core State Standards (CCSS) and Next Generation Science Standards; (b) the context for language use, which by identifying possible tasks, roles, and audiences emphasizes the importance of teaching language in meaningful sociocultural contexts; and (c)

a common cognitive function across the various levels of language development, which encourages teachers to create tasks that involve complex thinking for all language learners (WIDA, 2014).

### **Acquiring an Additional Language**

Language achievement in education is largely impacted by the time spent on task, the intensity of use, and the quality of exposure to the second language (Krashen, 1987; Richards & Rogers, 2001; Arnold & Brown, 1999). Cummins (1979; 1984) noted that there are two forms of language that are developed in the acquisition process and drew a distinction between basic interpersonal communicative skills (BICS) and cognitive academic language proficiency (CALP) as a way to define the time it takes for second language learners to acquire the skills necessary to succeed in school. Cummins (1984) explains language proficiency as mastery of both quickly acquired or surface Basic Interpersonal Communication Skills (BICS) and the more slowly acquired and less visible Cognitive Academic Language Proficiency (CALP). BICS are the language skills used in everyday communication. CALP, in contrast, is needed to manipulate language in academic settings.

Language education is critical to students' success in the world of the future, which will insist on a student's ability interact effectively with others. It is critically important that schools, elementary through post-secondary, do offer students an opportunity to develop those skills (Partnership for 21st Century Skills, 2011). Terms, such as first language acquisition (L1) and second language acquisition (L2), have been identified along with a number of factors that affect students' English proficiency and development of English as an additional language. Immigrant children usually need two years to learn functional English (BICS) and

much longer to learn academic English (CALP) in order to adequately catch up with their native English speaking peers in terms of academic performance (Cummins 2006).

Stephen Krashen and Tracy Terrell first explored five stages of second language acquisition in their 1983 book, *The Natural Approach*. Students who are learning a second language move through five predictable stages: (1) Preproduction; (2) Early Production; (3) Speech Emergence; (4) Intermediate Fluency; and (5) Advanced Fluency (Krashen & Terrell, 1983). The rate at which students' progress through these stages largely pertains to socio-cultural factors, such as level of formal education, family background, and length of time spent in the country (Hill and Björk, 2008). All new learners of English will progress through these five stages, but the length of time each student spends within a particular stage may vary greatly (see Figure 2.1).

Stage	Characteristics	Approximate Time Frame	Teacher Prompts
Preproduction	The student: <ul style="list-style-type: none"> <li>▪ Has minimal comprehension.</li> <li>▪ Does not verbalize.</li> <li>▪ Nods "Yes" and "No."</li> <li>▪ Draws and points.</li> </ul>	0–6 months	<ul style="list-style-type: none"> <li>▪ Show me ...</li> <li>▪ Circle the ...</li> <li>▪ Where is ...?</li> <li>▪ Who has ...?</li> </ul>
Early Production	The student: <ul style="list-style-type: none"> <li>▪ Has limited comprehension</li> <li>▪ Produces one- or two-words</li> </ul>	6 months–1 year	<ul style="list-style-type: none"> <li>▪ Yes/no questions</li> <li>▪ Either/or questions</li> <li>▪ Who ...?</li> <li>▪ What ...?</li> <li>▪ How many ...?</li> </ul>

	<p>responses.</p> <ul style="list-style-type: none"> <li>▪ Uses key words and familiar phrases.</li> <li>▪ Uses present-tense verbs.</li> </ul>		
Speech Emergence	<p>The student:</p> <ul style="list-style-type: none"> <li>▪ Has good comprehension.</li> <li>▪ Can produce simple sentences.</li> <li>▪ Makes grammar and pronunciation errors.</li> <li>▪ Frequently misunderstands jokes.</li> </ul>	1–3 years	<ul style="list-style-type: none"> <li>▪ Why ...?</li> <li>▪ How ...?</li> <li>▪ Explain ...</li> <li>▪ Questions' requiring phrase or short-sentence answers</li> </ul>
Intermediate Fluency	<p>The student:</p> <ul style="list-style-type: none"> <li>▪ Has excellent comprehension.</li> <li>▪ Makes few grammatical errors.</li> </ul>	3–5 years	<ul style="list-style-type: none"> <li>▪ What would happen if ...?</li> <li>▪ Why do you think ...?</li> <li>▪ Questions' requiring more than a sentence response</li> </ul>
Advanced Fluency	<p>The student:</p> <ul style="list-style-type: none"> <li>▪ Near-native speech.</li> </ul>	5–7 years	<ul style="list-style-type: none"> <li>▪ Decide if ...</li> <li>▪ Retell ...</li> </ul>

*Figure 2.1. The Stages of Second Language Acquisition.*

Language acquisition occurs best when framed within a context because students learn language best when there is an emphasis on relevant, meaningful content rather than on the

language itself (Arnold & Brown, 1999). Rich contexts made up of visual and auditory information provide useful environments in which learners can become immersed and involved, and in turn where they can make sense of and produce meaningful language as communication (Meskill, 1991a, 1996). Information and communication technologies (ICT's) are excellent tools to use to provide context and environments wherein ELs can become immersed and involved while simultaneously developing an additional language.

### **Information and Communication Technologies**

Over the years, classroom technology has become more complex and sophisticated, as learning environments have moved from the use of slates in self-contained schoolrooms to multimedia classrooms (Baker & Baker, 2004). Since the 1980s, ICTs have become more essential to teaching and learning environments day by day. Educational technology has sought to overcome student learning challenges by developing new approaches and frameworks. In this context, ICTs represent a new approach to enhancing the dissemination of information and helping to meet these new challenges. ICTs involve the use of at least a computer and the Internet as well as computer hardware and software, networks, and a host of technical devices that convert information (text, images, sounds, and motion) into general digital formats (ISTE, 1999). Now more than ever schools must have access to ICT resources that engage their students in developing 21st century skills and allow them to actively participate in careers that will influence the global economy in the future.

ICTs, such as information and computation technology, can be powerful driving forces for innovation in education because they have the ability to improve the quality of the instructional materials that are available to teachers and students, aid in the development of high-quality assessments that capture student learning, and accelerate the collection and use of

data, while at the same time providing rich feedback to students, teachers, and schools (The President's Council of Advisors on Science and Technology, 2010). With this paradigm shift in the educational environment, teachers today are expected to integrate ICTs into their teaching and student learning. ICTs in addition to the advantages stated above, can positively impact the dissemination of knowledge, aid in the development of educational programs, contribute to educational change, more adequately prepare students for the expanding Information Age, improve learning outcomes and the competencies of learners, and equip students with survival skills for society in a new century (Buabeng-Andoh, 2012, Goktas, Yildirim, & Yildirim, 2006).

Global developments in education and changing ICT demands have caused a remarkable shift in the structure of education by enabling ICTs to develop complex, digital networks in an era of technology-driven education (Buabeng-Andoh, 2012). The interactivity of digital networks and the connectivity between students will be key factors in the support of English learners, as they acquire a second language. New emerging technologies have demonstrated the ability to support the development of CALP by using communicative and interactive tasking. These tasks can also support ELs as they improve their linguistic skills, academic vocabulary, build greater confidence, and make meaning out of the content in subject areas more accessible (Meskill & Mossop, 2000; Dunkel, 1990). Hoven (1999) has stated that by taking into account "learners' needs and making provision for learner choice in this way, one of the major advantages of using technology in language learning, their capacity to allow learners to work at their own pace and in their own time, can be more fully exploited" (p. 102).

**English Language Learners and Technology.** English learners are not only the



fastest-growing segment of the school-age population in the United States today; they are also a tremendously diverse group that represents numerous languages, cultures, ethnicities, nationalities, and socioeconomic backgrounds (Great School Partnership, 2013). There is a growing need for technologies that help ELs develop English-language listening, speaking, writing, and reading skills. Wu, Yen, and Marek (2011) state that “technology makes it possible to provide opportunities more commonly found only when there is a surrounding population of native speakers, and thus helps transform traditionally passive learners into more engaged and interactive learners” (p. 127). Recent research has contributed to the knowledge that acquisition through social interaction is a paradigm shift that allows for the development of learner-centered, interactive curricula that in turn will spawn more development in technology and social learning. Both have been shown to be more beneficial to students than traditional classroom learning (Davies, 2011).

With these developments, students are better able to build their sense of belonging, acquire greater communication skills, and improve computer competence while simultaneously communicating with a greater variety of students. Technology gives students the opportunity to shape content collaboratively within an interactive world (Davies, 2011). ICTs are dramatically changing the way we teach and learn in many respects. Edwards-Groves (2012) supports such significance in the teachers’ use of technology and such tools in instruction by concluding that the “significance of technology use in classrooms lies not in what a device or text ‘is’, nor in what it specifically does. Its significance lies in what it enables as it mediates the relationship between its user and other individuals” (p. 100). Rather than considering a piece of learning technology in isolation, it is important to think about the aims and objectives of that piece of software relative to its planned use in the classroom

(Hoven, 1999).

Instruction focuses on the use of digital texts, such as visual literacy, design elements, uploading of digital photos, website design, editing videos, and blogging has shifted student learning toward the multimodality of text production (Edwards-Groves, 2012). For ELs, the utilization of these technologies not only has changed the way technology is used, but also provides opportunities for ELs to work creatively and collaboratively within different multimedia texts and allow for the greater practice of needed listening, speaking, and writing skills. Multimedia has become more appealing as part of the teaching and learning process, as it is both interactive and broadly encouraging (Afrilyasanti, & Basthomi, 2011). Utilizing Web 2.0 technologies and integrating technology into the curriculum for ELs can serve as an effective way to create engaging, multimedia-rich connections to learning that can serve as an anticipatory set or hook that captures the attention of disengaged students and increases their interest in exploring and learning new ideas (Robin, 2013).

Technologies can increase opportunities for ELs to interact with their peers and practice an additional language, as they encounter and interact with new digital literacies, which include blogs, wikis, social network sites, digital texts and digital storytelling on a daily basis (Gachago, Ivala, & Chigona, 2012). Instruction that is focused on the usage of digital technologies, such as visual literacy, design elements, uploading of digital photos, website design, editing videos, and blogging has shifted student learning toward a multimodality of text production (Edwards-Groves, 2012). This shift can support the language development of ELs by creating opportunities for their interaction with more fluent students and new outlets to work creatively and collaboratively within many different multimedia technologies. Waters (2007) stated that the use of technologies to meet the needs of culturally diverse learners can

range from the simple, self-directed pronunciation programs delivered on CDs to complete multimedia software suites. However, the key to engaging any student is the level of interactivity among students. Computers provide unlimited access to information as well as interactive communication, all of which has been shown to give student personal empowerment over their own education (Solhaug, 2009). ELs who enter US schools face unique challenges (Echeverria, et al., 2006), and thus student empowerment, interactive communication among students, and ongoing collaboration can serve to support English language learners as they acquire an additional language (Solhaug, 2009). Technology can thus be utilized as a tool to meet the diverse needs of English language learners.

### **Motivation**

Motivation is defined as a goal-directed activity that is instigated and sustained (Pintrich & Schunk 2002) as well as an integral, underlying force that compels a student to perform, continue to learn, and move to the completion of tasks at hand within the learning process (Godzicki, Godzicki, Krofel, & Michaels, 2013). Although the specific definition of motivation is often debated by researchers, many will concede that motivation includes movement, whether that movement is driven by inner forces, sustained traits, certain behaviors, or established individual beliefs and affects (Pintrich & Schunk, 2002). When students are truly engaged in their instruction, they will go above and beyond what is required for a simple or one-time activity or assignment and express satisfaction with their learning experiences, as they demonstrate competence in the knowledge and skills being taught (Gareau & Guo, 2009). Motivation can be classified as either extrinsic or intrinsic (Ryan, & Deci, 2000). It consists of a student's intrinsic goal orientation, extrinsic goal orientation, and the task value (Mohammadi, Moenikia, & Zahed-Babelan, 2010). These attributes then

construct beliefs in each student that defined the control of learning beliefs, self-efficacy for learning, and actual performance (Mohammadi et.al. 2010).

Motivation is the primary factor that impacts student achievement. According to Gareau and Guo (2009) “the challenge of the learner is in attention (whether learners perceive the instruction is interesting and worthy of attention), relevance (whether the instruction is perceived as being able to meet some personal or professional needs), confidence (whether learners gain increased confidence and expect to be able to succeed better), and satisfaction (whether learners enjoy the learning experience or gain other intrinsic or extrinsic rewards from the instruction)” (p.3).

Gardner (1985, 2000) proposed four elements that characterize a motivated student: A goal, the desire to achieve that goal, positive attitudes, and effort. Motivation can directly affect academic achievement (Tucker et al., 2002). Student motivation increases when a sense of interest and engagement is involved (Shroff & Vogel, 2009). In the classroom, there are varying levels of engagement, and these are deemed as differential engagement. Differential engagement is a term that concedes that some students in classrooms are overly engaged, while others are simultaneously and passively engaged or disengaged (Wu & Huang, 2007). One explanation for the levels of differential engagement can be explained by the Goal Theory of Motivation. This theory states that there are two orientations: (1) performance goal orientation where students are concerned with proving their competence by getting good grades or performing well compared to other students; and (2) task goal orientation where students are motivated by a desire to increase their knowledge of a subject or enjoyment from learning the material (Anderman & Midgley, 1997; Maehr & Midgley, 1991). Students with performance goal orientation can be either intrinsically or extrinsically motivated, but

students with a positive task goal orientation are more likely to be intrinsically motivated. Furthermore, students with task goal orientation are more likely to engage in challenging tasks, seek help as needed, and adopt useful cognitive strategies, and possibly most importantly, they tend to be happier both with school and with themselves as learners (Ames, 1992; Anderman & Midgley, 1997). A major factor in the attainability of any goal is self-efficacy (Bandura, 1997) or the internal belief of one's innate/basic capabilities and competencies. Goals, self-efficacy, and motivation can greatly impact the acquirement of an additional language for ELs.

**L2 and Academic Intrinsic Motivation.** When individuals' motivations are self-determined, they become more involved in activities and make greater effort to attain challenging goals and objectives (Mohammadi et.al, 2010). Intrinsic motivation refers to the motivation to fulfill a task that leads that individual to feel a sense of personal enjoyment and control while taking part in the task. Academic intrinsic motivation was defined by Gottfried (1990) while depicting the motivation for school learning. Academic intrinsic motivation involves the enjoyment of school learning and is characterized by a sense of mastery orientation that involves curiosity, persistence, and the learning of challenging, difficult, and novel tasks. Intrinsic motivation also involves engagement in an activity for its own sake, and it is characterized by actions signaling enthusiasm, spontaneity, joy, involvement, concentration, and perseverance (Ryan & Deci, 2000, 2002). For ELs, intrinsic motivation to learn an additional language is essential to their academic language success.

Gardner (1985) proposed three key components of L2 motivation: (a) motivational intensity or effort, (b) desire to learn the language, and (c) attitudes towards learning the language. Specifically, Gardner's (2000) socio-educational model of second language

acquisition stated that motivation is responsible for achievement in a second language and focused on how motivation and language aptitude are the two most influential determinants of language achievement. The socio-educational model further stresses the concept that, “unlike other subjects, learning a language involves learning aspects of behavior typical of another culture, and therefore attitudes and orientations will function as affective correlates of L2 behavior and proficiency” (Uçkun, Tohumoğlu, & Utar, 2011, p.548). Gardner also concludes that motivation affects language achievement, and L2 learning is affected by the learners’ attitudes and motivation (2000).

### **Photovoice**

Photovoice (PV) is a qualitative research method that uses still-picture cameras to document the participants’ health and community realities (Novak, 2010; Thomas & Irwin, 2013) and then integrates photography and critical discussion in order to examine issues from the perspective of resident experts—the people living, working, playing, and praying in a targeted context research process (Wang, 2003). PV was developed by Caroline C. Wang of the University of Michigan and Mary Ann Burris of the School of Oriental and African Studies (SOAS) at the University of London (Wang & Burris, 1997). Burris was the program officer for women's health at the Ford Foundation, headquartered in Beijing, China, during the development of PV. In 1992, Wang and Burris created Photo Novella, now known as photovoice, as a way to enable the rural women in Yunnan Province, China, to influence the policies and programs that personally affected them (Wang & Burris, 1997). Initially, the photovoice research method was developed by Wang with Burris’ help (Wang & Burris, 1994, 1997). It was then expanded through collaborative efforts with other colleagues to

develop the research method currently recognized as the photovoice methodology (Thomas & Irwin, 2013).

Photovoice has three theoretical frameworks: Empowerment education, feminist theory, and documentary photography (Freire, 1970; Wang & Burris, 1997). These three frameworks emphasize social action by first directing change at the individual level and then using change to impact self-esteem and self-worth. Wang (1999) explains, “photovoice is a participatory action research (PAR) method based on healthy promotion principles and the theoretical literature on education for critical consciousness, feminist theory, and non-traditional approaches to documentary photography” (p.185). Documentary photography has been used to give people greater ability to express their concerns, outlooks, and stories to the world through photography. Historically, it has been used to represent oppressed populations, such as the poor, women, elderly, and children (Wang, 1994). By using photographic techniques, PV allows people to increase their knowledge and create change through social action in their own communities (De La Garza, 2011). The method can also be described as a participatory action strategy because it is used with vulnerable groups and permits marginalized people to use their perspectives to influence policymakers on the important decisions they make that govern their lives (Thomas & Irwin, 2013).

**Strengths.** The strengths of PV include its ability to provide people with the unique ability to express their concerns, outlooks, and stories to the world through photography. In addition, PV gives both researcher and co-researchers the ability to delve deeper into social action to gain further insight by obtaining descriptive information about communities and the people that live there. Using the PV methodology allows co-researchers to take photographs and choose what is important, thus democratizing the research process (Novak, 2010). PV is a

strong PAR methodology because it empowers community members to take action, raise their voices about the concerns they see in their community, and bring change that allows the participants to achieve long-lasting personal growth (Palibroda, Krieg, Murdock, & Havelock, 2009). PV fosters within its participants the ability to develop skills in reflection and understanding of community functioning. PV projects also develop an expansion of the individual experience by deepening critical thinking and analysis, creating gains in confidence and self-advocacy, supporting nurturing, and growing self-esteem from PV activities that involve skill-building, photography, and critical discussion (Blackman & Fairey, 2007). PV affords both students and community members the ability to make connections and view their environments from a different perspective. It has the potential to sharpen their awareness of the problems they may face by identifying and discussing the causes and effects of those problems and begin to find solutions for them (Goodhart et al., 2006). PV also allows co-researchers to pursue goals with more clarity and tenacity and develop active engagement in meeting these goals.

Photovoice has the ability to support the development of higher order thinking skills and multimedia products when it is applied as a pedagogical tool. In Cook and Quigley's (2013) study, *Utilizing photovoice as a pedagogical tool to connect college students to science*, photovoice was used to guide students as they authentically inquired about local science. Cameras were used by these students to document and address scientific issues from their unique position and point-of-view, allowing these students new and reflective ways to perceive their own world and the science around them (Cook & Quigley, 2013). This study was significant because it (1) empowered learners to connect with science; (2) provided a way to deepen that connection with science; (3) provided a pedagogical tool for science educators



to use with their students to engage them in the science found in their community; and (4) improved science teaching by creating students who became more connected to science and the world around them (Cook & Quigley, 2013). PV, by using its photographic techniques, allows people to increase their knowledge and create change through social action in their communities (De La Garza, 2011). Photographs and other multimedia can thus encourage co-researchers to identify the issues that are truly important to them.

Wang (1996) concluded that:

Linking the intrapersonal and interpersonal and culture, photovoice can contribute to participatory evaluation by providing a meaningful discussion context by which to enhance people's assessment of their own psychological assets, and by which increase peoples knowledge about community organizing and community problem solving. Photovoice provides the opportunity for people to photograph strengths, bonds, social networks. This process in turn serves to provide information, stimulate ideas, and stir conversations about the communities' resources and capabilities. (p.48)

Litner (2005) also describes a method of using photographs from around the world with elementary school children to build a platform of social understanding that deepens their thinking skills. While photovoice projects do exist that showcase students as they document their world with photographs, many of the existing projects take place with middle, high school, and even adult learners. Of these projects, even fewer focus on ELs, thus supporting the justification and importance of this study in its potential to add to the current literature. Photovoice can be used to deepen knowledge and develop higher order thinking skills by having students take part in an authentic inquiry where each student draws upon his or her

own experiences (Cook & Quigley, 2013). Students have the ability to represent their lives visually by taking photographs of themselves and their communities. PV thus is an inexpensive and engaging way to connect students to one another and lay the groundwork for collaboration and discussion with their peers while also building critical thinking skills.

**Limitations.** The limitations and ethical implications of conducting a photovoice project include protecting privacy, respecting personal space, not using a person's likeness for commercial gain, full engagement with the PV project and maintaining a timeline for project completion (Goodhart et al., 2006). These implications need to be addressed during the training phase of the PV project to ensure that the privacy of all community members is respected and not infringed upon during the study. Other limitations that can surround the PV project involve using students as researchers which can include: (1) locating and purchasing or gaining donations for brand-name or digital cameras to be utilized in the project; (2) obtaining instructional time during the school day to discuss students' pictures, (3) gaining consent forms, and (4) giving all participants the ability to take photographs with or without supervision. Limitations to consider are the use, maintenance, and availability of cameras, as well as the organization of the pictures, film development, and tracking the proper return of cameras (Novak, 2010).

### **Storytelling**

Storytelling is an original form of teaching that is simple, yet powerful in its ability to allow the listener to make sense of the world and experiences around them (Pederson, 1995). Stories such as myths and fables have been passed down through generations and reflect the wisdom and knowledge of early people in their efforts to explain events. Crawford and Smith (2014) concluded that storytelling throughout time is a generational way for people to share

their cultural history, develop an individual presentation style, and teach others important lessons. The National Storytelling Network (n.d.) suggests that storytelling is not only “a performing art, a process of cultural transformation” (para. 1), but also a way to create avenues in which people can engage within their community and their cultural environment.

Storytelling has the ability to enhance the instructional process, but it also has the ability to enhance the learner’s metaphorical understanding of information (Crawford & Smith, 2014). Storytelling is also a powerful way to introduce another culture (Crawford & Smith, 2014; Heathfield, 2011). Heathfield (2011) concluded, “cultures have universal themes and at the same time tell us about specific features that can illuminate and alter our perception of those other cultures, often through metaphor” (para.2). With increasingly diverse populations in U.S. schools, it is important to embrace and teach all students about geography, history, art, literature, or society using storytelling through the lens of these diverse cultures because doing so allows students to explore the imaginative landscape of that culture even deeper (Heathfield, 2011).

### **Digital Storytelling**

Digital storytelling is essentially a modern expression of the ancient art of storytelling. With the rise of the digital age, digital stories have lent further support to understanding information or taking away from the storytelling effort (Crawford & Smith, 2014). Throughout history, storytelling has been used to share knowledge, wisdom, and values, thus, taking many forms. Stories have been adapted to each successive medium that has emerged, from the circle of the campfire to the silver screen, and now the computer screen (Center for Digital Storytelling Association, 2011, para. 1).

In Ohler's (2008) book, *Digital Storytelling in the Classroom*, the author describes digital storytelling as a creative process in which a traditional story is combined with personal digital technology, such as a computer, video camera, and sound recorder. According to Robin (2008), there are three major categories of digital stories: (1) Personal narratives; (2) Stories that inform or instruct; and (3) Stories that examine historical events. Digital Story Telling (DST) can be defined as a multimedia practice where short stories are constructed based on personal experiences and short narratives that emphasize the voice, images, and music (Davey & Goudie, 2009; Alonso, Molina, & Requejo 2013).

Robin (2013) defines digital story telling as:

Digital storytelling is the practice of using computer-based tools to tell stories. There are a wealth of other terms used to describe this practice, such as digital documentaries, computer-based narratives, digital essays, electronic memoirs, interactive storytelling, etc.; but in general, they all revolve around the idea of combining the art of telling stories with a variety of multimedia, including graphics, audio, video, and Web publishing (para.1).

Digital Storytelling first began at the Center for Digital Storytelling (CDS) as workshops with a group of activists, Joe Lambert and Dana Atchley, in Berkley, California, in the early 1990s (Normann, 2011; Robin, 2013). Initially, the participants were assisted in creating personal narratives that then grew to the development of skills in areas of software, process, and story construction (Davey & Goudie, 2009; Alonso, et.al. 2013). Artists, storytellers, and multimedia experts collaborated to develop tools and techniques that allowed people to create first-person narrative stories about their everyday lives and turn those stories into two-to-five minute multimedia stories (Davey & Goudie, 2009; Robin, 2013). Joe

Lambert coined the term, Seven Elements of Effective Digital Stories, to describe key criteria that guided the creation of these digital stories. The seven elements include: A point of view, a dramatic question, emotional content, economy, pacing, the gift of your voice, and an accompanying soundtrack (Bull & Kajder, 2004). The Seven Elements of Digital Storytelling are often cited as a useful starting point when one begins to work with digital stories (see Figure 2.2).

Element	Description
1 Point of View	What is the main point of the story and what is the perspective of the author?
2 A Dramatic Question	A key question that keeps the viewer's attention and will be answered by the end of the story.
3 Emotional Content	Serious issues that come alive in a personal and powerful way and connect the audience to the story.
4 The Gift of Your Voice	A way to personalize the story to help the audience understand the context.
5 The Power of Soundtrack	Music or other sounds that support and embellish the story.
6 Economy	Using just enough content to tell the story without overloading the viewer.
7 Pacing	The rhythm of the story and how slowly or quickly it progresses.

*Figure 2.2.* The Seven Elements of Digital Storytelling.

Robin and Pierson (2005) described multiple ways of using digital storytelling in the classroom and also presented a modified version of the Seven Elements of Digital Storytelling. Their elements, combined with the traditional seven elements, were expanded to highlight ten key criteria instead of seven. These included: (1) the overall purpose of the

story; (2) the narrator's point of view; (3) dramatic question(s); (4) choice of content; (5) clarity of voice; (6) pacing of the narrative; (7) use of a meaningful audio soundtrack; (8) quality of the images; (9) economy of the story details and (10) good grammar and language usage.

Digital Storytelling has the unique ability to capitalize on the creativity of students, as they research, analyze, and synthesize a wide range of content (Robin, 2013). Digital Stories in education must, however, be tied to the curriculum and used to strengthen students' critical thinking, writing, and digital literacy skills (Ohler, 2006). Barrett (2006) found that digital storytelling facilitated the convergence of four student-centered learning strategies: Student engagement, reflection for deep learning, project-based learning, and the effective integration of technology into instruction. Digital stories help students increase their writing quality and creativity (Lambert, 2007). Further, digital storytelling affords students new opportunities to engage in problem solving and gain greater competence using technology through practice and experimentation (Kajder, 2004; Robin, 2008). Additional studies have found that there is a correlation between student levels of learning in reading and writing and their engagement in a variety of higher-order thinking skills (Lim & Tay, 2003; Sadik, 2008).

**Strengths.** In today's classrooms, the increased presence of digital cameras, editing software, authoring tools, and electronic media outlets has encouraged teachers to utilize these technology tools to help students construct their own knowledge, present ideas, and share them more effectively with their fellow students and outside audiences (Standley, 2003). Digital storytelling has becoming increasingly popular due to the accessibility of devices and Web 2.0 technologies that provide students with the information literacy skills they need to be a digital citizen in the 21st century (Robin, 2013; Standley, 2003). New devices like digital

cameras, microphones, computers, scanners, and new Web 2.0 technologies like Voki, Wordle, Wikis, and Animoto can be incorporated into digital stories most of the time inexpensively or by using free web-based applications (Robin, 2013). Bendt and Bowe (2000) summarized ten reasons why storytelling is beneficial: It inspires dedication, encourages creativity to work, promotes problem-solving, embraces diversity, captivates attention, piques interest in writing, fosters group dynamics, addresses different learning styles, creates a positive classroom climate, and incorporates multiple intelligences.

Utilizing digital storytelling projects produces increased student understanding of curriculum content, increased collaboration, and discussion, and increased communication skills, as students engage in individualized projects (Sadik, 2008). The role of the teacher in digital storytelling is to serve as a guide on the sidelines rather than as a technician magician (Ohler, 2008). The strengths of utilizing digital storytelling in education include: (1) more variation than traditional methods in current practice; (2) personalization of the learning experience; (3) increased student interest in topics; (4) greater ability to create real life situations in an easy and cheaper way; and (5) improved involvement of students in the process of learning (Gils, 2005). Robin (2006) concludes that “students who participate in the creation of digital stories may develop enhanced communication skills by learning to organize their ideas, ask questions, express opinions and construct narratives” (p. 712). Digital storytelling has the ability to effectively enhance students' story literacy because it reflects actual students' lives and can be stories that are told with pictures, words, and music (Afrilyasanti, & Basthomi, 2011; Robin, 2013). It also can assist students in to creating stories and presenting their ideas and knowledge in an individual and meaningful way.

**Limitations.** The limitations of conducting a digital storytelling project include lack of teacher knowledge about how to effectively use digital tools and develop projects for students that are meaningful (Robin, 2008). Additional limitations center around students and a number of other key factors that include: (1) difficulty formulating a sound argument, (2) more interest in the technology and not the storytelling, (3) access to technology hardware and software, (4) limited ability to save from the Internet, (5) time consumption, and (6) copyright and intellectual property issues (Robin, 2008). Digital storytelling is also a personal process that can take a considerable amount of instructional time if not effectively managed. Lack of teacher training on how to use these technologies with students, absent meaningful connections to curriculum, a lack of current and available hardware and software, as well as, budget issues, such as eliminating teaching staff and technology, compound the limitations of using digital storytelling regularly within the classroom (Robin, 2008). Technology has produced increased accessibility to digital storytelling in today's classrooms, but its focus should always remain grounded in the curriculum (Normann, 2011). Robin and McNeil (2012) surmise that even though digital storytelling has now been practiced for more than two decades, only a limited amount of research has been conducted on the technology, especially as it has been used in educational settings.

### **DST and PV Are Tools that Support Language Learning Motivation**

Motivating learners to develop the target language is a complex process where students may face obstacles while learning English and are often demotivated to learn. In an effort to combat these obstacles, motivational strategies, as identified by the research on motivation, can help learners adopt more positive attitudes toward their language learning (The Role of Motivation in Teaching and Learning English as a Second Language at the Secondary Level,



2014). In the current study, Digital Storytelling and photovoice were used as motivational strategies to help English language learners develop their language skills further. DST specifically supports SLA (Second Language Acquisition) by utilizing spoken narrative and thus provides students the opportunity to hear how their writing sounds, as they can record and then listen to their digital story as many times as they want. Ohler (2008) concludes that DST has the potential to help students learn language because of the strong interplay between writing, speaking, and listening. Photos make the experience personal, and the presentation of photos throughout their own digital stories can be a powerful learning tool in the development of English skills. Linguistic skills, social ties, informational sources, and perspectives that each EL youth can develop through digital networks can be leveraged in educational practices not only to build on the ELs' prior experiences and digital skills, but also to expand the resources for learning in the classroom overall (Lam, 2012). PV sparks action and is also an influential process that can be used to lift aspirations, transform ideas, and make ideas actual realities. PV and DST can strengthen second language acquisition in ELs by allowing them to work collaboratively and not only influence the way that they think and act, but also work to bring change, so that EL students will develop the listening, speaking, and writing skills they want to be successful and achieve in school. ELs need to develop their language acquisition and communication skills to be successful in their academic pursuits. To accomplish this goal, students must be motivated, actively engaged in their learning, and have their cultural and linguistic needs met.

In this study, photovoice was a valuable tool because it empowered students to become more aware of their surroundings. Students can also use PV to collect and analyze data and then use that data to advocate for change, make their voices heard, and actively do something

to help solve perceived problems (Goodhart et al., 2006). Photovoice has three main goals: (1) to enable people to record and reflect their community's strengths and concerns, (2) promote critical dialogue and knowledge about personal and community issues through large and small group discussions of photographs, and (3) reach policymakers. All of these can be used to increase the English skills of ELs. For the purpose of this study, the photovoice method of photo analysis was used to define what being a learner meant to each participant.

DST centered on learning through reflection and the development of one's own experiences. Similar work has been done in the field of health and human services using PV to draw on images and narratives generated through participatory and collaborative methods as a way of informing policy (Harrison, 2002; Radley & Taylor, 2003; Wang, 1999). In this study, the digital stories were narrated in English to provide ELs the opportunity to practice oral, written, and digital skills while simultaneously gaining exposure to varying forms of second language input, such as researching content, listening to teachers and peers and their own recordings (Normann, 2011).

