THE EFFECT OF TWO-WAY IMMERSION ON STUDENTS' ATTITUDES TOWARD

EDUCATION, OTHER CULTURES, AND SELF-ESTEEM

by

Jonathan David Pedrone

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

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ABSTRACT

This research compared students who participated in a two-way French/English immersion program to students who participated in an English-only program to determine whether there was a statistically significant difference in their perceptions of: (a) education, (b) attitudes towards other cultures, and (c) self-esteem. The purpose of this quantitative causal-comparative study was to identify the differences in attitudes toward education, other cultures, and self-esteem between students enrolled in a two-way French/English immersion program and those enrolled in a traditional English-only program to test the theory of linguistic interdependence. This study is important because English language learners are the fastest growing subpopulation in United States schools. The participants included 84 students in Grades 9–12, who had been in the program for a minimum of two years. Items from three surveys, Self-Esteem, Attitudes toward Academics, and Attitudes toward Other Cultures, were used to determine student perceptions. The collected data were collated and categorized, and an independent sample t-test was used to determine the presence of any statistically significant differences between the two groups. The results from this current study did not show a statistically significant difference between the students in the English-only program and those in the French immersion program. Recommendations for future research include studies with larger sample sizes, ones that focus on long-term language acquisition, and studies that specifically consider French/English programs.

Keywords: Two-way immersion, language interdependency, language acquisition, motivation, learner attitudes, learner beliefs, learner perceptions

Dedication

This project is dedicated to my parents, Dino and Roberta Pedrone. This year they will celebrate 50 years of marriage, and I can think of no better way to honor them than to dedicate this project to them. Since the beginning of my terminal degree, I have depended on my parents more than I have at any other point in my life. Your prayers have sustained me through this work. At times, this project overwhelmed me. Your encouragement allowed me to persevere. Your calls, letters, and support mean more than you know. My ability to pursue higher education is because of the sacrifices you have made for me. You are my parents, my role models, and my heroes. This project is as much a result of your sacrifices as it is my effort. I hope that I have made you proud.

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A project of this magnitude is not the result of a single person. Thanks goes first and foremost to my heavenly Father, your love is relentless. Dr. Michelle Barthlow's work as chair of my dissertation was vital, and without her this project would not have reached completion. Dr. Joan Fitzpatrick was a source of encouragement and wisdom throughout the entire process. Dr. Doug Blanc was a tremendous help in the final stages of the dissertation. Dr. Amanda Szapkiw reviewed Chapters 3–5 with great wisdom and insight. In the ways that this dissertation adds to the body of knowledge, the credit is due to my incredible group of advisors. Special thanks to my proofreader, Dr. Sharon Sweet, who raised the level of my writing to a place I did not think possible. To Isaac Sofy, who explained complex statistical analyses. Special thanks to Dr. Jacquelyne Hoy and Michelle Garay, who graciously allowed me to conduct research. Gratitude is in order for my French-speaking colleagues for their assistance in translating important research from the French language into English, since I am not proficient in French.

I am grateful for a family that has supported me throughout this entire process. JoAnna (who gave me the key to finishing a dissertation), Scott, Adam, Nathanael, and Molly frequently helped me have fun in the process of doctoral work. To my beautiful daughter Mia, every day I'm proud to be your dad. You truly are my angel. To my son William, you have brought happiness to my life that I did not think would be possible again. To Karen, my bride, and my pearl, in my wildest dreams I could not have imagined being this lucky. Your patience, support, courage, and love sustain me. I married way above my head. I never want to learn to live my life without you.

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List of Abbreviations

American Council on the Teaching of Foreign Languages (ACTFL)

Basic communicative skill (BICS)

Cognitive academic language proficiency (CALP)

Common underlying proficiency (CUP)

Developmental interdependence hypothesis (DIH)

English language learners (ELL)

Florida comprehensive assessment test (FCAT)

Limited English proficiency (LEP)

National Association for the Education of Young Children (NAEYC)

Native language (L1)

No Child Left Behind (NCLB)

Secondary language (L2)

Separate Underlying Proficiency (SUP)

Sheltered instruction observation protocol (SIOP)

CHAPTER ONE: INTRODUCTION

Overview

The purpose of this study was to determine if there was a statistically significant difference in attitudes towards education, other cultures, and self-esteem between students enrolled in an English-only curriculum versus those enrolled in a French-English immersion program. In chapter one the researcher provides an overview of the problem of the rapidly growing population in the United States of English language learners (ELLs). Students who are not proficient in English face many challenges in the classroom because of the language barrier that they face. Dual language classrooms provide a unique opportunity for students who are not proficient in English. Special attention is given in this project to the effect that a dual language program has on students' attitudes towards education, other cultures, and their self-esteem.

Background

In an increasingly connected world, educators are realizing that the use of a second language is increasingly important for students in United States classrooms (Rubinstein-Avila & Lee, 2014). English language–learning students are the fastest growing segment of the population in American schools (Kim & Helphenstine, 2017). The number of ELL students in the classroom increased more than 53% between 1997 and 2007 (Gottfried, 2014; Roy-Campbell, 2013). In 2012 the ELL student population increased to over 4,000,000 students in the United States (Beebe & Nishimura, 2016). Sheng, Sheng, and Anderson (2011) emphasized the importance of second language education because "English language learners (ELLs) are the most rapidly growing student population in the U.S. elementary and secondary schools, and this growth rate will continue throughout the next few decades" (p. 568). At the same time, the increase in immigration results in larger numbers of non-English-speakers in U.S. classrooms

(LeClair, Doll, Osborn, & Jones, 2009, p. 568). This provides a unique set of circumstances for the utilization of a different language in the classroom (Bearse & de Jong, 2008; Cavazos-Rehg & DeLucia-Waak, 2009; LeClair et al., 2009; Molina, 2013). Students who have the opportunity to engage with a second language in their high school years fare better academically, socially, and culturally than students who are not afforded the same opportunities (Alanis & Rodriguez, 2008; Nasciemento, 2016). The provision of two-way immersion programs provides a solution to these issues. Through the use of both the primary language and a second language in the two-way immersion programs, there are opportunities for both English speakers and English language learners (Borrero, 2015; Cho & Reich, 2008; Giambo, 2010; Young et al., 2008).

In this section, the researcher provides the background to the problem, that of an increasingly large non-English speaking population, and the need for greater cultural understanding in an increasingly connected world. Students' participation in two-way immersion programs provides a unique opportunity for them to have greater exposure to alternative language and culture (Gur, 2010; Linton, 2007; Rocque, Ferrin, Hite, & Randall, 2016; Ward, 2003). Also, it has been shown that participation in these types of programs increases students' overall academic ability and increases the academic achievement of ELLs (Cheng, Miao, Kirby, Qiang, & Wade-Woolley, 2010; Fraga, 2016; Hickey, 2007; Howard, Sugarman, & Christian, 2003; Jong & Howard, 2009; Lindholm-Leary, 2004; Lindholm-Leary & Block, 2010; Marian, Shook, & Schroeder, 2013; Nasciemento, 2016; Scanlan & Zehrbach, 2010; Tran, Martinez-Cruz, Behseta, Ellis, & Conteras, 2015).

Researchers (Alanis & Rodriguez, 2008; Ballinger & Lyster, 2011; Cummins, 1981, 1998; Fraga, 2016; Lindholm-Leary, 2004; Lindholm-Leary & Block, 2010; Marian et al., 2013; Nasciemento, 2016; Stewart, 2005) have suggested that the learning and the utilization of a

foreign language is academically, socially, and culturally beneficial for students. Dual language

education was defined by Soltero (2004) as:

> a long-term additive bilingual and bicultural program model that consistently uses two
>
> languages for instruction, learning, and communication, with a balanced number of
>
> students from two language groups who are integrated for instruction for at least half of
>
> the school day in the pursuit of bilingual, biliterate, academic and cross-cultural
>
> competencies. (p. 2)

Learning a second language is increasingly important in a globalized economy, and a key

component to the success of students in educational institutions. Alanis and Rodriguez (2008),

Cummins (1981, 1998), Lindholm-Leary (2004), and Lindholm-Leary and Block (2010) reported

that students enrolled in a two-way immersion program performed at or above grade level

standards in comparison to their peers. Educators, who implement a two-way immersion

program, provide the opportunity for native English speakers and ELLs to immerse themselves

in dual languages during their educational experience.

Two-way immersion programs are increasingly important in a world where diffusion of

information and language is common and in an economy that is becoming more and more global.

Howard et al. (2003) emphasized that bilingualism, biliteracy, and cross-cultural awareness are

increasingly important in a global world. Students require cross-cultural skills if they are to

compete in a world that is rapidly diversifying. Cho and Reich (2008) found a correlation

between economic achievement and strong educational background.

For these reasons, it is important for educators to understand the changing world in order

to better prepare students. The encouragement of biliteracy and greater attitudes towards other

cultures are two steps in the right direction for educators to ensure greater student success.

Cultural competence is the ability to interact respectfully toward people of different contexts, traditions, and religious beliefs (Gur, 2010). Educators will find that an emphasis on greater attitudes towards other cultures will prepare students to respond to other students of diverse backgrounds in a positive way in the classroom. Participation in two-way immersion programs increase a student achievement and is a beneficial program for ELLs, a subgroup which is increasing in the U.S. educational system (Nasciemento, 2016). ELLs represent a growing segment of students in the United States (Rodriguez, Ringler, O'Neal, & Bunn, 2009). Since this group increases by approximately 10% each year, non-English speaking students are the fastest growing subgroups of students among the public-school population (Kim & Helphenstine, 2017; LeClair et al., 2009). From 1995 to 2005, the increase in the enrollment of ELL students in public schools across the US grew by more than 60% (Karathanos, 2010). In the US, more than 18% of the population older than five years of age speaks a language other than English in the home (Cavazos-Rehg & DeLucia-Waak, 2009; Sheng et al., 2011). Staff of the U.S. Census Bureau (as cited in Washburn, 2008) projected that 40% of the student population will be ELLs by the year 2030 (Ferlis & Yaoying, 2016; Han et al., 2014; Sparrow, Butvilofsky, Escamilla, Hopewell, & Tolento, 2014).

Some ELLs exhibit deficiencies in academic performance in comparison to English proficient students (Cho & Reich, 2008). However, the requirements of the No Child Left Behind Act (NCLB, 2001) mandate that all students be held to the same academic standards, (Giambo, 2010; Young et al., 2008).

Also, students who are immersed in a different culture may experience feelings of alienation (LeClair et al., 2009; Lee, Butler, & Tippins, 2007). These feelings of alienation can result in lower self-esteem for students. Researchers (Baumeister, Campbell, Krueger, & Vohs,

2003; Neugebauer, 2011) indicate a correlation between students' self-esteem and their academic achievement.

      With an increasingly diverse set of students enrolled in U.S. classrooms, the need for increased cultural competence becomes paramount. Cultural competence does not necessitate the abandonment of one's culture, but rather it advocates the preservation of culture along with increased attitude of appreciation for differing cultures (Keengwe, 2010). Researchers (Diaz, 1983; Pesner & Auld, 1980) have shown that students from minority cultures who are given the opportunity to be immersed in their culture during the school day show an increase in their overall feeling of self-worth.

      The first two-way immersion programs in the US were established almost 50 years ago with a French/English immersion program in Massachusetts and a Spanish/English program in South Florida (Howard et al., 2003). There are now more than 265,000 ELL students in Florida schools (Florida Department of Education, n.d.). This increase in ELLs in the classroom calls for a model of education that will assist students with limited English proficiency. Two-way immersion programs provide an environment in which students can achieve at standard levels of academic performance in a classroom that provides instruction in both their native and second language (Flood, Lapp, Tinajero, & Hurley, 1997; Marian et al., 2013).

      According to Ballinger and Lyster (2011) and Reyes and Vallone (2007), the goal of two-way immersion programs is to support students to attain: (a) biliteracy, (b) academic achievement, and (c) cultural competence. In an increasingly global economy, cultural competence has emerged as a key component of a successful educational program (Hess, Lanig, & Vaughan, 2007). Further, as globalization increases, there will be a greater need for

proficiency in languages other than English for business transactions and other diplomatic relations (Ray, 2009).

Staff of the American Council on the Teaching of Foreign Languages (ACTFL; 2012) have formulated a series of foreign language standards to elucidate what students should be able to do as the result of foreign language education. The researchers, who collaborated in creating these standards, have successfully focused educators' attention to goals, standards, and an overall level of accountability in order to strengthen the profession (Byrne, 1996). The standards include both communicative skills and knowledge of differing cultures (ACTFL, 2012).

Problem Statement

Approximately one in five students in America speaks a language other than English at home (Thompson, 2015). Since 2012, the number of ELL students in the United States has increased to over 4,000,000 (Beebe & Nishimura, 2016). In response to this increase, several different models of dual language instruction have been utilized in the classroom. One of these models is two-way immersion education (Cho & Reich, 2008; Giambo, 2010; Nasciemento, 2016; Valentino & Sean, 2015).

Two-way immersion programs have a nearly 50-year history in the US. Soderman and Oshio (2008) identified two reasons educators must be prepared for students as they learn a new language. A primary impetus is due to the growing number of immigrants, which increases the emphasis on the need for multicultural and multilingual education. This growth in immigration and the subsequent multiplication of ELL students provides a unique challenge for educators.

Despite the 50-year history of two-way immersion programs in the US., there remains a definite need for further research to determine the efficacy of secondary level two-way immersion programs (Howard et al., 2003). The literature in which two-way immersion

programs have been assessed has focused on elementary-aged students. There remains a need for research conducted with ELL students who enter such programs during their middle and high school years (Genesee, Lindholm-Leary, Saunders, & Christian, 2005). Also, there has been a research focus on two-way immersion programs, which are used to instruct low income Hispanic populations (Ballinger & Lyster, 2011; Genesee et al., 2005; Karathanos, 2010; Nasciemento, 2016). Researchers have clearly identified the need for further research into different settings and grade levels to determine if findings are similar in different contexts (Bearse & de Jong, 2008; Genesee & Jared, 2008; LeClair et al., 2009; Soderman & Oshio, 2008; Wightman & Wesely, 2012).

This study focused on the differences between students who were enrolled in a two-way immersion program and their corresponding attitudes toward education, other cultures, and self-esteem. Previous researchers (Bearse & de Jong, 2008; Fraga, 2016; Genesee & Jared, 2008; LeClair et al., 2009; Mercer & Williams, 2014; Nasciemento, 2016; Tran et al., 2015) have found significant positive effects for students in English/Spanish immersion programs; however, further studies are needed to determine whether participation in French/English immersion programs is equally efficacious in producing desired results. The population for this study was a French/English two-way immersion program in the southeastern US. The problem is a lack of research secondary schools, and a need for more research into schools that utilize languages other than Spanish/English in the United States.

Purpose Statement

The purpose of this quantitative causal-comparative study was to identify the differences in attitudes toward education, other cultures, and self-esteem between students enrolled in a two-way French/English immersion program and those enrolled in a traditional English-only program

to test the theory of linguistic interdependence. One set of students was enrolled in the two-way immersion program, while the others were enrolled in a traditional English-only program. The participants in this study were enrolled in Grades 9–12 and had participated in either the traditional English-only program or the immersion program for a minimum of two years. The students in this study spent one half of their academic day learning in French and one half of their academic day learning in English. Students in the English track received all instruction in their primary language (i.e., English) throughout the day. Students in the international track participated in a two-way immersion program in which instruction was delivered in both the native tongue (i.e., French) and in English during the day. Students in the international track take French, mathematics, and humanities in the French language. All other classes are taught in English.

The focus of this study was on three dependent variables: attitudes toward (a) education, (b) other cultures, and (c) self-esteem. The independent variable is enrollment in a English-only or a two-way language immersion program. The dependent variables were the students' reported attitudes toward education, which included their schoolwork and academics. Researchers (Cheng et al., 2010; Fraga, 2016; Hickey, 2007; Howard et al., 2003; Jong & Howard, 2009; Lee et al., 2007; Lindholm-Leary, 2004; Lindholm-Leary & Block, 2010; Marian et al., 2013; Nasciemento, 2016; Scanlan & Palmer, 2009; Scanlan & Zehrbach, 2010; Tran et al., 2015) have shown that participation in immersion education can improve the overall attitude of students toward academics. In addition, this researcher examined attitudes towards other cultures, or cultural competence, which is the ability to interact respectfully toward people of different contexts, traditions, and religious beliefs (Gur, 2010). Finally, the variable of self-esteem was examined, which is the overall feeling of self-regard and is closely tied to the value, which

individuals place on themselves (Baumeister et al., 2003; Isaksen & Roper, 2016; Wadman, Durkin, & Conti-Ramsden, 2008).

Significance of the Study

Findings from this current study provide valuable information about the perceptions of immersion students and non-immersion students in regard to the educational process. The rapid increase in non-English-speaking homes necessitates the implementation of two-way immersion programs in students' first language (L1; Ballinger & Lyster, 2011; Barimani, 2013; Ferlis & Yaoying, 2016; Fortune & Tedick, 2015; Nicolay & Poncelet, 2013). Administrators and parents who desire to implement an immersion program in their context might benefit from the findings from this study because of the possible positive effects of a two-way immersion program on attitudes toward education, other cultures, and self-esteem. It was anticipated that the findings would demonstrate the efficacy of two-way immersion programs in terms of attitudes toward education, other cultures, and self-esteem. The researcher sought to determine if there was a significant difference in the three variables between students in a two-way immersion program and those enrolled in a traditional English-only program.

This researcher hopes to contribute to the current literature on two-way immersion programs. Much of the present research has been limited to elementary settings (Genesee et al., 2005; Hickey, 2007; Marian et al., 2013; Nasciemento, 2016). Also, the findings from this study may increase research into alternate language immersion programs. The history of immersion programs in the US has been focused primarily on Spanish/English programs, while the findings from this study will help to expand the research into alternative language immersion programs, specifically French/English. The research findings from this study should be helpful to those interested in studying how language acquisition affects the perceptions of secondary level

students and their attitudes toward education, their self-esteem, and their cultural competence. Cavazos-Rehg and DeLucia-Waak (2009) reported that there is a need for further research into the associations between self-esteem and bilingual education. In addition, the findings from this current study should provide foundational support to the theory of linguistic interdependence (Barrow & Markman-Pithers, 2016; Castilla, Restrepo, & Perez-Leroux; 2009; Cummins, 1978, 1981, 1998, 2007; Genesee & Jared, 2008; Lazaruk, 2007; Vandergrift, 2006). Linguistic interdependence supports the theory that learning in one language has cognitive benefits across linguistic barriers, thereby further academic achievement is encouraged.

Research Questions

The researcher identified possible distinctions between students enrolled in a two-way French/English immersion program and students enrolled in an English-only program and their perceptions of education, other cultures, and self-esteem. In order to conduct this study, the following research questions were developed.

RQ1: Will there be a significant difference in students' attitudes toward education in ninth through twelfth grade students enrolled in a two-way immersion program vs. those students enrolled in a non-immersion program?

RQ2: Will there be a significant difference in ninth through twelfth grade students' attitudes toward other cultures when enrolled in a two-way immersion program vs. students enrolled in a non-immersion program?

RQ3: Will there be a significant difference in students' self-esteem in ninth through twelfth grade students enrolled in a two-way immersion program vs. those students enrolled in a non-immersion program?

Definitions

1. *A1-C3* - Classification used for language learners. The A1 learners are not literate in English, and C3 learners are fully literate in English (Cummins, 1981, 1998).

2. *Acculturation* - Adaptation to a new environment (Perez, 2011).

3. *Additive model of bilingualism* - In this model, it is proposed that children require ongoing development in their first language in order to provide a firm foundation for the development of a second language (Baker, 2006).

4. *Assimilation* - The process, by which people from different cultures and different backgrounds, come together as one (Jong & Howard, 2009).

5. *Balanced bilinguals* - Bilinguals who have proficiency in both their L1 and second (L2) languages (Cummins, 1981).

6. *Basic communicative skill (BICS)* - These are the skills acquired by a speaker regardless of IQ or aptitude and involve the basic skills used to communicate (Cummins, 1981).

7. *California Standards Test* - A standardized test, administered in California schools, used to measure students' progress toward achievement of the California state-adopted academic content requirements (Lindholm-Leary & Block, 2010).

8. *Cognitive academic language proficiency (CALP)* - Those dimensions of language proficiency, which are strongly related to literacy skills (Cummins, 1981).

9. *Communicative competence* - The language learners' understanding of linguistic and grammatical appropriateness and the ability to use those skills in communication (Savignon, 2003).

10. *Common underlying proficiency (CUP)* - The theory that exposure in either the first or second language enhances the development of linguistic proficiency in both languages (Cummins, 1981).

11. *Compensatory rivalry* - A rivalry between two groups which may cause one of the groups to have the perception that they are to outperform the other and, thereby, influence the responses (Creswell, 2003).

12. *Constructivist model* - The view that students will learn primary writing skills by being immersed in a social environment (Bodycott, 2006).

13. *Cross cultural learning* - Learning that takes places through exposure to other cultures (Gort, 2008).

14. *Cultural competence* - The ability to interact respectfully toward people of different contexts, traditions, and religious beliefs (Gur, 2010).

15. *Cultural effectiveness* - The ability to see the world from a new perspective (Hess et al., 2007).

16. *Developmental interdependence hypothesis (DIH)* - According to developmental interdependence theory, L2 skills are the out-working of skills learned in the L1 (Cummins, 1978).

17. *Direct method* - The assumption that teaching students in their target language leads to greater language acquisition (Lucas & Katz, 1994).

18. *Dual language classroom* - A classroom in which more than one language is used (Cummins, 2007).

19. *Dual language instruction programs* - A course of study whereby students receive daily instruction in more than one language (Jong & Howard, 2009).

20. *English as a second language (ESL)* - Students whose native tongue is not English (Cho & Reich, 2008).

21. *English language learner (ELL)* - Refers to a student whose native language is not English (Cho & Reich, 2008; Giambo, 2010; Young et al., 2008).

22. *Florida comprehensive assessment test (FCAT)* - A standardized test administered to Florida students to measure their progress toward achievement of the Florida state-adopted academic content requirements (Giambo, 2010).

23. *Heritage language* - The native tongue or L1 (Giambo, 2010; Russell & Kuriscak, 2015).

24. *International Baccalaureate Program* - An alternative secondary program for gifted youth (Poelzer & Feldhusen, 1997).

25. *Language elitism* - The assumption that immigrants should give up their native tongue in order to learn the dominant language (Cummins, 2007; Ray, 2009).

26. *Language parochialism* - Views multilingualism as unnecessary; in some cases, a negative view of second language acquisition is held (Cummins, 2007; Ray, 2009).