Language is a powerful force that shapes our individual and collective identity (WIDA, 2014). Both photovoice and digital storytelling can assist an audience in their ability to visualize narrative elements, shape identity, and develop language. Pictures are used to elaborate on the un-verbalized qualities of the main participants in a story to include information about people's ethnicity, their condition, or other circumstances that surround the narrator's life (Alonso, et.al. 2013).

Telling a personal story, whether orally, written, or visually, becomes a social process for making a lived experience understandable and meaningful (Ellis & Bochner, 1992) through the lens of political, cultural, and historical contexts (Ellis & Flaherty, 1992). Digital

Storytelling and photovoice, whether applied through multimedia or photographs, gave the students in this study the ability to create personal narratives where they became active creators, rather than passive consumers as they crafted personalized projects using their oral, written, and digital literacies. While digital storytelling promotes greater depth and understanding of texts, it also encourages students to gain proficiency in the technical aspects of language, thus strengthening their willingness to experiment with words, language, and vocabulary, and make changes, as they engage in digital storytelling (Hull & Katz, 2006; Ware, 2006).

Providing choices that are meaningful to students and related to academic content is effective for supporting intrinsic motivation and academic engagement (Katz & Assor, 2007). Digital stories and photovoice also can serve as an organizing principle for human action and a focus for constructing meaning from experience (Bruner, 1986, 1987). The stated intentions of organizing digital storytelling projects and photovoice projects are generally oriented toward emancipation and social justice (Riessman, 1993; Meadows, 2003; Wang & Burris, 1997). Photovoice and digital storytelling have the ability to make a considerable impact on an audience because of each author's personalization of stories and photos. DST and PV are not just about transferring knowledge; both are designed to amplify the voice of a community (Burgess, 2006). Everyone can participate because everyone has a story to share whether through digital media or photography. Community engagement in digital storytelling and photovoice are social phenomena that reveal the power of the individual voice to influence positive change (Lambert, 2007). Digital storytelling and photovoice both have a strong potential for connecting a community through community engagement and shared experiences. They have the unique ability to create new dialogue that develops tolerance

through understanding someone else's story and thereby shed new light on community or personal issues (Burgess, 2006).

PV and DST are alike in their potential to increase self-efficacy, motivation, and second language acquisition while students are speaking and writing about their personal experiences. This development of self and personal experiences can enhance literacy (Kajder, 2004) and digital literacies in particular and engage and motivate students (Sadik, 2008) while also developing their research skills (Robin, 2006). Gubrium (2009) concedes that "the aim (of DST) is to have participants construct their own digital story and to avoid having the experts, the trainers, construct stories for them" (p. 187) thus building of the self-efficacy and sense of self of the story's creator.

### **Chapter 3--Methodology**

The previous chapter examined Information and Communication Technologies, described English learning students as a group, and discussed their impact on today's U.S. schools. Research explored the environment of ELs by investigating the role of actual language policy in schools, the current academic successes of ELs, and the role of language acquisition by ELs based on their needs. Finally, the use of photovoice and digital storytelling as tools that can be used to increase the academic intrinsic motivation of ELs who are acquiring a second language was also explored. From this review, the researcher identified a need to investigate what it actually means to be a learner in today's schools and how digital storytelling, photovoice as a method of photo analysis, as well as technology driven self-selected projects can be used to impact student perception of their academic intrinsic motivation and English language acquisition in positive ways.

This chapter presents the methodology used for this research. A qualitative approach to research assumes that reality is socially constructed and situated within an actual and authentic context (Creswell, 2009; Glesne, 2006; Merriam, 1998). Glesne (2006) concluded that many modes of qualitative research exist (e.g., ethnography, grounded theory, phenomenology, symbolic interactionism). The current qualitative case study was exploratory and designed to add to the literature about whether participation in digital storytelling and photo voice as a method of photo analysis could enhance student academic intrinsic motivation and perception of second language acquisition for five English learners in the fourth grade in a school in northern Georgia. The case study needed to be exploratory in

nature (Creswell, 2003) because little has been written about the use of PV and DST with EL elementary students. This study utilized case study methodology and incorporated the organic process of developing a project from the inside out with both the participants and the researcher as co-creators.

A case study is a story about something unique, special, or interesting (Yin, 2009). It can be about individuals, organizations, processes, programs, neighborhoods, institutions, and even events (Yin, 2009). Thus this format was used to determine whether participation in digital storytelling and photovoice as a method of photo analysis can enhance student academic intrinsic motivation and perception of second language acquisition for five fourth grade English learners.

Qualitative case study methodology (Baxter & Jack, 2008) provides unique tools for researchers to use to facilitate the exploration of a phenomenon within its context. A case study can be defined as further exploration of a bounded system, which establishes the parameters of such a study (Creswell, 2014; Merriam, 2009). Case studies, by using a variety of data sources, ensure that an issue is not explored through only one lens, but rather a variety of lenses, which allows for multiple facets of the studied phenomenon to be better, revealed, and understood (Baxter & Jack, 2008). Berg (1998) and Yin (2009) assert that the case study methodology strives to achieve a comprehensive understanding of a particular case through the systematic gathering of information that permits the researcher to effectively understand how some particular element operates and functions.

A case study, as Merriam (1988) and Stake (1995) have concluded, has different meanings for different people and for different disciplines. A case study can be used when a researcher decides to write a descriptive account of a specific situation, describe vivid details

of that phenomenon, and provide the reader with a deeper understanding of the phenomenon (Merriam, 2009). The primary advantage of a case study is that it can provide more detailed information than what is available through other methods and allows for the presentation of data collected from multiple methods (i.e., surveys, interviews, document reviews, and observations) and thereby provide an integrated first person story. After considering this study's research topic and the research questions, a case study design was deemed to be the most appropriate choice to use to conduct this research because it met Merriam's (2009) three standards for a case study. It was (1) particularistic because it would focus on the particular experiences of ELs, as they participated in a digital storytelling and photovoice project; (2) it was descriptive because the resulting product of this particular case study would be a multi-layered, descriptive presentation of the experiences of the participants; and (3) it was heuristic because it sought to enhance the language learning field through better understanding of actual educational experiences and involved the academic intrinsic motivation of ELs to learn English.

Data sources in this study included pre-and post-semi-structured interviews, photo analysis of the students' photographs using photovoice's SHOWed method, and participant observations (as recorded in the researcher's journal). Semi-structured interviews were conducted to allow questions to be formulated before the interview and yet also allow the students the freedom to express their views during the interview. Semi-structured interviews are defined thusly because the questions are formulated prior to the interview, but then also may develop further during the course of the interview as a probe or as additional questions that are prompted by answers already provided by the students. This study thus adhered to the qualitative case study methodology of data collection and analysis.

Creswell (2009) uses the term *worldview* to describe a researcher's orientation to the world and nature of a research effort. The researcher's positionality and rationale for conducting this study is discussed later in the chapter; however, several researchers (Bonwell & Eison, 1991; Kolb, 1984) suggest that people will attempt to make meaning from, or interpret their world through a variety of learning experiences. Experiential theories take a holistic approach by emphasizing how personal experiences, including cognitions, environmental factors, and emotions do influence the learning process by focusing largely on internal cognitive processes (Kolb, 1984). It is these learning experiences that define us and shape our world view. Within the focused lens of this study, qualitative research was a way to understand not only the ELs views of themselves as learners, but also to understand the perceptions they have of their own academic intrinsic motivations to learn English.

### **Setting**

This research was conducted at an elementary school in Georgia located in the suburbs of a large Southeastern city within the United States. The school is a public elementary school that serves pre-kindergarten through fifth grade students. Approximately 58% of the school population are students from other countries, cultures, or ethnic groups, and 46% of the school's population is being served or monitored in ESOL. The student population is 28% Caucasian and 58% Hispanic. Approximately 72% of the children come from minority groups with Hispanics constituting the largest minority group and African-American children (10%) being the second-largest minority group (SIP, 2013). Of these, 370 students are eligible for services through EIP/Title 1, 227 students are served by the ESOL program, 412 students are monitored by the Response to Intervention Program (RTI); 60% of the kindergarten grade



level is Hispanic and non-English speakers. These percentages indicate that the students at risk in this school are the highest population in this particular school district (SIP, 2013).

According to the 2013-2014 School Improvement Plan (SIP), there is a school wide technology implementation plan for technology usage where this study was conducted. No data were available that related to this school’s specific link to student access to technology and the Internet at home; however, classroom use of current technological hardware and software available to fourth grade EL’s has been addressed in the school’s technology plan (see Table 3.1)

Available Software	Hardware
Adobe Elements/Premiere Adobe Creative Suites Microsoft Office - Word, Excel, Access, PowerPoint, Publisher, Outlook, OneNote Office 365 Aspen Student Portal Success Maker Math & Reading, Success Maker Collaborate Scholastic Reading Inventory READ 180 Easy CBM Solo 6 Literacy Suite TimezAttack Type to Learn QUIA USA TestPrep BrainPOP, BrainPOP Espanol/ESL Grolier Online PebbleGo FreedomFlix NoodleTools Destiny – Media Center Reader/Reading Counts STAR Math, Reading, Early Literacy Geometer’s Sketchpad ActivInspire Smart Notebook	Per classroom:  1-24 Station Mobile Laptops/Cart 5 desktop computers 10 iPads 1-30 Acti-votes Document camera Promethean Smart Board Internet access Laser printer 5 headphones CD player  One per school:  Video conferencing equipment

Write to Learn (Limited licenses) ActivEngage2 Moodle Learning Management	
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*Table 3.1 School Technology. SIP 3013-2014*

Technology is an integral part of everyday teaching and learning at the school where this study was undertaken. While BYLD, “Bring your own learning device,” is a county-wide initiative, implementing the BYLD program provides a challenge for the student population for this Title I school.

### **The Sampling**

When school learning connects to students’ cultures, native languages, identities, and communities, clear gains in both academic engagement and achievement can be seen (Gutiérrez, Morales, & Martinez, 2009). Students often feel powerless to access or influence those who make decisions that affect their lives, and as such photovoice can serve as an effective method for students to use to note and discuss community strengths and concerns through their photographs (Wang & Redwood-Jones, 2001). As photovoice participants, students have the opportunity to become co-researchers and share the responsibility of developing the research goals, personally take responsibility for data collection, and actively assess data through both discussion and analysis (Palibroda, Krieg, Murdock, & Havelock, 2009). This case study utilized convenience sampling because of these students’ convenient accessibility and proximity to the researcher. Students were all selected from the school where the researcher works, during a time within the school day when the researcher could work with students. From the convenience sample, the researcher purposefully selected students at three levels of English language proficiency. The students were selected based on similar characteristics, such as a common Hispanic ethnicity, all in the fourth grade and all actively receiving ESOL services. Patton (1990) suggested that the power of purposeful sampling lies

in selecting rich cases for in-depth studies. In this case study convenience sampling was used to provide information from which the research could learn a great deal about issues of central importance to the field of second language acquisition and ELs.

Convenience sampling is important to the study because the target population to be selected for participation yielded a deeper understanding of ELs and their perceptions. The researcher in this study took on a participant-observation role (Creswell, 2014; Yin, 2009) in a capacity wherein the researcher assumed various roles within the study. As a participant-observer, the researcher was able to understand the setting as an insider, while still describing it for the understanding of outsiders (Patton, 1990). The researcher was also able to conduct rich, descriptive observations in this case study throughout the implementation of photovoice and digital storytelling to an extent that would not have been possible through just conducting interviews alone (Patton, 1990; Yin, 2009).

### **Participant Selection**

Five EL students in the fourth grade from the selected local elementary school were chosen based on their level of English proficiency according to the WIDA framework continuum of language development (i.e., low – entering to beginning; medium – developing to expanding; high – bridging or exited ESOL program) and applying the following criteria: (a) levels of English proficiency: Level 1–Entering, Level 2–Beginning, Level 3–Developing, Level 4–Expanding, Level 5–Bridging and Level 6–Reaching as determined by tiers A, B, or C; (b) no previous or current record of disability or special education services; (c) eligibility for the ESOL program at their public elementary school, determined by the February 2014 Assessing Comprehension and Communication in English State-to-State for English Language Learners (ACCESS), (WIDA, 2014) in either the listening/speaking or

reading/writing component or composite scores; and (d) ability to communicate orally with a Spanish speaking peer or with the researcher. In addition to the above criteria, the final selection of the five students also included the requirement for these students to have basic technology knowledge that included turning on and off a computer, accessing storage in a shared file or on a USB, and the ability to use a mouse to maneuver computer functions. Home use of computers and access to technology for the students is addressed in Chapter 4. If several students fit these criteria, the selection was narrowed by: (a) a first come, first served basis: the first five students who were eligible and submitted their consent; (b) student ability to attend meetings once a week for an hour during school hours; and (c) parent permission that was received to allow a student to participate.

**ACCESS.** ACCESS is a large-scale English language proficiency assessment given to Kindergarten through 12th graders who have been identified as English learners (ELs) in order to monitor student progress in acquiring academic English (WIDA, 2014). The purpose of ACCESS for ELs is to monitor student progress in English language proficiency (ELP) on a yearly basis and serve as a criterion to aid in determining when ELs have attained language proficiency comparable to that of their more English-proficient peers (WIDA, 2014). ACCESS for ELs uses multiple choice questions to assess listening and reading with speaking language being assessed through a scripted face-to-face interview that is adaptive, thus allowing students to demonstrate proficiency at different WIDA language proficiency levels (WIDA, 2014). The scale scores and proficiency levels thus yield a profile of a student's English language proficiency.

***ACCESS Composite Scores.*** The ACCESS test proficiency level scores are interpretive scores that describe student performance in the domains of listening, speaking, reading, and

writing for the six WIDA language proficiency levels (1-Entering, 2-Emerging, 3-Developing, 4-Expanding, 5-Bridging, and 6-Reaching). The proficiency level scores are presented as whole numbers followed by a decimal. A whole number indicates the student's language proficiency level based on the WIDA ELD Standards. The decimal indicates the proportion within that proficiency level range that the student's scale score represents, rounded to the nearest tenth. Proficiency level scores do not represent interval data, meaning that the values between intervals are not equally divided. This process allows students to avoid responding to questions that are inappropriately difficult or too easy. Student composite scores for this study were derived from a combination of weighted scale scores from the language domains.

For ACCESS, compensatory means that a high score in one language domain could inflate the composite score, thus compensating for a low score in another language domain; conversely, a low score in a language domain could bring down the composite score (WIDA, 2014), thus requiring additional selection criteria. The language proficiency level designations of the composite scores correspond to the scaled scores for Oral Language (listening and speaking combined), Literacy (Reading and Writing combined), Comprehension, and Overall Score. These scores are not, however, derived from a combination or an average of proficiency level designations of the individual domains used to comprise the composite scores. Student composite scores are broken down by domains, namely, oral language; literacy, comprehension, and an overall scaled score (see Figure 3.1).

Type of Composite Score	Contribution of Language Domains (By Percent)			
	Listening	Speaking	Reading	Writing
Oral Language	50%	50%	–	–
Literacy	–	–	50%	50%
Comprehension	30%	–	70%	–

Overall	15%	15%	35%	35%
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Figure 3.1. ACCESS composite scores

The Oral Language composite score combines equally weighted scale scores from Listening and Speaking where 50% of the Oral Language Score is attributed to Listening and the other 50% to Speaking. The Literacy composite score combines equally weighted scale scores from Reading (50%) and Writing (50%). The Comprehension composite score combines the scale scores for Listening (30%) and Reading (70%). The Overall Scale Score reflects a weighted score based on the scales scores for Listening (15%), Speaking (15%), Reading (35%), and Writing (35%). The weighting of these scores reflects the differential contributions of each language domain that is required for academic success, with a heavier emphasis placed on literacy development.

**ACCESS Tiers.** ACCESS for ELs is divided into three overlapping tiers: A (Beginning), B (Intermediate), and C (Advanced) to best represent the entire range of English language proficiency for this diverse student population (see Figure 3.2)

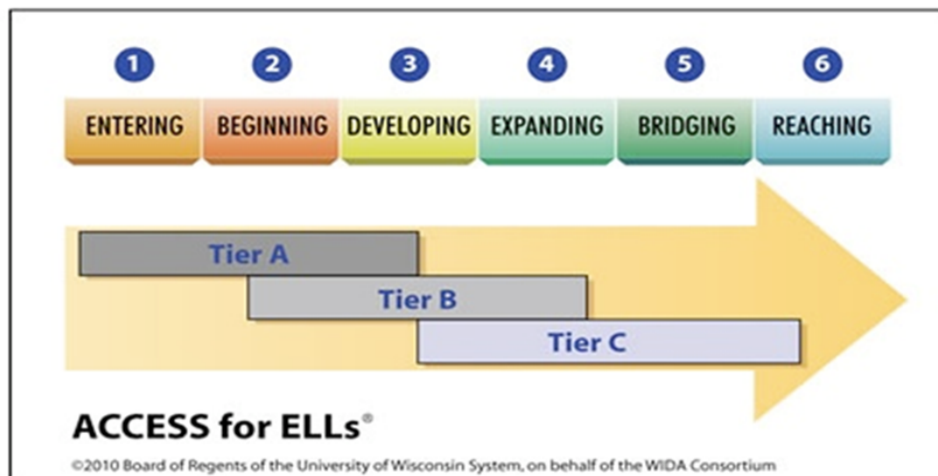


Figure 3.2. ACCESS tiers of English Proficiency. (WIDA, 2014).

For placement in the appropriate tier, English learners must meet at least one of the

criteria listed for that tier (WIDA, 2014). Tier A includes ELs who have entered the U.S. in the current academic year without previous instruction in English or recently tested on the W-APT and scored below 2.0. Tier B includes ELs, who has social language proficiency and some, but not extensive, academic language proficiency or an EL who has acquired some literacy in English, but has not yet reached grade level literacy. Tier C includes ELs who have almost reached grade level literacy and academic language proficiency in core content areas or those who will most likely meet the exit criteria for ESOL support services by the end of the academic year (WIDA, 2014). These tiers describe the spectrum of ELs progression from knowing little to no English to acquiring the English skills necessary to be successful in an English-only mainstream classroom without extra support. English language proficiency levels and descriptions of each tier are shown below (see Figure 3.3)

Level 1 Entering	Level 2 Beginning	Level 3 Developing	Level 4 Expanding	Level 5 Bridging	Level 6 - Reaching
<b>ACCESS for ELLs<sup>®</sup>: TIER A</b>					
<b>ACCESS for ELLs<sup>®</sup>: TIER B</b>					
		<b>ACCESS for ELLs<sup>®</sup>: TIER C</b>			
<p><b>TIER A</b> is most appropriate for English language learners who:</p> <ul style="list-style-type: none"> <li>• have arrived in the U.S. or entered school in the U.S. within this academic school year without previous instruction in English, OR</li> <li>• currently receive literacy instruction ONLY in their native language, OR</li> <li>• have recently tested at the lowest level of English language proficiency</li> </ul>					
<p><b>TIER B</b> is most appropriate for English language learners who:</p> <ul style="list-style-type: none"> <li>• have language proficiency and some, but not extensive, academic language proficiency in English, OR</li> <li>• have acquired some literacy in English, though have not yet reached grade level literacy</li> </ul>			<p><b>TIER C</b> is most appropriate for English language learners who:</p> <ul style="list-style-type: none"> <li>• are approaching grade level in literacy and academic language proficiency in the core content areas, OR</li> <li>• will likely meet the state's exit criteria for support services by the end of the academic year</li> </ul>		

*Figure 3.3* English language proficiency levels and descriptions of language proficiency tiers. (WIDA, 2014).

**Participants.** Using the February 2014 ACCESS scores, the researcher selected student participants for the study as follows: One female and one male were chosen from Tier C, one female and one male were chosen from Tier B, and one female was chosen from Tier A.

ACCESS for ELs is divided into three tiers: A, B, and C. While the tiers do overlap, each tier assesses a different range of language proficiency (WIDA, 2014). Each student's pseudonym, gender, ACCESS composite scores, tier level, and bilingualism in speaking, writing, and reading are listed below (see Table 3.2 and Table 3.3).

Student Name	Gender	Tier	<u>ACCESS</u> Oral Language  (Listening/ Speaking)	<u>ACCESS</u> Literacy  (Reading /Writing)	<u>ACCESS</u> Comprehension  (Reading/ Listening)	<u>ACCESS</u> Overall Composite score
Jacenta	F	A	3.1	3.8	3.1	3.6
Matias	M	B	4.4	4.8	5.0	4.7
Bella	F	B	4.4	4.4	5.0	4.4
Javier	M	C	3.9	4.9	5.5	4.6
Benita	F	C	5.8	4.5	5.6	4.9

*Table 3.2* Participant Information and ACCESS scores

Student Name	Home Language	Bilingual Speaking	Bilingual Writing	Bilingual Reading
Jacenta	Spanish	Yes	No	Yes—words *not fluently
Matias	Mostly Spanish	Yes	No	No
Bella	Spanish	Yes	No	No



Javier	English and Spanish w/parents	Yes	Some	Yes *not fluently
Benita	Mostly Spanish; sometimes English	Yes	Yes	Yes

*Table 3.3 Participant Bilingualism in Speaking, Writing, and Reading Skills*

### **Project Overview: Getting Started**

Meltzer and Hamann (2004) determined that three classroom practices supported motivation and engagement for language-minority teens: (a) connection to students' lives and, therefore, their background knowledge; (b) responsive classroom environments that encouraged student voices and provided literacy choices; and (c) student interaction during literacy practices that promoted questioning, predicting, and summarizing. With these practices in mind, the project timeline (see Appendix A) was developed. Participants were given iPads with a camera and were encouraged to photograph anything they thought was significant to their project anywhere within the school building during the school day. Students were provided one week to take their photographs.

Once the photographs were taken, they were downloaded, and in a workshop setting in a designated classroom, the participants talked about the photographs they had taken. The participants engaged in critical dialogue in which they shared their photos and accompanying stories with the researcher and the four additional students that comprised the project group to situate the content of the photographs in their own experiences. Participants then recorded and reflected on what they saw as the most important information using the photovoice SHOWeD method of photo analysis (see Appendix G). This process was explained to students in a workshop setting and is listed in (see Appendix H).

This dialogue and method of photo analysis enhanced the researcher and the participants' understanding of what it means to be a learner. Pictures were collectively

analyzed by the group through the use of a document camera and white board. Each individually selected picture was shown to the group on a large white board that allowed discussion and the generation of ideas for incorporation of each individual's pictures into his or her digital stories. Once feedback was provided to the individuals by the group, students turned their photos into digital stories that showcased each student's self-selected pictures about what it means to be a learner. To address language and communication barriers before data collection, the participants collaboratively brainstormed topics for the project. Group brainstorming and teacher modeling was relied upon to provide both vocabulary and language scaffolding. The developed ideas were then categorized by the students, both collectively and individually with the guidance of the researcher, into broader themes, such as school, family, and friends, personal experiences/feelings, and home country. These themes were used to develop the photo analysis and digital stories produced during the data collection.

The implementation of digital storytelling and the photovoice project took place during school hours due to parental transportation constraints. The majority of students at this school rely heavily on bus transportation. If activities take place after school, many families have to arrange for a taxi, a ride with friends, or even walk the distance to the school to pick up their children. To meet the transportation needs of the students in this project, each workshop session took place for one hour during school times, once a week. During these weekly workshop sessions, the target language of the ELs was English, which meant that both instruction and conversation occurred in a language that might or might not be understood by the participating students; thus participants were encouraged to engage in conversation using their L1 during the discussions and project implementation with a bilingual student other than the researcher. Student participants were also encouraged to explain any directions to

participants with limited English proficiency as they worked collaboratively on their projects. Collaboration was necessary within the project in order to develop ideas and ensure precise understanding of the project because of the varying levels of English proficiency in the students. In order to address the gaps in English proficiency, students were encouraged to use short phrases, words spoken in both English and Spanish, and use graphic representations to convey what the pictures meant to them as learners. Such collaboration also supported the co-construction of knowledge that facilitates deeper thinking, student communication when solving given tasks and all the students so they could achieve more together than they could on their own (Alavi & Dufner, 2005).

**Obtain Informed Consent.** Beginning in August of 2014, the researcher applied for Institutional Review Board (IRB) permission and developed a project timeline (see Appendix A). Once IRB approval was obtained from both the researcher's supervising university and the chosen school system, participants were selected based on the established selection criteria. Signed consent forms from parents (see Appendix B), as well as assent from each student (see Appendix C) selected for participation were also collected. The consent form used for this study covered all of the ethical protocols deemed necessary by Kennesaw State University's Institutional Review Board (IRB), making it clear to students and parents that their participation was voluntary, any potential benefits and harm that could result from the study, as well as the overall goal of the study. All participants were then assigned pseudonyms to protect their identity.

### **Project Implementation**

The researcher arranged for an introductory meeting with the five students who were participating. The initial meeting served three main purposes: Introduce the project and

explain the purpose of the study, explain the methodology of photovoice, and discuss the responsibilities and risks of being a photographer. In the first part of the meeting, students observed photovoice examples and had time to think about what it means to be a learner. Students also had the opportunity to brainstorm photo ideas with each other, and the researcher emphasized that the photovoice projects were going to be guided by the participants and their visions.

**Development of Theme for Taking Pictures.** In a PV project, researchers typically choose an initial general topic before asking the participants to decide on the specific question(s) that they want to address on that topic. In this project, initially the theme of “what it means to be a learner” was suggested by the researcher, but it was open to discussion and critique after the initial meeting with participants. Participants chose to remain with the themed topic of what it means to be a learner. They also added what it means to be a learner at S.T.E.M. (Science, Technology, Engineering, and Math) academy to focus their planning precisely. Also discussed during this workshop were background, religion, culture, schooling, teachers, sports, and how each of those aspects affects who students are when they come to school.

**Visual Storytelling and Camera Training Session.** PV as a qualitative research method involves a specific number of steps. Step 1 consists of an introduction to the project and one or more training sessions. This first step should include a discussion of the cameras, ethics, and power (including the need to ask for permission); the different ways in which the photographs might be seen; and the fact that copies of the photographs should be given to community members. Training should also be given on using the technology (e.g., how to look after the camera and how to use it). However, the researcher should limit providing

students with technical photographic advice, so as not to stifle or hinder the creativity or perspective of the person taking the photographs (Wang & Burris, 1997).

Since photovoice emphasizes the content of the photo and its meaning rather than the quality of the photograph (Wang, 1999), the primary purpose of the first workshop was to teach the participants basic iPad camera operations and functions. The researcher conducted an iPad camera workshop that provided minimal mechanical training and included orienting the camera, powering the iPad on and off, taking a photo, zooming in and out, keeping the camera steady, reviewing photos, and obtaining consent before photographing people. During the workshop, students learned about visual storytelling and the aesthetic composition of images by relating words and feelings to three photo examples. Sutton-Brown states that “photographs capture observable images that are frozen in time; thus photovoice participants are forced to conceptualize and represent only observable phenomenon” (p.73). Therefore, the focus of this workshop consisted of demonstrating how images can be framed to evoke a certain response from the viewer to tell the story that participants want to tell. Student participants also practiced iPad camera basics during the workshop.

**Taking photographs.** The second step in using PV is taking the photographs. Participants were given a week to take pictures (as noted in the project timeline in Appendix A), thus allowing them to have multiple time periods in which to photograph and capture various aspects of the central topic, namely, what it means to be a learner. During this step, the participants took photographs that they believed best depicted the central topic already established in the first workshop. The next meeting with the students after taking the photographs was focused on downloading pictures, printing pictures, and selecting photos to analyze and focus on using the photovoice SHOWeD method.

**Photo Analysis.** During the third step of a photovoice project there is a three-stage participatory process that involves selecting, contextualizing (storytelling), and codifying issues, themes, and theories (Wang, 1997). During this stage, the participants first chose 3–10 photographs they thought best represented their views. During this stage, students used three ways of thinking to consider their images: (1) Are they immediate and can be targeted for action, (2) Are there themes/patterns across the images, and (3) can theories and action be developed or taken based on community needs (Harley, 2012). Students selected and analyzed their images both individually and collectively. Using the photovoice SHOWeD method. Each individual completed a SHOWeD template for three pictures. Students used the SHOWeD method (Wang, 1997) (see Figure 3.4) to think about each set of photographs and then discussed their conclusions by adding contextualization and telling stories about each of their pictures (Harley, 2013) as follows:

- S What do you See here?
- H What is really Happening here?
- O How does this relate to Our lives?
- W Why does this situation, concern, or strength exist?
- E How could this image EDUCATE others?
- D What can we Do about it?

*Figure 3.4.* Photo Analysis SHOWeD Method.

In this workshop session, the participants defined the sub-themes and issues for analysis purposes, thereby avoiding “the distortion of fitting data into a predetermined paradigm” (Wang & Burris, 1997, p. 382). Once the individual reflections were completed, all student-selected pictures were shown on the white board, using a document camera for

reflection. During the group dialogue, the students were guided to make their own connections between various photographs, relating their own to the ones that others had taken. Students performed a reflective content analysis of each photo by discussing the general theme and sub-themes about what it means to be a learner at a STEM academy, acquire English, and the motivation to learn English that emerged for them from the collective photographs and group discussions.

Content analysis is a research technique that allows inferences to be made from data regarding their context (Ertem, 2014). Ertem (2014) summarizes the concept, saying that content analysis permits “researchers to create their own context for inquiry, thus opening the door to a rich repertoire of social scientific constructs by which texts may become meaningful in ways that a culture may not be aware ” (p.471). PV was used in this study only as a way to analyze and reflect upon the photos that were taken to create student digital stories. PV’s SHOWed method indicated how the students reflected on their photos and made the connection for how each photo represented themselves as learners.

**From Photo to Photo Story.** Using photographs selected from their PV SHOWed method, the students then selected 10 photographs to create a digital story that depicted who they are individually as learners. Digital Storytelling stresses the importance of assessing the whole process, not just the finished story (Ohler, 2008). Normann (2009) provides a series of steps for implementing digital storytelling projects in the classroom. They include: (1) Identify a personal story with tellability; (2) Write an initial story script; (3) Plan a storyboard to accompany the script; (4) Discuss the script with peers and revise; (5) Import images and sequence them in the video editor; (6) Add the narrative soundtrack; (7) Add special effects and transitions; and (8) Add a musical soundtrack. Once the photographs were chosen and

analyzed, students were asked to create a digital storytelling project using 10 pictures of their own choosing. Students completed several steps in the creation of their digital story: 1) write no more than a one-to-two minute first- person story; 2) collect images to accompany the story; 3) import images into the computer; 4) record the voiceover; and 5) align images with the script. Each student used an iPad camera provided by the school to take pictures of friends, activities, places, or anything else they felt helped them to identify who they were as learners.

The free app Videolicious (2014) was used for the digital story production. Features of this app include the ability to create photo movies in four easy steps (Videolicious, 2014). Participants created a video by choosing their photos and putting them in the order they wanted them to appear, then spoke and recorded their narration, and added music from the Videolicious app.

***Storyboarding.*** A storyboard is a written or graphical representation of all of the elements to include in a digital story (Robin, 2013). Storyboarding illustrates a story in chronological order and is typically created before actual work on creating the digital story begins. This process allows the creator to develop a written description and a graphical depiction of the elements of a story, such as images, text, narration, music, and transitions while organizing all these elements for the maximum effect (Robin, 2013). Storyboards may be created in a variety of ways, both digitally and manually on paper or an artist board. If storyboards are developed on a computer, a variety of software programs can be used, including Microsoft Word, Excel, and PowerPoint (Robin, 2013). The creation of a storyboard is of great importance to any storytelling project because it can inspire new ideas and foster the rearrangement of existing resources before the actual development of the digital



project after which changes may be harder to make (Robin, 2013). Students in this project used pictures to guide the creation of the storyboards about themselves, their culture, and what it is like to be a learner. Students also had the option to create their storyboard either digitally or manually. Lesson plans and storyboarding tips are discussed in the researcher's journal (see Appendix H).

***Movie Maker and Videolicious.*** Storyboards, pictures, and scripts were then combined to create a multimedia project that incorporated the writing, pictures, and audio the students chose into one final product using Videolicious. Initially, Windows Movie Maker was selected for use to create the digital stories because it is a free download from Windows that the school's computers already had installed. While traditionally Movie Maker is used to create digital stories, in this study students used an iPad application (app), Videolicious instead. The app emphasized the message and what story the students wanted to tell about themselves through their digital stories without the additional difficulties that participants might have encountered saving, editing, and producing digital stories using Movie Maker. Their final products also had the ability to be shared on You Tube, Twitter, Facebook, and by email (Videolicious, 2014). This app features an easy three-step process to create a digital story. In Step One, students tapped to choose pictures from their camera roll on the iPad. Students then navigated to the camera roll and selected the photos they took by touching each image once. The order in which they touched the photographs became the order in which the photos appeared in their movie. In Step Two, students pressed or tapped "Tell Your Story," and pressed the red record button to begin their narration after a 3-second countdown. As students narrated their stories, they pressed their photograph thumbnails each time they wanted to advance to the next photo. When the students finished narrating, the narrated

slideshow was ready for preview before they moved on to step three. Step Three allowed students to add music, then preview and upload their final video. Each step was prompted by the app and gave the students both instructions and mini-tutorials as to how to move to the next step both with words and pictures.

Due to the ease of use of the Videolicious app, the students had the opportunity to share their stories with each other and classmates of their choosing at a presentation party. Movies were then displayed around the school with a link embedded within a QR code for other students, teachers, and school visitors to watch. Additionally, the completed digital stories were scheduled and showcased at the March 2015 community EXPO exhibition hosted at the students' school.

### **Data Collection**

Qualitative researchers can collect data from multiple sources and use multiple methods such as participant observations, interviews, and document collection rather than employing a single method (Bogdan & Biklen, 2006; Glesne, 2006). In this study, participant interviews, photo analysis, and a researcher's journal were used for positive triangulation. The use of triangulation, or the combining of multiple analytic methods, adds to the validity and credibility of the collected data (Lapan & et al., 2012). Data can thus be analyzed and interpreted through a variety of epistemological lenses (Merriam, 1998; Yin, 1994, 2004), although descriptive/interpretive approaches are still the most common in studies centered in the second language acquisition field. This case study, however, sought to develop new insight into ELs through interviews, photo analysis, and a researcher's journal.

**Interviews.** The research design involved a qualitative methodological framework consistent with the use of a case study. Semi-structured interviews and participant

observations were utilized to explore the experiences and reflections of the participants who were involved in the process. Pre- and post- interviews were conducted before and after the project to elicit information that addressed the research questions. At the onset of each interview, the researcher established a bilingual language mode (Grosjean, 1998), making it clear that the students were welcome to respond in English, Spanish, or a combination of the two languages. If the participant chose to respond in Spanish, a bilingual teacher, scheduled in advanced, was available to offer a translation, thus allowing the interviewer to ask additional probing questions based on a student's response. The interviewer conducted the interview, and the translator translated, as needed, to ensure full student comprehension of the question. If students responded in Spanish without a translator present then the transcription service Rev.com provided translation services for the interview transcripts.

The first interview occurred at the initial stages of the digital storytelling experience. The second interview took place at the end of the digital storytelling experience. The timing of the interviews was designed to yield the most complete understanding of the digital storytelling and photovoice experience of the five students. In this study, semi-structured interviews were used to collect the data. The interview protocols (see Appendices D and E) were developed by the researcher and examined first by the researcher's dissertation committee and then by a colleague to ensure that the interview protocol addressed each research question appropriately and fully.

The interview protocol also provided a framework, while the semi-structured nature of the interview provided an effective opportunity to formulate further questions during the interview, thus allowing both the interviewer and the person being interviewed the flexibility to probe for additional details or discuss issues further. The method was used because it

encourages two-way communication, helped to gather specific, qualitative information by probing for what was not known, and allowed the researcher the opportunity to gain new insight on specific issues addressed by the research questions as in how ELs perceive themselves as learners, perceptions of their self-efficacy regarding technology usage, how participation in a photovoice and digital storytelling project impacts ELs' academic intrinsic motivation to learn English, and a perception of their own English language acquisition. The interviews supported the overall case study methodology.

The interview sessions were recorded using the recording software Camtasia and then transcribed into text for analysis using rev.com. The researcher's Apple iPhone was used as a secondary recording device by utilizing the rev.com app to ensure there was no loss of data due to technical malfunctions. Both Camtasia and Rev.com were utilized in this study due to their ease of use/ functionality and previous use by the researcher in earlier studies. Rev.com, in addition to transcription, also provides translation in more than 30 languages, thus ensuring that all interview responses were translated and transcribed from any Spanish responses, as needed, into English text for analysis. Participants' answers were also sparingly jotted down by the researcher to maximize the development of rapport between the interviewer and the participant. These jottings were later used to draw attention to key points of the interview during analysis. Interviews were conducted individually, with no reference to the school or a student's identity, and also confidentially to ensure participant confidentiality.

**Coding.** Codification is the process whereby the researcher identifies data that might be useful for the purpose of the research (Merriam, 1998). Coding is not simply part of data analysis; it is the "fundamental analytic process used by the researcher" (Corbin & Strauss, 1990, p. 12). Coding is what transports researchers and their data from transcript to theory

(Walker & Myrick, 2006) and thus can be defined as the process undertaken for analyzing data (Corbin & Strauss, 1990). To aid in the coding process, the researcher used ATLAS.ti, data analysis software to code the interview transcripts. ATLAS.ti allows researchers to create Hermeneutic units containing various types of data (interview text/images/audio), findings, codes, relationships among codes, and memos. Using ATLAS.ti the researcher followed Corbin & Strauss's (1990) three levels of coding for analysis: (a) open coding, (b) axial coding, and (c) selective coding.

First, by using ATLAS.ti, transcripts were uploaded and analyzed by the researcher using open coding (Strauss & Corbin, 1990; Merriam, 1998) to create descriptive and multi-dimensional categories based on similar words, phrases, and expressions. During this initial phase, open coding was used. The researcher read through the data several times identify different categories and develop codes, then identified concepts within the raw data, grouped those concepts into categories, and built a descriptive framework (Strauss & Corbin, 1990).

Next, the researcher performed axial coding. Axial coding (Strauss & Corbin, 1990) is where data is pieced back together in new ways "by making connections between a category and its subcategory" (p. 97). It is during axial coding that the researcher focused on three aspects of the data: (a) conditions or situations in which the phenomena occurred; (b) interactions of the participants in response to what was happening; and, (c) the results of the action or actions taken (Strauss & Corbin, 1998). The researcher used axial coding in this case study to make comparisons and identify relationships between the codes, using inductive and deductive thinking. Axial coding was essentially completed to relate subcategories to categories or themes to sub-themes and to highlight dominant codes and remove redundant

codes in the creation of emerging themes within the data (Merriam, 2009; Strauss & Corbin, 1998).

Lastly, the researcher completed selective coding. Strauss and Corbin (1998) define selective coding as the process of identifying and choosing the core category, systematically connecting it to other categories, and then validating those similarities and relationships. During this phase, the researcher chose one category or theme as dominant and then worked to relate all other categories to that category or theme.

### **Analysis of the Photographs**

Booth and Booth (2003) surmised that PV involves people using the pictures they take to amplify their place in and experience of the world, thus placing how they are represented and depicted in that world in their own hands. A key component of PV is the sharing of photographs (Sutton-Brown, 2011). Interpretation and explanation are integral elements of PV; research participants can be involved in the analysis and also influence how their work and their communities are represented. Students can offer their unique insights, thereby identifying what is most important to them. Participants in this study identified themes for the photographs using photo analysis--completing multiple reflections and developing themes for the photographs during the project. The SHOWeD photovoice method (see Appendix G), as mentioned previously, was employed to help focus this analysis. This method of analysis aided in student communication, as they made their own interpretations.

### **The Researcher's Journal**

Observation is used as a research method in two distinct ways--structured and unstructured (Pretzlik 1994). In this study, unstructured observations were used to provide insight into interactions between the groups, capture the context/process of ELs engaging in

the digital storytelling and photovoice process, and inform and add background about the environment in which the project took place. Bogdan and Biklen (2006) maintain that observation is used in conjunction with interviewing to collect data in the participant's words. In this case study, observations were recorded after each workshop session on a field note template (see Appendix H). These field notes were used to record workshop events, as they happened or shortly afterward to ensure that both details and the events were not lost to memory. The researcher's journal in this study was both descriptive and reflective. In it, the researcher described the setting, actions, and conversations. In addition, the researcher reflected on the project through recording thoughts, ideas, questions, and concerns based on the observations. Dates of data collection, questions, and reflections on the process were recorded throughout the project. The researcher's journal and observational data (see Appendix H) was then used in the identification of emerging themes throughout the data collection and the analysis process.

### **Validity, Reliability, and Trustworthiness**

Trustworthiness of research is of paramount importance when designing a study. Traditionally, researchers use internal validity, external validity, reliability, and objectivity as the measures and criteria for justifying the trustworthiness of a study. To help ensure the validity of data collected in this study, that data was triangulated (Creswell, 2013; Merriam, 2009; Yin, 2009). Trustworthiness is used in qualitative research to determine whether a study is reliable. In this study, the researcher used multiple methods to collect the data, including pre- and post- interviews, journaling, and photo analysis by the participants. The data were analyzed using various levels and phases of coding. The dissertation committee also reviewed the research thoroughly to ensure the quality and validity of the interpretations presented.

**Internal Validity.** Internal validity is how research findings match reality (Merriam, 1998; Yin, 2009). In this study, the primary instruments of data collection and analysis were pre- and post- semi- structured interviews, the researcher's journal, and photo analysis. The researcher observed participants' activities throughout weekly workshop sessions. Face-to-face interviews were also conducted to record the students' ideas and perspectives as outlined in the interview protocol. A semester spent observing students and their interactions allowed for a better understanding of all the participants and their viewpoints. Triangulation is a well-known strategy used to support internal validity (Merriam, 2009). This study used multiple means of data collection to achieve that triangulation by evaluating and analyzing multiple points of data so as to converge on a concept and gain understanding from it ( Merriam, 2009). Participants were interviewed at the beginning of the study and at the end of the study. Observations were also ongoing throughout the duration of the study. The data collected by these different methods were then used to confirm and clarify results.

**External Validity.** External validity refers to the generalizability of a study, how it can be applied to other situations, contexts, or other subjects (Lincoln & Guba, 1985; Merriam, 2009). Lincoln and Guba (1985) surmised that qualitative research generalizability is dependent on readers' finding insights from the study to inform their own understanding of the events that occur, thereby allowing the readers, not the researcher, the ability to make decisions regarding any generalization of the research results. In order to support external validity and generalizability, this study followed Merriam's (1995) suggestion, namely, to provide a rich, thick description of the study, describe how typical the individuals or programs being researched are, and use multi-site design to make sure that external validity is achieved.

**Reliability.** Reliability is replication of a study to determine whether or not the same



findings and results will occur. However, in qualitative research, Lincoln and Guba (1985) concluded that reliability more equate more with dependability or consistency. In this study, reliability was maintained by making sure the researcher's positionality was explained, and a triangulation of data collection, coding, analysis, and audit trail were also used to maintain the reliability of this study.

### **Limitations**

Serving as both the researcher and as the teacher in this study was a limitation for this research. The lens in which the researcher collected and analyzed data in workshop sessions and interviews was shaped by involvement as a teacher and also by interaction with participants as a researcher. Additionally, the researcher did not speak the home language of the participants. As a researcher, all insights would have been much deeper and richer if the researcher had been bilingual and proficient in the students' home language. Perhaps the most notable set of limitations related to the age and English language proficiency of the students in this study. The case study consisted of five students ranging in age from nine to ten years of age and from beginning to more advanced English language proficiency. At times, these students had great difficulty completing complex tasks associated with the study. Group work, scaffolding by the teacher, and collaboration among all the students were needed in each workshop session to overcome challenges that the students faced both with understanding the process and completing their projects. This difficulty could have hindered their success due to either the age or language proficiency of the students involved. Being of elementary age the reflective and cognitive tasks needed for reflection needed to be age appropriate to the age of the learner.

Another limitation of the study was be the transferability of the findings. Within the

school, more than half of the students are ELs. This case study was small and comprised of only fourth grade students, and thus there was not a wide representation of EL students. Convenience sampling was a limitation of the study as well because only fourth grade Hispanic ELs were selected to take part in the study. Experiences and interactions observed thus could have been biased because of the size of the sample and the make-up of the participants. Students shared Spanish as a common language. This study did present additional language opportunities to communicate and work together that might not have been possible with a more linguistically diverse set of participants. Had the students spoken different languages, the ability to communicate and share ideas in their home language for the tasks and understanding of directions may have been impacted and thus changed the outcome of the study.

### **Ethical Considerations**

Ethical considerations should be exercised in any study that involve the lives, beliefs, and experiences of its participants. In this study, pseudonyms were used for the participants, and there was no mention of the name of the educational institution which the students attended. Interview data were also coded by letter and number to ensure full anonymity. Additionally, the interview recordings and transcripts were stored in password protected files that were kept in different databases and locations to ensure they were kept confidential. All data related to the research will be destroyed after a period of five years.

### **The Researcher's Role and Positionality**

In any qualitative case study, the researcher functions as the primary instrument for data collection and analysis. Given this fact, background information about the researcher is pertinent to the credibility of the design (Merriam, 2009), thus making the researcher's world

view of significant impact on the study. Creswell (2013) recommends that the researcher establish his or her position within the phenomenon being studied. The researcher in this study took on a participant-observation role (Creswell, 2014; Yin, 2009) in a capacity where the researcher assumed various roles within the study. As a participant-observer, the researcher was able to understand the setting as an insider, while describing it for better understanding by outsiders (Patton, 1990). The researcher was able to conduct rich, descriptive observations in this case study through the implementation of photovoice and digital storytelling to an extent that would not be entirely possible through just conducting interviews alone (Patton, 1990; Yin, 2009). The researcher's strategies aligned closely with Merriam's (2009) case study methodology wherein the researcher desires to develop a descriptive account of a specific situation using vivid details of the phenomenon being studied, and thus provide the reader a clear understanding of the phenomenon in question. As an active participant in the phenomenon, this researcher became immersed in the data, which enabled the researcher to gain greater insight and understanding during the analysis of the data (Yin, 2009).

During this study, the researcher was teaching in a dual role, serving as a STEM lab teacher, which serves all K-5th grade students, and also as a teacher of the gifted. Beginning her 10th year as an educator, the researcher has a Specialist degree in Teacher Leadership and Instructional Technology, local STEM certification, 21st Century Model Classroom certification, holds endorsements in both Gifted and ESOL education and has received Sheltered Instruction Observation Protocol (SIOP) training on lesson planning and implementation of high quality instruction for English learners. The researcher also leads the technology committee, takes part in the technology advisory committee to the superintendent

for the school district, and has spent the last three summers with a team of teachers writing the STEM curriculum for grades K-8 in a Georgia school district.

Beginning the 7th year at a school that has a large ESOL population, the researcher has focused research efforts and professional development on meeting the needs of diverse learners. Research has been primarily focused on how technology can support instruction by personalizing learning experiences for students' acquiring a second language in the K-5 educational setting. Previously conducted research has included whether the use of Computer-Enhanced Language Learning (CELL) and Computer-assisted Language Learning (CALL) can motivate ELs to write and the identification of applications and software programs that K-12 teachers can use to support SLA in K-12 academic settings.

The researcher firmly believes that bilingualism, multilingualism, and language education is critical to student success in the world of the future, which will insist on students' having abilities to interact effectively with others. Multilingualism is essential for intercultural dialogue, social cohesion, and prosperity in uniquely diverse countries, such as the United States. Multilingualism in schools should be promoted in such a way that more than one language is learned at a time, but not at the expense of the first language. Students who are preparing for a global workforce should be at the very least bilingual, if not multilingual, and have the ability to communicate in different languages on a regular basis. Thus providing language education that is inclusive and offers both linguistic and cognitive benefits is beneficial, even mandatory.

As the focus of education continues to shift and emphasize 21st century learners, it is essential to understand that how we use technology is of greater importance than the technology itself. The researcher strongly believes that by increasing technology usage in the

classroom and building students' self-efficacy, it will be possible to positively influence student engagement, motivation, and willingness to engage in classroom activities and learning. Believing the teacher to be a great importance to forward movement and instruction in both technology and language, the researcher has worked not only to provide teachers with the necessary understanding they need to supplement instruction and learning for ELs, but also has shared personal experiences and research at conferences and in school professional development to that same end.

### **Summary**

This chapter outlined the case study methodology that was used to determine whether participation in digital storytelling and photo voice as a method of photo analysis can enhance student academic intrinsic motivation and student perception of second language acquisition for five English learners in the Fourth grade. The setting, participant selection method (highlighting ACCESS scores), project implementation, and use of the app Videolicious were described for developing digital stories and analyzing photographs. This chapter also highlighted data sources that include pre- and post- semi-structured interviews, photo analysis of students' photographs using photovoice's SHOWeD method, and participant observations (as recorded in the researcher's journal). Additionally, this chapter explained how ATLAS.ti and Corbin & Strauss's (1990) three levels of coding for analysis -- (a) open coding, (b) axial coding, and (c) selective coding-- were used for the data analysis. Validity and reliability were discussed as well.

The following chapter presents the findings of this study through the use of rich narrative descriptions that illustrate the experiences and perceptions of the participants and identify both the themes and sub-themes that emerged from the data analysis. The chapter will

also serve to offer a glimpse into the effects of the project on participants' perceptions as they progressed through their digital storytelling and photovoice efforts. The following chapter will support the research as the students made connections to the themes that emerged and how these results developed and then delivered new insights into ELs and their perceptions of themselves as learners, their intrinsic motivation, and what it means to acquire English as an additional language.

## **Chapter 4--Findings**

This chapter presents the findings of the study through the use of rich narrative descriptions that illustrate the experiences and perceptions of the participants as the themes and sub-themes that emerged from data analysis. This chapter also offers an in-depth look into the perception of ELs as they progressed through their digital storytelling project. Bogdan and Biklen (2007) explained data analysis as a systematic process of sifting and arranging all information obtained from interview transcripts, field notes, and other material collected to increase understanding of the data and enable a precise presentation of what has been discovered. Data checking was used for the interviews and researcher's journal to strengthen internal validity. Pre- and post- student interviews assisted the researcher with clarification of the interpretation of noted themes. During the interviews, additional probing questions were also utilized.

All interviews were transcribed as the exact words and language of the EL students, and the transcript data was examined for emergent themes, and all sub-themes were identified, coded, and linked to representative quotes. By analyzing the interactions and experiences of five English learners, this study sought to understand the experiences and perceptions of elementary ELs while they participated in a digital storytelling project. This findings chapter thus begins with a detailed introduction of the participants, a collective analysis, and then a cross-case examination that presents the themes and sub-themes that emerged from this study.

The purpose of this study was to analyze whether participation in digital storytelling and photo voice as a method of photo analysis can enhance motivation and academic achievement in English learners. The research questions underpinning this study were:

- RQ1. How do ELs perceive themselves as learners?
- RQ2. What are these students' perceptions of their self-efficacy in relation to technology usage?
- RQ3. How does participation in a photovoice and digital storytelling project impact ELs academic intrinsic motivation to learn English?
- RQ4. How does participation in a photovoice and digital storytelling project impact ELs students' perception of their English language acquisition?

### **Meet the Participants**

This study adopted PV as the framework in which to connect each student to the photographs they took for their digital stories. The photographs were used to develop a storyboard that then acted as a guide to bring student pictures and words together into a single digital story that told of the students' perceptions about what it means to be a learner at a STEM academy. Digital storytelling was used to motivate the learners to participate actively in their learning process and practice English. These student participants used the SHOWeD method as a framework to analyze photographs and make connections with themselves as learners. In this chapter, the student responses to photographs using the SHOWeD method are summarized and key points are presented by the researcher in each individual case study based on the concise responses by students. The following are the students that participated along with their stories.

#### **Bella**



During my initial meeting with Bella, she was shy and looked at me with large brown eyes and an apprehensive expression. Her long, black hair went to her shoulders, and her outfit was meticulously matched in its colors, sparkles, and the latest clothing trends you would see on other 9-year-old girls.

**As a Bilingual.** Over the course of this project I learned how Bella's family came from Guatemala to the United States before she was born. She lives with both of her parents and her three siblings. At home, she mainly speaks Spanish, but at times she speaks a little English too. She can speak in Spanish, but says that she can't read or write in Spanish.

Bella chose to complete her interviews in English. In her pre-interview, Bella explained, "speaking English in school is easy. Using English makes me happy." When asked about her thoughts on using Spanish, she said that she doesn't "know words, and in English I know a lot of words." When asked how she felt about speaking English only in class she responded that she was "happy" to speak English and wasn't having trouble in class communicating with either her teachers or classmates.

**As a Learner.** Math is her favorite subject, and she likes to draw too. Although she prefers English in class, she says that she wants to "learn more Spanish in school like you do in English." Bella attends ESOL and mainstream classes throughout the day. When asked about her previous experience with school, Bella stated that this school was the only school she had attended and she started learning English in Kindergarten. Bella considers herself a leader in her classroom and a nice and helpful student. She says that she "likes coming to school, so when I'm bored at home, I can do homework." Bella's ACCESS score was a tier B with an overall English proficiency level of 4.4. For Bella, this score indicates that she has social language proficiency and some, but not extensive, academic language proficiency. In

academic settings, she has acquired some literacy in English, but she has not reached grade level literacy.

When she was asked to “think about those things that you like the most, are any of them helpful when you learn or practice English?” and “What kinds of activities help you to learn and practice your English?” Bella responded by saying that talking to others and using the computer were most helpful to her in learning new things and practicing her English. Bella believes that learning English is important in school. She thinks that English is important because (1) “It helps you. You can talk with your group about with you're going to make or do; and (2) I want to know more words, to talk and write because I can get good grades.” Getting good grades and learning is of great importance to Bella. Doing well in class and trying her best was frequently mentioned by her.

**As a Technology User.** Bella mentioned in her interviews that she feels like she’s “just okay and makes mistakes sometimes” when she uses technology, but she still feels that the computer is a valuable learning tool to help her learn, especially robots. At school, she mainly uses computers in math class to play math games. At home, she uses her tablet on the weekends. Bella expressed that she liked using the computer for learning in her post-interview because it can help you to type and learn.

**Journey through the project.** During the initial brainstorming session about what it means to be a learner, Bella did not contribute much during the session. She preferred to sit and listen. The researcher also often observed her tendency to be quieter than other students during workshop sessions and when working through project activities. As time went on in the weekly workshops, she often interacted with her peers, but she did not voluntarily want to share ideas first during the group discussion and collaborative planning.

*As a photographer.* Although Bella took photographs as an individual, much of her analysis of the photographs in this study were completed by sharing ideas with her peers. Bella's photographs were personal to her as a learner. When Bella was asked, "How did you decide to take pictures for this project?" she said that taking pictures that "looked fun and (showed things that) helped you learn." She also stated in her pre-interview that she planned to take pictures of her friends, teachers, and things she was working on. For this project, Bella took 25 pictures and selected three to analyze using PV's SHOWeD method. Looking at the pictures that Bella chose to analyze, they were all tied to the things, people, and favorite field trip associated with the school.

The first photo (see Figure 4.1) that Bella chose was of her 3<sup>rd</sup> grade teachers. She had a positive perception of her teachers in 3<sup>rd</sup> grade because they "helped her learn and work hard." She says that this picture related to her life as a learner because like her, the "teachers learn new things like me." When reflecting on what she could do to impact the lives of her teachers, she wrote about making sure to "thank our teachers."



*Figure 4.1.* Teachers. Bella's photographs

Bella's second photo (see Figure 4.2) is of the artwork that was displayed in the hallway outside the art room. The artwork was featured as the artwork of the month from students in each grade level K-5<sup>th</sup> grade. She maintained in her analysis of her pictures that she loves art. The picture that she took shows someone's interpretation of a flower that was hand drawn and painted by other students. Bella felt that this picture connected to who she was as a learner because she not only loves to draw and color, but she also likes to draw flowers like the one featured in her picture. She expressed a desire to want to learn how to become better at drawing.



*Figure 4.2. Flowers and Art. Bella's photographs*

The third picture that Bella analyzed using the SHOWeD method was a picture of the front gates at the Atlanta Zoo (see Figure 4.3). The 4<sup>th</sup> grade went on a field trip to the Atlanta Zoo during the week that the students were taking photos for their projects. Bella adamantly wanted to add a picture from the zoo to the project because she said it was the “best field trip I have ever been on!” Bella felt that aside from the fact that this was the best field trip, she also wanted to use this picture because the zoo has animals, and she just got a new pet at home. It also describes her as a learner because she thinks the zoo and field trips make learning fun.



*Figure 4.3.* Atlanta Zoo. Bella’s photographs.

When Bella was asked, “What do you think those pictures say about you?” she responded by saying, “I love the zoo, and I love listening to the teachers.”

*As a movie maker.* Bella took 25 pictures for her digital storytelling project, and she was asked to select 10 of her favorite pictures to use to develop a storyboard to tell her story about what it means to be a learner. These pictures acted as a guide to help her form her storyboard (see Figure 4.4) and would become the foundation of her digital storytelling project.

### What does it mean to be a learner?

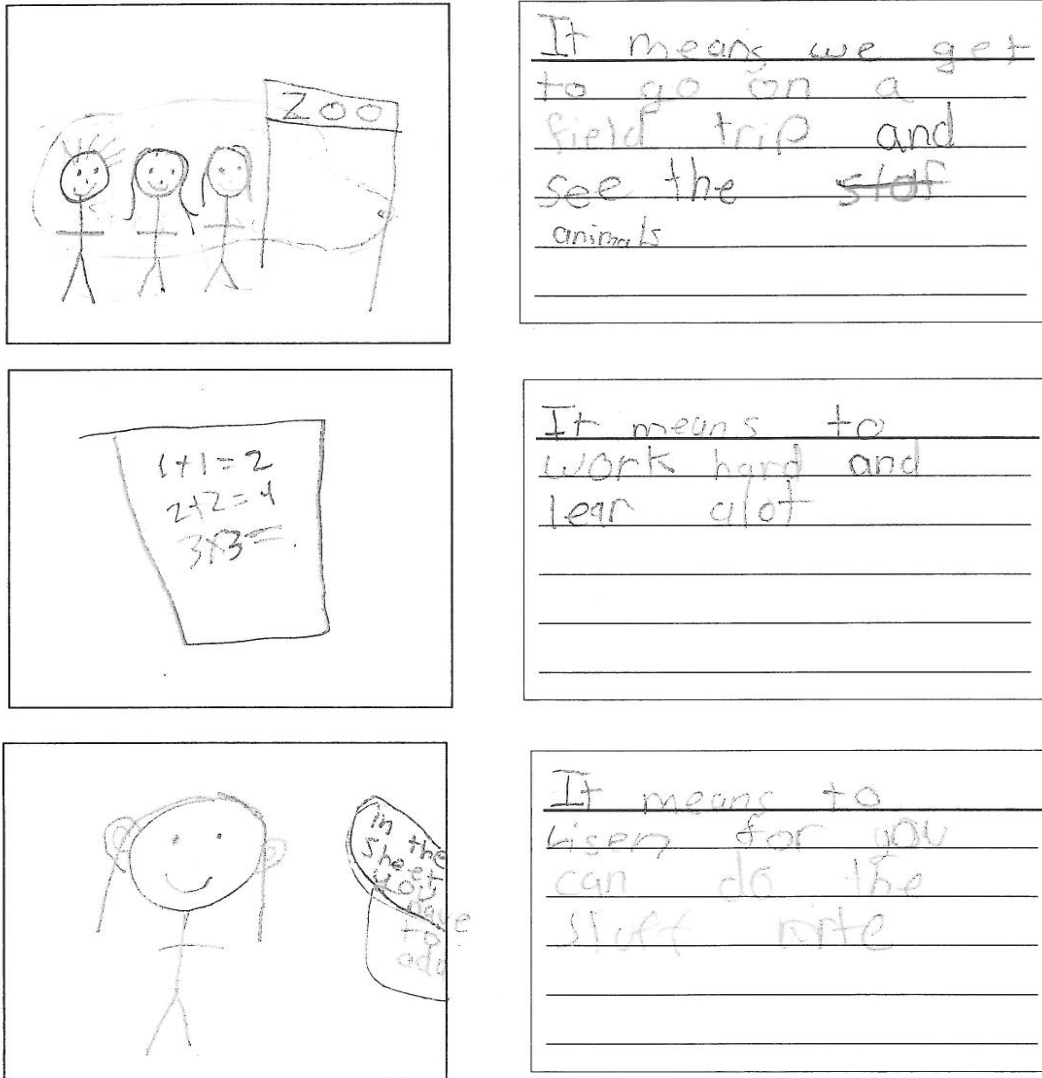


Figure 4.4 Sample of Bella's Storyboard

Bella's project centered on the theme of what it means to be a learner in a STEM academy. She included pictures in her video that reflected a love of school and the things that she gets to "do" during the school day. Her digital story pictures were of music, art, physical education, the STEM lab, and her field trip to the zoo. Press CTRL and click on the icon (<https://youtu.be/eIWgJRl4hmc>) to hear Bella's digital story (see Figure 4.5):



*Figure 4.5.* Bella's Digital Story

The researcher noted that Bella took extra time to practice English and expressed a need to do well on her project because her friends would be seeing her movie. The digital story was personal and about her interests. During the workshop titled, "Putting it Together: Creation of Digital Stories," the researcher observed that Bella rehearsed her script 3-5 times before recording it. When Bella was asked "What was the best part about making a digital story?" Bella responded and said, "Making the video. Working with my friends" was the best part, and the most difficult part was taking the pictures. Bella said that she felt "I feel great when I use the iPad to make my movie." Bella also said that when she worked with a partner, it helped her become better at using technology including using the iPad and the Videolicious app.

**Project Reflection.** During the course of the study and the observations, Bella completed every task to the best of her ability. When she was asked, "What did you learn about yourself during this project?" Bella responded, "I love school and I have great, great friends." When asked to think about taking pictures of the things that Bella liked and what she would want to tell others about her experience, she responded that the project was important to her, as when you start a new project it's going to "help us learn." She believed that the creation of her own digital story helped her learn more words in English. When asked, "Do you think this project helped make it easier for you to share your thoughts and ideas?" Bella



stated that “it helped me learn English because of the (learning of new) words.” Interestingly enough, she also said that taking pictures was the hardest part, but that she enjoyed taking them too. Bella said that working with her friends and looking at the photographs was “fun.” She also said that looking at pictures and watching other students’ digital stories could help you learn. “Looking at their photos and learning what to do; photos and digital stories can also give you directions for things to do.” Bella felt that making digital stories made learning fun and exciting, and she would like to do more projects like this one in the future.

### **Matias**

In the first meeting with Matias, he was very quiet. He was wearing a striped shirt, suspenders, jeans, and a broad smile. He found it easy to smile, but he was slower to respond and share his thoughts. He needed prompting and time to collect his thoughts before responding or interacting with the group.

**As a Bilingual.** Over the course of this project it was discovered that Matias’ family came here from Honduras before he was born to find more work. He lives with his parents, brother, aunt, uncle, and cousins. Transportation to school is mainly by bus or walking. His family doesn’t have a car and hires taxis to get from place to place. Like Bella, he also has only attended one school and started learning English in Kindergarten. Matias can speak Spanish, but he can’t read or write in Spanish. In his pre-interview, he said that he feels he knows the most words in Spanish.

Matias chose to complete his interview in English only even though he speaks only Spanish at home. He stated that he wanted to use English only in class because “when I make new friends and it’s talking English I don’t know how to talk in English. I want to be able to make friends with them.” When asked about his thoughts on using English at school and how

using English makes him feel, he said, “Sometimes I feel weird.”

**As a Learner.** Matias says his favorite subject is math, and yet at times he likes drawing and sometimes writing too. Matias describes learning as something where “you get to learning things that you never know (knew).” Matias prefers English in class just because it’s the language that many of his friends and teachers speak. Matias considers himself at good student who gets good grades. He attends ESOL and mainstream classes throughout the day. Matias’s ACCESS score was tier B with an overall English proficiency level of 4.7. This score indicates that he has social language proficiency and some, but not an extensive, academic language proficiency. In academic settings, he has acquired some literacy in English, but he has not reached grade level literacy.

When he was asked to “think about those things that you like the most, are any of them helpful when you learn or practice English?” and “What kinds of activities help you to learn and practice your English?” Matias responded by saying that “sometimes drawing and writing, math centers, games on the computer, talking to friends, using iPad/pods” are all helpful when he is trying to learn new things. Getting good grades and pleasing his parents are importance to Matias. He stated in one of his interviews that school is important to him because at “school I can learn some new stuff. Because if you never went to school you won't know nothing.”

**As a Technology User.** Matias mentioned in his interviews that he feels like he’s “great” when he uses technology, and that the computer is a valuable learning tool to help him learn. At school, he mainly uses iPads in class to review what they are learning. At home, he does not have Internet access. His dad has a cell phone, but there is no computer or tablets at home to use on the weekend. Matias expressed in his post-interview that he liked using

technology for learning because “if you don't use technology, you will never know how to use the technology and you're like, "What is this app, what is this thing doing?" You just...get my knowing by using technology (at school).”

**Journey through the project.** During the project, Matias wanted to please and do well. He didn't talk as much as some of the other students, but he was always smiling. He worked hard and always made the effort to complete the activities, and yet at times he had difficulty speaking and participating in the assignments. The researcher initially observed that Matias was very quiet in the beginning, but after each weekly meeting, he became more comfortable and willing to speak and share ideas both individually with the researcher and with the other students.