27. *Language restrictionism* - The attempt to legally limit the teaching of a second language (Cummins, 2007; Ray, 2009).

28. *Late exit programs* - Academic programs in which language learners are enrolled in a special academic program beyond the elementary years (Genesee et al., 2005).

29. *Limited English proficiency (LEP)* - Limited English proficiency refers to students with limited English language skills (American Institute, 2006).

30. *Linguistic interdependence* - A theory, whereby learning in one language has cognitive benefits across linguistic barriers (Castilla et al., 2009; Cummins, 1978, 1981, 1998, 2007; Genesee & Jared, 2008; Lazaruk, 2007; Vandergrift, 2006).

31. *Maximum exposure hypothesis* - In the maximum exposure hypothesis, it is claimed that exposure in a language must be maximized in order to achieve full proficiency (Cummins, 1998).

32. *Multilingualism* - The act of the use or the promotion of the use of multiple languages (Ray, 2009).

33. *National Association for the Education of Young Children (NAEYC)* - A professional organization, whose members promote excellence in early childhood education (NAEYC, 1996).

34. *Native language (L1)* - The original language of a student sometimes referred to as the student's heritage language (Cummins, 1981).

35. *No Child Left Behind (NCLB)* - A legislative mandate that requires all ELLs to be held to the same academic standards as non-ELL students (Cho & Reich, 2008; Giambo, 2010; Young et al., 2008).

36. *Non-balanced bilinguals* - Bilinguals who do not have equitable proficiency in their L1 and L2 languages (Cummins, 1981).

37. *Orthographic processing* - Understanding writing conventions of the language and the correct and incorrect spellings (Cummins 1978, 1981; Deacon, Wade-Woolley, & Kirby, 2009).

38. *Phonological awareness* - The knowledge that words are composed of distinct sounds (Cummins, 2007).

39. *Rosenberg Self-Esteem Scale* - A questionnaire developed by Rosenberg (1989) to measure self-esteem.

40. *Secondary language (L2*) - The secondary language is that language which a student is currently in the process of acquiring (Cummins, 1981).

41. *Self-esteem* - an overall feeling of self-regard, which is closely tied to the value those individuals place on themselves (Baumeister et al., 2003; Wadman et al., 2008).

42. *Sequential bilingualism* - Sequential bilingualism exists when a second language is learned after a period of time where the individual has been primarily monolingual (Castilla et al., 2009).

43. *Sheltered instruction observation protocol (SIOP)* - A model of instruction that seeks to provide a framework for teaching classrooms made up primarily of ELL students (Short & Echevarria, 2005; Short, Echevarria, & Richards-Tutor, 2011).

44. *Standards based instruction* - Formal testing or education that seeks to measure students' ability based on a set of standardized objectives for learning (Young et al., 2008)

45. *t-Test* - A statistical analysis tool used to compare two groups (Jalongo, Gerlach, & Yan, 2001; Siegel & Castellan, 1988).

46. *Threshold hypothesis* - The hypothesis that children must reach a threshold of linguistic competence if they are to avoid cognitive deficits (Lazaruk, 2007).

47. *Two-way partial immersion* - An immersion program in which the ratio of native language increases successively from 75/25 in the native vs. target language to 50/50 later on in the educational experience (Gort, 2008).

CHAPTER TWO: LITERATURE REVIEW

Overview

The purpose of this study was to determine if there was a statistically significant difference in attitudes towards education, other cultures, and self-esteem between students enrolled in an English-only curriculum versus those enrolled in a French-English immersion program. In chapter two the researcher surveys the literature to identify the important linguistic contributions that can be gained from participation in immersion education.

Introduction

In an increasingly diverse world, two-way immersion programs provide a unique opportunity for the learning and utilization of a foreign language. Two-way immersion programs have been shown by researchers to be academically, socially, and culturally beneficial for students (Ballinger & Lyster, 2011; Lindholm-Leary & Block, 2010; Marian et al., 2013; Nasciemento, 2016; Padilla, Fan, Xu, & Silva, 2013). With the increase of ELL students in United States classrooms, the need for new educational programs which allow students to immerse themselves in dual languages becomes increasingly important.

This researcher sought to identify the differences in attitudes toward education, other cultures, and self-esteem between students enrolled in a two-way French/English immersion program and those enrolled in a traditional English-only program. The purpose of the immersion program is to increase literacy in both languages. In the US, English/Spanish two-way immersion programs have more than a 50-year history (Ballinger & Lyster, 2011; Cazabon, Lambert, & Hall, 1993; Genesee et al., 2005; Karathanos, 2010). In Canada, the first French immersion program was introduced in St. Lambert, Quebec in 1965 (Cheng et al., 2010; Genesee & Jared, 2008; Macintyre, Burns, & Jessome, 2011). Both English/Spanish and French/English

programs have a rich history of providing students with linguistic, academic, and cognitive

benefits (Lazaruk, 2007). The work of Cummins (1978, 1981, 1984, 1986, 1998, 2007) provided

the foundation for the linguistic, academic, and cognitive benefits of two-way immersion

programs.

<div align="center">**Theoretical Framework**</div>

There are several applicable theories which can be utilized in this study. The most

relevant theories are described below in subsequent sections.

Theories About the Bilingual Mind

Cummins's (1981) work is foundational in the study of the bilingual mind, and his work

launched a wave of new studies and theories on how the bilingual mind functions. Cummins

defended the use of two-way language instruction in the classroom and maintained that

instruction in the native tongue does not impede learning a second language; rather, it has

positive effects on linguistic and academic achievement. In his work, Cummins disputed many

of the negative ideas, which surround language programs, such as the language deficiency myth,

in which it is purported that children's use of two languages can cause emotional, cognitive, and

social deficiencies. However, the most important aspect of Cummins's contributions to language

study was his development of the concepts of basic communicative skills (BICS) and cognitive

academic language proficiency (CALP).

Cummins (1981) distinguished two distinct types of language proficiency. The BICS are

acquired by a speaker regardless of IQ or aptitude, and they involve the basic skills used to

communicate. The degree to which these skills develop varies widely from person to person.

However, CALP consists of "those dimensions of language proficiency that are strongly related

to literacy skills, whereas BICS refers to cognitively undemanding manifestations of language proficiency in interpersonal situations" (Cummings, 1981, p. 23).

Gaillard & Tremblay (2016) defined linguistic proficiency as "as the linguistic knowledge and skills that underlie L2 (secondary language) learners' successful comprehension and production of the target language" (p. 419). Linguistic proficiency is the result of a dynamic creative process that increases through meaningful interactions in the L2 (Collier, 1992; Lapayese, Huchting & Grimalt, 2014; Sibanda, 2017). Genesee (1987) recommended early entrance into an immersion program. The acquisition of language proficiency is a long-term endeavor, and it is attained over many years of experience and use (Cho & Reich, 2008; Cummins, 1981; Genesee et al., 2005; Lopez & Bui, 2014; Lopez & Franquiz, 2009; Scanlan & Zehrbach, 2010). This continuum of learning begins when a child first learns a language. During this time period, primarily, children communicate through BICS. In this beginning phase, children rely heavily on gestures and other nonverbal communication in order to express themselves. As children grow and develop the ability to speak and communicate in abstract ways, CALP develops (Kohne, 2006). As CALP develops, fewer external clues are needed, and children are able to parse out information without nonverbal clues. The time required for students to move from BICS to CALP has been shown in numerous studies to be between five and seven years (Cho & Reich, 2008; Cummins, 1981; Genesee et al., 2005; Lopez & Franquiz, 2009; Scanlan & Zehrbach, 2010). Krashen, Long, and Scarcella (1979) emphasized that natural exposure during childhood provides the proper environment for second language acquisition to grow and last into adulthood.

Also, Cummins (1981) proposed that second language CALP can be developed in minority children equally efficiently through instruction in the first language. To support this

proposition, Cummins utilized what he termed "common underlying proficiency" (1981, p. 16).
In this model, experience with either the first or second language enhances the development of
linguistic proficiency in both languages. There is an underlying cognitive and academic
proficiency that transfers across all languages regardless of their distinct surface features
(Goldenberg & Wagner, 2015; Sibanda, 2017; Soltero, 2004). Exposure in either language
translates to greater linguistic competence in both the first and second language of the student.
For Cummins, once a student has become proficient in his/her primary language, the skills and
abilities used in the first language are easily transferrable to other languages as well.

Cummins (1981) made a clear distinction between common underlying proficiency
(CUP) and separate underlying proficiency (SUP). In SUP, it is assumed that a student, who
struggles with English, would need more time and instruction in the English language because
the skills and linguistic abilities are separate. However, Cummins proposed that instruction in
either the L1or the L2 language will be beneficial to the student because the skills needed for
language development can be increased with instruction in either language. Baker's (2006) work
supported this line of thought and suggested an additive model of bilingualism. According to the
additive model, children require ongoing development in their L1 in order to provide a firm
foundation for the development of the L2. Flood et al. (1997) stated, "the fastest route to second
language literacy is through the first language" (p. 357).

In his 1998 work, Cummins addressed the issue of the maximum exposure hypothesis, in
which it is claimed that instruction time in English must be maximized in order to achieve
proficiency. Cummins cited the work of Thomas and Collier (1996), who reported the success of
students in two-way bilingual programs; both majority and minority students participated in

these programs. Also, longer exposure to the L2 provides a much greater likelihood that the acquisition and usage of the L2 will last into adulthood (Krashen et al., 1979).

According to Cummins (1981), the English academic skills of students, who are enrolled in immersion programs, are consistently equal to or close to the expected English grade norms by middle school; this is a demonstration of the efficacy of bilingual programs in the provision of proficiency in both the L1 and L2. Genessee et al. (2005) conducted a survey and found that almost all evaluations conducted at the end of a bilingual program showed that students in late exit programs scored either comparably or higher than their peers in standardized testing. In fact, "there was no study of middle school or high school students that found that bilingually educated students were less successful than comparison group students" (Genessee et al., 2005, p. 375).

Cummins (2007) further developed his theory of bilingualism when he studied the difference in nonbalanced and balanced bilinguals and conceptualized the threshold hypothesis. According to this hypothesis, children must achieve a threshold of linguistic competence if they are to avoid cognitive deficits (Collier, 1989; Lazaruk, 2007; Ng, 2015). Once students reach the threshold point, they are able to enjoy the beneficial influence of bilingualism. These thresholds are difficult to define in absolute terms, but what can be ascertained is that the more time spent in an L2 environment, the higher the threshold will be for competence (Lazaruk, 2007). Language acquisition is not static. Language levels are always in motion. At times they are progressing, at other times regressing, and at other times they are stagnant (Mady, 2015).

A similar theory to the threshold hypothesis is that of the affective filter (Du, 2009; Roy-Campbell, 2013). According to this theory, there are affective factors in language learning, which act as a filter to allow certain information into the learner's brain. The affective filter was

first proposed by Dulay and Burt (1977), and it was incorporated in the work of Krashen (1988).

These filters can act as a block which impedes language learning. Simply, a filter can act as a

mental block, which prevent the acquisition of some information. In order for the language

learner to be successful, meaningful interaction is required in the target language. Also, a

relaxed environment is vital in order to ensure that blocks are not put in the way of the student's

learning of the L2 language (Mejia-Smith & Gushue, 2017; Spack & Zamel, 2009).

Cummins (1981) established a foundation for the use of dual language immersion as a

positive program for the acquisition of L2 in students in educational institutions. His research

findings suggested that long term meaningful exposure to the L2 not only develops the second

language, but also undergirds and supports skills in the L1 as well. The provision of two-way

immersion programs provides the unique context for this type of experience, which allows one

language to influence and develop the secondary language (Goldenberg & Wagner, 2015).

Linguistic Interdependence

The term *linguistic interdependence* was defined by Castilla et al. (2009) as "the

systematic influence of the grammar of one language on the grammar of the other language

during acquisition, causing differences in bilinguals' patterns and rates of development in

comparison with monolinguals" (p. 566). Cummins (1978) conceptualized the Developmental

Interdependence Hypothesis (DIH), in which it is proposed that second language skills are the

outcome of skills learned in the L1. This theory becomes important in sequential bilingualism,

in which the L2 is learned after a period of time when the individual has been primarily

monolingual (Barrow & Markman-Pithers, 2016; Castilla et al., 2009). In the DIH model, linked

with the CUP model proposed by Cummins (1978, 1981, 1998), it is suggested that the

underlying features between languages, which assist with the transfer of language, support

bilingualism. Unlike the CUP model, the DIH model is contingent upon the language learner having achieved a proficiency in the L1, so that those skills may adequately transfer to the L2 (Sibanda, 2017).

Linguistic interdependence is based upon the idea that language learners are not required to learn entirely new skills when they endeavor to acquire a new language (Cummins, 1981). In linguistic interdependence, there is an assumption that language skills are transferrable and, thereby, provide the language learner with a basis for understanding and for learning a new language (Barrow & Markman-Pithers, 2016; Cummins, 2007; Genesee & Jared, 2008; Lazaruk, 2007; Opitz, 1998; Sibanda, 2017; Vandergrift, 2006). This process of transfer equips students of other languages to acquire linguistic skills in a shorter period of time. Cummins stated:

> In concrete terms, what this principle means is that in, for example, a French immersion program in Canada, instruction that develops French reading and writing skills is not just developing French skills; it is also developing a deep conceptual and linguistic proficiency that is strongly related to the development of literacy in the majority language [English]. (p. 232)

Cummins (2007) identified five major types of cross-lingual transfer that occur in a dual language classroom:

1. transfer of conceptual elements,

2. transfer of meta-cognitive and meta-linguistic strategies,

3. transfer of pragmatic aspects of language use,

4. transfer of specific linguistic elements, and

5. transfer of phonological awareness – the knowledge that words are composed of distinct sounds. (p. 233)

Cummins's (1981, 1984, 1998) theories are not without detractors, primarily because of the requirement for proficiency in the first language as a requisite for skill transfer to the second language. However, in a study conducted by Castilla et al. (2009), which consisted of 49 pre-elementary students, the researchers found that Cummins's premise was correct. The participants were Spanish-speaking children, who were engaged in learning English as a second language. The researchers concluded that there was a developmental interdependence in bilingual acquisition between Spanish and English. Skills developed in the L1 language were beneficial for the L2 language. The authors proposed that linguistic differences, which have been considered detrimental to achievement in the L2, are what underlie the interdependence of the L1 and L2.

In two-way immersion programs, the environment is one where interdependence can be capitalized on for students (Cummins, 1978). In a two-way immersion program, students receive instruction in both their L1 and L2 languages throughout the day, which supports the research findings (Barrow & Markman-Pithers, 2016; Castilla, et al. 2009; Cummins, 1981, 1984, 1998, 2007; Genesee & Jared, 2008; Goldenberg & Wagner, 2015; Lazaruk, 2007; Vandergrift, 2006) that skills are developed through exposure to both languages.

Phonological awareness is an important aspect of language learning (Chiang & Rvachew, 2007; Ng, 2015). Phonological awareness manifests itself in children during elementary years, as early as 4 years of age. Chiang and Rvachew (2007) stated that "Phonological awareness refers to the awareness of subcomponents of speech" (p. 292). Phonological awareness is linked with linguistic interdependency because it assists language learners' reading skills across language barriers (Bailey & Huang, 2011). Skills learned in the L1 are transferrable to the L2, which assists language acquisition. Genesee and Jared (2008) cited Comeau, Cormier,

Grandmaison, and Lacroix (1999), who found that phonological awareness was highly correlated with students' achievement. Chiang and Rvachew (2007) found that phonological awareness in the L2 is largely explained by the level of phonological awareness in the L1. This finding confirmed what other researchers (Genesee & Jared, 2008; Lazaruk, 2007; Sibanda, 2017; Vandergrift, 2006) have found, that language skills transfer across language barriers.

Linguistic interdependence applies not only to reading and writing skills, but can also transfer to listening skills between the L1 and L2 languages. Vandergrift (2006) attempted to quantify whether listening skills transferred across languages in the same way that reading and writing skills did. Listening skills share many similar characteristics with reading, such as: (a) language processing, (b) decoding, and (c) comprehension. Vandergrift sought to determine whether there was transfer across languages for both skills. For this particular study, a French and English listening test was administered to 75 students in the eighth grade. The results from the study demonstrated that L2 proficiency and L1 listening ability contributed to L2 comprehension ability. Also, there was support for the linguistic interdependence hypothesis (Cummins, 2007; Genesee & Jared, 2008; Goldenberg & Wagner, 2015; Lazaruk, 2007; Sibanda, 2017; Vandergrift, 2006) as it shows the transfer of not only reading and writing skills, but also of listening skills across languages.

The fastest growing sub-population in U.S. public schools are non-English speaking students (Kim & Helphenstine, 2017). An estimated 5.5 million students who attend public schools in this country have a primary language other than English (Cavazos-Rehg & DeLucia-Waak, 2009; Ferlis & Yaoying, 2016; LeClair et al., 2009). With increased immigration and globalization, it is essential that U.S. educators and the educational system be able to effectively address the issues presented by diversity. The structures of educational systems have been

criticized for the inability to adapt and deal with students from diverse linguistic and cultural backgrounds (York-Barr, Ghere, & Sommerness, 2007). It is in this environment that two-way immersion programs can be used to fill the gap in the educational system.

Related Literature

Bilingual Education: Success or Failure?

Researchers (Cummins, 1998; Scanlan & Zehrbach, 2010) have proposed that the use of bilingual education has been a failure due to its fragmentation of the student body and to the divisiveness it causes. However, bilingual supporters (Gerena, 2010; Thomas & Collier, 1996) are quick to point out that the vast majority of research clearly shows that the use of bilingual education has a positive impact on both language learners and bilingual students. Cheng et al. (2010) demonstrated that the use of bilingual education is not a hindrance to the retention of the student's first language.

In many states, educators and students have limited access to bilingual programs. As reported by Kim, Hutchinson, & Winsler (2015), the legislators in Arizona passed HB 2064, which allowed educators to separate ELL students into a separate classroom and, thereby, segregate them from the general student population. This action led state residents to request that educators petition their governments to stop this segregation, as it is detrimental to ELL students (Mackinney & Rios-Aguilar, 2012).

In June 1998, California voters approved Proposition 227, otherwise known as the English Language in Public Schools Initiative (Goldenberg & Wagner, 2015; Linton, 2007). As reported by Linton, it is required in this initiative that:

1.   all public school instruction will be conducted in English;

2.   parents or guardians may waive the English requirement if they are able to show that a child already knows English, has special needs or would be more likely to learn English in a more precipitous manner through an alternate instructional technique;

3.   children who are not fluent in English will receive intensive, sheltered English education, usually for not more than a period of one year:

4.   the State of California will provide $50 million per year for ten years to fund programs that provide children with English tutoring:

5.   parents or guardians may file enforcement suits. (pp. 116–117)

The result of the California Proposition 227 has been the outright abandonment of bilingual programs in some schools in the state (Kim et al., 2015; Soltero, 2004). Stritikus and Garcia (2000) provided three responses to the legislation:

1.   outward defiance: Some educators who opposed the law immediately sought waivers;

2.   clarification: Some educators saw the law as a way to clarify their mission, and sought to adopt English-only policies; and

3.   anxiety in the face of a change in the overall climate: There were areas of great confusion as the result of ideological differences across districts, schools, and teachers. (p. 80)

In a five-year study report, conducted by the staff of the American Institute (2006) on the efficacy of Proposition 227, it was maintained that the focus of the law is on the wrong issue:

Based on our overall achievement findings, we conclude that Proposition 227 focused on the wrong issue. It is not the model of instruction employed, or at least not the name

given to it, but rather other factors that are much more operative in distinguishing

between failure and success with ELLs. (American Institute, 2006, p. VII-2)

The authors of the report also point to staff training and a culture of acceptance of dual language

education as a key factors in success of bilingual programs.

The factors which do appear to be important are staff capacity and ongoing training, a

shared vision for LEP students, curriculum and instruction targeted toward LEP students'

progress, systematic assessment, school and classroom organization around supporting

LEP students' progress, district support of the instruction of LEP students, community

outreach to increase the LEP parents' involvement in their children's education,

resources, and technology to support instruction. (American Institute, 2006, p. IV-18)

Wightman (2010) pointed out that some educators have advocated that instruction should

be conducted in the students' target languages only and not in their L1 in the classroom. In this

direct method, it is assumed that instruction in the target language leads to greater language

acquisition. Cummins (2007) cited the Lucas and Katz (1994) study, in which several ways were

identified in regard to how the students' L1 could be integrated into the classroom for useful

instructional purposes. Language parochialism and language elitism are clearly reflected in both

the Arizona law and the California Proposition 227 through the emphasis on instruction to be

conducted only in English (Gandara & Orfield, 2012).

Ray (2009) supported the work of Cummins (2007) and identified the key phenomena

that provide a basis for this resistance to language learning and which prevent it from being a

vital part of the U.S. educational system. Language parochialism exists, in which

multilingualism is perceived as unnecessary and, in some cases, there is a very low regard for the

acquisition of a second language. Additionally, in language elitism, which is clearly present in

Proposition 227, it is held that it may be a worthwhile accomplishment for an English speaker to learn a second language, but immigrants are expected to give up their first language in order to learn English. Also, in Proposition 227, there is support for language restrictionism, in the attempt to legally limit the teaching of a second language (Ray, 2009).

Another common criticism of dual language instruction programs is that the pedagogical practice of language translation from the L1 to L2 has no place in teaching target languages. However, Manyak (2004) found that translation is a helpful method for the development of biliteracy. A similar criticism of dual language immersion classrooms is that the languages should be kept rigidly separate or sheltered from one another. Mixing the two languages or having a multilingual teacher is seen as unnecessary. This misperception has been answered by numerous researchers (Barrow & Markman-Pithers, 2016; Cheng et al., 2010; Cummins, 1978, 1981, 2007; Fraga, 2016; Genesee & Jared, 2008; Imhoff, 1990; Lazaruk, 2007; Snoek, 2016; Thomas & Collier, 1996; Vandergrift, 2006), especially in the area of linguistic interdependence, in which instruction in the L1 language assists with the development of the skills needed for the L2 language (Sibanda, 2017).

Goals and Characteristics of Effective Programs

There are three common goals in effective two-way immersion programs. The purposes of these goals are: (a) to assist ELLs achieve academically in the U.S. educational system, (b) to promote foreign language acquisition, and (c) to promote linguistic and ethnic equity among students by helping them bridge the chasms created by diversity in educational institutions (Lopez & Franquiz, 2009; Palmer, 2008; Ray, 2009; Sheng et al., 2011; Soltero, 2004).