**As a photographer.** Although Matias took photographs as an individual, much of his analysis of the photographs in the study were completed by sharing his ideas with peers. Matias' photographs were personal to him as a learner. When Matias was asked, “How did you decide to take the pictures for this project?” he described taking pictures of “people doing their works, things like that...of the ones (students) that work hard and I picked the ones that are hard workers.” He also stated in his pre-interview that he planned to take pictures of students in his favorite class, math, who were busy “doing their solvings and problems and things like that.” For this project, Matias took 46 pictures and selected 3 to analyze using PV's SHOWeD method. Looking at the pictures that Matias chose to analyze, they all show students' working together and helping each other in school whether in class or while playing a game.

The first photo (see Figure 4.6) that Matias chose is of music class. While he said in his interviews that math is his favorite subject, he also enjoys playing the recorder this year in

music class. He has a positive perception of music, learning to sing, and being able to touch instruments. He said that this picture related to his life as a learner because he often listens to teachers in class and has liked learning how to sing.



*Figure 4.6.* Music Class. Matias' photographs

Matias' second photo (see Figure 4.7) are of two students who are helping each other in the front office. In his reflection using the SHOWeD method, Matias stated that he liked going to the front office to help the teacher. Matias felt that this picture connected to who he was as a learner because friends help you to learn. He expressed that he liked to help others and that others helped him.



*Figure 4.7.* Front Office Helpers. Matias’s photographs

The third picture that Matias analyzed using the SHOWeD method was a picture of students’ playing soccer, his favorite sport in physical education (see Figure 4.8). This week the fourth grade students recreated the World Cup, and the classes “faced-off” against each other in a mock tournament to see who would be the ultimate winner. It also described him as a learner because he likes to play soccer, and so do most of his friends. He said that you can learn anywhere in the school. It is good to run and play around.



*Figure 4.8.* Soccer. Matias' photographs

When Matias was asked, “What do you think those pictures say about you?” he responded by saying, “I like learning new stuff. I like helping and you know letting everyone help.”

*As a movie maker.* Matias took 46 pictures for his digital storytelling project and was asked to select 10 of his favorites to develop a storyboard to tell his story about what it means to be a learner. These pictures would later form the background of his storyboard (see Figure 4.9) and also the foundation of his digital storytelling project.



Figure 4.9. Soccer. A Sample Matias Storyboard.

Matias's project centered about the theme of what it means to be a learner at a STEM academy. He included pictures in his video that reflected what he likes in school and the things that he likes participating in during the school day. His digital story pictures comprised physical education, STEM lab, book buddies, and a list of what he thought a good learner would be like, i.e., have good character traits, be a good listener, be respectful, listen to the teacher, ask questions, and follow directions. Press CTRL and click on the icon

(<https://youtu.be/LO7YgOcVfsw>) to hear Matias' digital story (see Figure 4.10):



*Figure 4.10.* Matias' Digital Story

The researcher noted that Matias struggled to record his digital story. He did not speak loudly during the narration and did not want to practice or rehearse his script. When Matias was asked, “What was the best part about making a digital story?” he responded by saying that “taking pictures” was the best part, and the most difficult part was “speaking. I get to explain on it.”

**Project Reflection.** During the study, Matias stated that this project helped him learn more English words. In the pre-interview, he said that speaking English made him feel weird, but when asked in the post-interview how he felt about speaking English now, he said “if I were to never come to this school, I wouldn't ever know English, and when someone comes right there and they say, English person, and he talks to me, I want to know what he say.” He still feels confident about using technology and had the most pictures of any student that participated in this study. He even went on to say that he could teach someone else to make a movie now. He believed that the creation of his own digital story helped him to learn more words in English. When asked, “Do you think this project helped make it easier to share your thoughts and ideas?” Matias stated, “It made my brain work harder. It's like, if this thing was hard, if my brain wasn't a hard worker, and it didn't work well, I would have got all the answers wrong.” When asked, “If you could tell anybody anything about this project, what



would you want to say to them about your experience?” Matias simply responded, “Feel great with it. I'll tell them what it is, the video, what (it is) all about.”

### **Javier**

Upon meeting Javier, I could tell he would be a natural leader among his fellow students. Dressed in a Messi soccer jersey and shorts with black spiked hair, Javier exuded a confidence during our initial interview. He was eager and ready to get started. He was also quick and decisive with his responses.

**As a Bilingual.** Over the course of this project, the researcher discovered that Javier's parents are both from Mexico City. Neither of his parents speaks English. He does speak English at home with friends and some other family members. He said that he can speak Spanish. He also stated in his interview that he can read and write a little in Spanish, but after further probing in his pre-interview it could be concluded that his fluency in reading and writing of Spanish could be considered basic or at a beginning level.

Javier chose to complete his interviews in English. When asked whether he preferred to use English or Spanish in class, Javier always responded by saying that he preferred to use English. He reasoned, “I'm starting to like English. If I were to never come to this school, I wouldn't ever know English, and when someone comes right there and they say, English person, and he talks to me, I want to know what he say. It helps me to talk to other people.” The importance of succeeding in school and being able to communicate with teachers and friends that do not speak Spanish was of greater importance to Javier than it was for any other participant. Several times he referred to the desire to be able to effectively communicate with people around him in English.” When asked how he felt about speaking English only in class, he responded that he was “happy” to speak English. The researcher further asked, “Would

you rather read and write in English or Spanish in class?” Javier stated “English because it’s easier. A lot of white guys know a lot more English than Spanish. I could show them Spanish.” Javier also volunteered that learning English was important to him, emphasizing that “you need to know English because some kids only know English and no Spanish, and what if you don’t know English, you can’t talk to them.”

**As a Learner.** Javier describes himself as a good student. He likes math, and is a soccer player. At times he likes drawing too. When asked, “What do you think it means to learn something?” Javier explained, “Learning is learning something new or getting new thoughts.” Without even asking, he volunteered that his dad wants him to go to university and he stated, “I want to work hard to get into soccer at the university.” As a nine- year-old boy in the Fourth grade, he impressed me with his already defined goals and plans for his future. He likes reading and social studies the least. He describes reading and social studies as difficult because “it’s hard to learn because you need to know, in social, you need to learn a lot of famous Americans and it’s hard because there’s a lot (to memorize). Javier describes math as his favorite subject stating, “Math has got the numbers in it so the numbers are easier.” Javier likes to work in groups in class because he thinks, “you can share ideas with other kids and lots of stuff.”

When he was asked, “Think about those things that you like the most, and are any of them helpful when you learn or practice English?” and “What kinds of activities help you to learn and practice your English?” Javier responded by saying “I like drawing. Playing games on the computer and flash cards. Talking to people a little.” Javier attends ESOL and mainstream classes throughout the day, but was re-assessed in February 2015 in order to exit the program. Javier’s ACCESS score was tier C with an overall English proficiency level of

4.6. For Javier, this score means that he has almost reached grade level literacy and academic language proficiency in the core content areas. Depending on his scores, he is among the most likely to meet the exit criteria for ESOL support services by the end of the academic year.

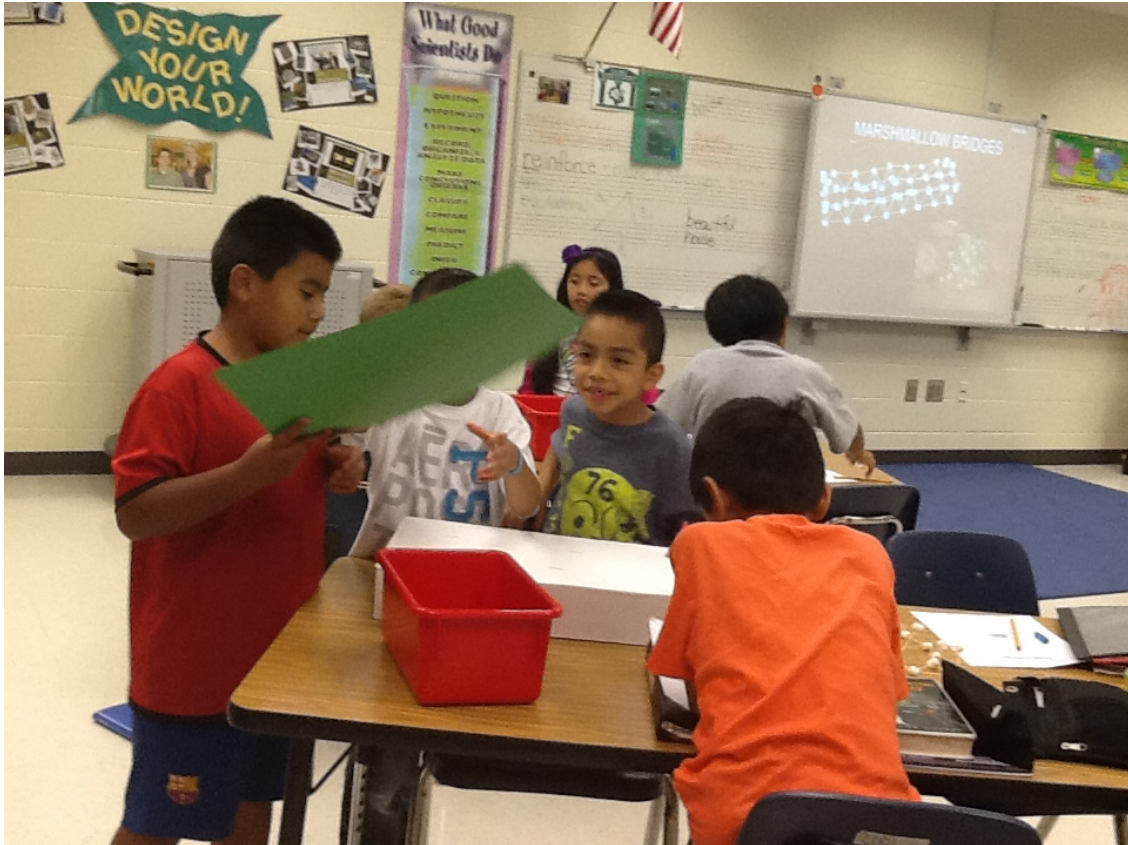
**As a Technology User.** Javier mentioned in his interviews that he feels like he's "good" He mentioned that he likes to use technology "stuff." In a later part of his interviews, he goes on to say, "I could use a little help" using the computer or other technologies. At school, he mainly uses computers in math to play math games. Javier said at school that he uses the computer to "learn a lot of stuff, a lot of stuff. (Like?) Multiplication, division." At home he doesn't have a computer, but he has an iPod to listen to music. Access to technology is limited at home for Javier. At school he uses iPads and the computer for learning activities five days a week. Javier commented that he likes to use a program called Timez Attack which is a gamified avatar version game he uses to practice multiplication facts.

**Journey through the project.** Javier frequently helped other participants in English and in Spanish throughout the project. Much like Bella, Javier completed any and every task to the best of his ability. He was rarely shy and always was among the first to respond to questions and share his ideas.

**As a photographer.** Although Javier took photographs as an individual, much of his analysis of the photographs in this study were completed by sharing ideas with peers. Javier's photographs were personal to him as a learner. When Javier was asked, "How did you decide to take pictures for this project?" he described taking pictures that were of his friends, playing, and other things he thought were interesting. For this project, Javier took 20 pictures and selected 3 to analyze using PV's SHOWeD method. Looking at the pictures Javier chose to analyze, I saw they are all tied to students working together whether it be in P.E., the STEM

lab, or saying the Pledge of Allegiance together.

The first photo (see Figure 4.11) that Javier chose is of his 3<sup>rd</sup> grade STEM teacher's lab. The picture shows students' working together to solve a problem. One of Javier's favorite places at school is in the STEM labs. Javier relates to students' working hard in school. He says this relates to him best because he also "works hard and studies."



*Figure 4.11.* STEM lab. Javier's photographs.

Javier's second photo (see Figure 4.12) is of students' reciting the Pledge of Allegiance on the morning news broadcast. Javier when he reflected on his pictures maintained that it relates to him because he believes in God. When students say the pledge, he says it is like students are praying each morning. Javier connected to this photograph because he too prays and believes in God. Javier also believed that one thing he can do to impact the way students say the Pledge would be to make it shorter and easier to say.



*Figure 4.12.* Pledge of Allegiance. Javier's photographs.


The third picture that Javier analyzed using the SHOWeD method was a picture of students' playing soccer in P.E. (see Figure 4.13). Javier stated this photograph relates to him as a learner because he likes playing soccer. The students in the photograph are playing soccer just like he does. It also describes him as a learner because he plays travel soccer and wants to one day play at the university level. Again, Javier commented that this picture showed students' working together and trying to achieve a goal.



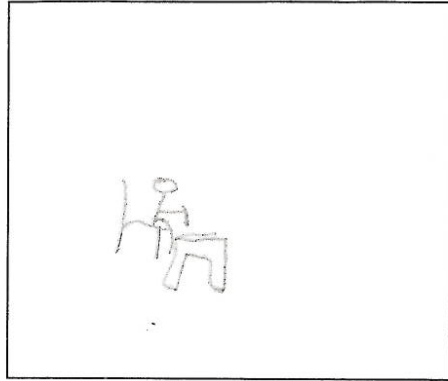
*Figure 4.13.* Soccer Game. Javier's photographs.

When asked, "What do you think those pictures say about you?" he responded saying that "I like playing; I work hard."

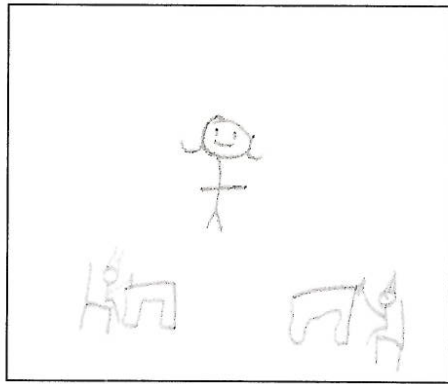
*As a movie maker.* Javier took 20 pictures for his digital storytelling project and was asked to select 10 of his favorite to develop a storyboard to tell his story about what it means to be a learner. These pictures would later form the background of his storyboard (see Figure 4.14) and be the foundation of his digital storytelling project.

Name  "Javier"

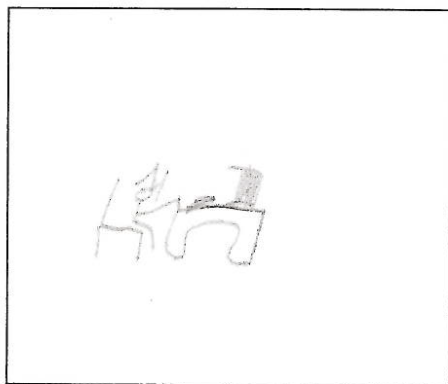
What does it mean to be a learner?



It means to work  
hard.



It means to listen  
to the teacher  
when she is talking.



It means to  
work hard on the  
test also on the  
homework's.

Figure 4.14. Sample of Javier's storyboard.

Javier's project centered on the theme of what it means to be a learner at a STEM academy. He included pictures in his video, his thoughts on the importance of school and how students should participate during the school day. The researcher noted that Javier easily

navigated through the Videolicious app to construct his digital story. Press CTRL and click on the icon (<https://youtu.be/-VjZfJSabio>) to hear Javier's digital story (see Figure 4.15):



*Figure 4.15. Javier's Digital Story*

When Javier was asked, “What was the best part about making a digital story?” he responded by saying that “telling the story” was the best part, and the most difficult part was “Taking the pictures. Picking the ones to use.”

**Project Reflection.** In Javier's post interview, he was asked, “Could this project help you to get better with your English?” Javier believed that working in groups with others and talking about the project was most helpful in helping him to improve his English. When asked again, “What language do you prefer to use in class and why?” Javier still maintained he would prefer to use English because his teachers understand English. When asked to think about taking pictures of the things that he liked and what he would want to tell others about his experience, Javier responded that “it is fun doing projects. (Ask) if they liked it.” The researcher noted that when Javier was asked, “What did you learn about yourself during this project?” he responded saying, “I learned to not be shy when you're talking to people.” Even though the project was hard work and at times challenging, Javier felt that doing a digital story project was a lot of fun, especially since the movie was all about him.

### **Jacenta**

Jacenta had short black hair that she was proud to tell me she had just cut. During the first



meeting, she was dressed in a creatively matched pink and green outfit with a jean skirt. Like Matias she was quiet, but she had a beaming smile and appeared eager to participate in the project.

**As a Bilingual.** Throughout this project the researcher learned that Jacenta came from Guatemala with her family and lives with her mom and several additional family members in an apartment within walking distance of the school since they don't have a car. Her mom works at night and into the morning, so she has family members who care for her after school. She also helps to take care of her younger siblings and cousin while her mom is at work. Her mom speaks a little English, but mainly a Mayan heritage language spoken in Guatemala that is both Spanish and Mayan in origin. The specific language was unknown to the researcher. Her mom is not literate in either her first or a second language.

Originally from Guatemala, Jacenta said that school here is "hard, (because) I didn't know my English." She also stated that she didn't start learning English until 3rd grade. At school, she has friends who speak Spanish and help her in class and tell her what she needs to do if she's having trouble. When asked how she felt about speaking English only in class, she responded that it was "Good," but didn't elaborate on this statement any.

At home, she only speaks Spanish or her Mayan heritage language, and at school she speaks both English and Spanish with her friends. When asked whether she "would rather read and write in English or Spanish?" Jacenta responded, "English to learn faster." This response was similar in reasoning to when Jacenta was asked the question, "Why do you prefer to use English in school?" She responded by sharing "My friends don't talk a lot in Spanish. (I want to use Spanish) to learn fast; easier for to get better at it." When asked about her future plans, she didn't know what she wanted to do yet.

**As a Learner.** Jacenta describes herself as a kind and sometimes helpful student. Jacenta's favorite subjects are Science and Math, but Language Arts is her least favorite subject. Unlike the other participants in the study, she doesn't care for drawing. When asked what means to be a learner is, Jacenta said that she "like(s) to be in school because it's fun for us to learn and I just like it." During her interviews, she chose to speak in English, but frequently struggled to for words and to expand on her thoughts. When asked in her pre-interview, "do you like school?" Jacenta said, "Yes. I do because sometimes when my teachers tell me how to make programs, or something, I like to get good grades."

At her current school, she attends an immersion Spanish and English class where instruction is provided in both English and Spanish for two hours of the day. Additionally, she attends ESOL and her mainstream classes the remainder of the day. Jacenta's ACCESS score was tier A with an overall English proficiency level of 3.6. In academic settings, this means that Jacenta has previously within the last 12 months entered the U.S. this academic year without previous instruction in English. Her English proficiency is limited and she receives literacy instruction for two hours a day in a resource class with a bilingual teacher who speaks both English and Spanish.

When she was asked to "think about those things that you like the most, are any of them helpful when you learn or practice English?" and "What kinds of activities help you to learn and practice your English?" Jacenta responded by saying that to read something, listen to CDs, and listen to someone read to me were most helpful to her in learning new things and practicing her English.

**As a Technology User.** When asked, "How good do you think you are in using the computer or other technologies?" Jacenta responded, "I think sometimes. Sometimes I need

help.” At home, her mom has a cell phone, but she is not allowed to use it. Her family does not have a computer or Internet access at home. At school, she mainly uses the computer to play games and extend her learning in specific content areas by responding, “I play games too; technology because it helps you.” At school she likes to research animals and use her a laptop to make PowerPoints.

**Journey Through the Project.** Jacenta was always sweet and kind to all the students that she worked with and was well liked by each student in our group. During the initial brainstorming session on what it means to be a learner, Jacenta did not contribute much during the initial brainstorming session. She preferred to sit and listen. As the workshops went on, Jacenta would interact with another student, Benita, but frequently in Spanish to gain clarification of the activities and help when needed.

**As a Photographer.** Although Jacenta took photographs as an individual, much of her analysis of the photographs in this study were completed by sharing ideas with peers. Jacenta’s photographs were personal to her as a learner. When Jacenta was asked, “How did you decide to take pictures for this project?” she described taking pictures that showed her favorite things. She also stated in her pre-interview that she planned to take pictures of “the sky, and the trees, and school...maybe everybody.” For this project, Jacenta took 32 pictures and selected 3 to analyze using PV’s SHOWeD method. Looking at the pictures that Jacenta chose to analyze, they are all of favorite things--her oldest friend, playing soccer, and her love of playing the recorder in music class.

Jacinta’s first photo (see Figure 4.16) was of her older friend \*Nancy. Nancy was Jacenta’s first friend at school last year. She related this photograph to her life because it shows her good friend in the computer lab. Jacenta liked to use the computer, and she also

likes Nancy. Jacenta also said that her friend was smiling, just like Jacenta likes to smile too.



*Figure 4.16.* Old Friend. Jacenta's photographs.

Jacenta's second photo (see Figure 4.17) is a recorder photo that she snapped from the wall of the music room. The poster featured a picture of the recorder that she was then learning to play in music class. She maintained in her reflection of her pictures that she loved playing the recorder. Jacenta felt that this picture connected to who she was as a learner because she had a recorder at home and she liked to play it for people. She wanted to learn to play better at school also.



*Figure 4.17.* Recorder. Jacenta's photographs

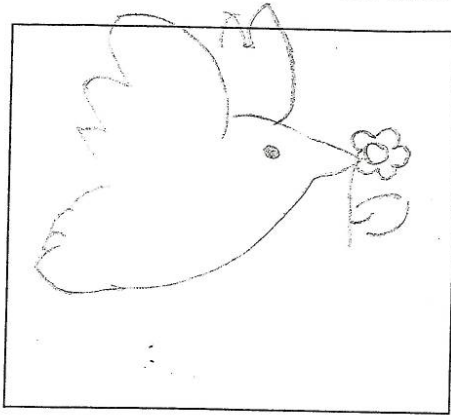
The third picture that Jacenta reflected on using the SHOWeD method was a picture of students' playing soccer in the mock World Cup event (see Figure 4.18). Rather than focus on soccer, Jacenta said she included this picture in her reflection because "P.E. is fun and the best...we can run." This picture describes her as a learner because she thinks P.E. makes learning fun.



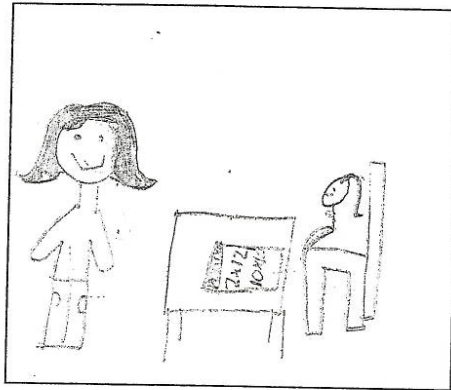
*Figure 4.18.* Physical Education. Jacenta's photographs

*As a movie maker.* Jacenta took 32 pictures for her digital storytelling project and was asked to select 10 of her favorites to develop a storyboard to tell her story about what it means to be a learner. These pictures would later form the background of her storyboard (see Figure 4.19) and serve to make up her digital storytelling project.

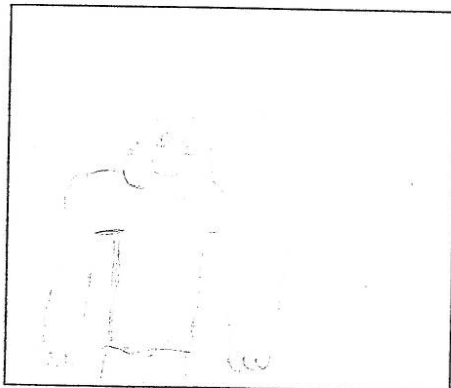
What does it mean to be a learner?



It mean to Make  
Protects at art!



At math We help  
are friends at Multiplic  
helping is good.



At stem were doing  
or camoflage Monster

Figure 4.19. Sample Jacenta's storyboard.

Jacenta's project centered on the theme of what it means to be a learner at a STEM academy. She included pictures in her video that reflected all her favorite things about school from her favorite subject, math, to playing the recorder in music class. Press CTRL and click on the icon (<https://youtu.be/77Kqj3Vzes4>) to hear Jacenta's digital story (see Figure 4.20):



*Figure 4.20. Jacenta's Digital Story*

The researcher noted that Jacenta would stop and get help from another student, Benita, during the creating of her digital story. Jacenta frequently asked questions. Each question was read by the researcher and then the meaning of the question was elaborated on by the researcher to aid comprehension. Jacenta also worked with other students who were more fluent. Jacenta conversed in both English and Spanish during the project and frequently collaborated with others during the workshop sessions. When Jacenta was asked, “What was the best part about making a digital story?” she responded by saying that “Writing and taking pictures” was the best part, and “the hardest was when I recorded (narration of the story).”

**Project Reflection.** Jacenta rehearsed her one script 3-5 times before recording it. As Jacenta was recording, if she “messed up” speaking, she would freeze and stop recording all together, laugh, and then start over. When asked, “What did you learn about yourself during this project?” Jacenta responded, “I learned that we have to do it correctly because if don't do it correctly, it's going to be marked wrong or something and you'll have to redo it again.” Jacenta also thought the project helped her to practice her English. ”When asked, “Do you think this project helped you to make it easier to share your thoughts and ideas?” Jacenta replied, “Yes, because we have to share it because we have to do it (tell my story).” Jacenta felt that producing digital stories makes learning fun, but she didn't know if she would like to



do another project because this project “was hard, hard work.”

**Benita**

Dressed in leggings, a skirt, and a t-shirt with her long black hair pulled back in a ponytail, Benita and I first met on a sunny September afternoon on the playground. We chatted on the way back to the classroom where we were to conduct our interview. She was relaxed and willing to participate in the project.

**As a Bilingual,** Benita speaks mainly English at school, but speaks Spanish when she needs it. At home she mostly speaks Spanish, but sometimes English too. She lives with both of her parents and tells me that her mom buys her lots of games to use at home, so she can practice her English. She has two younger siblings, and she has to share a room with them. Both of her parents work, and sometimes her dad doesn't get home until late. Her mom speaks a little English, but does read and write fluently in Spanish, so she translates for her mom. Her family has only one car, and there are times that her friends ride with her. Benita knows how to read and write a little in Spanish. In her pre-interview, she said that her mom makes her write letters to her grandma in Mexico in Spanish. Benita shared “in Spanish, my mom makes me do letters to my Grandma and send them to her, and then she checks it and says, ‘Yeah, that's right,’ and “then we send it to her.”

Benita chose to complete her interviews in English. In her pre-interview she said, “I speak English the most, but when it comes to people that don't know English I start just speaking to them Spanish so they can kind of get it.” Although she prefers speaking English in class, she says, “I would rather speak English because that's how we get to learn more. In class, I would like both because I don't really know Spanish, and in English I know a lot of it but I don't know some words. I need to learn those words so I can get better at it.” It was

interesting to note that although Benita stated she would like to speak English in class, she also commented that she would like to read and write in Spanish in class. Benita commented that she'd prefer using Spanish in class for reading and writing because "I don't know Spanish and I don't know how to read it (well), and I want to get better at Spanish because I know a bunch of English."

**As a Learner.** Benita says she likes school because "it's fun for us to learn and I just like it." Benita considers her favorite subject to be math because she gets to play a lot of games, and she dislikes going outside. To her, learning means "for you to understand it, for you to know everything. For you to put [lessons] in your mind, so you can think when they ask you again." She describes herself as helpful and even said that she helps other students.

Benita attends ESOL and mainstream classes throughout the day, but she was re-assessed in February 2015 to exit the program. Benita's ACCESS score was tier C with an overall English proficiency level of 4.9. For Benita this score means she has almost reached grade level literacy and academic language proficiency in the core content areas. Depending on her continuing scores, she is the most likely to meet the exit criteria for ESOL support services by the end of the academic year. She wants to do well in school and stated, "I like to get good grades. My mom buys me a lot of games. She buys me the reading games, and science games, all that kind of stuff. That's how I get to learn better." When asked about her previous experience with school, Benita stated that she started learning English in First Grade.

She was asked to "think about those things that you like the most, and are any of them helpful when you learn or practice English?" and "What kinds of activities help you to learn and practice your English?" Benita responded by saying she uses the computer in math "to play a bunch of games." At home "I take tests on the computer of my house, take tests.

There's this little site. I don't know what it's called. They say a word and then we have to type the word. If we don't get it right, they're going to make us practice that word. I like games because they help me learn." Benita felt that using the computer was most helpful to her in learning new things and practicing her English.

**As a Technology User.** Benita mentioned in her pre-interview that she feels like she's "just okay" when she uses technology, and yet she uses technology daily both at home and at school. At school she mainly uses computers to program robots, practice reading, and play math games. At home, she uses her iPod, has a computer, and frequently plays learning games on the Internet. She doesn't mind helping others during group work, but would many times rather work on researching or doing assignments on her own in class.

**Journeying through the project.** Throughout the study, Benita was the most vocal about her pleasure or displeasure regarding the project and activities. From observations of her in class, it was evident that when she is not interested in the activity, she is easily unmotivated, but once something strikes her interest, she's willing to work and do her part in the activity.

**As a Photographer.** Although Benita took photographs as an individual, much of her analysis of the photographs in this study were completed by sharing her ideas with peers. Benita's photographs were personal to her as a learner. Benita was asked, "How did you decide to take pictures for this project?" She described taking the pictures as "I decided what pictures to do because of my talking and my writing (her storyboard)." Benita also described how she selected her pictures, "I picked them because I thought they were making us learn better." She also stated in her pre-interview that she planned to take pictures of her friends, the teacher, and the principal.

For this project, Benita took 29 pictures and selected three to analyze using PV's SHOWeD method. Looking at the pictures that Benita chose to reflect upon, they are all tied to the specials areas that she likes to attend during the school day and were the best examples that demonstrated how students learned best.

The first picture that Benita reflected about when using the SHOWeD method was of a picture of students playing soccer (see Figure 4.21).



*Figure 4.21.* Physical Education. Benita's photographs.

This week, the fourth grade students recreated the World Cup, and classes "faced off" against each other in a mock tournament to see who would be the ultimate winner. It also described Benita as a learner because she likes to play games when learning. She says that this picture related to her life as a learner because like herself, "everyone likes to play...P.E. is a way that we could play and stay healthy." When reflecting on what how P.E. could do to help

her to become a better learner, she thought it would be one place where she could become a better runner.

Benita's second photo (see Figure 4.22) is of her 3rd grade STEM teacher's lab. The picture shows students' working together to design a tower. The STEM lab is Benita's favorite place at school because it's "not boring" and "she gets to talk during class" and the projects are "cool." Benita said that in the STEM lab is where she feels like she learns the best. In the STEM lab, she has learned how to "build robots and use Legos to do fun projects." Being a learner in a STEM academy means going to "STEM lab and doing projects."



*Figure 4.22.* STEM Lab. Benita's photographs.

The third photo (see Figure 4.23) that Benita chose is of her music class. While she said in her interviews that math is her favorite subject, she also enjoys playing the flute and singing this year in music class. She has a positive perception of music, is part of the school

choir, and likes singing and playing the “flute.” She said that this picture related to her life as a learner because she is part of the school’s choir and has become a better music student. She also chose this picture because it has many of her classmates and friends are in it.



*Figure 4.23.* Music Class. Benita’s photographs

When Benita was asked, “What do you think those pictures say about you?” she responded by saying, “I like building with Legos and making a robot work.”

*As a Movie Maker.* Benita took 29 pictures for her digital storytelling project and was asked to select 10 of her favorites to develop a storyboard to tell her story about what it means to be a learner. These same pictures would later form the framework of her storyboard (see Figure 4.24) used to create her digital storytelling project.

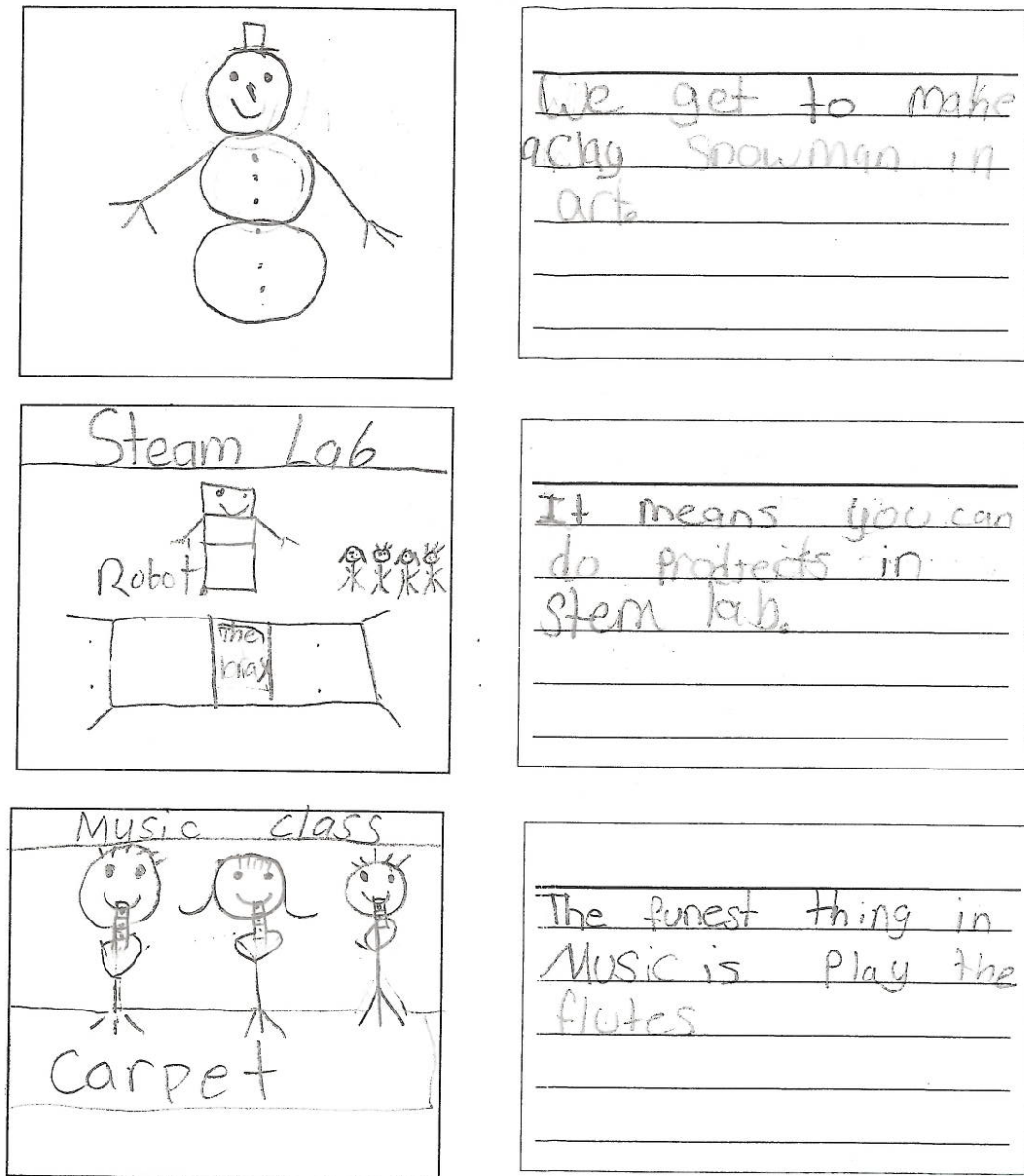


Figure 4.24. Sample of Benita's Storyboard.

Benita's project centered on the theme of what it means to be a learner at a STEM academy. She included pictures in her video that reflected a need to help others and the things that she liked to participate in during school. Press CTRL and click on the icon (<https://youtu.be/jXPkUgFq0K8>) to hear Benita's digital story (see Figure 4.25):



*Figure 4.25.* Benita's Digital Story

The researcher noted that Benita was the more communicative of the girls, but she used both English and Spanish to talk and share ideas. When Benita was asked, “What was the best part about making a digital story?” she responded by saying that “just getting the pictures done (taken)” was the best part and trying not to giggle was the hardest part when she was recording the narration for her movie.

**Project Reflection.** During the study and the observations, Benita frequently worked with Jacenta throughout the project and was a leader among the girls. Rarely soft spoken, Benita was willing to share her ideas, and yet she always wanted to know what others thought of her ideas. When asked, “What did you learn about yourself during this project?” Benita responded, “I learned to be a better student and be a better learner so that we could get stuff. She also gained confidence in her technology skills. In a post-interview, Bella explained, “I learned to use more apps that I didn't learn before. I think before and so that would help me, like put more stuff in my brain.” Although the project was a lot of work, Benita believed that the creation of her own digital story helped her to learn more words in English. When asked, “Do you think this project helped to make it easier to share your thoughts and ideas?” Benita responded, “It helped me learn English because of the words.” Benita added new words to use in class and in her writing. She even felt more confident after the DST project, saying that using English in class now “makes me feel better because I know it to talk better.” Benita also



said she would “kind of like to do another DST project.”

### **Collective Analysis: Making Meaning from Individual Stories**

For three months, five fourth grade EL students participated in a DST project. The study elicited data through the researcher’s reflections and observations noted in the researcher’s journal, a reflective photograph analysis by individual students’ using PV’s SHOWeD method, and ten semi-structured pre-post interviews.

**Interviews.** The ten semi-structured interviews were the primary source of data in this study. The focus on them sought to determine the perceptions of ELs and whether participation in digital storytelling and photovoice as a method of photo analysis could enhance students’ academic intrinsic motivation and perception of second language acquisition for five English learners in the Fourth grade. The student interview data were triangulated in order to examine multiple sources of the qualitative data and also allow the students to share their perceptions of their own experiences throughout the study (Yin, 2003).

Initially, codes established from the literature review served as starting points for data that included motivation, perceptions of home and school language usage, the importance of education, and effective EL language learning activities. The analysis included uploading all transcripts into Atlas.ti and reading carefully through them. Data from each interview was analyzed and coded. Throughout the interview transcripts, codes were assigned to each unit, but new codes and sub-codes were also added and then revised to create final code definitions. Numerous re-readings of previously coded material were completed to define the themes and sub-themes that were emerging from this study. From this effort, codes were developed (see Appendix I) and then sorted into sub-themes (see Appendix J) to allow for creation of the themes (see Appendix K).

**Photograph Analysis.** Students offered their unique insights and then chose pictures that demonstrated the people, places, and activities that were most important to them. Students actively participated in self-reflection and aided in the identification of themes and sub-themes by offering their ideas about the pictures that were taken. Photographs were discussed and analyzed using the SHOWeD method, and they were then “bumper stickered” using post-it notes produced by the students to connect subthemes into larger overarching themes about what it means to be a learner. Picture cards were used to “act out” each question in the SHOWeD method. This process helped Jacenta and Matias to complete their role in the project. Using their senses, students were asked to review the picture and think about what they might hear, what can they could see, what was happening etc. Modeling and providing examples, i.e., was it day or night, quiet or loud, etc., to choose from and for support in the use of vocabulary were needed as ways to get the discussion and the students’ ideas flowing.

**Analysis of Researcher Journal.** The researcher’s journal combined reflection and observation to support the development of themes in this study. Observation is an important data collection method for qualitative inquiry. Observations and interactions were both recorded by the researcher in the researcher’s journal in order to capture the way in which the students interacted with each other and their surroundings. Observations were used as well to more fully understand the participants’ motions, speaking, and unconscious behaviors that they expressed during the project workshops (Lincoln & Guba, 1981; Merriam, 1998). Participant comments, actions, and interactions were recorded and reflected upon by the researcher in weekly post-workshop entries. In the early beginning stages of the project, students were at times shy and their generation of ideas was a slow process. The researcher noted that:

Brainstorming ideas for what is meant to be a learner required much scaffolding on my part. I needed to provide ideas, and then these started initial discussions and of ideas provided by students. Jacenta and Bella did not contribute much during the initial brainstorming session. They preferred to sit and listen. Matias and Javier were very animated and wanted to share their ideas with the group. They had little difficulty adding to the discussion once it got started. Picture cards were important in helping students with the process. Some students referred to the cards for guidance more than once.

As the project progressed, students were encouraged to share ideas for their photo template for the theme of what it means to be a learner and to generate ideas. During the workshops, students sought to interact with each other and build relationships through positive communication in their native languages and also in English. There were many times that scaffolding, modeling, and group collaboration were all essential to the success of the students and workshop. The researcher noted that:

Photo selection and analysis using the SHOWeD method dominated the workshop session. Jacenta and Matias needed lots of modeling and direction to complete the session. Collaboration between the students began before I even told them that they could work together. Students chose to converse in Spanish and English, as the tasks became more difficult. Captions and themes needed to be developed in class together. Picture cards needed to be created to “act out” each question in the SHOWeD method, thus demonstrating to students each step in the process.

Despite any of these challenges in getting started, the students were excited to attend the workshops and participate in the project. It was noted in the researcher’s journal that:

Students were excited about the project and eager to get started on taking their pictures. I provided students with a planning template, as 4 of 5 students had difficulty generating ideas that were personal to them. Each student was encouraged to think about their day, where they go and what they enjoy as new ideas for places to take pictures of what they wanted share. Every student was asked to draw pictures first and then add words or phrases afterwards to add detail to their photo idea template and storyboard. All the participants were instructed to complete their planning template for their photos.

Movie Maker could not be used for the digital stories. Students had no experience using software as a means to make movies. The technology was more advanced than their ability to work with the program, so it was replaced on the app called Videolicious, which they could then use to make their student digital stories. Despite these technology limitations, the researcher observed that:

Students enjoyed taking pictures of each other for their practice videos. They were laughing and even Bella and Matias who are quieter than the rest of the students wanted to have their pictures taken and included in the video. Reviewing individual storyboards on the white boards was also beneficial to the students. They were able to add to their ideas, as the group gave them new ones. Matias “liked” getting more ideas for his movie. Jacinta wanted more friends seen in everyone’s video. There was some repetition of similar likes in the videos, and common themes that emerged were PE, friends, special areas like the STEM lab etc.

The Videolicious app that was used to create the digital stories was user friendly. The focus could then be on making the movie and not on the very involved steps found in Movie Maker.

The app walked each student through the movie making process step by step. Many of the participants appeared to be very comfortable with the process and enjoyed making the movie. During the workshop titled “Putting it Together: Creation of Digital Stories” the researcher observed:

Jacenta and Bella rehearsed their scripts 3-5 times before recording it. As Jacenta was recording, if she “messed up” speaking, she would freeze and stop recording all together, laugh, and then start over. Javier and Matias didn’t want to practice rehearsing and wanted to start right away to record their stories. Benita took the most time to select pictures. She couldn’t decide exactly which pictures fit best with her storyboard. She also wanted to use someone else’s pictures if they were “better” than hers or if she thought that someone else had a cooler picture of something. She took a lot of time to decide what she wanted to put in her movie. She would also stop to help Jacenta with the steps for using the Videolicious app. Javier, Matias, and Bella easily navigated through the Videolicious app. No one was frustrated, and music was playing in the background. Jacenta commented that she wanted her movie to be about her friends and wanted to show what she liked in her movie.

From the student feedback and informal teacher contact, the researcher noted that:

Other students, when “seeing” this project unfold, found their desire sparked to want to do similar projects. I discussed this aspect with our technology teacher to see about undertaking similar personal projects during students’ special technology class. We also met to discuss using the Videolicious app for other projects due to its ease of use (i.e. 4th grade Explorer Biographies) Students were eager to begin the class on 12/5 (the day

for the digital story “glows and grows” presentations. Benita asked the teacher the day before the workshop when she was coming to get the group for the next workshop.

During the “glows and grows- presentation time!” workshop students were able to bring 1-2 classmates with them to the workshop and show off their final videos. Each participant completed a glows (what they liked about the video) and grows (what they saw could be improved in the video) for each video they watched. The glows and grows forms were then given to the student who made the video for feedback about their work. The creation of the digital stories was both a rewarding and a challenging process for these students.

### **Cross-case Analysis: Themes**

A descriptive, thematic analysis of the triangulated material from ten interviews, photo analyses, and the researcher’s journal is presented in this section. From this analysis, the findings are structured around six themes: (1) participants’ self-perceptions as a learner; (2) the importance of school, learning, and education; (3) feelings toward bilingualism that include language preference and language usage; (4) digital storytelling as a second language learning activity; (5) technology to personalize instruction; and (6) increased motivation to learn English due to student centered projects. In the analysis of these data, the six themes were apparent throughout the participant transcriptions, experiences, and interactions. The results of these analyses highlighted differences as well as the similarities between the participants and supported a more in-depth understanding of the academic intrinsic motivation of them to learn English and perceived self-efficacy based on their language experiences and actual practices.

**Self-perception as Learner.** Students were asked to describe themselves as learners in the pre-interviews. A major factor in attainability of any goal is self-efficacy (Bandura, 1997)

or an internal belief in one's capabilities and competencies. Goals, self-efficacy, and motivation will largely effect the acquisition of any additional language for ELs. These students' perception of themselves and their enjoyment of school learning is essential to ELs' academic success.

A majority of the student interview responses indeed offer positive perceptions of school, and who they were as learners. The themes that emerged from the photographs of those using the SHOWeD method about what it means to be a learner included: (1) being a learner means having respect and good character traits; (2) learning can help us to be better at things; (3) learning is fun; (4) learning is about seeking goals; (5) learning is helping each other and working together; (6) learning is hard work; (7) teachers help us learn and work hard for us; (8) learning is how to speak English; and (9) learning takes place everywhere, i.e., in Art, STEM lab, Music, P.E., computer lab and more.

In the post- interviews, students had a positive perception of themselves as learners and from the experience they just completed they gained new perspectives about themselves and their abilities. In answering the question, "What did you learn about yourself during this project? Matias responded, "I learned (that) to be a learner is to work hard on everything and learn new skills, and to complete things." Benita also reflected that she "learned to be a better learner, so that we could get stuff." Learners gain and develop their own sense of self-efficacy based on their performances, feedback from others, and their own physiological reactions. Other factors that influence self-efficacy include outcome expectations, self-concept beliefs, motivation, and perceived control. Students described school and being a learner as "hard work, having good character traits, being better at things, fun, helping each other, and working together."

**Importance of School and Education.** Student voices from this project referred to the importance of grades, schoolwork, learning, family expectations, and personal desire to learn and use English fluently in school. Student interactions that were recorded in the researcher's journal and interviews with students depicted their ideas on the importance of school and education to their future. Student's stated in their interviews that school is important to them. In answering such questions as "Do you like school?" and "Why do you like school?" Jacenta, for example, responded "Yes. I do because I like to get good grades. Matias's commented, saying "School can help you learn new stuff. Because if you never went to school you won't know knowing."

Themes that emerged from the discussion of student-taken photographs also supported a positive perception of school by the students. Students collaboratively worked together to develop themes for the pictures that they selected. Their thoughts and feelings about school included: Learning is fun, making goals, helping each other, working together, hard work, and it takes place everywhere. Throughout the interviews, photo analyses, and observation notes, there existed a common theme among students who had had a strong desire to do well in school and be successful. Students had a high regard for their teachers, supporting and helping others, and the school climate in general. Most expressed a positive view of education and saw it as a way to accomplish and achieve their own goals. Although each student had a varying language ability and background, the importance of education and the positive perception of education expressed throughout the student interviews, student digital stories, and photo analysis strongly suggested that there was a personal and family importance placed on attending school and receiving an education that would support more academic success in the future.



**Bilingualism.** In a world that is increasingly diverse and multilingual, bilingualism exists in every country, in every class of society, and is clearly demonstrated in different age groups. Grosjean (1982, 1998) points out that in such a diversified world, young children find themselves learning and living in bilingual or even multilingual environments. Bilingualism refers to a degree of competence in the sub-components of four macro skills: Speaking, writing, reading, and listening (Macnamara, 1969). Bilingualism can be deemed or seen as a specific spectrum in students or individuals that demonstrates varying degrees of competence in each of these macro skills. Bilingualism is a theme here because of the dual nature of the students that participated in this study to speak both English and Spanish during their project efforts.

***Language Preference.*** A sub-theme of bilingualism relates to the language choice of the participants. Notably, all these students opted to hold their interviews in English even after being given the option to speak in either Spanish or English. Students' desire and willingness to want to be fluent in English was apparent despite their varying levels of proficiency in English. All five students' identities and perceptions of bilingualism echoed their desire to want to become better with their English use, so they could communicate with their friends and their teachers.

Benita indicated that she would like to become more proficient in reading and writing in Spanish and in English. Jacenta preferred to use English in school because "my friends don't talk a lot in Spanish. (I want to use Spanish) to learn fast; easier to get better at it. Bella believed that speaking English in school is easy, and in Spanish she doesn't know as many words. Javier maintained, "I'm starting to like English. If I were to never come (come) to this school, I wouldn't ever know English, and when someone comes right there and they say,

English person, and he talks to me, I want to know what he say. It helps me to talk to other people.”

Language usage plays different roles in different settings, and that was evident in the student interviews. Speakers compartmentalize their language use and style based on different influences in their lives, such as family, friendship, religion, and education (Fishman, 1972). There are many factors that can influence language usage. These factors are described by Hoffmann (1991) as the person, the place, and the topic. Communicating in and changing between a home language and a target language is often described as code switching. Code switching refers to “the alternate use of two or more languages within the same utterance or during the same conversation” (Hoffman, 1991). It is commonly seen in ELs when switching between their mother tongue and English during interpersonal (informal) conversation. As noted in the researcher’s journal, students would switch between English and Spanish when communicating with their peers and working with difficult tasks during workshop activities, such as the storyboarding workshop that required students to write and develop ideas.

Frequent code switching occurred among the girls in this study:

Student pairs (one group of three) where the teacher worked with each group to finish sequencing the pictures and focus on what students wanted to say about them in their movies. Bella, Jacenta, and Benita were in one group, and Matias and Javier were in the second group. Javier was a leader in his group and helped Matias throughout the process. The group of girls had no clear leader, so each worked quietly together. More discussion occurred between Javier and Matias. Benita was the more communicative of the girls, but she used both English and Spanish to talk and share ideas. Bella responded in English only and Jacenta asked for clarification and help mostly in Spanish.

Additionally, these students also demonstrated code-switching during a challenging vocabulary workshop where students created a vocabulary flip book using the jigsaw method. The jigsaw method, when used as an instructional strategy to build comprehension and vocabulary, provided each student to play a part in the activity. The jigsaw method is a cooperative learning strategy that provided students the opportunity to create their own learning because each partner is assigned a piece of the information, students collaborate and share ideas to "piece together" a clear picture of the vocabulary word. The first vocabulary word was modeled by the teacher, and then students worked in pairs to look up the definition in their dictionaries, write a definition using their own words or phrases, and then draw a picture to go with the word. The vocabulary match-up was completed as a whole group, and all the students worked collaboratively to match up the words using their vocabulary books. The researcher noted in that day's observations:

Jacenta had a hard time keeping up with the other participants. Matias and Javier were the most confident calling out answers. Jacenta seemed frustrated, but he didn't stop trying to match the word with the definition. Bella didn't appear to be confident about her responses to share with the group, but upon circulation of the room, she was always on the right word or definition. Benita was disinterested in this activity. She remarked that it was "hard" and not her favorite workshop. Students did often interact and communicate, especially while trying to get another's attention and during the development of a definition, in their L1.

All five participants speak mainly Spanish at home as their home language and English at school with their teachers and peers. Students, when surrounded by their peers, would code-switch between their L1 and L2 during different or more challenging stages of the workshop

to ask for help, clarification or to draw attention to something. Interaction with the researcher was always done in English.

***Home Language.*** The home language of ELs can have considerable impact on student academic success. For ELs, one language has more structured instruction than the other. In this study all five students spoke Spanish with their family members. The home language of students is always a sub-theme under the theme of bilingualism. The students' home languages impacted their perception of themselves as learners and also their journey to learn English. Two out of the five students spoke both English and Spanish at home with family members.

Most students spoke Spanish at home to communicate more easily with their parents and families, but only Benita could read and write in Spanish and Jacenta was able to read words. Benita did express the understanding that it might be helpful for her to be able to both read and write fluently in Spanish and in English. Benita also commented in her pre-interview, saying, "Right now I'm kind of taking Spanish classes, and I just like Spanish because my parents are like asking, "How come you speak more English than Spanish?" It is notable to point out that the students who spoke both languages at home were also the students with greater English language proficiency based on their 2014 ACCESS scores.

***School Language.*** School language is a sub-theme under bilingualism because as with the home language, school language impacts student perceptions of themselves as learners and their journey to learn English. At school, ELs have exposure to English in both written and spoken formats. In this study, students were able to construct their own meaning, build vocabulary, and increase their English language acquisition through interaction. Students often use English in class throughout the school day. When asked how they feel about

speaking English only in class, the student responses reflected positive feelings toward speaking English at school. Students all wanted to become better in English. Benita was the only student who expressed a desire to want to speak both English and Spanish. It is important to point out that these students had positive perceptions of speaking English in class.

While the students were able to speak two languages, only one student was able to read and write in Spanish with any fluency. This study demonstrated that while students were indeed able to speak two languages, they tended to speak only one language in practice whether at home or at school. For their academic activities, students most always spoke English. Other than Benita, who is practicing writing Spanish at home, these students demonstrated limited written and reading competence in Spanish. Students frequently used one language for conversation and another for writing and reading at school. There was indeed a vast difference between the language ability of students and their language use.

**Preferred Learning Activities.** Language acquisition occurs best when framed within a specific context because students learn language best when there is an emphasis on relevant, meaningful content rather than solely on the language (Arnold & Brown, 1999). The preferred learning activities were a theme that emerged from the analysis of the data from this study. When asked about activities that supported their language learning students had a variety of responses. In answering these questions, they were asked to “Think about those things that you like the most are any of them helpful when you learn or practice English?” and also “What kinds of activities help you to learn and practice your English?” The students responded with a variety of learning activities. One common reoccurring item was games, computers, and access to various forms of multimedia. Jacenta said that she “reads something, listens to CDs, and listens to someone read to me” and all helped her practice English. Bella

and Matias both like to talk to people and use the computer.

Like Matias, Benita also likes to “play a bunch of games. I take tests on the computer at my house there is this little site. I don't know what it's called. They say a word, and then we have to type the word. If we get it wrong they're going to make us practice that word. I like games because they help me learn.” Javier also likes to talk to people, draw, and play games on the computer. Playing games was a common theme for practice and learning. Each student mentioned games and use of technology in each of their responses. According to Meskill (1991a, 1996) rich contexts made up of visual and auditory information provide environments in which learners can become immersed and involved. Students in this study use multimedia, such as CDs, computer programs that are gamified, and apps on their iPad and iPods to support their learning and development of the English language.

**Technology and Personalization of Instruction to Support Learning.** Krashen's (1987) theory of second language acquisition served to show how factors like learner anxiety, motivation, and self-confidence, can facilitate or impede language acquisition by raising or lowering learners' affective filters. Technology can bridge these variables and provide learners with new, personalized, and interactive methods that support Second Language Acquisition (SLA) in the classroom (TESOL, 2008). The student responses on the technology they use at home (see Figure 4.26) and at school (see Figure 4.27) are displayed below.

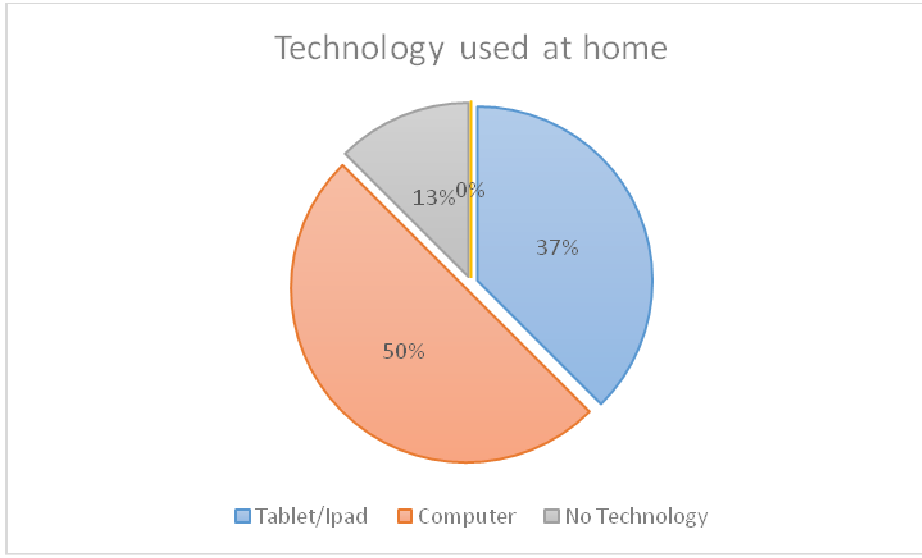


Figure 4.26 Technology Used by Students at Home

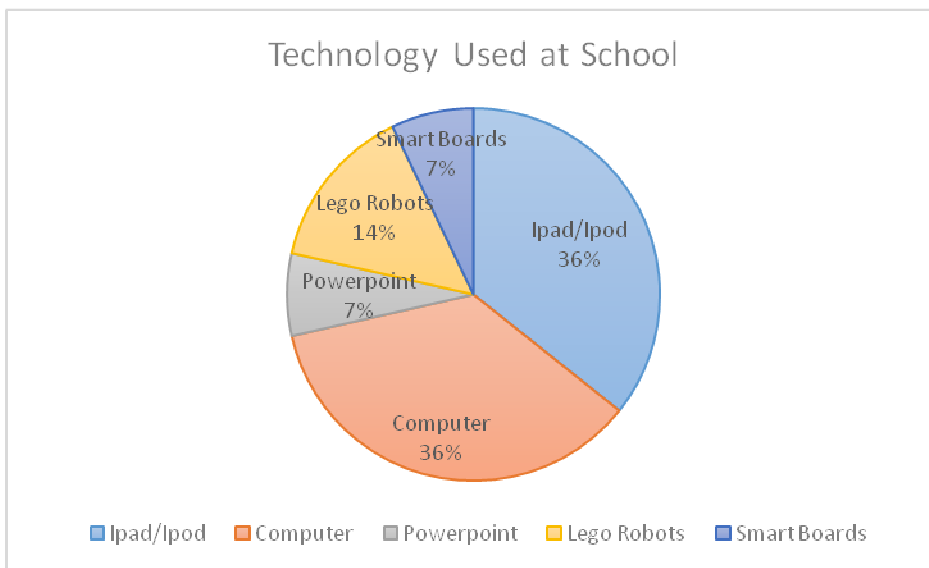


Figure 4.27 Technology Used by Students at School

The students used computers, CDs, software games, iPads and iPods to support their learning of not only English, but also grade level content. Students commented during their interviews that technology is used at their school to research things, complete projects/classwork, learn math, program robots, and play games. Students’ belief in their ability to use technology before the project ranged enormously. Due to these results, technology that can personalize

instruction was a theme that emerged from the analysis of the data from this study. Most agreed that they were okay or maybe needed a little help, and only Matias thought he was good at using technology.

After working on a technology rich project over the semester, however four of the five students believed their technology skills had improved and they had an increased self-efficacy about using the app Videolicious and their iPads in their projects. In answering the questions, “Now that we've done the project, and you've used your iPad, you took your photos, and you made your movies with the Videolicious app, how do you think you are now with technology? Would you say you're good, bad, or okay?” Students responded on their perceived self-efficacy using technology, and no additional probing was conducted. Bella and Matias both felt okay. Jacenta and Benita felt great, and Javier felt good and went on to say that he liked “using technology stuff.” Even though students’ beliefs in their own self-efficacy with technology was lower initially, the students still used and enjoyed using technology in their learning and also throughout this project based on student pre- and post- interviews.

**Technology as a Tool to Personalize Instruction.** Educational technology has sought to overcome learning challenges and create a climate of on-demand learning available anytime and anywhere. From this focus and project, the creation of information and communication technologies (ICTs) was developed to represent a new approach for enhancing the dissemination of information and helping to meet learning challenges. This study found that students continually were using technology to support their learning both in and out of the classroom. Students felt that technology supported their learning in numerous ways, namely, by playing games that helped them learn, telling students answers they didn’t know before, providing them the ability to practice math facts. Matias summarized this



concept the best by saying that technology gets “me started and learning things, new things. If I don't always knew (know) this question it tells me which questions I didn't know.”

The recent evolution of ICTs has sparked a catalyst of action that has led the way for the creation of innovative user experiences. These experiences at both the individual and the collective level have expanded student access to and interaction with information in a way that would have been unconceivable just years ago. Student exposure to technology has enriched their learning in multiple ways. For the students in this study, technology has enabled a seamless interaction with multimedia content that not only supported their individual learning, but also facilitated the customization of learning experiences for these students with varying language abilities in numerous content areas.

**Digital Storytelling as a Language Learning Activity.** Technology has provided students with the opportunity to shape content collaboratively within an interactive world (Davies, 2011). EL students do face the challenge of acquiring academic language proficiency in English; they must learn to comprehend and produce more literate sentence structures in English so as to achieve grade level expectations (Janzen, 2008; Short & Fitzsimmons, 2007). In the post-project interviews, students all perceived that the creation of personal digital stories increased the number of words they knew in English. Digital storytelling as a language learning activity emerged as a positive theme from the analysis of data gathered in this study.

Students were asked to share their perceptions on whether or not the creation of their digital stories made it easier for them to share their thoughts and ideas. They were asked question, “Do you think this project helped you to make it easier to share your thoughts and ideas?” Matias responded, saying, “Yes. It made my brain work harder. It's like, if this thing was hard, if my brain wasn't a hard worker, and it didn't work well, I would have got all the

answers wrong.” Bella replied, “Helped me learn English because of the words.” Javier agreed, saying that “working in groups, talking to somebody, me learning how to do projects” were all beneficial in terms of allowing students to share their ideas. All students agreed that despite the hard work, the digital stories made learning fun. Benita shared the view that digital stories are fun because “I learned to use more apps that I didn't learn before. I think so that would help me, like put more stuff in my brain.” Students also considered and then related to why the creation of digital stories supported their language learning.

In answering the question posed, “What did you do that maybe helped you work with the way you talk or write?” students agreed that DST helped, but Jacenta thought the speaking and narration was challenging “I learned that the project, it's so hard to do it (the speaking) and that it's so...that I did all my best I could.” Benita agreed with Jacenta that it was at times hard, but also goes on to say that it “makes me feel better because I know (how) to talk better. It helped me learn English because of the words and how they sound it out.”

In order to support language learning, the questions were rephrased, and examples were used, such as modeling for how to complete the paper and respond to each question in weekly workshop sessions. Jacenta frequently asked questions. Each question was read by the researcher and then the meaning of the question was elaborated on by the researcher to aid with comprehension. Jacenta and Matias worked with other students who were more fluent. Jacenta and Benita conversed in both English and Spanish during the project and collaborated together during the workshop sessions frequently. Javier and Bella worked with Matias, but they didn't ask questions throughout the workshop.

Modeling and communicating in both English and Spanish allowed the students who had less English proficiency the ability to comprehend more complex tasks and continue their

participation within the scope of the project. In these scenarios, English and Spanish were used strategically by the students to understand and complete the tasks in English. Those with lower verbal proficiency in English wouldn't have answered questions throughout the workshop because they were only able to comprehend, not formulate responses in English to the questions. Peer partnerships were of particular importance to this project and worked in an effective way to provide less fluent ELs assistance with comprehension and practice in English in a supportive environment.

**Motivation.** Personalized projects, such as Digital Storytelling projects and activities that rely on games and interactive technologies, may have the capability to impact ELs' intrinsic motivation not only to learn English, but also learn in varied academic venues and classrooms. Wu and Wu (2008) found that classroom atmosphere might positively correlate with L2 learners' motivation. In this study, it was learned that working with iPads, taking photographs, and participating in the creation of a digital story was motivating to students even if the project was difficult for them at times. The variety of workshop activities and the project itself addressed a variety of student learning needs. Students' personal academic intrinsic motivation, the importance of peers, and the improvement of their skills and increased content understanding were evident. Student projects were constructed by and with their peers and were personal to each learner. Many of the students took pictures of things they thought were important to them. Javier summarized this aspect the best by saying, "I stopped when I saw something I liked." Benita commented that she "decided what pictures to do because of my talking and my writing (storyboard)." Making personal connections with the pictures and the digital stories reflected the thoughts and feelings of all the students who participated in this project.

The researcher noted that students took extra time to practice English and expressed a need to do well on their projects because their friends would be seeing their movies. The digital stories were personal and about their interests. This aspect supported the students' persistence and academic intrinsic motivation throughout the entire project. The researcher observed that before the recording, some students worked by reading aloud each of their story boards with a partner. They practiced speaking loud enough to be recorded and to be comfortable with using the app before recording. This observation supported the finding that there was an increase in the students' academic intrinsic motivation and a positive perception of language acquisition in this project. In answering the question, "What was the best part?" Matias, Jacenta, and Benita all agreed it was taking or selecting pictures. Bella thought that working with friends and making the video was the best part, whereas Javier most enjoyed "telling the story." When asked what the hardest part was, Jacenta, Matias, and Benita all agreed that the narration and trying not to giggle was a challenge. Bella and Javier both agreed that taking and selecting the pictures was the most difficult task for them.