Jong and Howard (2009) identified the three essential characteristics which define two-way immersion programs. First of all, they are considered enrichment programs, not remedial

programs. Two-way immersion programs should not be considered remedial programs; instead, they provide a rich cultural foundation for the diffusion of culture and language within a school. Secondly, in two-way immersion programs, normally, there are an equal number of English-proficient students and ELLs enrolled in classrooms. The integration of these two groups throughout most of the instructional day allows interaction and collaboration among students of different cultural and linguistic backgrounds (Ballinger & Lyster, 2011; Borrero, 2015; Hickey, 2007; Snoek, 2016; York-Barr et al., 2007). Finally, an equally important characteristic of two-way immersion programs is that instruction is delivered in both languages throughout the day; literally, students are immersed in dual languages (Jong & Howard, 2009).

Alanis and Rodriguez (2008) described the framework for successful implementation of two-way immersion programs, which included: (a) administrative and home support; (b) an appropriate school environment; and (c) high-quality instructional personnel, who have access to professional development programs. Hickey (2007), in reference to the efficacy of immersion programs, concluded that, without the proper framework for the implementation of an immersion program, the success rate decreases. Also, Hickey reported that teacher training and appropriate curricula are essential if two-way immersion programs are to be successful (Chen & Yang, 2017). Brosh (1996) surveyed over 400 L2 teachers and found that command of the target language and the ability to organize and communicate that information were vital characteristics of the effective language teacher.

Heining-Boynton and Haitema (2007) stated that "We have known for decades from educational psychology research that the teacher is one of the most important parts in the equation for students' success in and their attitudes toward school" (p. 165). Teachers have a notable influence on the achievement of all students, but this level of importance is intensified in

work with ELL students (McFeeters, 2017; Rodriguez et al., 2009; Skepple, 2014). Teachers contribute to the formation of the students' cultural identity in the classroom and help students cope with the marked change experienced when an ELL student enters a classroom dominated by a foreign language. Because of this, appropriate teacher training is a necessity for student success (Kumashiro, 2015; Washburn, 2008).

In a study of 227 teachers who had either served or would likely serve ELL students in the Midwestern region, Karathanos (2010) found that teachers without specific ELL training were more likely to entertain misperceptions about issues related to ELL education. For example, they may hold less supportive attitudes as well as negative stereotypes toward ELL students. Karathanos (2010) called for further training for teachers involved with ELL students.

One method that has been shown to be effective for teacher training is sheltered instruction. Generally, sheltered instruction in the classroom refers to a classroom in which many or all of the students are ELLs (Calderon & Zamora, 2014; Short et al., 2011; Soltero, 2004). In sheltered classrooms, ELL students are provided with temporary and transitional instruction as they acquire a second language (Campbell, 2011). The Sheltered Instruction Observation Protocol (SIOP) model was developed with this type of classroom in mind, and it was based on the findings from a seven-year research study (1996–2003; Campbell, 2011). According to Short et al. (2011), the goal is for teachers to present curricular concepts in a comprehensible manner to ELL students, and teachers are encouraged to connect previous knowledge from their heritage language to the current course of study (Varela, 2010). Use of the SIOP provides teachers with a framework for English language instruction in a sheltered environment that promotes achievement (Krulatz, 2014).

The act of learning is not simply the accumulation of new information. In order for learning to move into the realm of understanding, what is required is that students begin to build on the information that they already possess (Cummins, 2007; Krulatz, 2014; Zeichner et al., 1998). Participation in two-way immersion programs allows students of diverse backgrounds and cultures the opportunity to build upon their previous knowledge and understanding through the integration of both their native tongue and their second language in the classroom (Krulatz, 2014; Soltero, 2004). In two-way immersion programs, there is an additive approach to education, in which previous knowledge and skills are valued. New information in the form of a new language is added to previous knowledge (Ray, 2009; Wagner, 2015). This type of education fits well with the concept of co-construction, where teachers and learners actively collaborate to build ideas (Black, 2004; Krulatz, 2014).

The goal of SIOP is to integrate strategic practices into lesson planning that make concepts comprehensible for ELL students (Short & Echevarria, 2005). These consist of: (a) the inclusion of language objectives in every content lesson, (b) the development of students' background knowledge, and (c) an emphasis on literary practice. Echevarria, Short, and Powers (2006) and Short et al. (2011) demonstrated promising results in regard to students' enhanced language achievement and the quality of instruction.

Cho and Reich (2008) conducted a survey of six ESL-centered high schools and found that teachers, who had ELLs in their classrooms, needed bilingual instructional materials first, immediately followed by professional training development. Teacher training, school environment, a program grounded in sound theories, and cooperative learning have been identified as characteristics present in effective programs (Genesee et al., 2005; Lopez & Franquiz, 2009; Rodriguez et al., 2009; York-Barr et al., 2007). An appropriate academic

environment, professional development, and an understanding of linguistic theory are all vital to success in a two-way immersion program (Chen & Yang, 2017).

Instructional Models in Two-Way Immersion Programs

Lopez and Franquiz (2009) identified three distinct options in bilingual education: (a) transitional, (b) maintenance, and (c) two-way bilingual programs. Transitional programs are designed to use native language as a means to English instruction. In transitional programs, students are normally graduated to a non-bilingual program after a few years. In a maintenance program, the goal is to maintain both languages; however, instruction in the native tongue gradually decreases over time, as students become more proficient in their L2. In two-way immersion programs, both native English speakers and non-English speakers are in the classroom together. Students are grouped together in order to promote linguistic achievement in both languages. Immersion programs are one of the few bilingual educational formats in the U.S. that are focused directly on the achievement of bilingualism.

Usually, two-way immersion programs fall within three categories in terms of instruction time in the native and the learned language. In each of these models, Bougie, Wright, and Taylor (2003) found that early entrance into a bilingual program correlated directly to academic success. One type of immersion program is the 90/10 model (Tran et al., 2015). In this model, educators utilize a system in which students gradually progress to increased use of English instruction in the classroom. Typically, this type of program commences in kindergarten with a progressive increase in English instruction throughout the day. Students' progress from 90% of instruction in their native tongue and 10% in English to 80/20, 70/30, 60/40, and eventually, by the time they reach the last few years of elementary instruction, to 50/50. In this model of instruction,

heavy emphasis is given in the first few years to the native tongue, and English is developed incrementally (Scanlan & Zehrbach, 2010, Tran et al., 2015).

In another model of two-way immersion, instruction time is equally divided between the native tongue and English in the classroom. This type of immersion program is referred to as a 50/50 program (Cummins, 1998; Tran et al., 2015).

A third and less common model of immersion is the two-way partial immersion program (Gort, 2008). This type of program is different from the more common models, in that, students begin in a 75/25 ratio of native to target language. Initially, students receive instruction in their stronger language and are gradually given increasing amounts of instruction in their L2 language until a 50/50 ratio is attained by the fourth grade.

French Immersion

In the U.S., there is a predominance of English/Spanish two-way immersion programs (Ballinger & Lyster, 2011; Genesee et al., 2005; Karathanos, 2010). Also, French immersion programs, similar to English/Spanish immersion programs, provide students with notable linguistic, academic, and cognitive benefits. Lazaruk (2007) reported that participation in French immersion programs provides students with the skills necessary to be proficient in their L2 by the end of high school. St-Hilaire (2005) indicated that the provision of French immersion programs has helped to prevent the extinction of the language in French-speaking areas in the U.S. In addition, the use of these programs can help to ensure that French culture and language will be preserved (Stein-Smith, 2017).

The first French immersion program was introduced in St. Lambert, Quebec, Canada in 1965 (Cheng et al, 2010; Genesee & Jared, 2008; Macintyre et al., 2011). The goal of the program was to educate English-speaking students in French. The success of this program has

led to over 300,000 students being enrolled in immersion programs in Canada (Genesee &

Jared). In 2013, over 377,000 students in Canada were enrolled in French immersion programs

in elementary and secondary schools (Miller, 2013).

In the early 1960s, Quebec underwent a social transformation as *Francophones* began to

express interest in having more control over their social and political futures (Roy & Galiev,

2011). The result was the emergence of French immersion programs. As the number of English-

only speakers began to dwindle in Quebec, increasing numbers of young people were interested

in learning the French language to compete in the market. There were four immediate goals for

these French immersion programs:

1.   to permit students to become functionally competent in oral and written French in

Canada;

2.   to permit and sustain the development of the first language (which in most cases

was English) in Canada;

3.   to permit students to learn content appropriate to their age and school level in

Canada; and

4.   to help Anglophone students develop an understanding of and respect for the

Francophone culture and language, while also retaining their own culture and

identity in Canada. (Roy & Galiev, 2011, p. 355)

The goals of French immersion correspond with the goals of immersion programs in the US, that

is, to ensure the development of a new language and to develop cultural competence.

Since the inception of French immersion programs in the 1960s in Canada, several

options have become available to parents (Cooke, 2009; Lewis, 2016; Makropoulos, 2010b). In

early French immersion programs, equal instruction in both the L1 and L2 are provided until

students start middle school. In early French immersion programs, parents are given the option

to enroll their children in a program that provides instruction in both the L1 and the L2

throughout the early elementary years (Cooke, 2009; Makropoulos, 2010b). Middle French

Immersion programs are offered in Grades 4–5 and focused on students from English programs;

usually, they provide equal instruction time in both English and French. Late French Immersion

programs are offered to students in late middle school (e.g., Grades 7–8), and 75% of the

instruction time is in French. Finally, Secondary French Immersion programs are offered to

students in Grades 9–12 (Cooke, 2009; Makropoulos, 2010b).

     The use of French immersion programs has been shown to be effective in the promotion

of student competence in French and to inculcate a positive attitude in students in regard to

preservation of the language (Makropoulos, 2010a; St-Hilaire, 2005). The need for study in

world language programs in the U.S. (i.e., other than the dominant Spanish/English) has been

demonstrated by numerous researchers (Bearse & de Jong, 2008; Genesee & Jared, 2008;

LeClair et al., 2009; Soderman & Oshio, 2008).

     Researchers (Genessee & Jared, 2008; Lazaruk, 2007) continue to show the efficacy of

French immersion programs to accomplish many of the same goals as English/Spanish

immersion programs. Wesely (2009) stated, "language immersion programs have been

identified as one of the most effective language learning program models in schools, with the

potential to provide considerable academic and educational benefits to their students" (p. 270).

Lazaruk (2007), in his support of French immersion programs, cited a Canadian study (Turnbull,

Lapkin, & Hart, 1998) in which it was found that 15-year old-students who were enrolled in

immersion programs performed at a higher level of English proficiency than their nonimmersion

counterparts. This finding supported Cummins's (1978; 1981) linguistic interdependence

hypothesis. Students are prone to transfer language skills from the majority to the minority language, and instruction in French has been shown to assist in language proficiency without undermining competence in the first language (Cheng et al., 2010; Genesee & Jared, 2008).

The interdependence of linguistic skills is the underlying premise of immersion education. Lazaruk (2007) emphasized this important point and noted, "French language instruction can, therefore, be understood as developing not only French language skills but also a deeper conceptual and linguistic proficiency that contributes significantly to the development of literacy in the majority language" (p. 614). In a study of French immersion students, Roy (2012) found that students in French immersion programs were able to successfully learn the language despite the challenges of differing French dialects (e.g., Quebec, Northern Ontario, Manitoba, and New Brunswick).

Genesee and Jared (2008) concluded that students' greater exposure to French improved their standardized testing scores and helped them to achieve higher levels of French proficiency than their counterparts in non-immersion programs. Cheng et al. (2010) found that French immersion students demonstrated academic success in reading, writing, speaking, and listening comprehension in English, as well as French. The benefits of French immersion translate both ways across the linguistic barriers for both English and French (Cummins, 1978, 1981).

Deacon et al. (2009) studied 76 native English-speaking seven-year-old students enrolled in a French immersion program. The purpose of their study was to determine whether orthographic processing transferred across languages to reading. Their findings showed that orthographic processing transferred across the two languages for students enrolled in French immersion program. This transfer occurs because both French and English are based on the same alphabet, which allows for orthographic processing to transfer between the languages. The

Deacon et al. findings supported previous research (Cummins 1978, 1981), which showed that

the acquisition of a second language assists the student in the development of the native

language.

Lapkin, Mady, and Arnott (2009) suggested that ELL students would benefit from

participation in French Immersion Programs, because of the linguistic interdependence theory

(Cummins, 1978, 1981, 1998; Sibanda, 2017). Also, the researchers advocated the use of

collaborative activities and project-based learning with students in order to increase their overall

improvement in both languages. Students who are learning a foreign language use a variety of

paradigms to understand how their particular language works, and as a result through linguistic

interdependence they better understand how their native language functions.

Macintyre et al. (2011) studied more than 100 French immersion students, ages 12–14,

enrolled in a late entry immersion program in Canada and found that willingness to communicate

in the L2 language was most likely to happen in an immersion setting. The researchers found

that students were more willing to communicate in safe environments, where they would not be

criticized by their peers about their level of language acquisition. Macintyre et al. (2011)

emphasized the importance of immersion contexts: "The young learners enjoy speaking with

their peers, especially if they form a secret club to control communication, but they prefer not to

speak French to peers in a situation that brings unwelcome attention to their status as immersion

students" (p. 93).

The research into Canadian French immersion programs suggests that the results are

similar to those found in U.S. immersion programs. That is, overall, students' academic

achievement is improved when they participate in an immersion program (Alanis & Rodriguez,

2008; Cummins, 1981, 1998; Lindholm-Leary, 2004; Lindholm-Leary & Block, 2010; Tran et al., 2015; Zhang-Wu, 2017).

Most of the French research studies from Canada were focused on similar issues to those found in U.S. immersion programs. Primarily, the topics were focused on: (a) issues of cultural identity and appreciation, (b) proficiency for students in both their L1 and L2 language, and (c) the overall academic performance of students (Au-Yeung et al., 2015; Lazaruk, 2007; Makropoulos, 2010a). A survey of this research showed a similarity with U.S. research into immersion programs. Students engaged in immersion programs in either country experienced enhanced educational opportunities. The immersion programs in both Canada and the US are based on Cummins's (1981) linguistic interdependence theory, which is the premise of this current study (Chiang & Rvachew, 2007; Cummins, 1981, 1998; Deacon et al., 2009; Flood et al., 1997; Miano, Bernhardt, & Brates, 2016; Scanlan & Zehrbach, 2010; Sibanda, 2017; Howard et al., 2003).

Language Proficiency

Second language development has multiple academic and social advantages and, according to Jong and Howard (2009), two-way immersion classrooms are "the ideal context for second language development" (p. 85). Multilingualism and assimilation are two specific goals of education, both of which are supported and amplified through the use of two-way immersion programs (Jong & Howard, 2009). This is primarily due to the context of meaningful interaction between culture and language that is provided in a two-way immersion classroom. Barriers toward other cultures and other languages are removed in two-way immersion programs, and this allows students to have a greater appreciation of other cultures (Borrero, 2015; Howard et al., 2003).

Language practices are promoted through students' participation in a two-way immersion classroom in unique ways that would be impossible in another context. In this model, peers can serve as guides in the classroom where cross-cultural and linguistic help is provided (Ballinger & Lyster, 2011; Gort, 2008; Russell & Kuriscak, 2015; Scanlan & Zehrbach, 2010). In order to achieve the appropriate linguistic goal of the development of bilingualism through the use of an immersion program, researchers (Genesee et al., 2005; Kumashiro, 2015; Lopez & Franquiz, 2009; York-Barr et al., 2007) have shown that the context provided for the transmission of languages is extremely important. Marginalization of the native or dominant tongue is possible in two-way immersion programs (Mejia-Smith & Gushue, 2017). Therefore, Hickey (2007) recommended the provision of appropriate professional development to educators, and the curriculum must be established in such ways as to avoid marginalization of the native tongue (Genesee et al., 2005; Lopez & Franquiz, 2009; Russell & Kuriscak, 2015; York-Barr et al., 2007). This can be achieved through partnership with the parents of the children, as well as the classroom school personnel, in order to ensure that both languages are given equal opportunity for development. Dual language programs provide a unique context in which equity can be maximized. Alanis and Rodriguez (2008) stated that "the power of a dual language program is not just in its additive nature, but in the pedagogical equity that exists for both language groups" (p. 316).

Academic Achievement

Numerous researchers have looked at the effect of attitudes and perceptions of language learners and how they correlate with several variables including enjoyment (Brantmeier, 2005), as well as academic proficiency (Brantmeier, 2005; Donato, Tucker, Wudthayagorn, & Igarashi, 2000; Fraga, 2016; Graham, 2004; Mills, Pajares, & Herron, 2007; Padilla et al., 2013). The

findings from these studies indicated that access to dual language education has noticeably positive effects on the student. The issue of dual language research has also been affected by the passing of the NCLB in 2001. The NCLB represents a federal attempt at standards-based educational reform (Bloomquist, 2009).

The NLCB, which was passed in 2001, has been both lauded and highly criticized (Bloomquist, 2009; Hewitt, 2011). The goal of the law was to mandate educational accountability across the nation and ensure that high levels of academic rigor are achieved (Good, Masewicz, & Vogel, 2010). However, the NCLB is not without its share of critics, who pointed out that the claimed educational gains, which the NCLB was to bring about, did not hold up when studied critically (Giambo, 2010). In addition, recognition of the importance of foreign language acquisition as a core subject was specified in the NCLB (Stewart, 2005). Numerous researchers have demonstrated that students' study of foreign language improves cognitive abilities and results in higher test scores (Alanis & Rodriguez, 2008; Jong & Howard, 2009; Marian et al., 2013; De La Garza, Mackinney & Lavigne, 2015; Scanlan & Zehrbach, 2010; Thomas & Collier, 1996). At the core of the NCLB was accountability for schools. While this Act has been lauded and criticized, there is a written statement about the necessity for educational administrators to provide a comprehensive program for the education of students from diverse language and cultural backgrounds.

Academic Achievement in Dual-Language Immersion

The purpose of dual-language immersion programs is to provide a context for learning, which will be beneficial to students' acquisition of the L2 and to provide a place for the improvement of attitudes toward both new languages and education as a whole (Zhang & Hu, 2008). Attitudes are not merely held opinions that shape one's decisions; they represent

psychological constructs that shape and mold lifestyles (Heining-Boynton & Haitema, 2007). Fazio (2000) explained that attitudes not only shape one's lifestyles, but they facilitate decision making, in that, values can be assigned to the categories of like and dislike, which enable the decision maker to quickly assess whether that particular decision would bring fulfillment or disappointment.

Davies and Brember (2001) demonstrated that student attitudes toward education can become negative over time. Earlier, Haldyna and Thomas (1979) surveyed more than 3,000 elementary students and found that, as students progressed from Grades 1–8, their attitudes generally declined correspondingly through the grade levels.

Heining-Boynton and Haitema (2007) conducted a survey of elementary students in a foreign language program to determine whether their attitudes toward their education would improve or decline based on their being involved in a language learning program. They concluded that these elementary students' attitudes toward the program declined as they progressed; however, in a follow up study of high school students, who completed the elementary program and continued in a foreign language study program, they found more positive attitudes toward it. Based on their findings, these researchers called for further study into the significance and effectiveness of long-term language study and its influence on students' attitudes toward academics and their overall achievement.

Two-way immersion programs actually improve the overall attitude of students and their achievement in academics. While the previously mentioned studies (Davies & Brember, 2001; Haldyna & Thomas, 1979; Heining-Boynton & Haitema, 2007) showed that attitudes toward education generally decline, numerous researchers has found that students' participation in two-way immersion programs can improve academic achievement (Cheng et al., 2010; de Jong,

2014; Fraga, 2016; Jong & Howard, 2009; Lindholm-Leary, 2004; Lindholm-Leary & Block, 2010; De La Garza et al., 2015; Marian et al., 2013; Nasciemento, 2016; Padilla et al.; Scanlan & Palmer, 2009; Scanlan & Zehrbach, 2010; Tran et al., 2015). In their review of the literature, Genesee et al. (2005) reported that the academic achievement of bilingually educated students was at or above the achievement of their monolinguistic peers. Specifically, in reading and mathematics achievement, bilingual students achieved at or above their monolinguistic peers. In addition, the researchers found that bilingualism and biliteracy were positively related to overall academic achievement. These findings seem to indicate that participation in two-way immersion education has an overall positive effect on students' attitudes toward education (Genesee, 1987).

Thomas and Collier (2002) analyzed 700,000 student records to track the long-term educational achievement of ELL students in five different school districts. The findings showed that long-term support in both languages was correlated directly to the seven years that it takes to achieve language proficiency, which was necessary to close the achievement gap between ELL students and their peers on standardized testing. The findings for this achievement gap supported previous research, which showed that it takes an average of five to seven years to attain proficiency in a foreign language (Barrow & Markman-Pithers, 2016; Cho & Reich, 2008; Cummins, 1981; Giambo, 2010; Genesee et al., 2005; Lindholm-Leary & Block, 2010; De La Garza et al., 2015; Thomas & Collier, 2002; Wagner, 2015; Wightman, 2010; Young et al., 2008). Two-way immersion programs were found to be the most effective programs for highest long-term positive effects on student academic achievement (Thomas & Collier, 2002).

In a similar large-scale study ($N = 142$), conducted by Lindholm-Leary and Borsato (2001), it was found that the students in an English/Spanish two-way immersion program performed at or above grade level in content areas, in both their first and second languages.

Also, notable transference of knowledge across language bases was detected in the study; this was strong evidence for knowledge being transferred from one language to another (Cummins, 1978, 1981).

In a comprehensive review of the research, Howard et al. (2003) cited multiple examples from smaller scale studies (Christian, 1994, 1996; Genesee, 1987; Howard et al., 2003; Lindholm-Leary, 2000, 2001), which clearly showed that academic achievement among bilingual and two-way immersion students is consistently as high, or higher than their monolingual peers. These findings are an indication that the use of two-way immersion has a positive effect on students' academic achievement, a key benefit of two-way immersion education.

Standardized Testing

English language learner students face an uphill battle when confronted with the reality of high stakes standardized tests. The NCLB Act (2001) made standardized testing a new reality for students as a way to ensure that they met national standards. Rodriguez et al. (2009) stated, "Since most ELLs have underdeveloped literacy skills in English, these demands put ELLs at a great disadvantage" (p. 515). Alanis and Rodriguez (2008) conducted a study of 321 ELL students, most of whom were economically disadvantaged and enrolled in an urban school setting in Texas. The researchers found that the length of time spent in a bilingual language program correlated positively with student academic achievement. Mathematics scores were consistently as high, or higher than their peers, on the English Texas Assessment of Knowledge and Skills. In the area of reading, the findings indicated that enrollment in the dual language program did not impede the students' acquisition of English or their English academic achievement. These findings confirmed previous research findings, which showed that the

length of time in a two-way immersion program is vitally important to achieve the desired results (Au-Yeung, et al., 2015; de Jong, 2014; Giambo, 2010; Genesee et al., 2005; Lindholm-Leary & Block, 2010; Marian et al., 2013; Padilla et al., 2013; Rocque et al., 2016; Thomas & Collier, 2002; Valentino & Sean, 2015; Young et al., 2008).

To determine the effectiveness of dual language education, Lindholm-Leary and Block (2010) collected data from 659 Hispanic students in four schools and included the students' scores on the English Language Arts and Mathematics subtests for the California Standards Test. The researchers concluded that Hispanic students, who participated in a dual language program, achieved at or above the level of their peers on the standardized tests. Further, those students enrolled in a 90/10 program, who did not receive a notable level of second language instruction until later years in the educational process, were not impeded by their lack of L2 instruction. Based on these studies, student participation in dual language programs has a direct positive effect on the academic achievement of students enrolled in the program (Lindholm-Leary & Block, 2010).

Dual-language immersion has been shown to be an effective promoter of academic achievement across cultural and linguistic barriers as well. In a study of English immersion students in three Chinese schools, Cheng et al. (2010) found a significant ($p < .05$) correlation between English immersion and academic achievement among Chinese students. In their study of over 900 students in three different educational settings (i.e., a private boarding school, and two public elementary schools), the students, who participated in English language immersion, performed better not only in linguistic categories, but in mathematics as well. Not only did these immersion students outperform non-immersion students, but they retained their primary language as a result of the immersion program.

Accommodations for ELL Students

Because of the difficulties which are associated with language acquisition, it is necessary to provide extra attention and accommodations for ELL student if they are to be successful in the classroom. Some of these accommodations have included: (a) sheltered English instruction (Campbell, 2011; Short et al., 2011); (b) ESL classes; and (c) dual language (e.g., transitional or maintenance) programs (Rodriguez et al., 2009). Students, who acquire a second language, face multiple difficulties which extend beyond the academic sphere. Lee et al. (2007) reported that, often, ELL students have feelings of loss of safety, alienation, and depression. Test anxiety, a psychological condition, which can entail distress before, during, or after an exam also affects ELL students because of their lack of confidence in their knowledge of the material (Du, 2009).

Researchers for NAEYC (1996) emphasized the need for teachers to acknowledge these feelings of helplessness in a foreign language classroom, in order to ensure that ELL students are able to achieve at standardized levels of achievement. The educator should encourage dialogue with students and parents and recognize the loss of familiarity and culture on the part of the ELL student.

Accommodations for ELL students have been prescribed by several different researchers (Abedi & Hejri, 2004; Jong & Howard, 2009; Palmer, 2008; Sireci, Han, & Wells, 2008; Young et al., 2008). The implicit requirement of English proficiency has led some researchers to suggest that standardized tests for ELL students are not primarily academic content tests. For example, Giambo (2010) noted, "Such [standardized] tests may be rendered tests of academic English proficiency rather than content knowledge tests" (p. 50). The use of bilingual dictionaries in class and during test times has been shown to support learning and, at the same time, the use of bilingual dictionaries helps to bridge the language barrier (Cummins, 2007).

Some researchers recognize that any test, which employs language, is at least in part a test of language skills (Young et al., 2008). In their review of literature on testing accommodations, Sireci, Li, and Scarpati (2003) found that modifications to standardized testing are attempts to reduce variances associated with limited English proficiency. The Florida Comprehensive Assessment Test (FCAT; Giambo, 2010) is used to determine the academic proficiency of high school students, as well as for grade promotion and high school graduation (Nelson, Fairchild, Grossenbacher, & Landers, 2007). For these important reasons, accommodations need to be an important consideration in the evaluation of LEP students (Sireci et al., 2003).

The focus of Giambo's (2010) study was on students in the state of Florida. In Florida, all students are required to pass the FCAT, which includes the more than 2.5 million LEP students enrolled in its schools. Recent FCAT scores have showed a trend of leveling off in Grade 10 reading and mathematics scores for LEP students. These LEP students are provided with some accommodations for the testing, such as: (a) flexible setting, (b) scheduling, (c) limited heritage language assistance, and (d) English/heritage language dictionaries. Despite these accommodations, student test scores in Florida continue to stagnate. Giambo (2010) concluded that the reason for the stagnation of scores is the nature of the standardized tests. Essentially, the tests are English proficiency tests for the students, instead of content knowledge tests.

Since both ELL students and English proficient students are held to the same academic standards under the FCAT, it is important to discuss the reliability and necessity of testing accommodations for ELL students. Sireci et al. (2003) concluded from their meta-analysis that the most important accommodation for ELL students was linguistic modification. Similarly,

Genesee et al. (2005) and Sireci et al. (2008) emphasized the necessity of proper placement of ELL students into proficiency categories.

Young et al. (2008) studied state standards including assessment-based questions in mathematics and science for Grades 5 and 8 during the 2005–2006 school year. The researchers were particularly interested in discovering the reliability, factor structure, and differential items across different groups. The results of their study showed that accommodations for ELL students can be an effective way to equalize standardized testing grade results. The mean scores for ELL students with testing accommodations were higher than those ELL students without accommodations. Also, these researchers found that student access to translation and/or glossaries were effective accommodations, which did not affect the validity of the standardized test. These findings supported the need for accommodations in assessments for ELL students, as ELL students without accommodations generally scored lower than students with accommodations.

Not all researchers have reached the same conclusion. Abedi and Hejri (2004) conducted a similar test to determine the efficacy of accommodations for ELL students. The test involved matching accommodated students with non-accommodated students based on the following criteria:

1.   utilized the same test booklet,

2.   had the same or similar status in regard to the school lunch program,

3.   had the same or similar parent education, and

4.   had the same Title I status.

Abedi and Hejri (2004) showed that that accommodated students performed at the same level as the non-accommodated students. There was no significant statistical difference between the two

groups. However, the researcher**s** did recommend that further study needs to be done in regard to accommodations for LEP students on a broader scale. Standardized testing has become a way of life in education, due in part to NCLB (2001). If ELL students are to be evaluated fairly, some accommodations for standardized testing should be provided in order to ensure that what is being tested is the content and not the ability to understand the language used in the test.

Attitudes Toward Other Cultures

This researcher sought to determine if use of two-way immersion positively affects the ability of students to interact with the members of other cultures. In this current study, the researcher sought to answer the question of whether there was a significant statistical difference in attitudes towards other cultures among students who participated in a two-way immersion program vs. their non-immersion counterparts. Cultural competence is the ability to interact respectfully toward people of different contexts, traditions, and religious beliefs (Gur, 2010). Hess et al. (2007) defined cultural effectiveness as the ability to see the world from a new perspective. In the field of education, cultural competence is helpful for both students and teachers (Molina, 2013). For teachers, it involves the ability to adequately respond to students of diverse backgrounds, while at the same time being able to differentiate among those backgrounds, and preserve the cultural identity of students (Hernandez, 2017). When this skill is lacking in the classroom, conflicts can result from inadequate cultural skills on the part of teachers (Keengwe, 2010; Skepple, 2014).

Sheng et al. (2011) reported that "Integration of cultural understanding into teacher training curriculum serves two purposes: to help ease bias and promote equity and to teach ELL students effectively" (p. 101). Cultural competence for educators does not require conversion or membership in the culture of students, but rather the ability to engage with students of all

cultures and develop awareness and understanding of their particular culture (Gur, 2010; Hernandez, 2017; Krajewski, 2011; Rocque, et al., 2016; Taylor, Gillborn & Ladson-Billings, 2015; Ward, 2003; Zhang-Wu, 2017). Educational institutions are a primary means to transmit both culture and a national sense of identity to students (Linton, 2007). In addition, respect for both linguistic and cultural diversity on the part of the teachers has been shown to be a key factor in successful dual language programs (Skepple, 2014). As the population of students rapidly diversifies, cultural competence becomes a necessary skill, which is vital for effective educators (Hess et al., 2007). Scholars, like Le Roux (2002) and Lovelace and Wheeler (2006), have called upon teachers to begin to develop a deep respect and admiration for cultures that are not their own, which has been echoed by subsequent researchers (Lavandenz & Baca, 2017).

There are more than 4 million ELL students in U.S. classrooms, most of whom spend the majority of their day in a mainstream English-only classroom (Beebe & Nishimura, 2016; LeClair et al., 2009). These students bring with them not only another language, but also a diverse culture (Feinauer & Whiting, 2014; Hernandez, 2017). Language itself is embedded in a culture, a culture that is often unintentionally transmitted in the classroom (Bodycott, 2006; Kumashiro, 2015; Lavandez & Baca, 2017; Le Roux, 2002; Manyak, 2004; Molina, 2013; Skepple, 2014; Xiao-Yan, 2008). This unintentional transfer of culture may be an unintended judgment on the culture itself (Cummins, 1998).

Xiao-yan (2008) described a 1918 report in the British journal, *Modern Studies*, which was one of the first to identify cultural competence as a progressively important skill. Since that time, many educators have become more insistent on the importance of cultural competence in the classroom. Understanding backgrounds and the history of other nations has become increasingly important (Lopes-Murphy, 2016). Cultural education has evolved over the years,

beginning with the work of Brooks (1964), who advocated that language learning should include not only linguistics, but also knowledge of the country and culture embedded within that language (Senokossoff & Jiang, 2015).

In the early 1970s, Savignon (2003) focused on the issue of communicative competence, which consists of: (a) expression, (b) interpretation, and (c) negotiation of psycholinguistic and sociolinguistic perspectives in the acquisition of a second language. It is necessary that the format of curricula reflect the learner's perspective and needs in order to effectively cross the linguistic and cultural bridges. Communicative competence is primarily focused on the learner, which implies that researchers should direct their efforts toward the quality of learner achievement, as opposed to the quantitative achievement of the language learner (Savignon, 2003).

Bodycott (2006) presented two primary models for literacy learning in the classroom. In the transmission model, based on the theories of Carroll (1963) and Skinner (1957), students are perceived as empty vessels into which teachers pour information. According to this model, students must learn bits and pieces of information, which are broken down into small isolated parts by teachers. Once these small pieces of information are put together, students are able to join them into a more cohesive whole. The primary skills must be mastered early in the educational process. This, then, leads to mastery of a wider range of skills in this model.

In the constructivist model, students learn primary skills, such as writing, as they are being immersed in a social environment (Bodycott, 2006). According to this model, teachers do not hand down information into pieces to impart to students, but rather "teachers facilitate the learning process by selecting content based on student interests and needs and creating a

classroom environment in which open-ended questioning and social interactions feature"
(Bodycott, 2099, p. 209).

In a constructivist model, teachers must be adequately prepared for cultural differences in the classroom. Issues arise when a student's cultural experiences in the classroom directly conflict with the culture experienced in the home (Chiatula, 2015). This can result in a barrier to student learning, if a teacher is unaware of the cultural processes that, unwittingly, are displayed in the classroom (Brown, 2009; Kumashiro, 2015). Students enter the classroom with a body of knowledge uniquely influenced by their background and culture; this knowledge is most effectively utilized only when teachers are cognizant of learner backgrounds and use effective pedagogical practices to build upon this knowledge (Bodycott, 2006; Krajewski, 2011; Snoek, 2016).

In recent studies, including Brown (2007) and Gay (2002), many researchers use the term, culturally responsive teaching, that is, classroom instruction should be conducted in a manner that is similar to the students' home cultures (Gist, 2014; Sheng et al., 2011). Culturally responsive teaching is best characterized by respect for all cultures, and the creation of a safe learning environment (Chen & Yang, 2017). Teachers, who utilize this form of cultural engagement, are able to improve the academic achievement of their students, as found by many researchers (Brown, 2007; Chen & Yang, 2017; Gay, 2002; Genesee, 1987; Han et al., 2014; Keengwe, 2010; Lovelace & Wheeler, 2006; Makropoulos, 2010b; Rizzuto, 2017; Tran et al., 2015; Wlodkowski & Ginsberg, 1995; Zeichner, et al., 1998; Zhang-Wu, 2017). Also, Decapua and Marshall (2010) suggested that culturally competent teachers are more effective in building a sense of community in the classroom. Reyes and Vallone (2007) maintained that students may

develop a hyper awareness not only of other cultures, but also their own culture. This awareness is another positive outcome of culturally responsive teaching (Baldwin, 2015).

Bilingual teachers need to recognize the subjective nature of second language learning and its subjective influence in the classroom in regard to culture (Bodycott, 2006; Decapua & Marshall, 2010; Evans, Arnot-Hopffer, & Jurich, 2005; Hamayan & Damico, 1991; Hess et al., 2007; Hernandez, 2017; Sheng et al., 2011; Skepple, 2014). A bilingual teacher can improve the cultural diversity in the classroom; however, such an improvement does not necessitate full cultural awareness on behalf of that teacher (Baldwin, 2015). Both monolingual and bilingual educators need to carefully consider how their own cultural contexts have shaped their pedagogical practices (Hernandez, 2017; Soderman & Oshio, 2008). Increasingly, there are calls for training for teachers to recognize the importance of cultural competence in the classroom (Baldwin, 2015; Bodycott, 2006; Chen & Yang, 2017; Good et al., 2010; Han et al., 2014; Hess et al., 2007; Keengwe, 2010; Skepple, 2014). The ACTFL (2012) was established to improve the teaching and learning of foreign languages in the classroom. Through their yearly reports and standards, educators are able to evaluate the effectiveness of second language teaching in the classroom.

Culturally competent teachers understand differences among cultures and devote appropriate attention to the distinct differences (Lessard-Clouston, 2016; Molina, 2013). In an individualistic (i.e., Western) culture, personal attributes, traits, and achievements are emphasized (Decapua & Marshall, 2010). However, in many non-Western cultures, a collectivist orientation is present. This does not mean that completely dichotomous learning styles must be utilized, but it clarifies the emphases, which differ across cultures.

In immersion programs, collaboration between cultures is evident in the classroom in order to provide students with the opportunity to build upon their previous cultural knowledge (Ballinger & Lyster, 2011; Ray, 2009; Simons, 2014; York-Barr et al., 2007). Immersion classrooms with their rich mix of students from differing cultures provide unique opportunities for students to enrich one another's understanding of cultures not their own (Molina, 2013; Rocque et al., 2016).

Zeichner et al. (1998) identified distinct ways teachers can build upon learner knowledge and, thereby, transform their own pedagogical practices. In order for this transformation to occur, the following cultural awareness practices should be applied:

1. the selection of materials must be relevant to the student outside of the classroom, and appropriate culture should permeate the curriculum of a culturally diverse classroom;

2. instructional activities should engage students in culturally appropriate ways;

3. new concepts should be clarified based on examples from the students' daily lives. These examples should be culturally relevant;

4. interaction styles need to be understood. The members of different cultures understand appropriate interaction in different ways; and

5. evaluation should be varied in order to allow students to express their knowledge in ways that are familiar to them.

The Zeichner et al. (1998) findings are congruent with findings from other research (Baldwin, 2015; Genesee et al., 2005; Kim et al., 2015; Lopez & Franquiz, 2009; York-Barr et al., 2007), which addressed the characteristics of successful immersion programs. A proper context, well-

trained teachers, and grounding in relevant theory have been shown to be ideal contexts for immersion programs to flourish (McFeeters, 2017; York-Barr et al., 2007).

Educators who endeavor to transform the way teachers present information and make instruction more congruent with students' home cultures enhance the learning of students in the classroom (Washburn, 2008). Research (Kim et al., 2015; Lee et al., 2007; Lessard-Clouston, 2016; Lovelace & Wheeler, 2006; Sheng et al., 2011; Zhang-Wu, 2017) findings indicated that teachers, who employ culturally responsive practices which mirror the home culture of individual students, have a notably positive impact on academic achievement. In addition, the strong support for two languages and cultures simultaneously in the classroom can have a positive effect on social and cultural competence (Alfaro, Duran, Hunt, & Aragon, 2014; Bearse & Jong, 2008; Chen & Bond, 2007; Cullen, et al., 2009; Kim et al., 2015; Lazaruk, 2007; Lopes-Murphy; 2016; McFeeters, 2017; Senokossoff & Jiang, 2015). Effective teachers, who mirror home practices, should also recognize how the students' cultures in their classrooms are organized, and how they, as a member of that culture, process and understand new information (Feinauer & Whiting, 2014; Lopes-Murphy, 2016; Zeichner et al., 1998).

Cultural competence demands the ability to interact respectfully toward people of varying backgrounds (Gur, 2010). This can only be accomplished by a teacher who recognizes how power and the majority shape interaction in the classroom (Carrier, 1999; Cummins, 1998; Drewelow, 2011; Feinauer & Whiting, 2014; McFeeters, 2017; Ovando, Collier, & Combs, 2003; Palmer, 2008; Rodriguez et al., 2009). Also, power can be perceived in regard to the socioeconomic status of students. Students who are of low socioeconomic status tend to struggle academically in comparison to their counterparts who are from higher socioeconomic status (Bloomquist, 2009; Fallon, Okeeffe, Gage, & Sugai, 2015; Sheng et al., 2011).

In the Palmer (2008) study, which was conducted in a two-way immersion school, the researcher emphasized the importance of teachers' understanding of the issue of power and the dominant language in the classroom. Palmer stated, "only a teacher who pays attention to race, class, culture, gender and other forms of 'capital' will approach an equalization of status among students in the classroom" (p. 656). Teachers, in classrooms with students from diverse backgrounds, must develop proficiency in cultural competence in order to adequately ensure that inequality does not exist in the classroom (Lopes-Murphy, 2016). This proficiency can be accomplished through continued teacher education and training (McFeeters, 2017).

Martin and Vaughn (2011) recognized four primary components of cultural competence: "Awareness of one's own cultural worldview, attitudes toward cultural differences, knowledge of different cultural practices and worldviews, and cross-cultural skills" (p. 31). In many cases, this increased cultural competence comes from either extended training offered to the teachers (Genesee et al., 2005; Lopez & Franquiz, 2009; McFeeters, 2017; Washburn, 2008; York-Barr et al., 2007), or from increased exposure to other cultures (Ahmad, 2015; Ballinger & Lyster, 2011; Brooks & Houston, 2015; Hickey, 2007; Lee et al., 2007; Molina, 2013; Ray, 2009; York-Barr et al., 2007). An increase of one's own personal understanding of cultural worldview and bias leads directly to greater intercultural awareness. Intercultural awareness implies that one is aware of the personal local, regional existence (Le Roux, 2002).

In a study conducted by Lee et al. (2007), which was focused on an experienced and culturally diverse teacher, the researchers found that exposure to ELL students was an indicator of diversity, and it supported the cultural development of both the teacher and the student. These researchers identified the inherent benefit of diverse student interaction, as well as the overall benefits of immersion programs. Student interaction not only increases collaboration among

students, but also provides students with unique cultural experiences as they are provided with meaningful interactions with people from other cultures (Ballinger & Lyster, 2011; Chun & Evans, 2016; Feinauer & Whiting, 2014; Fraga, 2016; Ladson-Billings, 2001; Ray, 2009).

Ballinger and Lyster (2011) found, in their study of a Spanish/English immersion program, that the educators' willingness to provide greater cultural exposure to the students precipitated greater interaction in the Spanish language among students and teachers. Earlier, Gort (2008) found, in a study of bilingualism in a Spanish/English program, that exposure to other cultures provided the context for cross-cultural learning. Research studies, such as these, further support the rationale for two-way immersion programs. Greater cultural exposure provides increased cultural competence (Chun & Evans, 2016; Fraga, 2016). Greater exposure to another language can also assist in the development of linguistic interdependence, where exposure to another language helps to develop the native language at the same time (Barrow & Markman-Pithers, 2016; Chiang & Rvachew, 2007; Cummins, 1981, 1998; Deacon et al., 2009; Flood et al., 1997; Howard et al., 2003; Miano et al., 2016; Scanlan & Zehrbach, 2010). Two-way immersion programs are uniquely situated to provide this type of experience for students.

Two-way immersion schools offer the context for the creation of the culturally responsive teachers that Brown (2007) advocated. Two-way immersion students bring with them not only another language, but also another culture (Feinauer & Whiting, 2014; Genesee, 1987; Lapayese et al., 2014). Evans et al. (2005) came to the conclusion that "exposure to diversity lays the groundwork for multicultural growth" (p. 82). Two-way immersion programs can provide a rich environment for the development of a diverse multicultural classroom (Fraga, 2016; Lovelace & Wheeler, 2006).

In a qualitative study conducted by Good et al. (2010), students routinely indicated that poor communication across cultural lines was a notable barrier to their success. The researchers suggested that, in order to remedy this barrier, cultural appreciation and understanding must become a core component of teacher preparation. Further, an increased number of appropriately trained teachers are needed in diverse classrooms to deal with the influx of students from diverse backgrounds (McFeeters, 2017).

Equally important are the development of a diverse cultural base of knowledge, which is further bolstered by cross-cultural communication. The opportunity for cross-cultural communication is clearly more available in a context in which students of diverse backgrounds are grouped together (Molina, 2013; Ray, 2009). According to Ward (2003), the use of a second language in the classroom facilitates teachers' cross-cultural awareness and competencies.

Not only can the use of two-way immersion programs assist in the development of the appreciation of diverse cultures, but students' attitudes toward their own language and ethnicity, as well as those of other groups, are positively affected by two-way immersion programs (Lessard-Clouston, 2016; Stewart, 2005). Lindholm-Leary (2000) found positive effects for students' attitudes toward multiculturalism. The students had favorable attitudes toward other ethnicities, and they felt that meeting students of diverse cultures helped them get along better with other people (Stewart, 2005). An overall enjoyment of the experience of two-way immersion and the cultural benefits of such programs are clearly present in the research (Howard et al., 2003; Miano et al., 2016; York-Barr et al., 2007).