In answering the two questions, "Thinking back to when the project started, and I told you that we were going to take pictures of things that you like, how do you feel about that now?" and "If you could tell anybody anything about this project, what would you want to say to them about your experience?" students responded with the following comments the following:

**Jacenta:** That I finished my project and it's really good.

**Matias:** I feel great with it. I'll tell them what it is, the video, all about it.

**Bella:** We're starting a new project that we're going to make a video of.

**Benita:** That's how other people can understand what I like. It feels ... It makes me feel

great because it's just what I learned.

**Javier:** It is fun doing projects. (Ask) if they liked it.

Academic intrinsic motivation involves the enjoyment of school learning and is characterized by mastery orientation that involves curiosity, persistence, and learning challenging, difficult, and novel tasks. Intrinsic motivation also involves engagement in an activity for its own sake and is characterized by actions that include enthusiasm, spontaneity, joy, involvement, concentration, and perseverance (Ryan & Deci, 2000, 2002). For ELs, intrinsic motivation to learn an additional language is essential to their academic language success in English, and that aspect was evident in all the students' as they engaged in the process of creating their own digital story as a project.

### **Chapter Summary**

In this chapter, the perceptions and experiences of five fourth Grade ELs were organized and described through their own voices. The data that were collected through interviews, photographs, and researcher journal reflections revealed the common themes that were present among the students that were structured around six themes: (1) participants' self-perceptions as learners; (2) the importance of school, learning, and education; (3) feelings toward bilingualism that addressed language preference and language usage; (4) digital storytelling as a second language learning activity; (5) technology that personalizes instruction; and (6) an increased motivation to learn English due to participating in student-centered projects.

In these quotes, observations, reflections, and interviews, a common thread existed, namely, a willingness to exert a concerted effort on achieving a goal, accomplish a task, and connect to others through interactions, communications, and actions. There was an

overarching characteristic woven throughout the quotes of the student participants which described their perceptions of themselves as learners, the importance of education, their feelings toward bilingualism, and reflections on creating a digital story, and their sincere desire to want to learn English. In the full analysis of the data, these six themes became apparent throughout the participant transcriptions, experiences, and interactions, indeed highlighting an in-depth understanding of the students' academic intrinsic motivation to learn English and their perceptions of their individual language experiences and practices.

## **Chapter 5: Discussion, Conclusions, and Implications**

This final chapter focuses on the interpretations associated with the findings of the research as they relate to the study's literature and theoretical framework. A summary of the study is also presented through a discussion of the findings and their particular and direct relevance to the study, the literature, the context of the theoretical framework, and the conclusions obtained from this study. The limitations of these findings are presented as well as recommendations for future research. Finally, new implications for future practice, leadership, and advocacy are offered.

### **Summary of Study**

This study focused on whether participation in digital storytelling and photovoice, as a method of photo analysis, can enhance academic intrinsic motivation and perceived language acquisition in English learners. Utilizing a case study methodology by incorporating the organic process of developing a project from the inside out, both the participants and the researcher became co-creators. Self-Determination Theory (SDT) and Krashen's Theory of Cognitive Development served as the theoretical framework and also as a lens for the data analysis. ATLAS.ti data analysis software was used to code the interview transcripts by creating projects with hermeneutic units that contained various types of data (interview text/images/audio), findings, codes, relationships among codes, and memos.

Five students in the fourth grade were recruited from a suburban school north of Atlanta, Georgia through convenience sampling. From the convenience sample, the researcher purposefully selected students who had three levels of English language proficiency based on their 2014 ACCESS scores. Data collection included participant interviews, photo analysis, and a researcher's journal for triangulation. The use of triangulation for combining multiple

analytic methods added to the validity and credibility of the data (Lapan & et al., 2012). Data was analyzed and interpreted through a variety of epistemological lenses (Merriam, 1998; Yin, 1994, 2004), although descriptive/interpretive approaches are still the most common method use for studies centered in the field of linguistics. The participants shared their perceptions and experiences which they related to a positive perception of education, what it means to be a learner, acquiring a second language and their own technological self-efficacy. Data analysis included Corbin & Strauss's (1990) three levels of coding for analysis: (a) open coding, (b) axial coding, and (c) selective coding of interviews and the researcher's journal. All data was reviewed and interpreted to determine the precise themes developed within the study. Quotes from each student were used to contribute to the descriptions of each theme that was derived from the data. Motivation is just one lens used to investigate factors that contribute to students' interest, engagement, and persistence in learning activities (Gilman & Anderman, 2006). Underlying this focus, this study addressed how students perceived themselves as learners in an elementary school setting. This semester-long case study thus focused on the following research questions:

RQ1. How do ELs perceive themselves as learners?

RQ2. What are these students' perceptions of their self-efficacy in relation to technology usage?

RQ3. How does participation in a photovoice and digital storytelling project impact ELs' academic intrinsic motivation to learn English?

RQ4. How does participation in a photovoice and digital storytelling project impact ELs perception of their own English language acquisition?

Through the lens of this study, the researcher used qualitative research as a way to understand



not only the ELs' views of themselves as learners, but also their perceptions of their academic intrinsic motivation to learn English and the use of technology to personalize their learning experiences.

### **Discussion of Findings**

Educators share a deep commitment to the success of every student, and as professionals, they work diligently to meet the challenges of today's increasingly multicultural and multilingual society. Language is the medium of learning and demonstration within the education system (Vann, Bruna, & Perales Escudero, 2006) and also signals and encodes personal identity (Lotherington, 2004). This focus means that education, through its linguistic medium of instruction, plays a major role in defining the shape that children's identities will take and how children experience their linguistic and personal identities through their own language awareness. Simply stated, language is a powerful force that helps shape our individual and collective identity (WIDA, 2014).

While analyzing the data, a story within a story emerged that gave life to the students' educational and life experiences. It was these stories that provided valuable insight into the inner thoughts of elementary fourth grade ELs. This insight highlighted the differences as well as the similarities seen in the participants and supported a more in-depth understanding of their academic intrinsic motivation to learn English and their perceived self-efficacy based on their personal language experiences, acquisition of the English language, and use of technology to personalize their own learning experiences. A descriptive, thematic analysis of the triangulated material was presented and formed this discussion of the findings of this study.

### **Participants' Self-perceptions as Learners and the Importance of School**

English language learners are not only the fastest growing segment of the school-age population in the United States, but they are also a tremendously diverse group that represents numerous languages, cultures, ethnicities, nationalities, and socioeconomic backgrounds (Great School Partnership, 2013). Self-Determination Theory (SDT) served as the theoretical framework of this study, thereby articulating a theory that defines intrinsic and varied extrinsic sources of motivation and how cultural factors impact student performance. For the ELs in 4<sup>th</sup> grade, the importance of school, whether that importance is communicated at home or at school, formed the foundation that was echoed in each student's response in interviews and during workshops. SDT (Ryan & Deci, 2000, 2002) related to this study by supporting the students' need for autonomy, together with their need for performance, persistence, and creativity, all of which were well mirrored in the student interactions and observations completed by the researcher throughout the implementation of the student project.

The first research question for this study sought to determine how ELs perceived themselves as learners. Student interview responses highlighted their positive perceptions of self and school for these students, both as learners and the DST experience through which they gained new perspectives about themselves and their abilities. Matias commented, "I learned (that) to be a learner is to work hard on everything, and learn new skills, and to complete things." Student voices referred to the importance of grades, school work, learning, family expectations, and a personal desire to learn and use English fluently in school. Student interactions as recorded in the researcher's journal and the interviews with students depicted their ideas on the importance of school and education to their future.

Students stated in their interviews that school was important to them. Benita says that

she liked school because “it's fun for us to learn and I just like it.” Javier stressed, “I want to work hard to get in soccer at the university.” Three of the five students commented that getting good grades was a matter of importance to them. Matias perhaps summarized the influence and importance of education best by saying, “if you never went to school you won't (wouldn't) know nothing (anything).” Students had a high regard for their teachers, supporting and helping others, and the school climate in general. Most expressed a positive view of education and saw it as a way to accomplish and achieve their goals. Even though each student had varying language ability and background, the importance of education and their positive perception of education throughout the student interviews, student digital stories, and photo analysis suggested that there is a personal and familial importance indeed placed on attending school and receiving an education that can support academic success in the future.

### **Bilingualism**

As detailed in the literature review, language acquisition occurs best when framed within a context because students learn language best when there is a learning emphasis placed on relevant, meaningful content rather than solely on the language itself (Arnold & Brown, 1999). Chomsky (1986), Piaget (1967), and Vygotsky (1962) provided a theoretical framework for how language develops by concluding that each individual moves through developmental stages of a language, each at their own rate. BICS and CALP were discussed in the literature review of this study, and the stages of language development were also defined. For the students in this study, language proficiency was measured using their 2014 ACCESS scores. All the students in this study were able to speak two languages. Of the five, only three Javier, Benita, and Jacenta, were able to read in both English and Spanish. Of those

three, only two, Benita and Javier were able to write in both English and Spanish. Of the two students that could both read and write in Spanish, only one, Benita, had any fluency in the ability to read, write, and speak in both English and Spanish.

The Center for Applied Linguistics (2014) supports the view that there are many benefits to being bilingual in a global world. Bilingualism can be linked to intellectual growth, enrichment of mental development in children and greater flexibility in thinking and stronger sensitivity to language, as well as an improved ability to understand their native language. Learning strengths that emerged in this study were the development of cognitive abilities as perceived by the students. Green (2011) reports that there is a constant interchange between two languages that needs to be balanced for a bilingual speaker. He hypothesized that bilinguals are better at switching between two tasks; therefore, they have stronger cognitive control when changing strategies when compared to their monolingual peers.

For these students, their first language of Spanish supported their development of English, as they engaged with concepts. Benita in particular, demonstrated a strong task-switching capacity. The implications of being bilingual for these students included stronger cognitive and sensory processing driven by the bilingual experience, thereby allowing the students the ability to process information in different learning situations. Students also developed effective coping strategies as well as the ability to focus on information offered in English and construct meaning about what they already know in Spanish. This ability allowed the students to learn new words, leading to larger gains in their vocabulary and overall knowledge.

**Acquiring English.** The literature review that supported this study presented the idea that students can best acquire a second language in much the same way that they acquired

their first language, namely, by learning to communicate and making sense of their world in that language. A language is best acquired when it is used to do something meaningful, such as in this project with the creation of a digital story. This practical focus is more difficult in the academic climate of school because second language learners need the new language to interact socially, learn subject matter, and achieve academically. Krashen (1982) supports the concept that a new language is acquired subconsciously, as it is used for different purposes. Every day at school, students acquire language as they receive oral or written messages they understand. These messages provide comprehensible inputs that support the eventual output of speaking and writing. For example, in the workshop sessions when a student needed to know how to ask about using the app Videolicious, the student required the vocabulary necessary to accomplish this task. By using language for real purposes in the form of creating digital stories, language was acquired naturally and purposefully during this study. By providing this kind of opportunity for students to develop their language skills, this project supported students, as they practiced reading and writing, as well as, listening and speaking in English. Through trial and error, the students in this study practiced their language skills through the exploration of written and verbal expression, thus increasing their knowledge, self-efficacy, and confidence in using English.

It was important to highlight the fact that despite opportunities and permission to use Spanish, each student sought to provide his or her interview in English. Interviews were conducted in English with the students because of their desire to want to speak the language of the interviewer. There were many times, however, that the students interacted informally with each other during work sessions and did so in both English and Spanish. As noted in the researcher's journal, when working with difficult tasks, these students would switch between

English and Spanish, i.e., code switching, when communicating with peers during workshop activities. Aside from their code switching during such interpersonal conversations, all of the students sincerely expressed an interest in wanting to improve their English speaking abilities.

Grosjean (1982, 1998) points out that in a diversified world, young children find themselves learning and living in bilingual or even multilingual environments. Each of the students in this study have indeed found themselves living and learning in bilingual environments. While this study sought to determine how students view themselves as learners, data emerged to highlight students' perceptions of speaking English and how they felt about bilingualism in a school environment. Of the five students who were living in bilingual environments, only one student, Benita, expressed a desire to want to be more fluent in both English and Spanish in both reading and writing. Benita believes that "speaking English in school is easy. In Spanish, I kind of don't know words, and in English I know a lot of words." Matias says he likes using English because he wants to make friends with others that speak only English.

Language usage of course takes on different roles in different settings, and that aspect was evident for these five EL students. At school, ELs have exposure to English in both written and spoken forms, and yet at this school and within this study in particular, only English is embraced for literacy instruction. Despite the English only delivery model in this project, students still sought to construct their own meanings, build vocabulary, and increase their English language acquisition through interaction in English and in Spanish.

**Home Literacy Language and Language Achievement.** Cummins (1979a, 1979b, 1980, 1981), for example, suggests that literacy skills acquired in one of a bilingual's two languages will transfer successfully to the other language. According to Cummins, if the first

language of a bilingual is well established, literacy skills developed in this language will transfer easily to the second language. This study supports the view that when students are strong in both language environments, their cognitive understanding will support stronger communication skills in both languages. Supporting a student's home language is critical for later achievement and also results in better outcomes than English-only approaches because literacy and knowledge are more likely to transfer from one home language to another secondary language. Benita is an example of such success. She speaks, writes, and reads in Spanish at home, thus supporting fluency in two languages both at home and at school. Family engagement in conjunction with instructional experiences that reinforce learning that draws on personal experiences that reflect student interests and promote language skills are critical aspects of supporting ELs success. According to Benita's 2014 ACCESS, she is a tier level C and is on track to exit the ESOL program this year. When comparing participants and their time spent in ESOL, Benita, Javier, and Bella have all been attending the program since Kindergarten. Matias began ESOL in first grade and Jacenta started the ESOL program in third grade. Based on Benita's time spent in ESOL, practice reading, speaking, and writing in both her L1 and L2, and composite 4.9 ACCESS score, it can be suggested that proficiency in L1 can directly influence proficiency of a student's L2. Cummins (1981) stated that the better developed a student's L1 conceptual foundation; the more likely they are to develop similarly high levels of conceptual abilities in the L2. From this evidence, it can be further concluded that when content is learned in one language (Spanish) and can be expressed through another language (English) that information will lend itself to not needing to be relearned and thus stronger academic success.

**Close Ties: Language and Culture.** Language and culture are closely tied to one

another and thus have the capability to influence both verbal and non-verbal communication. Reflecting on the student interview responses and observations in this study, one can conclude that there is a sense of value that emerges from being Latino and speaking Spanish. However, due to the prevalence of English being spoken in most academic settings, there is a desire among these students to master English. Students in this study perceived that a mastery of English would allow them to take greater part in building relationships with friends and teachers and thus excel in school. The students often used English in class throughout the school day. When they were asked how they felt about speaking English only in class, they expressed a positive feeling and a preference for English. Benita illustrated this view when she said, "I would rather speak English because that's how we get to learn more. In class, I would like to use both because I don't really know Spanish, and in English I know a lot of it, but I don't know some words. I need to learn those words so I can get (more) better at it." Benita also said she wrote letters to her grandmother, and yet she didn't perceive herself as knowing much Spanish. During the workshop sessions, students frequently interacted with each other in both English and Spanish, using their Spanish as a tool for more comprehension and participation.

**Bilingual Student vs. Monolingual Teacher.** Variations within cultures produce different types of body language, for example whether or not to maintain eye contact and physical contact to name just a few differences. In this study, there were five Spanish/English bilingual students and one monolingual English teacher. Had students been provided the opportunity to participate in a study that emphasized instruction in both English and Spanish, the responses of these students might have been different. Jacenta relied on the group members to help her make meaning out of content. Also, there was an emphasis on the



collective success of the group and a reliance on one another to successfully complete the project.

The research presented in this dissertation indeed maintain that ELs are a heterogeneous group of students with diverse educational needs, backgrounds, and languages. It is thus important to understand that even within a small group of five students, as in this case study, they each come from home backgrounds that will vary in their bilingual environments. There were variations in environments, ranging from homes where no English is spoken, some from homes where little English is spoken and others that have been exposed to or use multiple languages. The student interviews also highlighted the students' sense of their non-U.S. culture and also the U.S. culture. Instruction at school was in English only. Students expressed a desire to speak only English at school, so they could interact with friends and other monolingual teachers. This view was noted by Matias and Javier on several occasions. In answering the question, "How does speaking English only in class make you feel?" the student responses varied from "good" and "happy" to "weird" and also a sincere desire to become better at English.

For future projects, it would be valuable to incorporate culturally relevant materials to build on each student's home language and cultural resources while teaching English through content and themes. Recognition of socio-cultural factors, awareness of students' backgrounds and prior experiences, and helping ELs to make connections between the academic content and their existing knowledge will support ELs as they work to improve their language skills overall.

### **Digital storytelling as a second language learning activity**

The students used their storyboard scripts, voice recordings, music, and personal

pictures to give life and meaning to their digital stories about what it meant to be a learner. Each new piece enhanced their own personal story. The research questions for this study asked the questions: “How does participation in a photovoice and digital storytelling project impact ELs’ academic intrinsic motivation to learn English?” and “How does participation in a photovoice and digital storytelling project impact ELs’ perception of their English language acquisition?” For these students, the collaborative nature of their project had an added benefit that enriched their stories rather than hindered them. DST was centered on learning through reflection and development of each of their own experiences.

Digital storytelling as an instructional second language learning activity engaged the students in the creation of meaning by providing students the opportunity to rehearse, narrate, and make connections to their experiences in English. Students also considered and then related to the researcher why the creation of their digital stories supported their language learning. When asked how DST supported their ability to speak or write in English, Jacinta and Benita expressed difficulty with the task of speaking, while Bella and Javier were happy to have learned new words.

Digital storytelling presented in this study as a powerful language learning activity that allowed students to develop their English vocabulary and listening and speaking skills. Using the photovoice SHOWeD method for photo reflection supported student English language learning as an effective tool. It provided students a framework within which to use English to reflect and describe photographs even though that activity may have been challenging to some students. It was a valuable framework tool because it empowered the students to become more aware of their surroundings and the people, places, and things that are of importance to them. Taking photographs and using the photovoice method of photo

analysis enabled each participant to define what being a learner meant to them.

Students also considered and then related why the creation of digital stories supported their language learning and responded in a way that conveyed that the method helped them to talk and write more effectively in English. Bella stated that the project helped her in “learning the way I talk and write because it... I learned new words.” While Benita expressed that the project was hard, it “makes me feel better because I know (how) to talk better. It helped me learn English because of the words and how they sound it out.” Other students also believed that the digital storytelling projects were of value to their learning. In answering the question, “Did this digital story make learning fun? Why?” Matias said, “Yes. Because, I guess, if you don't use technology, you will never know how to use the technology, and you're like, ‘What is this app, what is this thing doing?’ You just learn about things you didn't know about before.” Many of the students took pictures of things they thought were important to them. Javier summarized this aspect the best when he said, “I stopped when I saw something I liked.” Benita commented that she “...decided what pictures to do because of my talking and my writing (the storyboard).”

Making personal connections with the pictures and the digital stories reflected the thoughts, perceptions, and feelings of the students who participated in this project. The entirety of the process of creating a digital story developed more than just a final product. It also fostered language development and the relationships between the students as they worked and interacted with each other. Digital stories were narrated in English to provide ELs the ability to practice oral, written, and digital skills while simultaneously gaining more exposure to varying forms of second language input.

### **Technology to Personalize Instruction**

Greater access to technology and computer-assisted learning can support ELs in developing their listening, speaking, reading, and writing skills. There is also the possibility for collaboration through class websites, blogs, and learning management systems. Another research question that the researcher sought to answer was whether the students' perceptions of their self-efficacy as it related to technology usage could be positively affected by a project that was interesting and engaging. Specifically in this study, while four out of the five students said they increased their own self-efficacy in terms of technology usage, each felt that they had more to improve on before they felt that they were great at using technology.

Despite the usage and availability of technology at home for three of the five students, collectively they had little ability to work with iPads, cameras and use the Internet at home. The availability of technology to the students at home ranged from access to a computer and tablet to no technology at all. At school, the students used computers, CDs, software games, iPads, and iPods to support their learning of not only English, but also their grade level content. Students commented in their interviews that technology is used at school to research things, complete projects/class work, learn math, program robots, and play games. The interview responses supported the claim that technologies have the ability to support the development of CALP by delivering and completing communicative and interactive tasks. These tasks can support ELs as well, as they improve their linguistic skills, learn academic vocabulary, build confidence, and make meaning of content from subject areas that become more accessible (Meskill & Mossop, 2000; Dunkel, 1990). Even though all the students expressed a lack of ability with their technology skills, they were not hesitant to use the iPads in any way. Each step of the movie making process was explained, practiced, and then completed by each student in order to arrive at his or her final product. Sometimes this

process required many rehearsals or restarts in the recording process, but the students never gave up or quit, and persisted with assistance until their tasks were completed.

Findings from this study determined that students were indeed continually using technology to support their learning both in and out of the classroom. Students felt that technology supported their learning in numerous ways, i.e., to play games, get started on learning new things, providing answers to questions they didn't know, and supporting learning in general. Technology usage in this project was in and of itself a motivator for the students by making learning fun and exciting. The gamifying of learning content captured and retained student interest in learning that content. Additionally, results from this study showed that EL students, when provided learning activities that remain engaging and personal, will work hard to improve their English. For the students in this study, their motivation to use technology and complete their projects depended on their level of engagement with the DST project and their own progress and perceptions of their personal ability to acquire additional English language skills.

### **Motivation**

Pajares and Schunk (2001) found that students who believe they are capable of performing tasks use more cognitive and metacognitive strategies and persist longer than those who do not, thus making the perceptions of intrinsic academic motivation of key importance. Motivation can be connected largely to the enjoyment of any learning task. This study sought to determine whether participation in a photovoice and digital storytelling project would impact ELs' academic intrinsic motivation for learning English. The findings supported that the time spent learning each week did contribute to the students' motivation to want to learn and participate in their creation of a personal digital story. Motivating

learners to develop a target language is a complex process wherein students may face obstacles in learning English and are often demotivated to learn. In an effort to combat these obstacles, motivational strategies, as identified by this research on motivation, helped learners adopt positive attitudes toward language learning. Students who have well-developed intrinsic motivation are more likely than others to demonstrate strong conceptual learning, improved memory, and high overall achievement in school (Gottfried, 1990).

Personalized projects, such as Digital Storytelling projects and other activities that rely on games and interactive technologies, have the ability to impact ELs' intrinsic motivation to not only learn English, but also learn it in different academic content areas. In this project, no matter what the task or assignment was, the students were engaged and excited to attend the workshops each week whether their assignment was hard or challenging (writing the storyboards and vocabulary) or fun (taking the pictures). Initially the students were not as talkative until they got to know the teacher and the other students better. Starting the project was slow, but over the weeks, the pace and excitement of the students increased as their stories emerged. An increased willingness to share and participate, even with the shyest participants, Jacenta and Bella, was duly noted. Each student possessed a personal desire to accomplish and achieve, as demonstrated by their persistence to complete their projects despite any challenges. The benefits of such an intrinsic motivation to learn included the measures of school success (Deci & Ryan, 2008), thus supporting the results of this study and the finding that ELs' perceptions of themselves as learners and language acquisition are more positively motivated by a personalization of products, choices, and having learning activities that are of high interest.

### **Peer Partnerships and Cooperative Groups**

Cooperative learning emphasizes the process as well as the product of group work, gives all students opportunities to deepen their understanding, develops their problem-solving skills through purposeful talk, and builds the satisfaction that comes from helping others (Colorado, 2007). During the workshop sessions the researcher observed that Jacenta and Matias needed significant modeling and direction to complete their activities. Collaboration among the students began before they were even given instructions or were “told” that they could work together. Students chose to converse in both Spanish and English, as the tasks became more difficult. Before, after, and during the activities, there was discussion and interaction between the five participants and the researcher, while working as a cooperative group. Colorado (2007) argues that cooperative learning is beneficial for any student learning a second language. Cooperative learning promoted peer interaction that developed language, the learning of concepts and content, and provided ELs the opportunity to express themselves with greater confidence. Students in this study used cooperative learning by readily working with more fluent partners who could support their understanding and solve any difficulties that they encountered.

### **Limitations of Findings**

This research was exploratory and allowed the participants to share and discuss their experiences, an activity that contributed to understanding the nature of elementary fourth grade Hispanic EL students’ perceptions about what it means to be a learner and acquire a second language. Limitations that need to be highlighted, however, include geographic location and age representation. The geographic region selected was in the Southeastern United States, specifically Georgia. While Georgia does possess a diverse population of ELs, all participants in this study had a Latino background. However, ELs are not only culturally

and linguistically diverse, but also socioeconomically diverse. Goldenberg, Reese, and Rezaei, (2011) stress that it is important to know about a student's family socioeconomic status and education level because these factors will influence the academic achievement of that student. Socioeconomic backgrounds, however, were not addressed in this study.

Another limitation of this study was that there were only two male students and three female students in the study due to the loss of a student due to moving. Additionally, the students were between the ages of eight and nine years of age, thus making their responses and experiences affected by not only their varying English language ability, but also their age. Student responses on the development of themes about what they thought it means to be a learner thus lacked some depth. Many responses were initially the very first idea that the student thought of. The lack of depth in these responses could be due to either age, being eight to nine year olds, or due to the English vocabulary needed to describe their pictures in greater depth.

This research study was conducted with only five fourth graders of Latino background and varying English language ability. The gender and age of each student were different. Additionally each new workshop session presented varied, new, and unfamiliar content to the students. Due to never having had experience in completing a project of this nature, there was the possibility of that impact on student perception and their participation in this project.

### **Implications for Future Practice**

An understanding of bilingualism in children is significant because it contributes to our understanding of principles of language learning and acquisition and thus can help us, as language teaching professionals, to better plan our teaching strategies and techniques. Studying and investigating bilingualism in younger students can reveal substantially valuable concepts that



can help to shape and change the way that instruction is delivered and a curriculum is developed. Language achievement in education is largely impacted by time spent on task, the intensity of use, and the quality of exposure to the second language (Krashen, 1987; Richards & Rogers, 2001; Arnold & Brown, 1999). In future practice, there needs to be an increased awareness of the importance of academic intrinsic motivation (Gardner and Lambert, 1959) and the learning environment (Wu & Wu, 2008). Language education is critical to students' success in the world of the future, which will insist on students' abilities to interact effectively with others. Students need to develop their academic native language(s) along with English. It is critically important that schools, elementary through post-secondary levels, offer students an opportunity to develop and then support the development of such skills while meeting required language learning needs.

Active engagement was of key importance to the success of this project and was frequently employed within the instruction. Throughout the project, the activities emphasized active engagement to support ELs as they processed new information. Whole group discussion and brainstorming, repetition of ideas, trial and error in the development of the digital story, and posing questions to students to stimulate thinking and draw new conclusions were techniques often used by the researcher. PV's SHOWeD method, storyboarding, and DST content were delivered in small chunks of time that were no longer than 10 minutes to allow the students to process the new information more easily and completely. Scaffolding was used to connect existing knowledge with new knowledge through a variety of learning tasks as outlined in the lesson plans.

Each workshop session was tied tightly to the concepts or skills previously taught in earlier workshops, so as to build the understanding of students. Additionally, several processing activities were used to support more active engagement of the students. Processing activities,

such as telling your partner three things you learned, group brainstorming, outlining, storyboarding, and using the SHOWeD method to organize ideas, were all used within this study to support the ELs ability to process and retain information while developing higher order thinking. These methods were effective to not only promote active engagement and reinforce student learning, but to also keep students interested and on task throughout the project.

Using the findings of this study and the conclusions drawn from the case study of five EL learners in the fourth grade, the researcher recommends an approach to ELs' learning that includes: (1) a cross curricular approach to teaching language everywhere; (2) technology to personalize instruction; (3) implementation of strategies into the instruction to make English comprehensible; (4) dual language instruction; (5) student-centered instruction; and (6) culturally responsive teaching.

**Teach Language Everywhere: A Cross-curricular Approach.** Krashen (1982) defined the stages of second language learning, but acknowledged that language acquisition is also an ongoing process. As demonstrated by the participants in the study, elementary ELs need to be engaged in learning activities that meet their cognitive and social needs. A digital storytelling project was both linguistically and cognitive challenging, but did meet the learners' needs to interact with each other socially and thus support their learning. ELs, like the participants of this study, need to continue to develop knowledge of grade level content at the same time that they are learning English.

In pre-post interviews, the students maintained that they used technology as a tool to support their learning of language and grade level content, and yet more was needed, thus the recommendation herein to teach language using a cross-curricular approach. By incorporating language learning into all subjects across the full curriculum in a cross-curricular approach, ELs

can begin to see knowledge as being interdependent and connected rather than as isolated subjects, thus increasing the critical thinking and collaborative skills of all students. A cross-curricular approach that combines reading, writing, speaking, collaboration, and technology skills was adopted and supported by the digital storytelling project in this study. PV's SHOWeD method was used to analyze the photographs and provided a framework for generating new ideas. Additionally it promoted critical thinking about the photographs that were taken and provided students a precise starting place to begin organizing their ideas while still combining multiple content areas. Bringing together multiple content areas under a single theme can support future instruction for ELs and help them build critical thinking skills, become literate in a variety of contexts, including media, and engage in meaningful, student-selected learning tasks.

**Technology to Differentiate Instruction.** Technology can support learning because it allows the student to learn at their own pace and in their own time (Hoven, 1999). Technology can thus be a powerful driving force for innovation in education because these methods have the ability to improve the quality of all instructional materials available to teachers and students, aid in the development of high-quality assessments that capture student learning, and accelerate the collection and use of data, thereby providing richer feedback to students, teachers, and schools (The President's Council of Advisors on Science and Technology, 2010). Given this paradigm shift in the educational environment, teachers are expected to integrate ICTs into both teaching and learning. ICTs, in addition to the advantages stated above, can positively impact the dissemination of knowledge, aid in the development of educational programs, contribute to educational change, more adequately prepare students for the Information Age, improve learning outcomes and the competencies of learners, and equip students with better survival skills for the information society (Buabeng-Andoh, 2012, Goktas, Yildirim, and Yildirim, 2006).

Technology, specifically the creation of digital stories, can be used effectively to build background knowledge, provide additional vocabulary practice, and increase engagement of ELs, so they become active ongoing learners. The findings of this study support the use of digital stories and personalized content for the students that participated, and it also worked to accentuate their learning of content. In order to improve learning outcomes and the competencies of ELs, the researcher suggests the following changes and additions to current instructional practices for English learners:

(1) Technology professional development (PD) is needed for teachers so they know how and when to implement technology into instruction for the best differentiation and personalization of learning activities. Technology is an excellent tool for presenting multimedia lessons and encouraging student participation that seamlessly blends pictures or video into lessons with contextual cues that support ELs' understanding of new concepts. Keeping this study in mind in support of these findings, if teachers do not know how to use iPads or create digital stories, how will they effectively instruct students on how to use technology that can support their learning?

(2) Develop a 1:1 student to computer or tablet ratio model. Working computers or tablets need to be in the hands of each and every student. Students must use technology daily in a variety of capacities if they are to become competent in using it to support their learning. Students within the digital story project each had their own personal iPad assigned to them and used it throughout the study. In each and every workshop each of the five students had their own iPad available to take pictures, share ideas, and develop movies and thus promote and extend their own learning within the project.

(3) Employ multimodalities to enrich instruction. Each of the students in this study was

cited as using a variety of multimodalities, such as CDs, computers, games, tablets, and interactive software at some point to support their learning. It is important that ELs are provided software that uses both sound and visuals to help ELs access text where they can both listen and read at the same time. The Videolicious app used in this study provided interaction, video tutorials, and a step-by-step presentation method that guided the students through the creation of their digital story. Additional recommendation for apps and software that can be acquired for the classroom to support ELs would have new vocabulary set in a hypertext that once clicked on would provide a definition both in words and audio that provides a translation and an image or a video that illustrates that meaning.

The students in this study repeatedly stated that they liked playing games to support their learning. Future technologies should use games and provide video simulations or tutorials, like the Videolicious app, to engage ELs and drive student interest in different topics. Students in this study, even though Benita commented that it made her giggle, were able to record their voices and listen to the words they had just spoken using the Videolicious app. Students were also able to watch and listen to other videos, increasing their exposure to new vocabulary and words read by a fluent reader.

(4) Support the use of web-based software that will create an atmosphere of on-demand learning anytime and anywhere. The web-based software Animoto, Microsoft Movie Maker, and Apple iMovie, for example, can be used by both teacher and students to create videos about lessons and used as a tool to express students' thoughts and show what they have learned. Access to image galleries, multilingual books, and multimedia projects offers ELs hands-on, engaging ways to explore new information. These students created videos about what it means to be a learner, and this same model can be applied to any grade or content area in adaptable ways.