Bearse and de Jong (2008) conducted a survey of students engaged in a two-way immersion program in the Northeast US, which was composed primarily of Brazilian and Hispanic students. The researchers found that students enjoyed the educational experience of

two-way immersion. Also, they recorded their responses, which demonstrated that the Brazilian English-speaking students were more appreciative of two-way immersion, because of the opportunities to make friends with students of other cultures. The Hispanic students, in contrast, saw biculturalism as a natural outcome of their lives. Despite the differences in orientation toward bilingualism, both groups felt very positive about their experiences in an immersion program**.**

It becomes clear from the research that two-way immersion programs provide a unique environment for the development of cultural competence (Senokossoff & Jiang, 2015). Equally important to the context of a two-way immersion program is the efficacy of the teacher in the promotion of culturally responsive students (Kumashiro, 2015). Lovelace and Wheeler (2006) identified several key components that make up a culturally responsive teacher. Culturally responsive teachers recognize themselves as cultural mediators in the classroom. Also, culturally responsive teachers plan instruction with an acknowledgement of the cultural background and ethos of the students in mind (Senokossoff & Jiang, 2015). Culturally responsive teaching is an overarching paradigm, in which cultural differences are perceived as the strengths of diverse students in the classroom. The culturally responsive teacher will utilize the diversity within the classroom to build upon the unique experiences of the students and offer instruction that builds upon prior knowledge. This understanding should permeate the entire curriculum (Krajewski, 2011; Zeichner et al., 1998).

Ray (2009) surveyed four teachers in a dual language school in Texas. The purpose of the study was to identify what factors influenced teacher perceptions in a dual language program. The findings showed that successful teachers in a dual language program shared some vital characteristics. Teachers' experiences in a successful dual language program helped to motivate

them in their teaching. The first-hand experience of watching ELL students master a second language provided a great deal of encouragement and motivation. Also, the teachers in the survey responded that exposure across school lines to different dual language programs had a notably positive effect on their abilities in the classroom. Finally, the experience of a diverse classroom provided the appropriate context for an enjoyable experience teaching at the school.

The findings of Bearse and de Jong (2008), Lindholm-Leary (2001), and Ray (2009) were an indication of the notably positive effects of a dual language program on both students' cultural competence and the importance of culturally competent teachers. The use of a second language in the classroom increases the awareness of other cultures and provides extensive exposure to the traditions and ways of thinking of peoples in different cultures (Borrero, 2015; Jong & Howard, 2009). There is ample evidence, which supports the idea that use of a well-designed two-way immersion program can produce academic, linguistic, and cultural competence achievement among students (Jong & Howard, 2009; Hickey, 2007; Howard et al., 2003; Lindholm-Leary, 2004; Lindholm-Leary & Block, 2010; Linton, 2007; Lopes-Murphy, 2016; Miano et al., 2016; Nasciemento, 2016; Ray, 2009; Reyes & Vallone, 2007; Scanlan & Palmer, 2009; Scanlan & Zehrbach, 2010; Tran et al., 2015; Zhang-Wu, 2017). In an increasingly diverse world, cultural competence becomes more and more important. When the cultural benefits are combined with the positive impact on academic achievement and the positive influence on students' overall self-esteem, two-way immersion becomes a vital tool for language education.

Self-Esteem

Self-esteem has been identified as an overall feeling of self-regard and is closely tied to the value an individual places on him or herself (Baumeister et al., 2003; Isaksen & Roper, 2016;

Khaola, 2014; Kiliç, Erol, & Kiliç, 2011; Mercer, 2008; Wadman et al., 2008; Wightman &

Wesely, 2012). Mercer (2008) pointed out that, often, self-esteem, self-concept, and self-

efficacy are referred to inconsistently or inaccurately. There is a tendency to lump all three

terms together in research (Bum & Jeon, 2016; Isaksen & Roper, 2016). For the purposes of this

research study, self-esteem is defined as an overall feeling of self-regard.

Several researchers (Baumeister et al., 2003; Du, 2009; Hassan, Jami & Aqeel, 2016;

Neugebauer, 2011) have shown a correlation between students' self-esteem and their academic

achievement. Baumeister et al. (2013) found that there is a correlation between self-esteem and

academic achievement. In general, students with high self-esteem do better academically than

students with low self-esteem (Hassan et al., 2016; Rodriguez et al., 2009). Self-esteem is a vital

component of student achievement in academic settings. A high sense of self-esteem is vital for

both English proficient students and ELL students.

In order for educators to improve ELL student performance, it is necessary that they

understand how to improve the self-esteem of both English proficient and ELL students. Self-

esteem is a basic human need, which affects every area of a student's educational experience

(Bum & Jeon, 2016; Wadman et al., 2008). Language is closely tied to the identity of the student

and helps to influence the student's social standing and social membership within academic

institutions (Hassan et al., 2016; Neugebauer, 2011; De La Garza et al., 2015; Wadman et al.,

2008).

For the ELL, assimilation into a new environment, culture, and language can create

barriers to self-esteem (Perez, 2011; Vazquez, 2014). Acculturation is another important

component of international students' adaptation to new environments, which subsequently

affects their self-esteem (Sibley & Brabeck, 2017). Acculturation is defined as: when different

cultures come into continuous contact with each other, and subsequent changes occur in either group as a result of that contact (Perez, 2011). Language is a regulator of the maturation and acculturation process, as reported by Cavazos-Rehg and DeLucia-Waak (2009), who stated that, "throughout childhood and adolescence, language is a vital instrument that aids in socialization and emotional, behavioral, and cognitive self-regulation" (p. 47).

However, several researchers, who studied the correlation between self-esteem and bilingual education, found contradictory results. Moore and Parr (1978) found that bilingual education has a negligible effect on self-esteem. In contrast, Diaz (1983) and Pesner and Auld (1980) found that bilingual education has a positive influence on self-esteem. More recent studies showed a positive relationship between bilingualism and overall self-esteem (Borrero, 2015; Neugebauer, 2011). Huang (1995) examined reading proficiency and self-esteem among more than 1,000 Mexican-American students. The results indicated that those, who considered themselves biliterate, had a higher level of self-esteem than their mono-literate counterparts. Suarez-Orozco, Suarez-Orozco, and Todorova (2008) studied 5,000 immigrants from 13 different countries and found language proficiency to be a significant ($p < .05$) predictor of academic outcome in terms of standardized testing scores. In addition, it was found that emotional well-being was a predictor of academic achievement among second language students.

Cavazos-Rehg and DeLucia-Waak (2009) noted that a greater use of students' primary language can improve not only their academic achievement, but also their self-esteem. Bougie et al. (2003) proposed that primary language education can be an effective tool to increase ethnic identity among students and to improve their overall self-esteem. Participation in two-way immersion education can provide a supportive environment for the use of students' heritage

language, which can improve students' overall self-esteem (Edwards & Roger, 2015; Fraga, 2016; Lopes-Murphy, 2016).

Educators need to be aware of the issue of language dominance, and the effect that it has on learners' perceptions in the classroom. This perception is a vital part of school climate, which was defined by Howard, Howell, and Brainard (1987) as:

> A school's climate is its atmosphere for learning. It includes the feeling people have about a school and whether it is a place where learning can occur. A positive climate makes a school a place where both staff and students want to spend a substantial portion of their time; it is a good place to be. (p. 5)

The learning climate of the school is extremely important because it is connected to the students' overall perceptions of both their own ability, and their belief about the perceptions of their ability by others (Rodriguez et al., 2009). Cohen, Shapiro, and Fisher (2006) identified 10 important dimensions of school climates: (a) environment, (b) structure, (c) safety, (d) teaching and learning, (e) relationships, (f) sense of school community, (g) morale, (h) peer norms, (i) school-home-community partnerships, and (j) learning community.

Self-esteem encompasses not only how students experience their educational environment, but also instructor behaviors and their attitudes toward L2 students (Brown, 2009; McFeeters, 2017; Skepple, 2014). If a student is immersed in a second language program without instruction in his/her native language, the student will be forced into a context in which several adjustments must be made. First of all, the student must adjust to a different culture, which may cause the student to struggle notably in the classroom (Bougie et al., 2003; Cummins, 1998; Edwards & Roger, 2015; Evans et al., 2005; Lopez & Bui, 2014). A lack of self-confidence and a feeling of alienation may develop in students, who are immersed in a new

culture (Lopez & Bui, 2014; Wadman et al., 2008). Hood (2006) asserted that the culture of school, as well as its motivational and emotional landscape, is so integral to students' education that it should be considered an aspect of the content of the curriculum.

An appropriate context can markedly alter students' perception and academic experience (Molina, 2013). It is also important to recognize the effect that environment can have on a student's sense of self. Bougie et al. (2003) reported that heritage language education has a positive influence on a student's sense of self, which can be understood in two categories, the personal self and the social self. The personal identity of a student involves aspects of the individual which makes that person unique. Personal attributes, skills, and experiences set one person apart from another. When these two important aspects of the sense of self are combined, it becomes clear that self-esteem involves not only issues at the personal level, but also the social level as well (Lopez & Bui, 2014). This makes the context in which a child is educated an important component in his or her self-esteem. Individuals in a context of familiarity will be better equipped to make the proper adjustments and acculturate to their new surroundings (Alshenqeeti, 2015; Berry, Phinney, Kwak & Sam, 2006; Hood, 2006; Russell & Kuriscak, 2015).

Students who are able to attend courses in their primary language will also be buoyed by the feeling that their heritage is awarded an equal status with the dominant heritage of the school (Cummins, 1998; Ducar, 2008; Russell & Kuriscak, 2015; Wadman et al., 2008). Students who are divorced from their primary language can come away with the feeling that their heritage language is somehow deficient. This can lead to a loss of self-worth and have a negative effect on their overall self-esteem (Aberdeen, 2016; Bougie et al., 2003; Chen & Bond, 2007; Wadman et al., 2008). In addition, affirmation of the value and status of a culture in the classroom

through second language instruction is beneficial for cultural identity (Aberdeen, 2016; Cummins, 1986; Rodriguez et al., 2009).

One of the first research projects to show the link between native language instruction and student self-esteem was conducted by Wright and Taylor (1995). In their study of kindergarten Nunavik Indian children, a North American Indian group from the Arctic Quebec region, the researchers found that use of heritage language instruction produced increases in personal self-esteem. The researchers indicated a modest in-group bias in native language kindergarten classrooms, which inferred a healthy collective self-image. The incorporation of students' primary language(s) in the classroom reinforces students' cultural identity and promotes both collective and individual self-esteem (Aberdeen, 2016; Borrero, 2015; Bougie et al., 2003; Cummins, 1986; Rodriguez et al., 2009). Beyond a promotion of self-esteem, also, the acquisition of a second-language has been shown to have the power to motivate students who learn a second language (Hood, 2006; Nasihah & Cahyono, 2017).

Wadman et al. (2008) studied 54 adolescents, who were between the ages of 16 and 17, in order to determine whether lower language abilities had an effect on self-esteem, shyness, and sociability. The researchers utilized the Rosenberg Self-Esteem Scale (1965b) to determine the global self-esteem of the participants. The Waldman et al. (2008) findings confirmed that students with lower language abilities exhibited lower self-esteem than students with average language abilities. Also, there was an indication that students with lower language ability desired to have meaningful interactions with others, but were too shy or fearful to do so. In this study, lower language ability had a negative effect on overall self-esteem and the interaction ability of students.

Summary

There are a multitude of issues involved in the appropriate way to educate ELL students; however, a substantive review of the research can lead to a few discernible points. The use of two-way immersion education has been shown through the research to have a positive influence on both the students' attitudes toward education and their overall academic achievement (Alanis & Rodriguez, 2008; Cheng et al., 2010; Hickey, 2007; Howard et al., 2003; Jong & Howard, 2009; Lee et al., 2007; Lindholm-Leary, 2004; Lindholm-Leary & Block, 2010; Linton, 2007; Marian et al., 2013; Nasciemento, 2016; Nasihah & Cahyono, 2017; Padilla, 2013; Palmer, 2008; Reyes & Vallone, 2007; Scanlan & Palmer, 2009; Scanlan & Zehrbach, 2010; Stewart, 2005; Thomas & Collier, 1996; Tran et al., 2015).

Also, there are indications that students' cultural competence and appreciation of other cultures are improved through further exposure to students of different cultures (Bearse & de Jong, 2008; Borrero, 2015; Chen & Bond, 2007; Cullen et al., 2009; Lazaruk, 2007; Snoek, 2016). In an increasingly multicultural and connected world, cultural competence is a vital component of education for all students. Thus, it follows, the use of two-way immersion programs can improve the overall self-esteem of students (Aberdeen, 2016; Edwards & Roger, 2015; Neugebauer, 2011; Resnick et al., 1997), which is closely tied to academic achievement (Baumeister et al., 2003; Hassan et al., 2016; Neugebauer, 2011). In Chapter Three, this researcher explains the methodology which was utilized to determine whether the use of a two-way English/French immersion program in Florida had a statistically significant difference on students' cultural appreciation, attitudes toward education, and self-esteem.

CHAPTER THREE: METHODS

Overview

The purpose of this study was to determine if there was a statistically significant difference in attitudes towards education, other cultures, and self-esteem between students enrolled in an English-only curriculum versus those enrolled in a French-English immersion program. In chapter three the researcher will present the design, instrumentation, procedures, and data analysis for the study.

Design

The purpose of this quantitative causal-comparative study was to determine whether there were statistically significant differences between students' attitudes toward education, other cultures, and self-esteem, in those students who were enrolled in a two-way immersion program, in comparison to those who were enrolled in a traditional English-only curriculum. The design utilized in this research study was quantitative casual-comparative (Creswell, 2003; George & Mallery, 2003). In a comparative study, random assignment by the researcher to the independent variable is impossible (Jalongo et al., 2001). In this study, the assignment of students into immersion and non-immersion tracks was established previously and could not be controlled by the researcher. The independent variable was the assignment of students to either the English-only or the dual-language program. The dependent variables in this study were students' attitudes towards academics, other cultures, and self-esteem. A student's attitudes toward academics are the overall feelings a student has about their educational experience (Brantmeier, 2005). Cultural competence is the ability to interact respectfully toward people of different contexts, traditions, and religious beliefs (Gur, 2010). Self-esteem has been identified as an overall feeling of self-regard and is closely tied to the value an individual places on him or

herself (Baumeister et al., 2003; Isaksen & Roper, 2016; Kiliç et al., 2011; Mercer, 2008; Wadman et al., 2008; Wightman & Wesely, 2012).

Research Question(s)

The research questions, which guided this study, were:

RQ1: Will there be a significant difference in students' attitudes toward education in ninth through twelfth grade students enrolled in a two-way immersion program vs. those students enrolled in a non-immersion program?

RQ2: Will there be a significant difference in ninth through twelfth grade students' attitudes towards other cultures when enrolled in a two-way immersion program vs. students enrolled in a non-immersion program?

RQ3: Will there be a significant difference in students' self-esteem in ninth through twelfth grade students enrolled in a two-way immersion program vs. those students enrolled in a non-immersion program?

Null Hypotheses

The null hypotheses for this study are:

$H_0 1$: There is no statistically significant difference in ninth through twelfth grade students' attitudes towards education for those students enrolled in a two-way immersion program vs. those students enrolled in a non-immersion program.

$H_0 2$: There is no statistically significant difference in students' in ninth through twelfth grade attitudes towards other cultures for those students enrolled in a two-way immersion program vs. those students enrolled in a non-immersion program.

H$_0$3: There is no statistically significant difference in ninth through twelfth grade students' self-esteem for those students enrolled in a two-way immersion program vs. those students enrolled in a non-immersion program.

Participants and Setting

For this study, the researcher utilized a convenience sampling of students from a two-way French/English immersion program at a charter school in the southeastern United States. Participants for this study consisted of students in Grades 9–12, who were enrolled in either an immersion program or a traditional English-only program, for a minimum of two years at the school. Primarily, the participants in the immersion program consisted of Haitian-American students. The level of proficiency for each student in the immersion program varied; however, all students who responded to the survey had the necessary English proficiency to complete and understand the survey.

In a causal comparative study, a minimum of 30 participants is recommended in order to ensure the validity of the research (Gay, 2002; Ouyang, 1996). The total sample size was 88 participants with 28 students in the French immersion track, and 60 students in the English-only track. A total ($N = 88$) of 29 male students and 59 female students participated in the study. The study was comprised of 29 ninth-grade, 24 tenth-grade, 18 eleventh-grade, and 17 twelfth-grade students.

In the French track, there were 9 ninth-grade students, 4 tenth-grade students, 9 eleventh-grade students, and 6 twelfth-grade students in the study. The English track was comprised of 20 ninth-grade students, 20 tenth-grade students, 9 eleventh-grade students, and 11 twelfth-grade students. All of the students in the English track identified themselves as primarily English-

speaking students while the students in the French track identified themselves as bilingual in both English and French.

The school, where this research project was conducted, is located in southeastern United States. The educational goal of the school is to develop students, who can attain high levels of oral and written language competency in a second language. In order to accomplish this goal, the administrators of the school offer an International Studies program in which the students can receive half of their instruction in French and half of their instruction in English. Students who complete the International Baccalaureate Studies program receive the International Baccalaureate diploma. Only students in the French immersion program can attain the International Baccalaureate diploma.

The International Baccalaureate diploma is an internationally accepted pre-university course of study that seeks to promote geographic and cultural mobility as well as international understanding. Researchers (Hayden & Wong, 1997) agree that an international education should seek to foster global understanding and cultural appreciation.

At the time of this study, the school had been in existence for six years; the students in the first graduating class completed their high school program in 2011. The school has approximately 250 students in Grades 6–12. The French teachers at the school are native French speakers, primarily, transplants from France who have come to the US to teach the French language. The majority of the immersion students are proficient in both English and French. Students are given the choice to enroll in either the English-only or French immersion track at the school.

The two sections of students in the sample were the English track and the French track of Grades 9–12 at the school. Students in the French track were taught French in one-half of their

classes, and English in the other half of their classes. French, mathematics, and humanities classes were provided in French; the remaining courses were in English. Most of the students in the French track were proficient in both languages. Students in the immersion track learned the French language, as it would be spoken in France; their teachers were natives of France. Dialects such as Haitian French are not taught in the school. The students in the English track were monolingual and received instruction throughout the day in English-only. These two groups of students take the same academic course of study; they are simply engaged in different languages throughout the day. Each class lasts approximately one hour, and the school follows the Florida state standards (Giambo, 2010). Nonacademic classes, such as physical education, music, dance, and visual arts were offered in both French and English to students, based on their proficiency in that language and choice of language track. The school was classified as a C school, according to the results from the Florida Comprehensive Assessment Testing (Woods, 2012). In the state of Florida, schools are rated on an A–F scale, based on the results from the FCAT testing. The list of prescribed courses for Grades 6–12 is displayed in Table 1. The study was limited to students in Grades 9–12. A total of 88 students were surveyed, with 29 males and 59 females participating. The study was comprised of 29 ninth-grade, 24 tenth-grade, 18 eleventh-grade, and 17 twelfth-grade students.

Table 1

Prescribed Courses for Students in Grades 6–12

| Grade | Language Arts | Courses Taken* | | Mathematics |
		Science	Social Studies	
6	Language Arts 1	Earth Science	World History	Mathematics 1
7	Language Arts 2	Comprehensive Science 2	World Geography	Mathematics 2
8	Language Arts 3	Comprehensive Science 3	U.S. History	Mathematics 3 (Pre-Algebra)
9	English 1	Biology	World History	Algebra 1
10	English 2	Physics	Government	Geometry
11	English 3	Chemistry	American History	Algebra 2
12	English 4	N/A	Micro, Macro Economics	Pre-Calculus or Statistics

* International Students (IS) take French, Mathematics and Humanities in French

Instrumentation

The purpose of this study was to determine whether there were statistically significant differences between students' attitudes toward education, other cultures, and self-esteem, in those students who were enrolled in a two-way immersion program, and in those who were enrolled in a traditional English-only curriculum. Numerous researchers (Biemer & Lyberg, 2003; Peters, Weinberg, & Sarma, 2009; Sapsford, 1999) have identified the use of surveys as an appropriate means to measure properties in a population. Ary, Jacobs, and Razavieh (1990) pointed out that the ideal way to achieve the validity of a survey is to include all the items that one could ask in regard to the content of the items.

Items were selected from three surveys to address the specific factors of: (a) self-esteem (Rosenberg, 1989); (b) attitudes toward academics (Lindholm-Leary, 2001); and (c) attitudes toward other cultures (Lindholm-Leary, 2001). A total of 28 items comprised the student survey utilized in this current study. Please see Appendix A for permission to use each survey.

The Rosenberg Self-Esteem scale (1989) was utilized to determine students' overall feelings of self-regard, and it is a widely used scale to measure self-esteem (Collison, Banbury, & Lusher, 2016; Isaksen & Roper, 2016; Kohne, 2006; Robins, Hendin & Trzesniewski, 2001). The survey was developed to assess four primary goals: (a) ease of administration, (b) time, (c) unidimensionality, and (d) face validity (Rosenberg, 1965a). The reproducibility of the scale is 92%, and the scalability of the survey is 72%. Rosenberg (1965a) defined self-esteem as a positive view of oneself. It has been used since the 1970s as a simple tool for the evaluation of overall self-esteem, and it is one of the most widely used instruments (Columbus, 2001; Mercer & Williams, 2014; Sowislo & Orth, 2013).

For this study, 10 items from Rosenberg's (1965b) scale were utilized to address the factor of self-esteem related questions. Of the 10 items, five address the positive aspects of self-esteem, and five indicate lower levels of self-esteem; the latter are rated in reverse. A 4-point Likert scale was used, which ranges from Strongly Agree to Strongly Disagree. The responses are as follows: Strongly Agree = 5, Agree = 4, Neutral = 3, Disagree = 2, and Strongly Disagree = 1. The Rosenberg scale has a Cronbach's alpha of 0.85. The highest possible score on the scale is 27; scores which range from 15–25 are considered normal, and scores below 15 are considered to be indicative of low self-esteem. The approximate time for students to complete this portion of the self-esteem scale is 5 minutes (Robins et al., 2001).

In order to determine students' attitudes toward education, the survey titled, Positive Academic Attitudes (Lindholm-Leary, 2001), was developed. The content was based on previous research (Johnson, 1974) for the purpose of a large-scale study of 611 elementary aged students. The survey was utilized to measure students' attitudes toward education (Lindhom-Leary, 2004; Lindholm-Leary & Block, 2010). All students in the study (Lindholm-Leary, 2001)

completed an 80-item survey, which was comprised of nine different categories and rated on a 4 point Likert scale. In addition, each of the nine categories was tested for internal consistency: (a) Cross-cultural and integrative language attitudes (Cronbach's alpha = 0.72), (b) Instrumental language attitudes (0.73), (c) Self-esteem and appearance (0.73), (d) Positive academic attitudes (0.86), (e) Work avoidance (0.74),(f) Positive academic behaviors (0.67), (g) Classroom environment and teacher expectations (0.63), (h) Home environment and parent expectations (0.67), and (i) satisfaction with the program (0.62; Lindhom-Leary, 2001).

In Lindholm-Leary's (2001) original study, in which the attitudes toward academics and attitudes towards culture surveys were first utilized, the sample consisted of 611 Grades 3 and 8 students from nine dual language education schools in California. Students in that study were equally distributed among the genders (i.e., 50% male, 50% female) and were culturally diverse (i.e., 56% Hispanic-Spanish speaking, 11% Hispanic-English speaking, 28% European American, and 5% African American). Subsequently, Kohne (2006) used this survey with similar results.

In the Lindholm-Leary (2001) survey, the characteristics of a positive attitude toward education included students' enjoyment of: (a) school, (b) learning, (c) mathematics, (d) reading, and (e) academic persistence. The survey author defined cultural appreciation as the willingness to learn about another person's culture and overall willingness to accept individuals of differing cultures. Also, there was a high correlation between positive attitudes toward academics and cultural appreciation ($r = 0.45$). The attitude toward education section has a Cronbach's alpha of 0.86 (Lindholm-Leary, 2011).

For this current survey, 11 items were used from the education section of the Lindholm-Leary (2001); a 4-point Likert scale was used. The scores are tabulated on a 1–4 scale; 4 is the

most positive attitude. The highest score possible on the attitudes toward education portion of the survey is 44 (Kohne, 2006). The approximate time needed to complete this section of the current survey is 10 minutes.

Also, Lindholm-Leary (2001) focused the survey on the willingness of students to interact with other students from a culture that was not their own (Lindholm-Leary, 2000). The survey consists of 7 questions that address student's appreciation of other cultures. A 4-point Likert scale is utilized in this survey, with 4 being the highest level of cultural competence. The highest possible score on the cultural competence survey is 28 (Kohne, 2006). The appreciation of other cultures survey has a Cronbach's alpha of 0.73 (Lindholm-Leary, 2001). The total time necessary to complete the current survey is approximately 5 minutes.

Procedures

First, the researcher obtained preliminary permission from the school officials to conduct the study at the two-way immersion school (see Appendix B for school permission letter). Then, the researcher sought approval from the members of the Liberty University Internal Review Board (IRB) to conduct the proposed study (see Appendix C for the IRB permission letter). The researcher worked closely with the Executive Director and Principal of the school to ensure complete cooperation on both sides.

Parental permission and informed consent were acquired through a letter sent home with the students (see Appendix D for a copy of this letter). Students, who did not return a signed consent from a parent, were excluded from the study. In the letter, the purpose of the study, as well as a general overview was provided. The informed consent letter was signed by both parents and students and returned to the researcher through the school. Translation of the parent consent form was made available to those parents with limited English proficiency. The name of

the school and students were omitted from this research study in order to protect the identity of the participants. Because the findings were aggregated, and students were grouped according to grade level and type of program, individual student responses will not be published.

Participants in Grades 9–12 were identified and matched according to grade level. In the system at the school, students were assigned to either an international track or English track. International students receive one-half of their education in the French language. Both tracks are identical in their content, differing only in the language delivery of that content. Only those students, who were enrolled in the school for a minimum of 2 years, were selected as survey participants.

Once the participants were identified, and parental consent and assent was given, an online survey was administered to the students. This allowed for the timely collection of data (Biemer & Lyberg, 2003; Sapsford, 1999). This researcher collected the data through an online survey, which was administered in the computer lab at the school in April 2012. The students were brought to the computer lab by their individual teachers during the school day, and they completed the preloaded survey on individual computers. The survey was available online and the students were given a code to access the survey. Only one submission per student was accepted.

Data Analysis

For this study, the researcher surveyed students who were enrolled in either a two-way immersion or a traditional single language program over the course of two years. A survey was utilized to collect data about students' attitudes in regard to their participation in the immersion or non-immersion programs (Ary et al., 1990). In order to prevent contamination in the survey

responses, the participants were unaware of the two samples (i.e., immersion vs. non-immersion students).

The data were collected and categorized; three respective independent sample *t*-tests were used to determine whether there were statistically significant differences between the English and French immersion groups in terms of their attitudes toward academics, other cultures, and self-esteem at the 95% confidence level. For the purpose of this study, the differences between the two groups for these three variables were sought, so the use of three independent sample *t*-tests was the appropriate inference procedure to determine whether any statistically significant differences existed.

Since the students were representative only of their respective population, the findings cannot be generalized for wider populations. However, the study findings are reflective of the population at the school, where the study was conducted. The scores from the instruments were independent from one student to the next, and the sample size was sufficiently large to produce a distribution of scores that were normally distributed, according to the central limit theorem (Howell, 2004).

The collected data were collated and categorized, and an independent sample *t*-test was used to determine the presence of any statistically significant differences between the two groups. Descriptive statistical analysis was utilized to show the differences between the two independent variable groups as well as the differences between the dependent variables.

The results were analyzed with use of an independent *t*-test because the students in the two groups were grouped in English and French immersion groups, and because it was reasonable to assume that the groups were similar in regard to lurking factors whether they were immersed in the French immersion program. A reasonable assumption of similarity between the

two groups is assumed because of the nature of the school instruction which differs based only on language in the classroom. The rationale for the use of a *t*-test in this study was the comparison of two distinctly similar groups and the comparison of those groups to determine the differences between them, if any, among each of the three categories, respectively (Jalongo et al., 2001; Lowry, 1998; Siegel & Castellan, 1988). Independent sample *t*-tests were conducted to test each of the hypotheses.

Before running the *t*-tests, the assumption of normality was tested using histograms and the assumption of equal variance was tested using Levene's test. Descriptive statistics, mean and standard deviation, are reported along with the results of the *t*-tests.

Summary

The purpose of this study was to determine whether there were statistically significant differences between students in an English-only and students in a French-English immersion program. In Chapter Three, this author presented the instrumentation and procedures for determining if there was a statistically significant difference between the two groups. In Chapter Four, this author presents the findings from the study.

CHAPTER FOUR: FINDINGS

Overview

The purpose of this study was to determine if there was a statistically significant difference in attitudes towards education, other cultures, and self-esteem between students enrolled in an English-only curriculum versus those enrolled in a French-English immersion program. In chapter four the findings for each of the Research Questions and the Null Hypotheses are considered separately.

Research Questions

RQ1: Will there be a significant difference in ninth through twelfth grade students' attitudes toward education for those students enrolled in a two-way immersion program vs. those students enrolled in a non-immersion program?

RQ2: Will there be a significant difference in ninth through twelfth grade students' attitudes towards other cultures when enrolled in a two-way immersion program vs. students enrolled in a non-immersion program?

RQ3: Will there be a significant difference in ninth through twelfth grade students' self-esteem, for those students who are enrolled in a two-way immersion program vs. those students enrolled in a non-immersion program?

Null Hypotheses

$H_0 1$: There is no statistically significant difference in ninth through twelfth grade students' attitudes toward education for those students enrolled in a two-way immersion program vs. those students enrolled in a non-immersion program.

H₀2: There is no statistically significant difference in ninth through twelfth grade students' cultural appreciation for those students enrolled in a two-way immersion program vs. those students enrolled in a non-immersion program.

H₀3: There is no statistically significant difference in ninth through twelfth grade students' self-esteem for those students enrolled in a two-way immersion program vs. those students enrolled in a non-immersion program.

Descriptive Statistics

For the purposes of this study, the members of the two groups answered a series of items taken from a survey developed by Lindholm-Leary (2001). The focus of the 10 items in the survey was on students' perceptions of their ability to perform academic tasks in the classroom, which ranged from reading to mathematics. A total of 88 students participated in the study; 60 were enrolled in the English-only program and 28 in the French immersion program. The mean score for the French immersion group was 2.958 while the mean score for the English-only group was 2.861. The mode for both the French and English groups was 3.0. The standard deviation in attitudes toward academics for the French group was 0.492, and the standard deviation for the English group was 0.518. The students in the French group had a slightly higher (0.097) overall score in regard to their attitudes toward academics.

Cultural appreciation is defined as the ability to interact respectfully toward people of different contexts, traditions, and religious beliefs (Gur, 2010). To measure these students' attitudes towards other cultures (i.e., competence), survey items were used from Lindholm-Leary's (2001) work. The students in this sample answered a series of seven items about their interactions with other cultures. There were a total of 60 respondents in the English-only immersion program and 28 respondents in the French immersion program for a total of 88

responses. The mean score for the English-only group was 3.147, and the mean score for the

French group was 3.208. The mode for both groups was 3.0. The standard deviation for cultural

appreciation for the English group was 0.261, and the standard deviation for cultural appreciation

for the French group was 0.334.

Self-esteem has been identified as an overall feeling of self-regard and is closely tied to

the value an individual places on him or herself (Baumeister et al., 2003; Isaksen & Roper, 2016;

Mercer, 2008; Wadman et al., 2008; Wightman & Wesely, 2012). For this study, the Rosenberg

(1989) Self-Esteem instrument was utilized to determine students' overall feelings of self-regard.

The survey consists of 10 self-esteem related items; the responses to five items address the

positive aspects of self-esteem, and five indicate lower levels of self-esteem. The immersion and

the non-immersion students answered all of the survey items; these responses were then

tabulated and averaged for each group. A total of 60 students in the English-only program

participated in the survey, and 28 from the French-Immersion program participated for a total of

88 responses.

The mean score for the French group was 3.216, and the mean for the English-only group

was 3.078. The mode for both groups was 3.0. The standard deviation for self-esteem for the

French group was 0.453, and the standard deviation for self-esteem in the English group was

0.596.

Results

Hypotheses 1

H₀1: There is no statistically significant difference in ninth through twelfth grade

students' attitudes toward education for those students enrolled in a two-way immersion program

vs. those students enrolled in a non-immersion program.

First, the sample drawn from the population of the school was assumed to be representative of the entire population. Second, the students were assumed to be independent of one another; that is, one student's responses did not have an effect on any other student's response. Third in both the English-only and the French-English immersion groups their attitude towards academics were assumed to be independent of one another.

As there were only 28 students, who participated in the French Immersion program, a histogram was used to show the approximately normal distribution of the attitudes toward academics, in order to satisfy the condition of normality and perform the independent sample t-test. See Figures 1 and 2 for the English and French histograms. Data screening was conducted on the dependent variable of each group, either French immersion or English-only track. No data errors or inconsistencies were identified. Box and whiskers plots did not detect or identify outliers on the dependent variables. See Figure 3 for box and whisker plots.
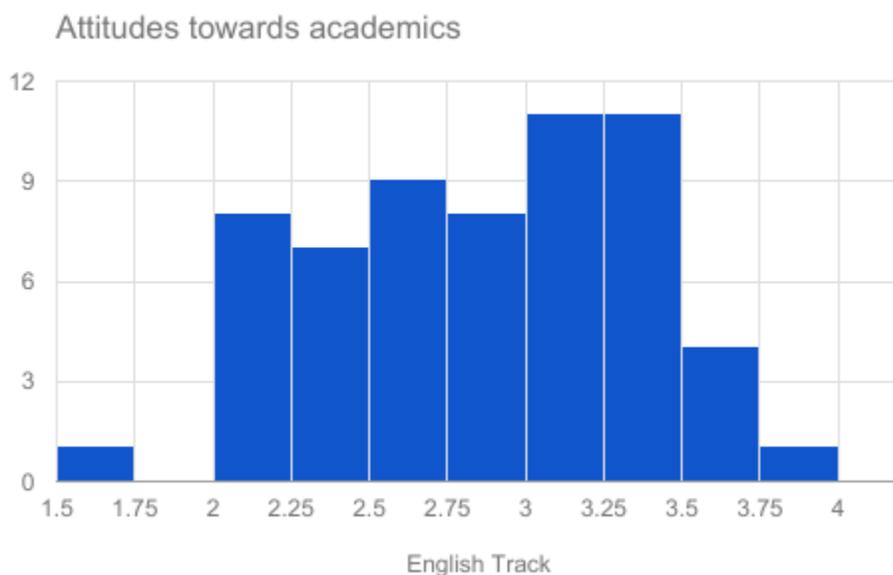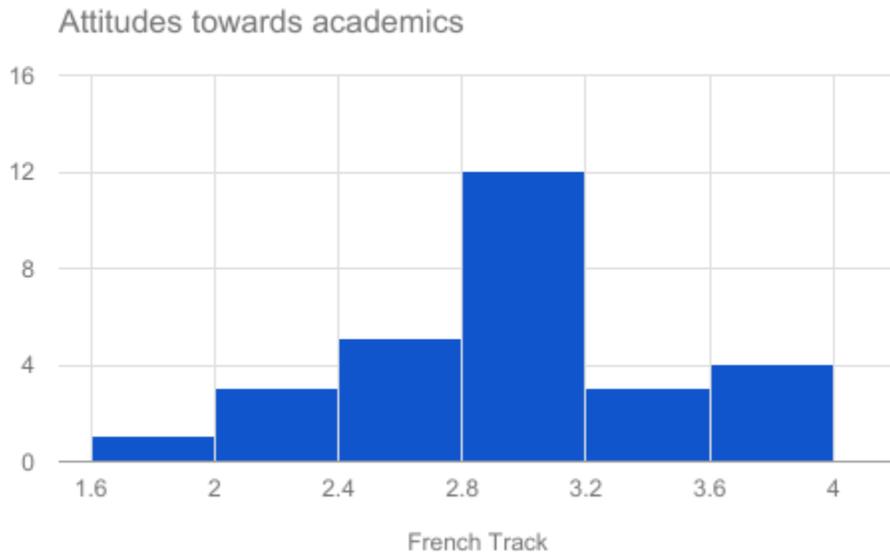

Figure 1. Attitudes toward academics English histogram.

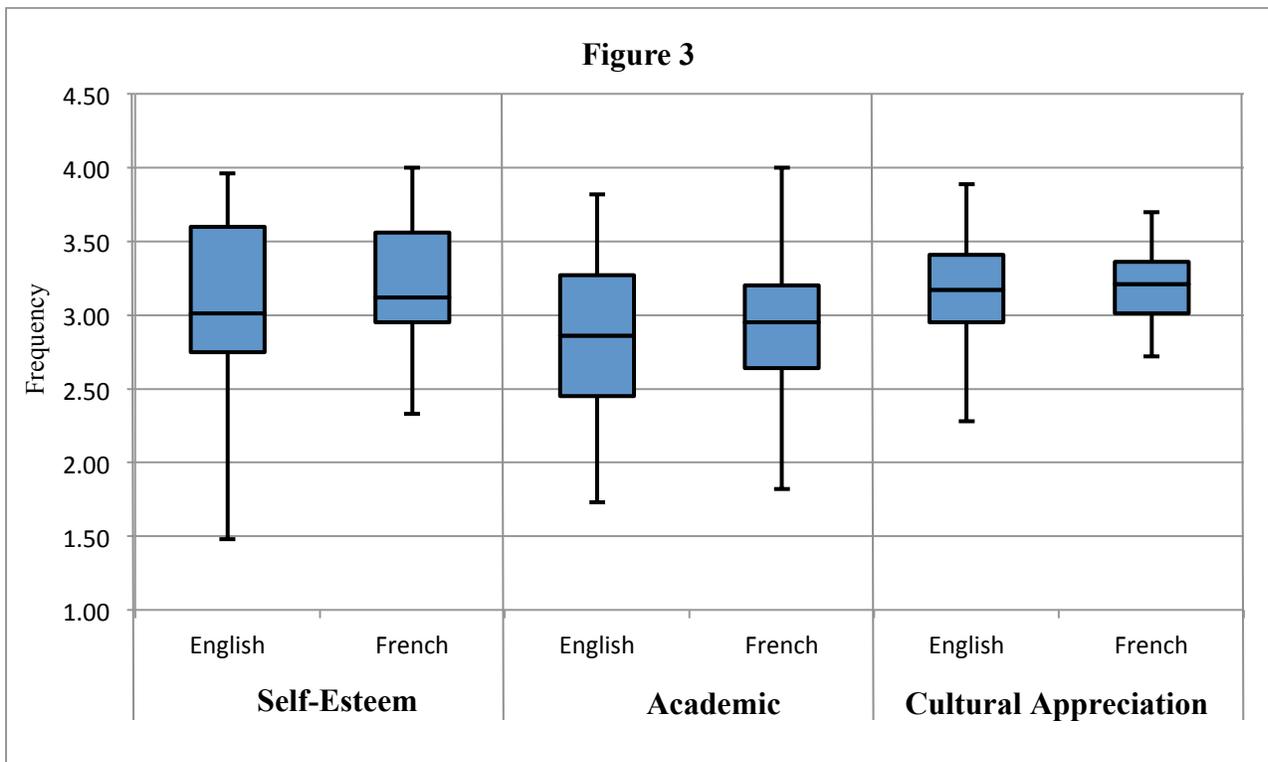*Figure 2.* Attitudes toward academics French histogram.

Figure 3: Box and whisker plots.

For the assumption of equal variance, a Levene's test of equality of error variance was performed for each of the dependent variables. Levene's test evaluates the assumption that population variances for the two groups are equal. The Levene's test for null hypothesis one indicated equal variances ($F = 0.039$, $p = .844$). See Table 2 for the Levene's test results.

The mean scores were calculated for both the English-only (E) and French immersion (F) groups. The mean score for the English-only group was 2.861 (see Figure 4) while the mean score for the French immersion group was 2.958.
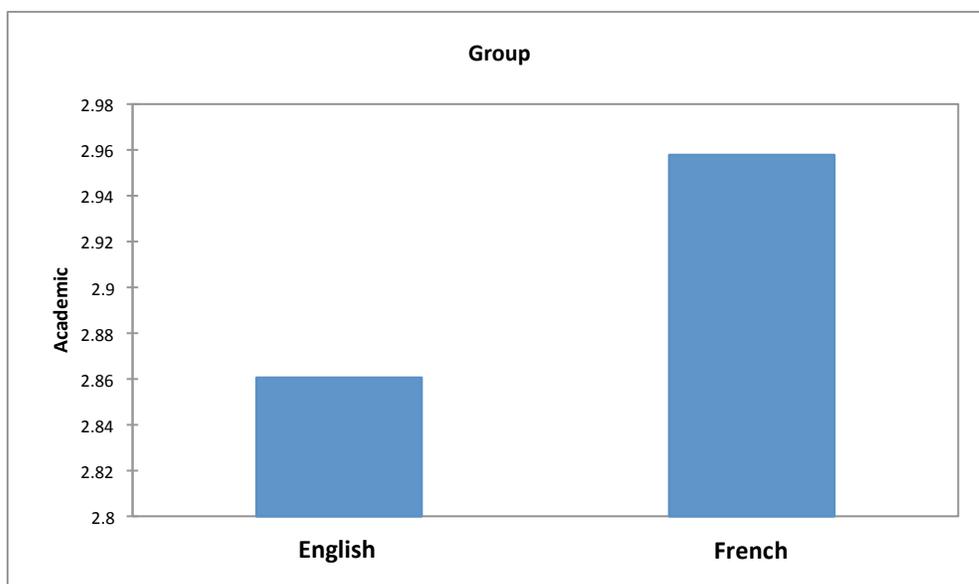

Figure 4. Attitude toward academics mean scores.

An independent sample *t*-test was conducted to determine whether there was a significant statistical difference between the attitudes of the two groups toward academics. The results are displayed in Table 2. There was not a significant difference in the scores of the English-only students ($M = 2.861$, $SD = .518$) and French immersion students ($M = 2.958$, $SD = .492$), $t(88) = .848$, $p = .399$. Therefore, the researcher failed to reject the null hypothesis because there was no statistically significant difference in ninth through twelfth grade students' attitudes towards

academics for those students enrolled in a two-way immersion program vs. those students

enrolled in a non-immersion program.

Table 2

t-Test for Attitudes toward Academics

Group	N	Mean	Std. Deviation	Std. Error Mean
E	60	2.861	.518	.097
F	28	2.958	.492	.063

Table 3

Independent Samples Test Attitudes toward Academics

Equal variances assumed?	Levene's Test		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Yes	.039	.844	.848	86	.399	.097	.114	-.130	.325
No			.832	50.50	.409	.097	.116	-.137	.331

Hypotheses 2

H₀2: There is no statistically significant difference in ninth through twelfth grade

students' cultural appreciation for those students enrolled in a two-way immersion program vs.

those students enrolled in a non-immersion program.

First, the sample drawn from the population of the school was assumed to be

representative of the entire population. Second, the students were assumed to be independent of

one another. One student's responses did not have an effect on any other student's response.

Third, the response of each group for cultural appreciation was assumed to be independent of one another. Finally, the researcher showed normality of distribution with histograms. The survey results were approximately normal and thereby satisfied the condition of normality, which is necessary to perform an independent sample *t*-test.

As there were only 28 students, who participated in the French immersion program, a histogram was utilized to show the approximately normal distribution of cultural appreciation, in order to satisfy the condition of normality and perform the independent sample *t*-test. See Figures 6 and 7 for the English and French histograms. Data screening was conducted on the dependent variable of each group, either French immersion or English-only track. The researcher not only sorted and scanned the data for inconsistencies but also used a box and whisker plot to analyze the data. No data errors or inconsistencies were identified. Box and whiskers plots did not detect or identify outliers on the dependent variables. See Figure 1 for box and whisker plots and Figure 6 and 7 for the English and French histograms.

For the assumption of equal variance, a Levene's test of equality of error variance was performed for each of the dependent variables. Levene's test evaluates the assumption that population variances for the two groups are equal. The Levene's test for null hypothesis two indicated equal variances ($F = 2.286$, $p = 0.134$). See table 3 for the Levene's test results.