Much advancement in technology has arisen from the necessities of students. Technology can serve to engage and motivate EL students by providing comprehensible input and differentiation of instruction across any subject or content area. These advances will provide not only students but also teachers with a variety of engaging and educational opportunities to create classrooms that are both innovative and precisely focused on developing the growing need for culturally diverse students in a global society. As demonstrated by the findings of this study, ELs particularly will benefit by increasing their listening, speaking, writing, and vocabulary, as new concepts are reinforced through pictures, graphics, and video. Technology can also act as a medium for creative expression. Picture graphic organizers, like storyboards, and interactive engaging multimedia software, or apps, like Videolicious, can support the learning needs of ELs on an individual level. In this study, technology supported these students during their creation of digital stories by giving each a way to find his or her voice, demonstrate knowledge, and creatively use the advancements made in technology to make meaning of their own learning.

**Strategies to Make English Comprehensible.** Effective instructional strategies can achieve positive results. In this project, modeling, collaborative brainstorming, and visual pictures assisted students in the learning process by making English more comprehensible. Instructional strategies for ELs need to include pictures, gestures, and manipulatives that support ELs as they learn a new language. The use of photographs in this study can be applied and used in classrooms in a variety of ways by providing students the opportunity to create photo-essays, collages, stories, or booklets based on images in their own photographs. Students who are learning English will benefit greatly from any visual resources that help them understand new words and concepts in English.

**Build Bridges: Dual Language Instruction.** Students' first languages are a critical

foundation, not only for language learning, but for all learning. Educators need to build on ELs' language skills, prior knowledge, and cultural backgrounds to enhance their understanding of English. By doing so, they can ease these students' integration into school, and also increase all students' awareness of cultural diversity. It is of great importance to develop and implement a dual language instruction learning opportunity for all students who attend schools already highly culturally and linguistically diverse. In today's competitive global economy, dual language learners, by speaking two (or more) languages, have intellectual, social, and personal assets that can improve our national economy and its security.

Dual language learners (DLLs) are students who are learning two or more languages at the same time or who are learning a second language while continuing to develop their home language. In the pre-and post-interviews, the participants expressed a desire to speak English, but one of the participants expressed a desire to be able to be fluent in reading, writing, and speaking both English and Spanish. Additionally, student responses in English using the SHOWeD method were short and lacked depth in their responses and reflections on the student photographs. If students had responded in Spanish, it is possible their responses would have been longer and more involved.

In future practices, instruction needs to provide ELs the opportunity to develop both their first and additional languages. It is essential to note that as the Dual Language Learner (DLL) population increases, teachers will be challenged for how to effectively educate a rapidly growing student population. When learning an additional language, ELs need the opportunity to continue the development of their first language as well. That development will aid and facilitate the transfer of skills between the first and the second language. Howard, Sugarman, Christian, Lindholm-Leary, and Rogers (2007) stated that ELs gain a deeper understanding of material

when they receive instruction in their first language, followed by the presentation of the same content in the second language/English. ELs, when learning content in both their first and second languages will be better equipped to learn new vocabulary and connect to the meaning of all concepts in both languages. Such support in the development of both languages will enable students to draw on their strengths, including their existing academic, linguistic, and cultural knowledge, and help them find full success in their learning journeys. Providing learning that includes instruction of two (or more) languages at the same time, including learning a second language while continuing to develop their first (or home) language, can lead to greater academic success for ELs. Students like Jacenta and Matias in particular who are still developing their linguistic abilities could greatly benefit by having a teacher, not just a peer helper like Benita, help them make meaning of the words they are learning in English by relating new vocabulary to words they already know in Spanish first.

**Student-centered Instruction.** Guilloteaux and Dörnyei, (2008) reinforced for teachers the need to shape enjoyable and perhaps less complex language learning interactions, so that learners may be more eager to study a L2. ELs should be encouraged to become involved in purposeful and creative activities with other children; make major choices among offered hands-on learning activities; initiate and accomplish self-motivated tasks in a rich environment; and construct knowledge at their own individual pace by discovering and engaging in open-ended activities that reflect all areas of their development (Nissani, 1990). The creation of digital stories in this study supported a student-centered learning approach and motivated the students to learn at their own pace and explore ideas that they liked and then tell a story about themselves. For future practices, students should be encouraged to use native language strategically within their learning activities. As with this study, students can communicate in both English and Spanish to



make meaning and complete valid learning activities. They were motivated by personalized student-centered digital stories that integrated listening, speaking, reading, and writing skills into the production of their own digital stories right from the start. This same strategy is easily adaptable to use for any learning activities in the classroom.

**Culturally Responsive Teaching.** “Culturally responsive teaching can be defined as using the cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse students to make learning encounters more relevant to and effective for them” (Gay, 2010, p. 31). Teachers can support ELs so they see their native languages and family cultures as resources that contribute to their education rather than something they need to overcome. Gay (2010) asserts that many “teachers do not understand or value the cultural heritages of minorities...changing teacher attitudes would lead to improvement of student achievement” (p.30). Student interviews in this study revealed that there was at times a distance between home and the school culture and home and the school language.

Future professional development for teachers needs to include strategies and support to guide teachers’ acknowledgement of cultural heritages, help them to bridge the meaning of home and school for students, show students how to know, praise, and communicate their culture, and include creative ways to incorporate multicultural resources into all their instruction. By using cultural resources to teach knowledge, skills, values, and attitudes, culturally responsive teaching will develop students intellectually, socially, and emotionally. This process will create a transformative experience within students that will give them the skills necessary to develop the knowledge, skills, and values they need to become social critics who can make and implement reflective decisions for effective personal, social, political, and economic actions. Students will then become valuable change agents for greater equity and social justice.

## **Implications for Future Research**

The findings of this study suggest that future research should be focused on further exploration of the utilization of technologies for EL students in K-12 and elementary education, bilingualism, dual immersion language programs, and technology used as a tool to personalize instruction. From this study, it was learned that increased social interaction among ELs supports the development of academic English.

Future studies that explore bilingualism and collaboration are of key importance for future educational endeavors. Cooperative learning or collaboration, where students work together in small groups to solve problems, is an area of particular interest for teaching ELs. Since cooperative learning promotes collaboration, face-to-face interaction, and the development of social skills, future studies should explore their use to develop ELs' confidence in their own self-efficacy and support second language development. Specifically, future studies could employ Problem-Based Learning (PBL) as a form of active engagement, much in the same way that DST was used in this study to increase collaboration between the ELs. Benefits of collaboration and student products could be further analyzed through discourse analysis so as to better understand whether a model of instruction that focuses on inquiry, student choice, and hands-on learning can in fact increase ELs' ability to learn both language and content, as well as gain confidence in their abilities.

The findings of this study also suggest several areas of future research pertaining to the application of technologies that support personalization of content. Given the results of this study, future research could center on the use of ICTs to design, implement, and gauge the effectiveness of instructional activities, such as computer-based, multimedia, and gamified learning environments, for ELs. Future research in this area could deliver viable ways for ELs

to communicate and interact with others as well as provide new avenues for the development of other innovative ways to share and locate information while simultaneously allowing ELs to acquire greater language and content. Of particular interest would be software platforms that promote interaction through gaming and are collaborative, and foster communication among and between ELs and more fluent speakers. Future educational research could focus on how technologies and instructional design can personalize instruction for ELs.

Longitudinal studies, such as ethnography, could explore student attitudes and self-efficacy stemming from the personalization of technology that supports learning, as well as the progress of second language acquisition over time with their use. Technologies that support listening and reading and listening comprehension and the potential for Web 2.0 tools, as mediums for autonomous learning, would have additional value for ELs.

Taking a broader approach toward the learning environments offered to ELs and since the researcher has worked with ELs in the STEM (Science, Technology, Engineering, and Math) arena, future studies could be conducted on how early exposure to STEM supports ELs' overall academic growth, critical thinking, reasoning skills, and language development. Interview responses suggested that reading and science were the most undesirable subjects for the students within this study because of the vocabulary associated within those content areas. Given the fact that the present study focused on the use of DST and PV to determine what it meant to be a learner and the perceptions of typical 4<sup>th</sup> grade ELs, future research could explore the largely underrepresentation of ELs and minority groups in STEM fields. Research could also emphasize whether early exposure to STEM learning opportunities in the form of solving real-world problems in context, using active engagement and personalization of content as their foundation, could enhance ELs' representation in STEM-related fields.

In addition, future studies could seek to better understand whether exposure to STEM related instruction will in fact deepen ELs' understanding of grade level content and support the application of knowledge. Ideally, it would be of merit to combine the areas of STEM, language, personalization of content, and collaboration into one overarching future study that would provide instruction in both English and Spanish, engage students in interactive concepts, and increase the communication between the teacher and other students through a blended learning model. Such learning would essentially pull together a variety of mediums and interactive scenarios in a real world setting that would enrich instruction for ELs by improving their understanding of difficult or abstract concepts. Just as with the DST projects in this study, future research could use STEM curriculum to promote inquiry and curiosity for ELs as a possible opportunity to engage students with such material and foster a desire to want to learn more.

### **Implications for Future Leadership and Advocacy**

In education, the only thing that is constant is change. With that being said, the slowest changes are the way educators think. Good leaders know the ends toward which they are striving. They pursue goals with clarity and tenacity and remain actively engaged in meeting these goals. Leadership is an influence process (Leithwood et al., 2006) that can be used to lift aspirations, transform ideas, and make ideas realities. Great leaders are those people who analyze current data and studies and then work collaboratively to not only influence the way people think and act but also work to bring about change so that students achieve in our schools. This research can serve to inform leaders and teacher leaders who are currently involved in structuring changes to curriculum and instruction for ELs. As the focus of education shifts to emphasize 21st century learners, it is essential to understand that how we

use technology as a tool for accelerating learning is of greater importance than the technology itself, thus using it in such a way to support student achievement.

From this research it can be concluded that to be effective, educators must be both teachers and advocates for their students and their students' families. Even within a school which serves a large percentage of EL students, many teachers and administrators are unaware of the unique needs students have as they try to learn both a new language and grade level content simultaneously. This research and research like it will serve to add further understanding to strategies and effective instructional methods that can support EL students as they strive to develop English literacy. Additionally this research can provide an awareness of how ELs' experiences in their native language transfer to their language learning in English through interactive, personalized learning experiences.

Many times public policy can drive issues that create a cultural climate looking for change. Change in laws, national defense, education, and the environment drive political platforms and topics in nearly every election. Several issues that are finding platforms for discussion among politicians, teachers, and communities could provoke changes in the coming years for ELs and their families. English learners are the fastest-growing segment of the K–12 population, yet ELs and their families may not have a powerful enough voice to convey their needs. Therefore, teachers and administrators must become their “voice” and their advocates in ensuring that there is a shared sense of responsibility to provide tools and training that educators need to serve ELs and their families, while administrators seek to influence policy and cultivate an educational environment that meets the diverse needs of ELs. Teacher leaders and administrators are in the distinct leadership position to advocate for the needs of ELs and their families to improve student achievement and advance meaningful

reform. There is a need to provide new learning opportunities for elementary ELs that will reinforce and improve their language skills, language learning abilities, and promote stronger student achievement. Reform starts with sharing critical research, such as this research, among school staff and administration in an effort to cultivate new ideas, begin dialogue about successes and challenges, and create a culture of collaboration among staff. The results of this dialogue must then be shared county-wide, state-wide, and even nationally in a variety of capacities that range from professional in-service development, to conferences, professional publications, and even within professional teaching organizations that are dedicated to the practice of promoting education through professional development, service, advancement of knowledge, and leadership. Knowledge truly is power. By taking into account and informing those unaware of new research that sheds light on educational practices and diverse populations, true change, and reform can begin to meet the needs of ELs and diverse populations of students.

**Teacher to Researcher: Words from the Researcher**

In 2011, I embarked upon my journey to complete my doctorate in education. Throughout this journey I have always been a teacher, yet when I look at who I am now and how I have changed through the lens of my fellow colleagues, I see a change in how I practice my craft, see the educational world, and approach new challenges. The change in myself from teacher to teacher-researcher has been vast and impactful upon my life. Educators have a unique skill set that can benefit their local communities. We are problem solvers and disruptors; we think creatively; we are resourceful. I think we all have a responsibility to give back to our communities and help others in whatever ways we can. There is no one right way to be an active and engaged community leader, but I believe it's important to be involved and

use your talents and skills to help others. Marian Wright Edelman (n.d.) said that “we must not, in trying to think about how we can make a big difference, ignore the small daily differences we can make which, over time, add up to big differences that we often cannot foresee.” Teachers are instructional leaders that have the unique ability to inspire the mind and impassion the heart through their instructional practices. Every day educators take on opportunities to make small daily differences by encouraging colleagues to change, do things they wouldn’t ordinarily consider, lead within and beyond the classroom, work collaboratively with peers, play a major role in making major decisions, collaborate to try out new ideas, and encourage colleagues to adopt leadership roles. It is important to never forget that as educators, we have the ability to, in our daily practices, influence big changes. In the age of high stakes testing, accountability, furlough days, and increasing classroom sizes, it seems that teaching has become an insurmountable task that has teachers questioning themselves and the profession that they have chosen to undertake. I would reference the opening credits from the 1980’s TV show Knight Rider. In the opening credits it says, “one man can make a difference” or rather “one educator can make a difference.” When I think about education I urge you to remember this and never stop believing that one moment, one choice, and one person can make a difference in the lives of those around us. Even more importantly, our choices can positively impact the educational community in which we have devoted our lives to making better. Often times it is difficult to continue when a clear destination is not always written in stone, but take comfort in knowing that true journeys take shape over time as plans are made, revisited, and modified/changed based on how effectively they suit your purpose and vision. One innovative, shining light in the darkness can inspire others to take action. I urge each and every one of you to take action where you feel there is a

need, for taking action can lead to success. It is always better to fail in doing something than to excel in doing nothing, so lead, inspire, and work to make the world a place that we can be proud to leave as a legacy to our children.

As a researcher I have sought to investigate, develop, and implement high-quality practices in actual classrooms that will better the lives of students and of teachers. It is my role as a researcher that has allowed me to undertake such a process. My greatest contribution to the educational world would be my involvement in furthering educational research that serves to inform teachers and community members about issues that impact education. If I had not taken the steps to transform myself from a teacher to a teacher-researcher, I don't believe that this contribution would have been as impactful. I really don't worry so much about whether I see my name in lights, but rather if I can make a difference with the research that I complete to improve the lives of those around me. I want to make a difference and bring positive change to areas that are greatly needed. I want my research to empower others in the same way. I hope to convey to colleagues, students, and community members the feeling that they can raise their voices to be heard because I will be one to listen and tell their stories to others. My role as a teacher researcher has led to a more reflective practice, where I have had the unique opportunity to improve my teaching in all areas. Every day, because I am a teacher-researcher, through sharing my ideas and knowledge with others, I have had the unique ability to empower others. As a teacher-researcher I seek to raise questions about practices, evaluate student performance, and interact with students and teachers to collect data and analyze it in order to examine the teaching and learning that produced it.

As a teacher I believe in the power of education and the importance of fostering a mentality of lifelong learning. I serve to foster creativity, develop character, and provide for



students a colorful lens with which to view the world so that they may develop the skills they need to reach their potential and lead a life of their own design and inspire others. As a researcher I have learned to change the color of these lens, how to best angle and shape them so that research and proven strategies become the tool in which to bring change, expand understanding, and drive sustainable change among educational fields.

### **Summary and Final Thoughts**

What is important is that [for] these children ... learning English is a necessity, not only for becoming socially integrated into the life of the school and the community at large, but also for academic success in school and ultimately for economic survival and well-being in adulthood (Genesee, 1994). Oral language skills are a critical component of literacy in any language. This study provided its students' frequent opportunities to converse in English, stimulated their development of listening and speaking skills, and helped English language learners connect with their peers and develop greater self-confidence in their abilities to use technology that supported their learning. The purpose of this study was to analyze whether participation in digital storytelling and photo voice, as a method of photo analysis, could enhance motivation and academic achievement in English learners. It developed into a learning activity that involved not only five fourth grade EL students, but also sparked the imagination of an entire school. Using digital storytelling and photovoice, as a method of photo analysis gave these students the creative ability to construct their own digital stories and personalize their learning experiences, thus building each student's self-efficacy and sense of self. Photovoice, as a method of photo analysis, and digital storytelling, used together, increased the participants' perceptions of what it means to be a learner, have technology self-efficacy, and provide greater academic intrinsic motivation for these fourth grade ELs. More

importantly, this project provided these students with the opportunity to reflect on themselves, shape their identity as learners, and develop their English language usage. Through the use of photographs, personal storyboard narratives, and personalized digital stories, these students became active creators, rather than passive consumers of knowledge, as they crafted personalized projects. Digital storytelling thus approached English language learning from an innovative, engaging point of view that said that regardless of the degree of fluency, each student was given a unique and individual opportunity to participate and tell their own stories.

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## Appendices

### Appendix A

#### Project Timeline of Research Process

Meetings will take place once weekly from 12:00-1:00p

Dates	Activities
August 27 <sup>th</sup> - September 12 <sup>th</sup>	IRB Approval
Week of September 15 <sup>th</sup>	FALL BREAK NO SCHOOL
Week of September 22 <sup>nd</sup>	Participant Selection Obtain informed consent Obtain student ascent Interview Protocol 1 (Student pre-PV/DST experience)
Week of September 29 <sup>th</sup>	<b>Workshop: Storytelling with Pictures:            The Creating of Visual Content</b> Photography and Camera Lesson Safety Introduce the photovoice methodology Create a plan for photo taking (template)
Week of October 6 <sup>th</sup>	<b>Workshop: Snap It!</b> Participants to take pictures and download
Week of October 13 <sup>th</sup>	<b>Workshop: Reflect and Select</b>

	<p>Photo Selection (3-10 pictures)</p> <p>Photo reflection assignment using SHOWeD method</p> <p>Bumper sticker (post its) captions</p>
<b>Week of October 20<sup>th</sup></b>	<p><b>Workshop: Themes in what we SEE!</b></p> <p>Develop Themes: participants group pictures by themes that arise from photographs</p> <p>Reflect on photos/ group discussion</p> <p>Share Photographs and SHOWed analysis.</p> <p>Where can we make connections?</p>
<b>Week of October 27<sup>th</sup></b>	<p><b>Workshop: Digital Storytelling</b></p> <p><b>Uncovered!</b></p> <p>Introduce Digital Storytelling Project</p> <p>7 elements of DST</p>
<b>October 31<sup>st</sup> (Additional Meeting)</b>	<p><b>Workshop: Vocabulary Round-Up</b></p> <p><b>Vocabulary Introduction and Activity</b></p>
<b>Week of November 3rd</b>	<p><b>Workshop: Tell me a Story!</b></p> <p>What is Storyboarding?</p> <p>Model together and begin individual storyboards</p>
<b>Week of November 10<sup>th</sup></b>	<p><b>Workshop: Tools of the Trade</b></p> <p>Introduce Movie Maker and Magisto</p>

	Complete individual storyboards
<b>Week of November 17<sup>th</sup></b>	<b>Workshop: Putting it together!</b> Creation of Digital Stories
<b>Week of December 1<sup>st</sup></b>	<b>Workshop: Putting it together!</b> Creation of Digital Stories
<b>Week of December 8<sup>th</sup></b>	<b>Workshop: Glows and Grows:</b> <b>Presentation Time!</b> Presentation of Digital Stories
<b>Week of December 15<sup>th</sup></b>	Interview Protocol 2 (Student post PV/DST experience)
<b>December/ January</b>	Data Analysis



## **Appendix B**

### **Parent Consent Form English**

Your student is being invited to take part in a research study conducted by Judy Wright of Kennesaw State University. Before you decide to allow your child to participate in this study, you should read this form and ask questions about anything that you do not understand.

During the months of August through November I will be conducting a study called “Through the Looking Glass: A Case Study of Photovoice and Digital Storytelling with Fifth Grade English Learners” The purpose of this study is to discover how students’ perceive themselves as learners, how they perceive their self-efficacy in relation to technology usage in the age of ICT’s, as well as, address the benefits that students can attain from technology integration into instruction to support students’ perceptions of their English language acquisition and motivation to learn in an elementary school setting. Student participation in this study will require two interviews for a total of approximately 60 minutes. In addition, students will participate in project workshops one hour weekly that will not exceed 12 weeks.

Student names and data will remain confidential during the data collection process. Students are not required to participate and have the opportunity to opt out of the study at any time they choose. No identifying information will be used during the research or in the presentation of the research. There will be no risks associated with feedback or responses. At any time you have the right to request your information be removed from the study without penalty. This study is voluntary. Thank you again for your cooperation. If you have any questions or concerns please feel free to contact me.

Sincerely, Judy Wright

By signing below I agree and give my consent to participate in this research project. I understand

that participation is voluntary and that I may withdraw my consent at any time without penalty.

Printed Name of Minor: \_\_\_\_\_

Signature of Minor: \_\_\_\_\_

Printed Name of Parent/Guardian: \_\_\_\_\_

Signature of Parent/Guardian: \_\_\_\_\_

Parent phone number \_\_\_\_\_ Email: \_\_\_\_\_

Researcher Contact Information:

Judy Wright

STEM teacher Canton Elementary 770-720-6100

Judy.wright@cherokee.k12.ga.us

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PLEASE SIGN BOTH COPIES, KEEP ONE AND RETURN THE OTHER TO THE INVESTIGATOR

Research at Kennesaw State University that involves human participants is carried out under the oversight of an Institutional Review Board. Questions or problems regarding these activities should be addressed to the Institutional Review Board, Kennesaw State University, 1000 Chastain Road, #0112, Kennesaw, GA 30144-5591, (678) 797-2268

Parental Consent Form Spanish

Querido(s) Padre(s):

Su hijo ha sido invitado a participar en un estudio de investigación dirigido por Judy A. Wright de la Kennesaw State University. Antes de que decida si permite que el alumno participe en este estudio, debe leer este formulario y hacer todas las preguntas que tenga sobre lo que no entiende.

Desde septiembre y hasta noviembre, dirigiré un estudio denominado “Through the Looking Glass: A Case Study of Photovoice and Digital Storytelling with fourth grade English Learners” (A Través de la Vitrina: Un Estudio de Caso sobre Fotovoz y Relatos Digitales con Estudiantes de Inglés de Cuarto Grado). La finalidad de este estudio es descubrir cómo los estudiantes se perciben en tanto individuos en aprendizaje, y abordar los beneficios que los estudiantes pueden lograr con la integración de la tecnología en la instrucción para apoyar su adquisición de idioma y su motivación para aprender inglés en la escuela.

La participación del alumno en este estudio requerirá dos entrevistas que en total sumarán unos 60 minutos. Adicionalmente, los alumnos participarán en talleres del proyecto durante su clase de computación durante 50 minutos durante la jornada escolar.

Los nombres de los alumnos y las entrevistas se mantendrán en estricta confidencialidad durante el proceso de recolección de datos. Los alumnos no están obligados a participar y tienen la oportunidad de restarse del estudio en el momento que lo deseen. Se utilizará información no identificadora durante la investigación y en la presentación de la investigación. No habrá riesgos asociados con las entrevistas o las respuestas. En cualquier momento usted podrá ejercer su derecho a solicitar que su información sea eliminada del estudio sin sanción alguna. Agradezco de nuevo su cooperación. Si tiene alguna pregunta, no dude en comunicarse conmigo.

Atentamente,

Judy A. Wright

Mediante mi firma abajo otorgo consentimiento para participar en este proyecto de investigación. Entiendo que la participación de mi hijo es voluntaria y que puedo retirar mi consentimiento en cualquier momento sin sanción alguna.

Nombre en Letra Imprenta del Menor:

\_\_\_\_\_

Firma del Menor: \_\_\_\_\_

Nombre en Letra Imprenta del Padre/Tutor:

\_\_\_\_\_

Firma del Padre/Tutor: \_\_\_\_\_

Número de teléfono \_\_\_\_\_

Correo electrónico: \_\_\_\_\_

**Researcher Contact Information:**

Judy Wright

STEM teacher Canton Elementary 770-720-6100

Judy.wright@cherokee.k12.ga.us

\_\_\_\_\_

PLEASE SIGN BOTH COPIES, KEEP ONE AND RETURN THE OTHER TO THE INVESTIGATOR

Research at Kennesaw State University that involves human participants is carried out under the oversight of an Institutional Review Board. Questions or problems regarding these activities should be addressed to the Institutional Review Board, Kennesaw State University, 1000 Chastain Road, #0112, Kennesaw, GA 30144-5591, (678) 797-2268

## Appendix C

### Student Assent Form

**Study Title:**

Through the Looking Glass: A Case Study of Photovoice and Digital Storytelling with Fourth Grade English Learners

**Researchers:**

My name is *Ms. Judy Wright* I am from Kennesaw State University. I am inviting you to take part in a research study. Your parent(s) know we are talking with you about the study, but it is up to you to decide if you want to be in the study. This form will tell you about the study to help you decide whether or not you want to take part in it.

**Why is this study being done?**

The purpose of the study is to help us learn about the potential impact of digital storytelling and photo voice, as a method of photo analysis, can enhance motivation and academic achievement in English Learners. This study is aimed at discovering how students perceive themselves as learners, how they perceive their self-efficacy in relation to technology usage in the age of ICT's, as well as, address the benefits that students can attain from technology integration into instruction to support English language acquisition and motivation to learn.

**What am I being asked to do?**

If you decide to be in the study, the researcher will ask you to participate in two interviews, as well as, attend an hour workshop once a week within school hours. During these workshops, students will be asked to take pictures, analyze pictures, and make a digital story of your experience.

**Are there any risks to me if I am in this study?**

The potential risks of taking part in this study are: Potential stress caused due to difficulties using technology and communicating with peers.

**Will my information be kept private?**

The data for this study will be kept confidential. No identifying information will be kept on you as a participant of the study. The data for this study will be kept for three years.

**Are there any costs or payments for being in this study?**

There will be no costs to you for taking part in this study. You will not receive money or any other form of compensation for taking part in this study.

**What are my rights as a research study volunteer?**

Your participation in this research study is completely voluntary. You do not have to be a part of this study if you don't want to. There will be no penalty to you if you choose not to

take part and no one will be upset or angry at you. You may choose not to answer any questions you don't want to answer, and you can change your mind and not be in the study at any time.

**Who can I talk to if I have questions?**

If you have questions at any time, you can ask the researchers and you can talk to your parent about the study. We will give you a copy of this form to keep.

The Kennesaw State University Institutional Review Board has reviewed this study to make sure that the rights and safety of people who take part in the study are protected. If you have questions about your rights in the study, or you are unhappy about something that happens to you in the study, you can contact them at (678) 797-2268 or [irb@kennesaw.edu](mailto:irb@kennesaw.edu).

Research at Kennesaw State University that involves human participants is carried out under the oversight of an Institutional Review Board. Questions or problems regarding these activities should be addressed to the Institutional Review Board, Kennesaw State University, 1000 Chastain Road#0112, Kennesaw, GA 30144-5591, [\(678\) 797-2268](tel:6787972268).

**What does my signature on this consent form mean?**

Your signature on this form means that:

- You understand the information given to you in this form
- You have been able to ask the researcher questions and state any concerns
- The researcher has answered your questions and concerns
- You believe you understand the research study and the potential benefits and risks that are involved.

**Statement of Consent**

\_\_\_\_\_ I assent to allow my data be used for research purposes.

\_\_\_\_\_ I DO NOT to allow my data to be used for research purposes.

---

Signature of Participant

---

Date

## Appendix D

### Student Interview Protocol: Pre-Project

I will begin the interview by getting some general information about yourself as a learner and then ask you about how you use technology at school and at home.

1. **Tell me a little bit about yourself as a student.**
2. **Prompt: What grade are you in? What is interesting to you?**
3. **What language do you speak at home? At school?**
4. **What is your favorite subject in school?**

#### *Definition of a learner and language acquisition*

- (1) What does it mean to learn something?
- (2) How do you learn?
- (3) What kinds of learning activities do you like the best? The least?
- (4) What kinds of activities are most helpful in learning or practicing English?

#### *Technology usage: Self-efficacy*

- (5) How easy good are you with using technology? Good? Bad? OK? Tell me why.
- (6) How do you use technology at school? At home?
- (7) How well do you think you can use technology in the classroom?

#### *Motivation*

- (8) What kinds of assignments/activities do you like to do? (Self- selected, project based)

#### *Photovoice and Digital Storytelling*

- (9) If I were to give you a camera and asked you to take snap pictures of the things you learning in school what would you take pictures of? Who would be in your pictures?
- (10) Can you tell me what storytelling is?

## Appendix E

### Student Interview Protocol: Post-Project

**Digital storytelling requires many tasks including writing the script, locating the pictures, sizing pictures, recording the script, and building the movie. Now that this project is complete I'm going to ask you about your experience.**

- (1) Can you tell me what digital storytelling is?
- (2) What makes a digital story good? What makes a digital story bad?
- (3) Do you think storytelling is the same as a digital story?
- (4) Do you think digital storytelling can help you learn? Why?
- (5) Do you think digital storytelling makes learning fun or exciting? How/Why?
- (6) Can using technology help you solve problems? How/Why?
- (7) Would you rather make a digital story using the computer or write a story on paper?
- (8) When you think about the hard work you did making your project, which part was hardest? Which part was easiest? Why?
- (9) Think about when we started our project. What did you think when I said that we were going to take pictures of things we like? Create a digital story? How do you feel about it now?
- (10) How did you decide what pictures to take?
- (11) Now that our projects are done what are you happiest about?
- (12) After completing this project, how good are you with using technology now? Are you good? Bad? Ok? Tell me why.
- (13) Now that our projects are done do you think you are good or bad with using technology?
- (14) What did you learn about yourself during this project? Explain.
- (15) Would you like to like to do another project like this in the future?



## Appendix G

### SHOWeD Worksheet



What do you **See** here?



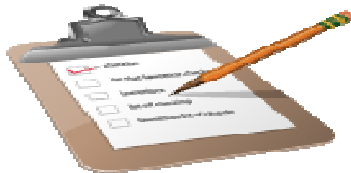
What's really **H**appening here?



How does this relate to **O**ur lives?



Why does this situation, concern, or strength exist?



What can we **D**o about it

## Appendix H

### Researchers Journal and Field Notes

1. **Descriptive information**, in which you attempt to accurately document the factual data [e.g., date and time], settings, actions, behaviors, and conversations you observe; and,
2. **Reflective information**, in which you record your thoughts, ideas, questions, and concerns as you are making your observations.

**9/4/14 IRB submitted**

**9/10/14 IRB revisions requested and resubmitted**

**9/16/14 Permission granted to begin study through KSU**

**Date: 9/22/14**

**Time: 11:30a**

**Participants: 6**

<b>Observation (Descriptive)</b>	<b>Notes to self (Reflective)</b>
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<p>After reviewing all 4<sup>th</sup> grade ACCESS scores. Participants were chosen to be invited to participate in this study based on the selection criteria.</p> <p>Today I met with selected 4<sup>th</sup> grade students to present the details of the photovoice and digital storytelling project. At first students were apprehensive and thought that being pulled out of class meant that they were “in trouble.” As I went on to describe the project that we would be working on all participants seemed eager to participate and agreed to provide parents with consent letters that evening.</p> <ul style="list-style-type: none"> <li>• Update 9/23/14: 4 of the 6 max allotted students have returned permission slips to participate. I have schedule interviews to begin for these participants on 9/24 at 11:30am.</li> </ul>	<p>I already had students ask when we would be starting. I am glad that they are eager to complete this project with me.</p> <p>Selecting participants and reviewing a grade level worth of ACCESS scores was a lot of information to look through.</p>
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**Date: 10/3/14**

**Time: 2:46p (\*notes made post workshop)**

**Location: School classroom designated for project meeting time**

**Participants: 6**

<p><b>Observation (Descriptive)</b></p>	<p><b>Notes to self (Reflective)</b></p>
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**Workshop: Storytelling with Pictures: The Creating of  
Visual Content**

- Photography and Camera Lesson
  - Safety
- Introduce the photovoice methodology
- Create a plan for photo taking (template)

Tech update: Trying out Magisto before providing instruction has been a huge challenge because there have been several errors with the app. I've unloaded and re-downloaded the app several times and it will not work. I have found an alternative app called Videolicious.

Today photovoice was introduced as a way to “inform others about things or issues that are important to you. Students were very excited to take practice photos. They were easily able to open up iPad, turn them on, and locate the camera button. Instruction was provided as to where the locations of the photos were stored on the iPad. I provided picture cards for each student to refer to highlight steps of the project including a photo of the action, keyword, and number to show what to do first, second, third etc.

Once the process was introduced students made some practice shots around the school. Students wanted to run

Students need more work with camera lessons. The practice shots were blurry. Students need to practice stopping, focusing, and then taking the photo.