The mean score was calculated for each of the independent variables. The French immersion group of students had a mean score of 3.208 while the English-only group had a mean score of 3.147. The students in the French immersion group had a higher mean score (0.061) than did the English-only students, which indicated that the French immersion students reported a greater appreciation of other cultures. Displayed in Figure 5 are the the statistical findings for the observed mean difference.
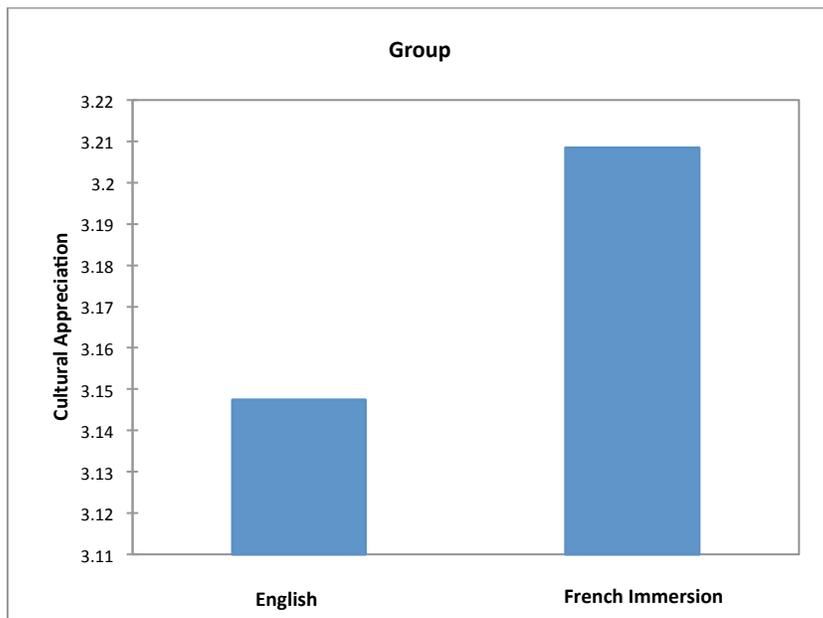
Figure 5. Attitudes toward culture mean scores.
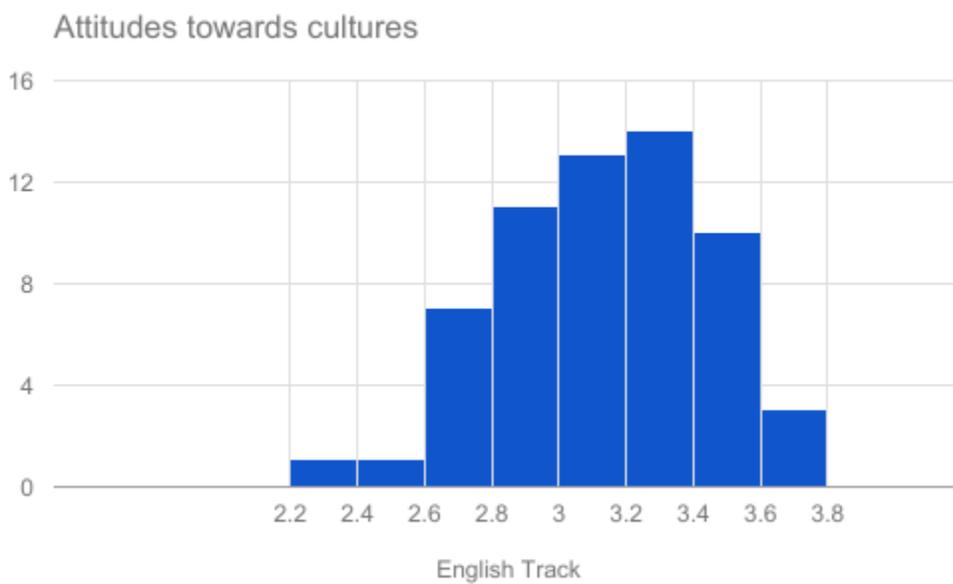
Figure 6. Attitudes toward culture English histogram

Attitudes towards cultures
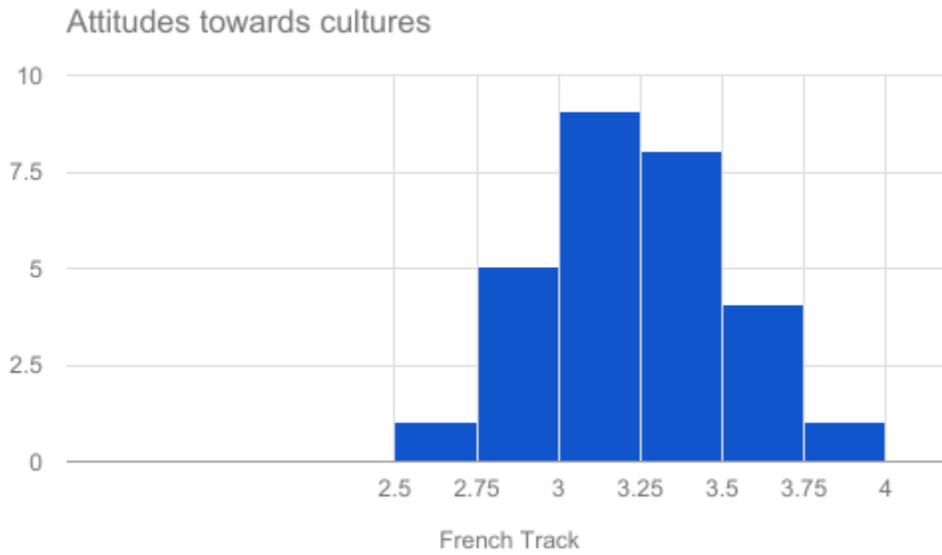
Figure 7. Attitude towards culture French histogram

An independent sample *t*-test for mean scores was utilized to determine whether there was a statistically significant difference between the two groups' cultural appreciation. The results are detailed below in Tables 4 and 5.

Table 4

t-Test for Attitudes Toward Other Cultures

Group	*N*	Mean	Std. Deviation	Std. Error Mean
E	60	3.147	.261	.0494
F	28	3.208	.334	.0431

Table 5

Independent Samples Test Attitudes Towards Other Cultures

Equal variances assumed?	Levene's Test		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Yes	2.286	.134	.852	86	.397	.061	.071	.081	.203
No			.931	66.162	.355	.061	.065	.069	.192

The *t*-score of -0.852 indicated that the English-only students had a lower level of cultural appreciation than did the French track students. However, the difference in the value between the two groups was minimal (-0.061). In this case, the differences between the two groups were not sufficient to be a significant statistical difference between the two groups.

The 95% CI for the difference between the samples means had a lower bound of 3.091 and an upper bound of 3.326. Therefore, there was insufficient evidence to support the claim that there was a statistically significant difference in students' cultural appreciation for those students enrolled in a two-way immersion program in comparison to students enrolled in a traditional English-only program.

There was not a significant difference in the scores of the English-only students (*M* = 3.147, *SD* = .261 and French immersion students (*M* = 3.208, *SD* = .334), *t*(88) = .852, *p* = .397. Therefore, the researcher failed to reject the null hypothesis because there was no statistically significant difference in ninth through twelfth grade students' cultural appreciation for those

students enrolled in a two-way immersion program vs. those students enrolled in a non-immersion program. Further, the Cohen's effect size ($d = 0.350$) indicated a low effect size. See Table 3 for *t*-test results for attitudes towards other cultures.

Hypotheses 3

$H_0 3$: There is no statistically significant difference in ninth through twelfth grade students' self-esteem for those students enrolled in a two-way immersion program vs. those students enrolled in a non-immersion program.

First, the sample drawn from the population of the school was assumed to be representative of the entire population. Second, the students were assumed to be independent of one another. One student's responses did not have an effect on any other student's response. Third, the response of each group for self-esteem was assumed to be independent of one another.

As there were only 28 students, who participated in the French immersion program, a histogram was utilized to show both the approximately normal distribution of students' self-esteem and that no outliers were present, in order to satisfy the condition of normality and perform the independent sample *t*-test. See Figures 9 and 10 for the English and French histograms. Data screening was conducted on the dependent variable of each group, either French immersion or English-only track. The researcher not only sorted and scanned the data for inconsistencies but also used a box and whisker plot and histogram to analyze the data. No data errors or inconsistencies were identified. Box and whiskers plots did not detect or identify outliers on the dependent variables see Figure 1 for box and whisker plots.

For the assumption of equal variance, a Levene's test of equality of error variance was performed for each of the dependent variables. Levene's test evaluates the assumption that population variances for the two groups are equal. The Levene's test for null hypothesis three

indicated equal variances ($F = 2.105$, $p = .151$). The Levene's test revealed each dependent variable to have equal variance: See Table 6 for the Levene's test results.

The mean scores for each group were calculated on a 4-point scale. Based on the mean scores, there was a slight difference between the two groups. The English-only group had a mean score of 3.078, and the French immersion group had a mean score of 3.216 (see Figure 8).
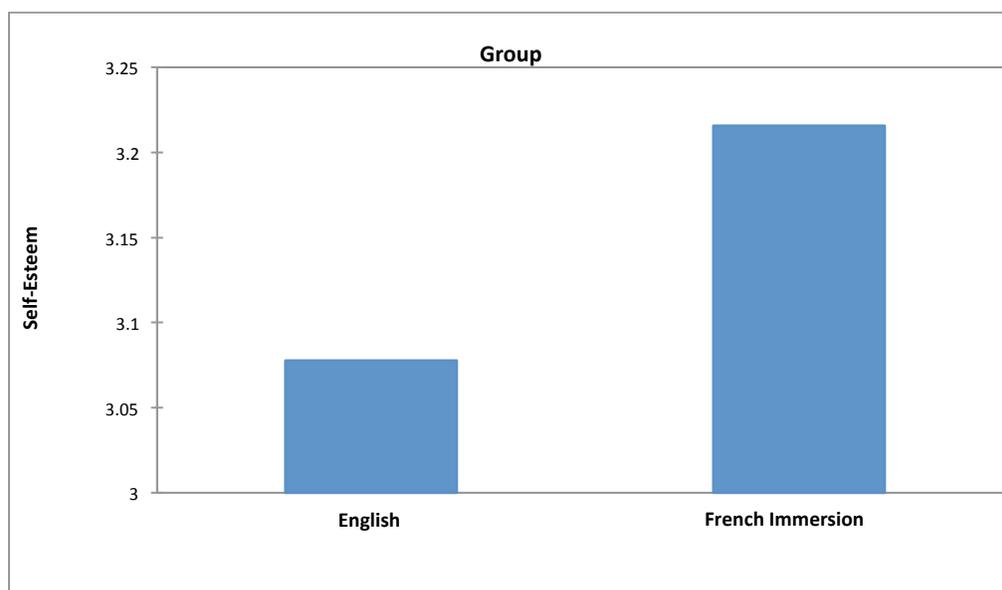

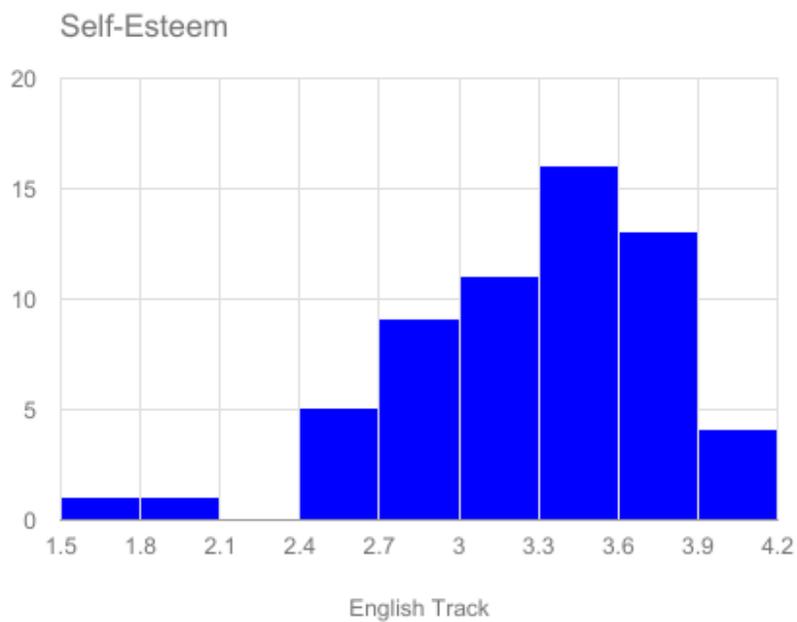
Figure 8. Self-esteem mean scores.
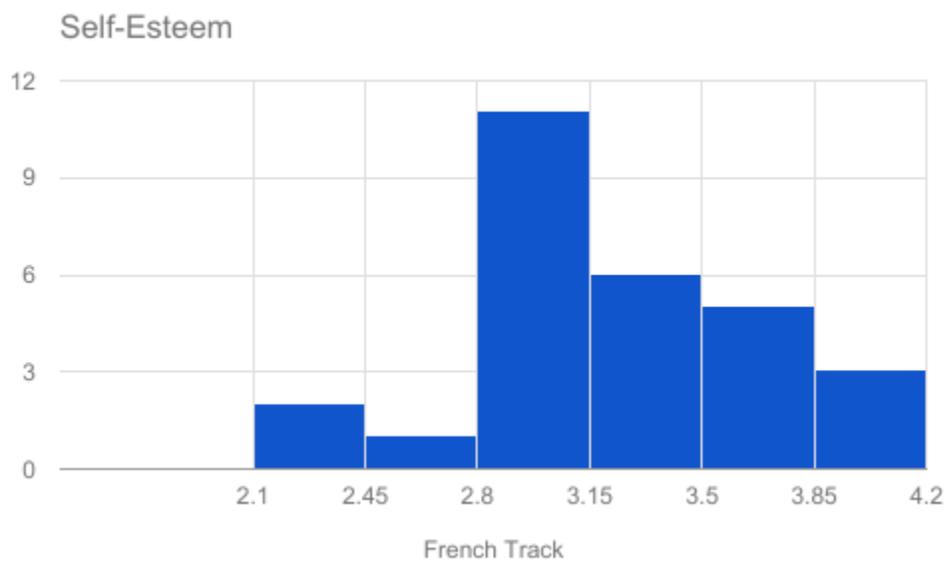
Figure 9. Self-esteem English histogram.

Figure 10. Self-esteem French histogram.

An independent sample *t*-test was utilized to determine whether there was a statistically significant difference between the self-esteem of the two groups. See Table 6 for the *t*-test results.

Table 6

t-Test for Self-Esteem

Group	N	Mean	Std. Deviation	Std. Error Mean
E	60	3.078	.453	.085
F	28	3.216	.596	.077

Table 7

Independent Samples Test Self-Esteem

| | Levene's Test | | t-test for Equality of Means | | | | | 95% Confidence Interval of the Difference | |
Equal variances assumed?	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Yes	2.105	.151	1.084	86	.281	.137	.127	-.114	.390
No			1.197	67.944	.236	.137	.115	-.092	.367

The *t*-score of -1.084 indicated that students in the English track reported a lower level of overall self-esteem than the French track students. However, the mean difference in the value between the two groups was minimal (0.138), which means that the differences between the two groups were not sufficient to support the presence of a significant statistical difference between the two groups.

Therefore, there was a failure to reject the null hypothesis that there was no statistically significant difference in ninth through twelfth grade students' self-esteem for those students enrolled in a two-way immersion program vs. those students enrolled in a non-immersion program. Further, the Cohen's effect size value ($d = $ -0.807) indicated a low effect size. See Table 6 for the t-test results for self-esteem.

An independent-samples t-test was conducted to evaluate the hypothesis that French students have a higher level of self-esteem than do English students. The French immersion students ($M = 3.216$; $SD = 0.596$) had a higher level of self-esteem than the English-only program ($M = 3.078$; $SD = 0.453$). However, the test was not significant, $t(88) = 1.084$, $p = 0.281$, and the researcher failed to reject the null hypothesis.

The 95% CI for the difference between the samples means had a lower bound of 3.007 and an upper bound of 3.425. Therefore, there was insufficient evidence to support the claim that there was a statistically significant difference in students' cultural appreciation, who were enrolled in a two-way immersion program in comparison to students enrolled in a traditional English-only program.

Summary

The purpose of this study was to determine whether there were statistically significant differences between students in an English-only and students in a French-English immersion program, respectively, for those students who were enrolled in a two-way immersion program and those who were enrolled in a traditional English-only curriculum. In Chapter Four, this author presents the findings from the survey (Lindholm-Leary, 2001; Rosenberg, 1989), which was utilized with the students in the sample. The results from the survey failed to reject the null hypothesis for each of the dependent variables in this study. In Chapter Five, the researcher

presents conclusions from the study as well as recommendations for future study in the field of

two-way immersion programs.

CHAPTER FIVE: CONCLUSIONS

Overview

The purpose of this study was to determine if there was a statistically significant difference in attitudes towards education, other cultures, and self-esteem between students enrolled in an English-only curriculum versus those enrolled in a French-English immersion program. Two-way immersion programs have been present in many schools for nearly 50 years in the United States. There is a need to examine this type of program in order to determine whether it is a valid way to address the language barrier, which many students face in the academic environment. In chapter five, the researcher draws conclusions from the research and offers recommendations for further research into the subject matter.

Discussion

This researcher studied students who were enrolled in a French/English immersion program to determine if there was a statistically significant difference between those who were enrolled in an English only program and those who were enrolled in a two-way immersion program. The findings from this study did not show a statistically significant difference between the two groups. The hypotheses for this research study investigated the impact of a French immersion program and an English-only program on attitudes toward academics, cultural appreciation, and self-esteem. The research data were collected from the responses to a survey, which was completed by a total of 88 students in Grades 9–12, who attended the same school.

RQ1: Will there be a significant difference in students' attitudes toward education in ninth through twelfth grade students enrolled in a two-way immersion program vs. those students enrolled in a non-immersion program?

H$_0$1: There is no statistically significant difference in ninth through twelfth grade students' attitudes toward education for those students enrolled in a two-way immersion program vs. those students enrolled in a non-immersion program.

Several researchers (Cheng et al., 2010; Fraga, 2016; Hickey, 2007; Howard et al., 2003; Jong & Howard, 2009; Lee et al., 2007; Lindholm-Leary, 2004; Lindholm-Leary & Block, 2010; Linton, 2007; Marian et al., 2013; Reyes & Vallone, 2007; Scanlan & Palmer, 2009; Scanlan & Zehrbach, 2010; Tran et al., 2015) found that students' participation in two-way immersion programs had a positive effect on their academic achievement. Similarly, a connection has been found between self-esteem and academic achievement (Baumeister et al., 2003, Hassan et al., 2016; Neugebauer, 2011). Also, the study of foreign languages improves cognitive abilities, which can result in greater academic achievement (Alanis & Rodriguez, 2008; Jong & Howard, 2009; Palmer, 2008; Scanlan & Zehrbach, 2010; Sibanda, 2017; Stewart, 2005; Thomas & Collier, 1996). The mean scores for the English-only students and the French immersion students were 2.861 and 2.958, respectively. The mean scores showed that the French immersion students had an overall higher positive attitude toward their academics than did their English-only counterparts.

An independent sample *t*-test was performed to determine the differences between the mean scores of both groups, which resulted in a *t*-score of -0.848. Although a difference was found between the groups, it was not large enough to meet the threshold of significance for this study. The results from this test led the researcher to conclude that the two groups were very similar in terms of their overall level of attitudes toward academics.

Research into the connection between student academic achievement and language learning indicated that the time spent in an immersion program is vital for student achievement

(Cummins, 1981; Cho & Reich, 2008; Giambo, 2010; Genesee et al., 2005; Lindholm-Leary &

Block, 2010; Lopez & Bui, 2014; Mejia-Smith & Gushue, 2017; Thomas & Collier, 2002;

Young et al., 2008; Zhang-Wu, 2017). The longer a student spends in an immersion program,

the more likely it is that his or her overall academic achievement will improve. Similarly, in

general, students' overall attitude toward academics tended to improve as they progressed from

elementary to high school (Heining-Boynton & Haitema, 2007).

The results from this current study did not show a statistically significant difference

between the students in the English-only program and those in the French immersion program.

While this may seem to conflict with previous research findings (Cheng et al., 2010; Fraga,

2016; Hickey, 2007; Howard, et al., 2003; Jong & Howard, 2009; Lee et al., 2007; Lindholm-

Leary, 2004; Lindholm-Leary & Block, 2010; Linton, 2007; Reyes & Vallone, 2007; Scanlan &

Palmer, 2009; Scanlan & Zehrbach, 2010; Tran et al., 2015), which indicated that participation in

immersion programs improved students' attitude toward academics. This researcher did find that

students in the French immersion track had, overall, a slightly higher attitude toward their

education. With a p-value (0.399) that is greater than a significant level of 0.05, the researcher

failed to reject the null hypothesis**.** That is, based on the assumption that the null hypothesis was

true, there was not sufficient evidence to support the claim of a difference in attitude toward

education between the two programs. There was a 39.9% chance that the observed mean

difference (-0.097) could have occurred by random variation. Therefore, this mean difference

finding might have occurred by chance alone and is not attributable to participation in the

language immersion program.

RQ2: Will there be a significant difference in ninth through twelfth grade students'

attitudes toward other cultures when enrolled in a two-way immersion program vs. students enrolled in a non-immersion program?

$H_0 2:$ There is no statistically significant difference in ninth through twelfth grade students' cultural appreciation for those students enrolled in a two-way immersion program vs. those students enrolled in a non-immersion program.

Cultural competence is the ability to interact respectfully toward people of different contexts, traditions, and religious beliefs (Gur, 2010). Previous researchers (Bearse & de Jong, 2008; Chen & Bond, 2007; Cullen et al., 2009; Lazaruk, 2007; Molina, 2013) have reported that students' participation in immersion educational programs has a positive effect on cultural competence. Student participation in two-way immersion programs has been shown to produce positive results in the area of cultural competence among students (Hickey, 2007; Howard et al., 2003; Jong & Howard, 2009; Lindholm-Leary, 2004; Lindholm-Leary & Block, 2010; Linton, 2007; Ray, 2009; Reyes & Vallone, 2007; Scanlan & Palmer, 2009; Scanlan & Zehrbach, 2010; Senokossoff & Jiang, 2015; Zhang-Wu, 2017). In a culturally competent classroom, teachers can provide an environment that is both accepting and build a sense of community among a diverse student population (Decapua & Marshall, 2010). The increased sense of community provides students with a sense of belonging and motivates them as members of the classroom. When new information is connected with a student's cultural background, the teacher is able to build upon the student's previous knowledge (Bodycott, 2006; Good et al., 2010; Hess et al., 2007; Keengwe, 2010; Krulatz, 2014). In a two-way immersion program, educators can provide a unique opportunity for this type of learning.

The mean scores between the English-only group and the immersion group were similar, although the immersion group showed a slightly higher level of attitudes towards other cultures

(3.208 vs. 3.147). While the mean score was not statistically significantly higher for the immersion group, the results did show a higher level of attitudes towards other cultures than the English students.

An independent sample *t*-test was conducted using the results from the attitudes towards other cultures survey, and the *t*-score was -0.852. This finding showed a difference between the two groups, but the difference was not large enough to meet the threshold of statistical significance for this study. Therefore, the students in the two groups were very similar in terms of their overall level of cultural competence. With a *p*-value (0.397) that is greater than a significance level of 0.05, the researcher failed to reject the null hypothesis that there was no difference in cultural appreciation beliefs. That is, there was not sufficient evidence of a difference in attitudes towards other cultures between the two programs; there was a 39.7% chance that the observed mean difference (-0.061) could have occurred by random variation. Therefore, this mean difference finding might have occurred by chance alone and is not attributable to participation in the language immersion program.