Brainstorming ideas for what is meant to be a learner required much scaffolding on my part. I need to provide ideas and then this started initial discussion and providing of ideas by students. MA and FB did not contribute much during the initial brainstorming session. They preferred to sit and listen. MB and MC were very animated and wanted to share their ideas with the group. They had little difficulty adding to the

<p>to the places that they wanted to take pictures. Today students were just practicing photos and asking permission to take photos today. Several students FB and FA were reluctant to talk to teachers or enter classrooms to practice shots. MA needed a buddy to understand this activity. I needed to refer MA to the picture cards that “walked” MA through the process step by step. MA referred to this card frequently throughout the activity frequently trying to determine what MA needed to do next. FA worked well with FC to complete activities. At times these participants spoke in both English and Spanish while sharing ideas and talking to each other. FA seems shy, but still engaged in the project.</p> <p>Safety: To ensure safety of the students the project will be taken only at school during the school day per administration recommendation. Additionally we discussed navigating steps within the school and not trying to walk and take a picture at the same time.</p> <p>Students were excited about the project and eager to get started on taking their pictures. I provided students with a planning template. 4 of 6 students had difficulty</p>	<p>discussion once it got started.</p> <p>Picture cards were important in providing students with the process. Some students referred to the card for guidance more than once.</p> <p>Participants were instructed to complete their planning template for photos before next week’s photo session.</p> <p>The students met me for the first time; likewise I met them on that first day of class as they took turns giving brief introductions that included their name and future plans. From that day forward, the daily contact that I had with them provided</p>
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<p>generating ideas that were personal to them. Each student was encouraged to think about their day, where they go and what they enjoy as ideas for places to take pictures of that they would like to share. Every student was asked to draw pictures first and then add words or phrases after to add detail to their photo idea template. Students were encouraged to share ideas for their photo template under the theme of what it means to be a learner to generate ideas. The group completed the first 2 ideas together modeling how to complete the template.</p>	<p>me with the opportunity to acquire the status of “trusted person” (Glesne, 2006, p. 49)</p>
--	--

**Date: 10/10/14**

**Time: 1:35 p (\*post workshop)**

**Location: School classroom designated for project meeting time**

**Participants: 5**

<p><b>Observation (Descriptive)</b></p>	<p><b>Notes to self (Reflective)</b></p>
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<p><b>Project Update:</b> Participant MA has moved. There are now 5 participants in the study.</p> <p><b>Workshop: Snap It!</b></p> <ul style="list-style-type: none"> <li>• Participants to take pictures and review them on the iPad choosing the 3-5 best photos</li> </ul> <p>In today’s workshop session we reviewed safety, photovoice, and allowed students to share their ideas for their photos (photo template) by projecting them on the promethean board with the aid of a document camera. Students provided feedback using “glows and grows” and writing either words of recommendation or drawing a smiley face when they liked what the students shared by drawing or writing it on an individual write board. Phrases such as “I to do that,” “that’s a cool idea” and “can we use the same pictures” stimulated discussion about how many pictures students should take and whether they could work together. Through sharing students added more pictures and ideas to what they wanted to do in today’s workshop session.</p> <p>Once feedback was provided the researcher reviewed steps for taking pictures using the picture clue cards, the iPad photo icon, and reminded students about pausing long enough to ensure that the photo wasn’t blurry.</p> <p>Students were each provided with an iPad and then the students and researcher traveled the school photographing the things that</p>	<p>Using the white board for student comments kept each student engaged and ensured that one or two participants weren’t dominating the feedback. Every student was required to provide feedback to the person presenting their photo plan template.</p> <p>I know this project initially was to have students produce individual stories with 3-5 pictures, but collaboration among groups has been prominent. Today I observed students</p>
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<p>students wanted for their project. Each student was engaged and excited to take pictures. There was lots of talking and smiles as students walked through the building snapping pictures of their favorite things, teachers, and friends. Other students even stopped to talk with them and ask what they were doing. Teachers and students were inviting and encouraging to student participant as they allowed for pictures to be taken. FC commented, “that we are doing a fun project to teach some people about our school.”</p>	<p>taking way more than 10 pictures. Whatever caught their “eye” they took a picture of in school. Next class students will need to sort through their pictures and delete the ones that they don’t need or want. Glesne, C. (2006). <i>Becoming qualitative researchers: An introduction</i>. Boston: Pearson.</p>
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**Date: 10/17/14**

**Time: 2:30 p (\*post workshop)**

**Location: School classroom designated for project meeting time**

**Participants: 5**

<p><b>Observation (Descriptive)</b></p>	<p><b>Notes to self (Reflective)</b></p>
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<p><b>Project Update:</b> Will be assigning pseudo names for student participants and write-up purposes</p> <p>BF1: Bella</p> <p>BM2: Matias</p> <p>CM3: Javier</p> <p>AF1: Jacenta</p> <p>CF3: Benita</p> <p><b>Workshop:</b></p> <ul style="list-style-type: none"> <li>• <b>Reflect and Select</b>            Photo Selection (3-10 pictures)            Photo reflection assignment using SHOWeD method            Bumper sticker (post its) captions</li> </ul> <p>Today’s workshop session began with excitement from the students. They were ready to begin and eager to know what today’s activities would be. Students spent time today working with a partner to look at all the pictures that they took. Students first narrowed the photos to ten shots that were most interesting to them. Then thinking about the theme “What is means to be a learner” individual students selected the 3 pictures that meant the most to them to complete the SHOWeD Analysis. Today we began the photo analysis using the SHOWeD method. Jacenta had a difficult time beginning the assignment. Questions were rephrased and examples we used, modeling, how to complete the paper and respond to each question. Jacenta frequently</p>	<p>Photo selection and analysis using the SHOWeD method dominated the workshop session today. Jacenta and Matias needed lots of modeling and direction to complete the session.</p> <p>Collaboration among students began before I even told them that they could work together.</p> <p>Students chose to converse in Spanish and English as tasks became more difficult.</p> <p>Captions and themes</p>
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<p>asked questions. Each question was read by the researcher and then what the question meant was elaborated upon by the researcher to aid with comprehension. For Jacenta and Matias, worked with other students who were fluent. Jacenta and Benita conversed in both English and Spanish during the project and collaborated together during today’s workshop session. Javier and Bella worked with Matias, but didn’t ask question throughout the workshop. English only was used with these 3 students. Bella was quiet during today’s workshop, but was continuously working.</p>	<p>will need to be developed in class. Picture cards will need to be created to “act out” each question in the SHOWeD method.</p> <p>Next workshop: Finish SHOWeD Analysis and begin and develop themes using post its.</p>
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**Date: 10/24/14**

**Time: 1:30 p (\*post workshop)**

**Location: School classroom designated for project meeting time**

**Participants: 5**

<p><b>Observation (Descriptive)</b></p>	<p><b>Notes to self (Reflective)</b></p>
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**Workshop: Themes in what we SEE!**

- Develop Themes: participants group pictures by themes that arise from photographs
  - Reflect on photos/ group discussion
- Share Photographs and SHOWed analysis. Where can we make connections?

Today's workshop session began with excitement from the students. They were ready to begin and eager to know what today's activities would be. Today's workshop began with reviewing the SHOWed method of photo analysis. Once completed students shared the 3 photos they selected. Students chose to tell the group in English why they chose their photos.

Using post-its, as a group we looked at 3 pictures to model how to reflect on the things we see in pictures. As a group, students looked at pictures, and then we developed words and ideas that reflected what was in the photo. For example we look at a dog at dogs at the beach. Words that were used were: wet, fluffy, happy, playing, friends, and day. Once this was done together, students then were given post-it notes to walk around and "sticker" what they saw happening in all the 15 pictures. As a group we talked about writing down what we saw, what might be happening, what was heard, emotions of who was in the picture etc. as a way

Picture cards were used to "act out" each question in the SHOWed method. This helped Jacenta and Matias in completing their analysis.

The whole group activity today took lots of prompting. Using our senses I asked what might you hear, what do you see, what is happening etc. I had to provide examples i.e. Is it day or night, quiet or loud, etc. to get discussion and ideas flowing. Several prompts were required throughout the activity.

I want to use student responses to develop themes about what they

<p>to focus their observations of the photos.</p> <p>Once the “bumper stickers” were placed each sticker was displayed on the white board with sticker for discussion.</p> <p>Themes that emerged include: happy, students helping each other, playing, exercise, competition, fun, working, drawing, and art, teachers working hard for us (students), making goals, working together, thinking, trying hard, and STEM lab. Javier worked fastest through this activity and Jacenta took the longest to complete the “bumper stickers”</p> <p>At the end of today’s workshop Benita asked if she could do more photos over the weekend to share with the others</p> <p>the next time we met.</p>	<p>thing it means to be a learner, but many of the responses, but many of the “themes” are the easiest or first responses that students thought of.</p> <p><u>*lack of depth</u></p> <p><u>Was the lack of depth due to language or the age of the students?</u></p> <p>Lots of prompting was used, but I just kept repeating that there was no right or wrong, but I just wanted to know what they thought.</p>
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**Date: 10/31/14**

**Time: 2:30 p (\*post workshop)**

**Location: School classroom designated for project meeting time**

**Participants: 5**

<p><b>Observation (Descriptive)</b></p>	<p><b>Notes to self (Reflective)</b></p>
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<p style="text-align: center;"><b>Workshop: Workshop:</b></p> <ul style="list-style-type: none"> <li>• Vocabulary Round-Up</li> <li>• Vocabulary Introduction and Activity</li> </ul> <p style="text-align: center;"><u>Vocabulary to Introduce:</u></p> <p>*Digital Story: a 2-3 minute story, or “movie” that includes photographs or video, music or sound.</p> <p>*Editing: the process of digitally combining or arranging to create a digital story.</p> <p>*Narrative: the words of or script for a digital story.</p> <p>*Soundtrack: the music or sound effects of a digital story.</p> <p>*Still image: a photograph, drawing, that does not include video or other moving elements.</p> <p>*Storyboard: a visual outline of a digital story</p> <p>*Transition: a visual process for moving from one digital image or video sequence to the next.</p> <p>*Voice Over: the recording of a storyteller’s voice narrating his/her story.</p> <p style="padding-left: 40px;">BF1: Bella</p> <p style="padding-left: 40px;">BM2: Matias</p> <p style="padding-left: 40px;">CM3: Javier</p> <p style="padding-left: 40px;">AF1: Jacenta</p> <p style="padding-left: 40px;">CF3: Benita</p> <p>Students created a vocabulary flip book using the jigsaw method.</p> <p>The first vocabulary word was modeled by the teacher and then</p>	<p>Scheduling for this to be an “extra” vocabulary building day was much harder because there was a “math rodeo” day at school as well as today being Halloween. Students had numerous treats and activities throughout the school day. Today’s workshop covered lots of new ground and was challenging for all students.</p>
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<p>students worked in pairs to look up the definition in their dictionaries and then write a definition using their own words or phrase and a picture to go with the word. Benita and Javier wanted to present the remaining participants were shy and smiled or laughed while trying to present their words.</p> <p>The vocabulary match up was completed whole group with all students working collaboratively to match up the words using their vocabulary books. Jacenta had a hard time keeping up with the other participants. Matias and Javier were the most confident shouting out answers. Jacenta seemed frustrated, but didn't stop trying to match the word with the definition. Bella didn't appear to be confident with her responses to share with the group, but upon circulation of the room she was always on the right word or definition. Bella was disinterested in this activity. She remarked that it was "hard" and not her favorite workshop.</p>	
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**Date: 11/7/14**

**Time: 2:30 p (\*post workshop)**

**Location: School classroom designated for project meeting time**

**Participants: 5**

<p><b>Observation (Descriptive)</b></p>	<p><b>Notes to self (Reflective)</b></p>
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<p style="text-align: center;"><b>Workshop: Workshop: Tell me a story!</b></p> <p style="text-align: center;"><b>What is storyboarding?</b></p> <p style="text-align: center;">BF1: Bella</p> <p style="text-align: center;">BM2: Matias</p> <p style="text-align: center;">CM3: Javier</p> <p style="text-align: center;">AF1: Jacenta</p> <p style="text-align: center;">CF3: Benita</p> <p>Students wanted to watch the rest of Willie Wonka and the Chocolate factory. 4 of 5 students hadn't seen the movie before (Lesson: filmmakers create storyboards to help them plan a visual story).</p> <p>The teacher acted out a "movie" scene for the group. Whole group modeling of turning the "movie" into a storyboard template using pictures and words.</p> <p>Acted out: Mrs. Wright walks into the classroom. She sits down at her desk. On her desk, she sees that someone has left her a flower. Embarrassed, she looks around the room to see who has given the flower to her, but no one is looking at her.</p> <p>All 5 participants were amused (smiling or laughing) watching the teacher act out a "movie" scene. Working together a storyboard was created (using a backwards design) a storyboard of the action that just occurred. Benita and Javier were the most confident in providing responses in the creation of the story board. Bella and Jacinta wanted to create the pictures. Matias</p>	<p>Story board needed more visual ques. The template is just boxes and lines for writing. The use of transition words would have been helpful and also picture clues to stimulate thinking. Planning took the majority of class. Although originally assigned individually, students had difficulty writing and getting started with their storyboards. Student pairs were formed (one group of 3) and the teacher worked with each group to sequence pictures and focus what students</p>
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<p>watched during this activity.</p> <p>Students selected pictures for their story board and began writing storyboards for their storyboard. Selecting the pictures was easiest for all 5 participants. Writing and adding a story for their movie was challenging. Several students weren't sure where or how to begin. Students were then paired to work on one set of pictures at a time. The teacher visited each group and helped them to generate ideas and group pictures as first, second, next, then, last etc. while repeating "what does it mean to be a learner?/ what do these pictures say to others about you that you want someone to know?"</p>	<p>wanted to say about them in their movie.</p> <p>This took a full 30 minutes and students were still not completed with storyboards; these will be completed next class.</p> <p><u>Vocabulary Board Game: Using the words from last workshop was not completed.</u></p>
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**Date: 11/14/14**

**Time: 2:30 p (\*post workshop)**

**Location: School classroom designated for project meeting time**

**Participants: 5**

<p><b>Observation (Descriptive)</b></p>	<p><b>Notes to self (Reflective)</b></p>
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<p style="text-align: center;"><b>Workshop: Workshop: Tools of the Trade</b></p> <p style="text-align: center;"><b>What is storyboarding?</b></p> <p style="text-align: center;">BF1: Bella</p> <p style="text-align: center;">BM2: Matias</p> <p style="text-align: center;">CM3: Javier</p> <p style="text-align: center;">AF1: Jacenta</p> <p style="text-align: center;">CF3: Benita</p> <p>Student pairs (one group of 3) and the teacher worked with each group to finish sequencing pictures and focusing what students wanted to say about them in their movie. Bella, Jacenta, and Benita were one group and Matias and Javier were in the 2<sup>nd</sup> group. Javier was a leader in his group and helped Matias throughout the process. The group of girls had no clear leader and each worked quietly together. More discussion occurred between Javier and Matias (discussion was in English only). Benita was more communicative of the girls, but used both English and Spanish to talk and share ideas. Bella responded in English only and Jacenta asked for clarification and help in mostly Spanish.</p> <p>Once storyboards were completed students were introduced to the free app videolicious. Students took 5 pictures of each other and practiced making a video introducing each person, adding</p>	<p>Movie Maker was not used for digital stories. Students had zero experience using movie maker as a means in which to make movies. The technology was more advanced than their ability to work with the program.</p> <p>Videliocious was used as the app to make student digital stories.</p> <p>Students enjoyed taking pictures of each other for their practice videos. They were laughing and even Bella and Matias who are quieter than</p>
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<p>the photos, practicing talking, and adding music. Bella and Benita enjoyed he activity. Matias commented that he should have worn a different shirt and wanted to know who would see the movie.</p> <p>To end the class students worked together to give feedback to each other on their story boards. Students shared their storyboards on the large white board and were able to add to their storyboards based on the comments of the other participants. Matias “liked” getting more ideas for his movie. Jacinta wanted more friends in everyone’s video. There was repetition in videos: common themes that emerged were PE, friends, special areas: like the STEM lab etc.</p>	<p>the rest of the students wanted to have their picture taken and be included in the video.</p> <p>Reviewing individual storyboards on the white boards was beneficial to students. They were able to add to their ideas as the group gave them ideas.</p>
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**Date: 11/17/14 & 12/5/14**

**Time: 2:30 p (\*post workshop)**

**Location: School classroom designated for project meeting time**

**Participants: 5**

<p><b>Observation (Descriptive)</b></p>	<p><b>Notes to self (Reflective)</b></p>
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<p><b>Workshop: Workshop: Putting it Together</b></p> <p><b>Creation of Digital Stories</b></p> <p>BF1: Bella</p> <p>BM2: Matias</p> <p>CM3: Javier</p> <p>AF1: Jacenta</p> <p>CF3: Benita</p> <p>During these weeks students were working to turn their storyboard and pictures into their own digital story using the videolicious app.</p> <p>Jacenta and Bella rehearsed their scripts 3-5 times before recording. As Jacenta was recording, if she “messed up” speaking she would freeze and stop recording all together, laugh, and then would start over. Javier and Matias didn’t want to practice rehearsing and wanted to start right away with recording their stories. Benita took the most time to select pictures. She couldn’t decide exactly which pictures fit best with her storyboard. She also wanted to use someone else’s pictures if they were “better” than hers or if she thought that someone has a cooler picture of something. She</p>	<p>Videolicious App: Was very kid and user friendly!!! Focus could be on making the movie and not on the very involved steps of movie maker!</p> <p>The app walked each student through the movie making process step by step. Many of the participants appeared to be comfortable with the process and making the movie.</p> <p>Before recording some students worked to read aloud each of their story boards with a partner. They practiced speaking loud enough to be recorded and to get comfortable with using the app before recording. They also went ahead and selected the 10 pictures they wanted to add to their story before recording.</p> <p>Other students “seeing” this project unfold, has sparked their desire to want to do similar projects. I have discussed this with our technology</p>
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<p>took a lot of time to decide what she wanted to put in her movie. She could stop to help Jacenta with the steps of using the videolicious app. Javier, Matias, and Bella easily navigated through the videolicious app. No one was frustrated and music was playing in the background.</p> <p>Jacenta commented that she wanted her movie to be about her friends and wanted to show what she likes in it.</p>	<p>teacher to see about completing similar personal projects during students' specials technology class.</p> <p>We also met to discuss using the videolicious app for other projects due to ease of use (i.e. 4<sup>th</sup> grade Explorer Biographies)</p> <p>Students were eager to begin the class on 12/5. Benita asked the teacher the day before the workshop when she was coming to get the group for the next workshop.</p>
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**Date: 12/12/14**

**Time: 2:30 p (\*post workshop)**

**Location: School classroom designated for project meeting time**

**Participants: 5**

<b>Observation (Descriptive)</b>	<b>Notes to self (Reflective)</b>
<b>Workshop: Glows and Grows: Presentation</b>	No matter the task or assignment;

<p style="text-align: center;"><b>Time!</b></p> <p style="text-align: center;">BF1: Bella</p> <p style="text-align: center;">BM2: Matias</p> <p style="text-align: center;">CM3: Javier</p> <p style="text-align: center;">AF1: Jacenta</p> <p style="text-align: center;">CF3: Benita</p> <p>During this week students were able to bring 1-2 classmates with them to the workshop to show off their final videos. Each participant completed a glows (what they liked about the video) and grows (what they saw could be improved in the video) for each video they watched. The glow and grows forms were given to the student who made the video to receive feedback about their work.</p>	<p>students have been engaged and excited to attend workshops each week even when the assignment was hard or challenging (writing the storyboards and vocabulary) or fun (taking the pictures).</p> <p>Initially students were not as talkative until they got to know the teacher and the other students, starting the project was slow initially, but over the last few weeks the pace and excitement of the students have increased. There has been an increased willingness to share and participate even with the shyest participants.</p>
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**Week of 12/15/14**

Post Interviews and coding transcripts from pre and post interviews.

Using the research questions I began my initial reading looking at student perceptions (language acquisition and as a learner), technology usage, and motivation. Using ATLAS.ti, transcripts were uploaded and analyzed by the researcher using open coding to create descriptive and multi-dimensional categories that will have similar or same categories including similar words,

phrases, and expressions.

Initial codes to transcripts:

<p>Perceptions as a learner</p> <p>Language usage</p> <p>Home language</p> <p>School language</p> <p>Favorite Subjects</p> <p>School interests</p> <p>When English is used the most</p> <p>What does it mean to learn something</p> <p>Tools used in learning</p> <p>What helps with language acquisition</p> <p>Language Preference for reading</p> <p>Language preference for writing</p> <p>What do you like doing in class</p>	<p>Technology usage at school</p> <p>Perception of learning English</p> <p>Importance of learning English</p> <p>Activities that support English development</p> <p>Importance of School</p> <p>What's important at school</p> <p>What is storytelling</p> <p>Technology at home</p> <p>Technology usage at home</p> <p>Weekly technology usage</p>
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**12/16/14**

Analysis using ATLAS.ti continues. During this phase I have read through the data several times, comparing data to begin to identify different categories in order to develop codes and used the raw data, to group those concepts into categories, and build a descriptive framework. I have completed all the pre-interviews and have developed this set of codes:

**Code-Filter: All**

File: [E:\DST & PV Project.hpr7]  
Edited by: Super  
Date/Time: 2014-12-16 09:29:25

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**Can you read in Spanish**  
**Can you write in Spanish**  
**favorite subject**  
**home language**  
**how often (days) technology is used in school**  
**How Spanish is used at school**  
**how speaking English makes you feel**  
**how technology is used at home**  
**how technology is used at school**  
**how you learn best**  
**know more words (English or Spanish)**  
**language spoke at school**  
**perception as a learner**  
**perception as a technology user**  
**perception of importance of learning English**  
**perception of importance of school**  
**pictures that will represent them as learners**  
**plans for the future**  
**preferred language to tell a story**  
**preferred language to write**  
**preferred school language**  
**preferred technology**  
**speaks Spanish with the most**  
**technology that is used at home**  
**technology that is used in school**  
**what does it mean to learn something**  
**what is storytelling**  
**What you do to support language learning (English)**  
**what you like learning the least**  
**when first learned English**  
**why you prefer English in school**

The next step will be to code post interviews and then proceed to axial coding. Once I begin axial coding and combining codes, I will begin to hopefully “see” themes that are across the two interviews. This will act as a form of triangulation as a means of looking at the data across time.

**12/17/14**

Today I met with students to fill in some family background about each student to be able to provide a richer description of student participants and how their personal lives may impact their perceptions as learners. Coding of post interviews continues today.

**Code-Filter: All**

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HU: DST & PV Project  
File: [E:\DST & PV Project.hpr7]  
Edited by: Super  
Date/Time: 2014-12-17 13:49:09

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**Can you read in Spanish**  
**Can you write in Spanish**  
**favorite subject**  
**home language**  
**how often (days) technology is used in school**  
**How Spanish is used at school**  
**how speaking English makes you feel**  
**how speaking English makes you feel-post**  
**how technology is used at home**  
**how technology is used at school**  
**how you learn best**  
**know more words (English or Spanish)**  
**language spoke at school**  
**motivation to do a similar project in the future**  
**perception as a learner**  
**perception as a learner represented in pictures**  
**perception as a technology user**  
**perception of importance of learning English**  
**perception of importance of school**  
**perception participation in project**  
**perception post: as a technology user**  
**perception: can you learn from watching another's digital story**  
**perception: did project make it easier to share ideas**  
**perception: did you learn more words in English**  
**perception: easiest DST task**  
**perception: most difficult DST task**  
**perception: using English in class**  
**perception: what can you learn from watching another's digital story**  
**pictures that will represent them as learners**  
**plans for the future**  
**preferred language to tell a story**  
**preferred language to write**  
**preferred school language**  
**preferred technology**  
**preferred tool to write a story**  
**speaks Spanish with the most**  
**technology that is used at home**  
**technology that is used in school**  
**what does it mean to learn something**  
**what is digital storytelling**  
**what is storytelling**  
**what makes a digital story bad**  
**what makes a digital story good**  
**What you do to support language learning (English)**  
**what you like learning the least**  
**when first learned English**



**why you prefer English in school**

**12/18/14**

Axial coding will begin today. I will work to make comparisons and identify relationships among the codes using inductive and deductive thinking. Axial coding will essentially be completed to relate subcategories to categories or themes to sub-themes and to highlight dominant codes and remove redundant codes in the creation of emergent themes within the data.

Last the researcher will complete selective coding. Strauss and Corbin (1998) define selective coding as the process of identifying and choosing the core category, systematically connecting it to other categories, and validating those similarities and relationships. In this phase the researcher will choose one category or theme to be dominant and will then work to relate all other categories to that category or theme. Additionally, the researcher will use color coding to create a colorful representation of correlations between codes and categories.

**Appendix I**

**Final Code List**

<p>Can you read in Spanish          Can you write in Spanish          favorite subject          home language          how often (days) technology is used in school          How Spanish is used at school          how speaking English makes you feel          how speaking English makes you feel-post          how technology is used at home          how technology is used at school          how you learn best          know more words (English or Spanish)          language spoke at school          motivation to do a similar project in the future          perception as a learner          perception as a learner represented in pictures          perception as a technology user          perception of importance of learning English          perception of importance of school          perception participation in project          perception post: as a technology user          perception: are DST projects fun          perception: can you learn from watching another's digital story          perception: did project make it easier to share ideas          perception: did you learn more words in English          perception: easiest DST task          perception: most difficult DST task          perception: using English in class</p>	<p>preferred technology          preferred tool to write a story          speaks Spanish with the most          technology that is used at home          technology that is used in school          what does it mean to learn something          what is digital storytelling          what is storytelling          what makes a digital story bad          what makes a digital story good          What you do to support language learning (English)          what you like learning the least          when first learned English          why you prefer English in school          preferred school language          perception: what can you learn from watching another's digital story          pictures that will represent them as learners          plans for the future          preferred language to tell a story          preferred language to write</p>
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## Appendix J

### Code Families/ Subcategories

Code Family: \*Language Learning Activities

Codes (4): [motivation to do a similar project in the future] [perception participation in project] [perception: are DST projects fun] [what does it mean to learn something]

Quotation(s): 49

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Code Family: \*Motivation to Learn

Codes (11): [perception: are DST projects fun] [perception: can you learn from watching another's digital story] [perception: did project make it easier to share ideas] [perception: did you learn more words in English] [perception: easiest DST task] [perception: most difficult DST task] [perception: what can you learn from watching another's digital story] [what is digital storytelling] [what is storytelling] [what makes a digital story bad] [what makes a digital story good]

Quotation(s): 83

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Code Family: \*Self-perceptions as a learner

Codes (11): [favorite subject] [how speaking English makes you feel-post] [how you learn best] [perception as a learner] [perception as a learner represented in pictures] [perception participation in project] [perception: using English in class] [pictures that will represent them as learners] [what does it mean to learn something] [what you like learning the least] [when first learned English]

Quotation(s): 162

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Code Family: Bilingualism

Codes (14): [Can you read in Spanish] [Can you write in Spanish] [home language] [how speaking English makes you feel] [how speaking English makes you feel-post] [know more words (English or Spanish)] [perception of importance of learning English] [perception: using English in class] [speaks Spanish with the most] [when first learned English] [How Spanish is used at school] [language spoke at school] [perception: using English in class] [why you prefer English in school]

Quotation(s): 111

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Code Family: Importance of School

Codes (4): [motivation to do a similar project in the future] [perception participation in project] [perception: are DST projects fun] [what does it mean to learn something]

Quotation(s): 49

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Code Family: Importance of school and education

Codes (5): [perception of importance of learning English] [perception of importance of school] [perception participation in project] [plans for the future] [what does it mean to learn something]

Quotation(s): 71

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Code Family: Language Learning Activities

Codes (3): [how you learn best] [preferred tool to write a story] [What you do to support language learning (English)]

Quotation(s): 60

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Code Family: Language Preference

Codes (6): [how speaking English makes you feel] [how speaking English makes you feel-post] [know more words (English or Spanish)] [preferred language to write] [preferred school language] [speaks Spanish with the most]

Quotation(s): 38

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Code Family: Language Usage Home

Codes (2): [home language] [speaks Spanish with the most]

Quotation(s): 13

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Code Family: Language Usage School

Codes (4): [How Spanish is used at school] [language spoke at school] [perception: using English in class] [why you prefer English in school]

Quotation(s): 40

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Code Family: Motivation to learn

Codes (4): [motivation to do a similar project in the future] [perception participation in project] [perception: are DST projects fun] [what does it mean to learn something]

Quotation(s): 49

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Code Family: Perception of DST project

Codes (11): [perception: are DST projects fun] [perception: can you learn from watching another's digital story] [perception: did project make it easier to share ideas] [perception: did you learn more words in English] [perception: easiest DST task] [perception: most difficult DST task] [perception: what can you learn from watching another's digital story] [what is digital storytelling] [what is storytelling] [what makes a digital story bad] [what makes a digital story good]

Quotation(s): 83

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Code Family: Self-efficacy as a technology user

Codes (3): [perception as a learner represented in pictures] [perception as a technology user] [perception post: as a technology user]

Quotation(s): 49

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Code Family: Self-perceptions as a learner

Codes (11): [favorite subject] [how speaking English makes you feel-post] [how you learn best] [perception as a learner] [perception as a learner represented in pictures] [perception participation in project] [perception: using English in class] [pictures that will represent them as learners] [what does it mean to learn something] [what you like learning the least] [when first learned English]

Quotation(s): 162

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Code Family: Technology at home

Codes (1): [technology that is used at home]

Quotation(s): 5

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Code Family: Technology in School

Codes (4): [how often (days) technology is used in school] [how technology is used at school] [perception post: as a technology user] [technology that is used in school]

Quotation(s): 45

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Code Family: Technology Preference

Codes (2): [preferred school language] [preferred technology]

Quotation(s): 18

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Code Family: Technology Self-Efficacy and Usage

Codes (4): [how often (days) technology is used in school] [how technology is used at school] [perception post: as a technology user] [technology that is used in school]

Quotation(s): 45

## Appendix K

### Super Families/Categories

Super Code Family: \*Language Learning Activities

Codes (7): [motivation to do a similar project in the future] [perception participation in project] [perception: are DST projects fun] [what does it mean to learn something] [how you learn best] [preferred tool to write a story] [What you do to support language learning (English)]

Quotation(s): 109

Code Family: \*Digital Story Telling as a learning activity

Codes (11): [perception: are DST projects fun] [perception: can you learn from watching another's digital story] [perception: did project make it easier to share ideas] [perception: did you learn more words in English] [perception: easiest DST task] [perception: most difficult DST task] [perception: what can you learn from watching another's digital story] [what is digital storytelling] [what is storytelling] [what makes a digital story bad] [what makes a digital story good]

Quotation(s): 83

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Super Code Family: \*Self-perceptions as a learner

Codes (11): [favorite subject] [how speaking English makes you feel-post] [how you learn best] [perception as a learner] [perception as a learner represented in pictures] [perception participation in project] [perception: using English in class] [pictures that will represent them as learners] [what does it mean to learn something] [what you like learning the least] [when first learned English]

Quotation(s): 162

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Super Code Family: \*Bilingualism

Codes (14): [Can you read in Spanish] [Can you write in Spanish] [home language] [how speaking English makes you feel] [how speaking English makes you feel-post] [know more words (English or Spanish)] [perception of importance of learning English] [perception: using English in class] [speaks Spanish with the most] [when first learned English] [How Spanish is used at school] [language spoke at school] [perception: using English in class] [why you prefer English in school]

Quotation(s): 111

Code Family:\* Language Preference

Codes (6): [how speaking English makes you feel] [how speaking English makes you feel-post] [know more words (English or Spanish)] [preferred language to write] [preferred school language] [speaks Spanish with the most]

Quotation(s): 38

Code Family: \*Language Usage

Codes (6): [home language] [speaks Spanish with the most] [How Spanish is used at school] [language spoke at school] [perception: using English in class] [why you prefer English in school]

Quotation(s): 53

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Super Code Family: \*Importance of School, Learning, Education,

Codes (9): [motivation to do a similar project in the future] [perception participation in project] [perception: are DST projects fun] [what does it mean to learn something] [perception of importance of learning English] [perception of importance of school] [perception participation in project] [plans for the future] [what does it mean to learn something]

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Super Code Family: \*Motivation to learn

Codes (4): [motivation to do a similar project in the future] [perception participation in project] [perception: are DST projects fun] [what does it mean to learn something]

Quotation(s): 49

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Super Code Family: \*Self-efficacy as a technology user

Codes (11): [perception as a learner represented in pictures] [perception as a technology user] [perception post: as a technology user] [how often (days) technology is used in school] [how technology is used at school] [technology that is used in school] [preferred school language] [preferred technology]

Quotation(s): 112

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