Previous researchers (Bearse & de Jong, 2008; Chen & Bond, 2007; Cullen et al., 2009; Lazaruk, 2007; Snoek, 2016) have found that strong support for multiple languages in the classroom has a positive effect on social competence and attitudes towards other cultures. Student participation in two-way immersion programs allow for greater student exposure to a culture and language that is not his or her own (Borrero, 2015). Participation in these programs allows for interaction between students from different backgrounds and cultures, who would not normally have the opportunity to interact with one another (Lopez-Murphy, 2016). Previous research has shown that interaction and experience with other cultures in and of itself can improve cultural competence (Ballinger & Lyster, 2011; Hickey, 2007; Lee et al., 2007; Ray,

2009; York-Barr et al., 2007). This researcher did not find a statistically significant difference between the attitudes towards other cultures of English-only students and those enrolled in the French immersion program.

RQ3: Will there be a significant difference in students' self-esteem in ninth through twelfth grade students enrolled in a two-way immersion program vs. those students enrolled in a non-immersion program?

H$_0$3: There is no statistically significant difference in ninth through twelfth grade students' self-esteem for those students enrolled in a two-way immersion program vs. those students enrolled in a non-immersion program.

Self-esteem is defined as the overall feeling of self-regard held by a student (Baumeister et al., 2003; Isaksen & Roper, 2016; Mercer, 2008; Wightman & Wesely, 2012). Researchers (Baumeister et al., 2003; Wadman et al., 2008) have shown that participation in immersion educational programs has a positive effect on a student's overall feelings of self-worth. Neugebauer (2011) reported that there is a connection between students' participation in immersion education and self-esteem. The mean scores for the French immersion and English-only groups indicated that the French students had a slightly higher overall feeling of self-worth with mean scores of (3.216 vs. 3.078). This current finding did not support those of Neugebauer (2011) and Wadman et al. (2008), in which the authors found that participation in immersion programs was a positive influence on students' overall feeling of self-worth. Similarly, a connection, between self-esteem and academic achievement, was found by Baumeister et al. (2003), Du (2009), and Neugebauer (2011). In general, students with high self-esteem tend to do better academically than students with low self-esteem (Rodriguez et al., 2009).

According to Perez (2011), not only are English Language Learners (ELLs) required to learn a new language in the classroom setting, but they must adjust to an entirely new context as well, and this placement in a new environment can create barriers to self-esteem. Based on the findings from this current study, the immersion students had a slightly higher level of self-esteem than the English-only students, which was an encouraging finding in regard to the efficacy of the two-way immersion program. Students in the English-only program had a mean score of 3.078, and the French immersion group had a mean score of 3.216. However, the differences between the two groups did not meet the necessary level to be considered statistically significant in this study.

An independent sample t-test was performed to determine the level of difference between the two groups, which produced a t-score of -1.084. The independent sample t-test is used to determine whether the observed difference between the mean scores of two independent groups is statistically significant. The results from the test showed that while there was a difference (-0.138) between the two groups, it was not large enough to be considered statistically significant. The results from the t-test were an indication that the students in the two groups were very similar in terms of their overall self-esteem. Since there was a p-value (0.281), which was greater than the significance level of 0.05, the researcher failed to reject the null hypothesis. That is, there was not sufficient evidence to support the claim of a difference in self-esteem beliefs between the two programs, based on the assumption that the null hypothesis of no difference in self-esteem beliefs was true. There was a 28.1% chance that the observed mean difference (-0.138) could have occurred by random variation. Therefore, this mean difference finding might have occurred by chance alone and is not attributable to participation in the language immersion program.

Students in immersion programs face the challenge of learning a new language and culture while, at the same time, they must adjust to the new contexts in the learning environment. Perez (2011) emphasized the importance of the acculturation process for students and their self-esteem. As students' progress through this process, their self-esteem tends to improve.

There have been contradictory findings in regard to the connection between immersion programs and self-esteem. Moore and Parr (1978) found that students' participation in bilingual education did not have a significant effect on their self-esteem. Similarly, Diaz (1983) and Pesner and Auld (1980) concluded that students' participation in language immersion programs did not significantly help their self-esteem. However, in contrast to earlier researchers, Neugebauer (2011) found that bilingual students reported increased self-esteem.

There is a close link between self-esteem and a student's academic achievement, according to Baumeister et al. (2003), Du (2009), Hassan et al. (2016), and Neugebauer (2011). Students, who achieve at high levels in the classroom, tend to have a higher level of self-esteem, because of the strong link between these factors. Students with high self-esteem tend to achieve academically, and students who achieve academically tend to have high self-esteem (Kim & Garcia, 2014; Rodriguez et al., 2009). The findings from this study did not support those of Baumeister et al. (2003), Du (2009), Hassan et al. (2016), and Neugebauer (2011) because the differences between the two variables were not statistically significant.

Implications

While the findings from a single research study cannot provide a foundation to understand the effects of immersion education on students, the findings from this study do advance the research in the field of French/English two-way immersion programs in the US. The findings from this study did not produce findings which could be considered statistically

significant, according to the established significance level; however, this study does provide a glimpse into a new context where immersion education is taking place.

In the current study, the students in the immersion program did not benefit in a statistically significant way when compared to their English-only counterparts. However, students in the French program scored higher than their English-only counterparts in the areas of attitudes towards education, other cultures, and self-esteem. These findings supported previous research (Bearse & de Jong, 2008; Fraga, 2016; Genesee & Jared, 2008; LeClair et al., 2009; Marian et al., 2013; Soderman & Oshio, 2008; Tran et al., 2015), in which it was concluded that participation in immersion education is not detrimental to the students' overall development. With a larger sample size, the collected data could have provided more statistically significant findings.

These findings will be helpful for educators who consider the implementation of immersion programs in their schools. The focus of this study was on one such program in southeastern Florida, where an immersion program has flourished for several years. This study adds to the literature on English/French immersion programs because much of the previous research has been focused on English/Spanish immersion programs (Genesee et al., 2005; Hickey, 2007; York-Barr et al., 2007). There has also been a gap in research because much of the previous research into two-way immersion education focused on elementary settings. The levels of self-esteem and cultural competence among immersion students in this study supported previous research which showed that students who learn multiple languages experience a variety of benefits socially (Baumeister et al., 2003; Gur, 2010; Neugebauer, 2011).

Limitations

Several limitations to this study were identified (Creswell, 2003).

1. The study surveyed students were independently assigned to two different groups (e.g., immersion and non-immersion). Students' parents were given the opportunity to enroll their child in either the French or the English immersion program. The researcher had no control over the selection or assignment of students to these two groups. A notable limitation and threat to the validity of this study was whether the members of these groups had perceptions that they were expected to outperform the other and, thereby, their answers to the survey questions were influenced.

2. The nature of the study meant that students in the groups could not be randomly assigned or randomly selected. Any differences between the groups, which occurred before the study was implemented, could have affected the validity.

3. The study was limited in its scope and size since the data were collected from the students in Grades 9–12 only once in 2012 at a single school. Therefore, generalization of the study findings may be affected and should not be inferred.

4. The study was limited to the participants in a French/English two-way immersion program; the researcher did not consider a broad range of languages.

5. The study was limited by the fact that students' responses may have been biased, due to the fact that the item response style was based on a scale of 1–4; in addition, their self-reports may have been limited by their: (a) desire to please the researcher, (b) desire to show themselves in a favorable light, and (c) desire to be counted among the higher achieving group (Sheng et al., 2011). Therefore, the participants may have limited the validity of the study through their responses to

the survey questions, and inferences about the causal relationship between groups can be inflated (Donaldson & Grant-Vallon, 2002; Wightman & Wesely, 2012).

6.   The study was limited to a single snapshot of student's attitudes towards education, other cultures, and self-esteem. It was not possible to take into consideration the growth in language acquisition from Grades 9–12.

7.   This researcher conducted this study on the assumption that each of the members of the two groups and their attitudes toward academics, other cultures, and self-esteem were independent of one another. This is a reasonable assumption since the students were independently assessed, and each one came from an independent set of living conditions.

8.   This researcher conducted this study on the assumption that the students in both the French immersion and English-only groups and their thoughts associated with attitudes toward academics, other cultures, and self-esteem were independent of whether they were enrolled in the French immersion program or the English-only program. This was a reasonable assumption, since each student had an equal opportunity to either participate or not participate in the French immersion program without prejudice.

9.   Finally, the items in this study were presented in the same order used by the original authors (Lindholm-Leary, 2001; Rosenberg, 1989). It may be that some students were able to discern the purpose of the items and, in that way, the validity of their responses may have been biased.

Due to the lack of random selection and random assignment, generalizations from the findings from this study are not possible. While no significant differences were found between

the two groups, it is possible that, with the use of random selection, random assignment, and a larger sample size, the differences would have been more pronounced and resulted in statistically significant differences.

Recommendations for Future Research

Several recommendations for further research have been identified.

1.   Much of the previous research into two-way immersion education was focused primarily on Spanish/English immersion programs and on elementary settings (Genesee et al., 2005; Hickey, 2007; York-Barr et al., 2007). In this current study, the researcher was able to expand the body of knowledge in regard to two-way immersion programs by his focus on a high school setting and on a French/English immersion program, which fills a gap in the previous research.

2.   Researchers (Cavazos-Rehg & DeLucia-Waak, 2009) have called for further investigation into the association between self-esteem and bilingual education. The findings from this study have provided a glimpse into the self-esteem levels of students in both an English-only program, and a French immersion program. Because the sample sizes of the programs in this study are small ($n = 28$, $n = 60$, respectively), further research should be conducted on this topic to determine whether the use of larger sample sizes would produce significant results.

3.   Researchers should continue to study the connections between self-esteem and overall academic achievement (Rodriguez et al., 2009). This current study was limited to students' overall self-esteem and the comparison of immersion and non-immersion groups. Future researchers should study how the self-esteem of immersion students affects their overall academic achievement in the area of

grade point average and standardized tests. Further research is needed to explore
this correlation in the United States.

4.   Immersion programs are recognized by researchers as having positive effects on
students' appreciation of other cultures, as new calls are made for increased
teacher training in the area of cultural competence (Barimani, 2013; Makropoulos,
2010a; McFeeters, 2017; Skepple, 2014; Sowilso & Orth, 2013; Wightman &
Wesely, 2012). Future studies should be based on an investigation of new
methods for training teachers in the area of cultural competence so that they can
provide a context in which students from a diverse set of backgrounds are able to
feel comfortable.

5.   When students move into a new context, it is difficult for them to adapt to a new
culture and language while, at the same time, they need to maintain their
academic standing (Sheng et al., 2011). In future studies, researchers should
examine French/English immersion programs in the US to determine whether
participation in immersion programs provide a context which encourages student
achievement. This research would further support the development and
implementation of new two-way immersion programs. Further research is also
needed to determine if cultural differences between those of French and those of
Haitian ancestry are affected by lingering animosity based on the nations shared
history (Mejia-Smith & Gushue, 2017).

6.   Consistently, it has been found that it takes 5–7 years for students to achieve
linguistic proficiency (Cho & Reich, 2008; Cummins, 1981; Giambo, 2010;
Genesee et al., 2005; Lindholm-Leary & Block, 2010; Thomas & Collier, 2002;

Wagner, 2015; Wightman, 2010; Young et al., 2008). This finding must be taken into consideration by educators, especially in the area of student achievement on standardized testing. Even though a student has advanced from specialized courses designed to allow him or her to adjust to a new language, linguistic proficiency may not be attained yet. This is especially important for future research in the area of standardized testing and ELL students. Researchers in the future should consider language proficiency and the effect that it can have on a student's ability to pass standardized testing (Gaillard & Tremblay, 2016).

7.   There are an abundance of research findings (Au-Yeung et al., 2015; Barimani, 2013; Cheng et al., 2010; Fortune & Tedick, 2015; Fraga, 2016; Makropoulos, 2010a; Mercer & Williams, 2014; Nicolay & Poncelet, 2013; Sowislo & Orth, 2013; Tran et al., 2015; Wightman & Wesely, 2012), which indicate that student participation in two-way immersion education has a positive effect on academic achievement. In the future, research should be conducted in different language immersion programs to determine if all language immersion programs produce greater academic achievement. Much of the current work has been focused on Spanish/English programs (Bearse & de Jong, 2008; Genesee & Jared, 2008; LeClair et al., 2009; Soderman & Oshio, 2008). Further research into French/English programs in the United States, and the effect of those programs on the academic achievement of students is necessary.

8.   In light of the long time it takes to achieve linguistic proficiency (Lindholm-Leary & Block, 2010) and research that shows the long term positive affect on students' attitudes toward education, a longitudinal study should be conducted in which

dual language programs are evaluated in the long term and students who

participated in dual language programs at an earlier age are interviewed to

determine if their experiences in a language immersion program positively

affected their later educational experiences.

9.   Finally, it is recommended that researchers continue to evaluate the effectiveness

of transitional, maintenance, and two-way bilingual programs (Lopez & Franquiz,

2009). Research should be done to compare the effectiveness of each of these

types of programs in order to determine which type of program provides students

with the greatest benefit. As the US continues to grow in diversity, it will become

increasingly important to understand how to properly educate the diverse students

in this diverse nation.

This researcher focused on whether there were differences between students who were

enrolled in a two-way immersion program and their corresponding attitudes toward education,

other cultures, and self-esteem. Previous researchers (Bearse & de Jong, 2008; Genesee & Jared,

2008; LeClair et al.; 2009; Soderman & Oshio, 2008) found significant positive effects for

students in English/Spanish immersion programs; however, further study is needed to determine

whether students' participation in French/English immersion programs is equally efficacious in

the production of the desired results. The primary focus of this research study was to determine

the effect of a language immersion program on students': (a) attitude towards education, (b)

other cultures, and (c) self-esteem.

Two-way immersion education relies on Cummins's (1981) theories of BICS and CALP

in order to justify placing students in a classroom that is bilingual. While BICS skills are

acquired by a learner regardless of IQ or aptitude, CALP consists of skills that are strongly tied

to proficiency in literacy skills. Language proficiency acquisition is a long-term process and is only mastered after years of experience and use (Cummins, 1981; Genesee et al., 2005; Lopez & Franquiz, 2009; Scanlan & Zehrbach, 2010; Wagner, 2015). While several studies have shown that long-term two-way immersion education supports these skills, the current study was unable to reject the null hypothesis due to the lack of a statistically significant difference between the two groups. This however should not dissuade future educators from relying on two-way immersion programs to increase students' attitudes towards academics, other cultures, and self-esteem for several reasons.

Researchers have found a connection between academic achievement and self-esteem (Baumeister et al., 2003; Hassan et al., 2016; Neugebauer, 2011). Researchers have also found that participation in a two-way immersion program had positive effects on students' academic achievement (Cheng et al., 2010; Fraga, 2016; Hickey, 2007; Howard et al., 2003; Jong & Howard, 2009; Lee et al., 2007; Lindholm-Leary, 2004; Lindholm-Leary & Block, 2010; Linton, 2007; Reyes & Vallone, 2007; Scanlan & Palmer, 2009; Scanlan & Zehrbach, 2010; Tran et al., 2015). Based on the preponderance of research, two-way immersion programs have a positive effect on the academic achievement of students. In this study, the French immersion students did show a higher level of academic appreciation. Based on this evidence one cannot say that two-way immersion education had a negative effect on students' attitudes towards academics.

Cultural competence has been shown in previous research to have been positively affected by engagement in a two-way immersion program (Bearse & de Jong, 2008; Chen & Bond, 2007; Cullen et al., 2009; Lazaruk, 2007). In this study, the researcher was unable to reject the null hypothesis; however, this failure should not be interpreted as having a negative

impact on the students engaged in a French-English immersion program. Many researchers (Borrero, 2015; Hickey, 2007; Howard et al., 2003; Jong & Howard, 2009; Lindholm-Leary, 2004; Lindholm-Leary & Block, 2010; Marian et al., 2013; Nasciemento, 2016; Rocque et al., 2016; Scanlan & Palmer, 2009; Scanlan & Zehrbach, 2010) have shown that two-way immersion education improves students' overall attitudes towards other cultures. In an increasingly diverse world, cultural competence has become a needed skill, and educators should continue to provide opportunities for students to be exposed to students from other cultures. This can be accomplished through two-way immersion programs.

Students who participate in a two-way immersion program have been shown to have higher overall feelings of self-regard than their non-immersion counterparts (Baumeister et al., 2003; Wadman et al., 2008). Self-esteem and academic achievement have been tied together in several research studies (Baumeister et al., 2003; Du, 2009; Hassan et al., 2016; Neugebauer, 2011). ELL students are charged with the task of not only learning a new language but also a new culture. Two-way immersion programs provide the students a safe space to communicate in their native tongue, which increases their comfort level in the classroom and allows them the opportunity to succeed. Two-way immersion programs provide a positive arena for this type of learning. With the increase in non-English speaking students in the classroom, an environment that recognizes and celebrates the culture and language of a variety of students can increase student self-esteem (LeClair et al., 2009).

This researcher anticipated that the results from the survey (Lindholm-Leary, 2001; Rosenberg, 1989), which was utilized in this research study, would support previous research findings (Cheng et al., 2010; Fraga, 2016; Hickey, 2007; Howard et al., 2003; Jong & Howard, 2009; Lee et al., 2007; Lindholm-Leary, 2004; Lindholm-Leary & Block, 2010; Linton, 2007;

Reyes & Vallone, 2007; Scanlan & Palmer, 2009; Scanlan & Zehrbach, 2010; Tran et al., 2015); however, that was not the case. The results from this current study showed that the members of the immersion group reported higher levels of self-esteem, attitudes towards other cultures, and attitude toward academics. However, in each of the tests, the findings did not meet a level of significance of 0.05 and could not be considered statistically significant. Because of the previous research cited above, further study is recommended to determine whether students' participation in French/English immersion programs is effective in increasing students' overall attitudes towards academics, other cultures, and self-esteem

Dissertation Summary

This researcher compared students who participated in a two-way French/English immersion program to students who participated in an English-only program to determine if there was a statistically significant difference in their perceptions of: (a) education, (b) other cultures, and (c) self-esteem. This study is important because of the influx of English language learners in the United States. The study also addresses a gap in research because it examined a French/English immersion program whereas previous studies have focused on Spanish/English immersion programs. The participants included 88 students in Grades 9–12, who had been in the program for a minimum of two years. The results of this study did not show a statistically significant difference in the English-only program and those in the French immersion program. While these findings are not considered statistically significant, further research is recommended in both high schools, and among different language contexts to determine whether two-way immersion education significantly contributes to students' attitudes towards academics, other cultures, and self-esteem.

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APPENDIX A

Permission from Authors or Their Representatives to Use Instruments

Permission to use Attitudes Toward Academics and Other Cultures Surveys

Hi Jonathan,

I'm glad you are doing research in this area, that is great. Yes, you have permission to use the surveys or revise them for your purposes.

Best wishes

Kathryn

Kathryn Lindholm-Leary, Ph.D.

Professor Emerita

Child & Adolescent Development

San Jose State University

San Jose, CA 95192–0075

Phone: █████████

Dr. Lindholm-Leary,

 Good morning, I hope this email finds you well.

 I am writing to you today because I am a doctoral student working on a dissertation entitled "Two-way immersion education, does it affect students attitudes towards education, cultural competence, and self-esteem". I have used your research extensively in this study (thanks! – very interesting to read).

I am writing to you today to get permission to use your two surveys (attitudes towards education, and cultural competence) from your book Dual Language Education in my dissertation. These surveys have been vital to my research into French/English immersion students in South Florida.

I would really appreciate your permission, and would love to share the results of the dissertation with you. I am in the final editing stages of the work.

Thank you again for your research, it has been extremely helpful to me in my work.

Jonathan Pedrone

████████████████████

Permission to use Rosenberg Self-Esteem Survey

The Rosenberg Self-Esteem Scale is perhaps the most widely-used self-esteem measure in social science research. Dr. Rosenberg was a Professor of Sociology at the University of Maryland from 1975 until his death in 1992. He received his Ph.D. from Columbia University in 1953, and held a variety of positions, including at Cornell University and the National Institute of Mental Health, prior to coming to Maryland. Dr. Rosenberg is the author or editor of numerous books and articles, and his work on the self-concept, particularly the dimension of self-esteem, is world-renowned.

There is no charge associated with the use of this scale in your professional research. However, please be sure to give credit to Dr. Rosenberg when you use the scale by citing his work in publications, papers and reports. The Rosenberg Self-Esteem Scale may be used without explicit permission. However, the Rosenberg family would like to be kept informed of its use (University of Maryland Department of Sociology, 2017).

APPENDIX B

School Permission

April 7, 2012

To Whom It May Concern,

As the principal of the International School of Broward, I hereby give consent to Jonathan Pedrone, for the purpose of conducting his dissertation research and surveying at our school.

Should you require any additional information, please do not hesitate to contact me directly at

APPENDIX C

IRB Permission

LIBERTY
U N I V E R S I T Y™

The Graduate School at Liberty University

May 11, 2012

IRB Exemption 1303.051112: Two Way Immersion Education: Does it Affect Students' Cultural

Appreciation, and Attitudes Toward Academics, and Self-esteem?

Dear Jonathan,

The Liberty University Institutional Review Board has reviewed your application in accordance

with the Office for Human Research Protections (OHRP) and Food and Drug Administration

(FDA) regulations and finds your study to be exempt from further IRB review. This means you

may begin your research with the data safeguarding methods mentioned in your approved

application, and that no further IRB oversight is required.

Your study falls under exemption category 46.101 (b)(2), which identifies specific situations in

which human participants research is exempt from the policy set forth in 45 CFR 46:

(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:

(i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Please note that this exemption only applies to your current research application, and that any changes to your protocol must be reported to the Liberty IRB for verification of continued exemption status. You may report these changes by submitting a new application to the IRB and referencing the above IRB Exemption number.

If you have any questions about this exemption, or need assistance in determining whether possible changes to your protocol would change your exemption status, please email us at irb@liberty.edu.

Sincerely,

Fernando Garzon, Psy.D.

APPENDIX D

Parental Permission

Consent Form

Two Way Immersion Education: How Does it Affect Students' Attitudes Toward Academics,

Cultural Appreciation, and Self-Esteem?

Jonathan Pedrone

Liberty University

Education

You are invited to be in a research study of Two Way Immersion Education: How does it affect

students' attitudes towards academics, cultural appreciation, and self-esteem?

You were selected as a possible participant because you are enrolled in the International School

of Broward. We ask that you read this form and ask any questions you may have before agreeing

to be in the study.

This study is being conducted by: Jonathan Pedrone, Department of Education

Liberty University Background Information

The purpose of this study is: To determine whether there is a significant difference in students'

attitudes towards education, cultural appreciation and self-esteem in students enrolled in a two

way immersion program versus those enrolled in a traditional English-only program.

Procedures:

If you agree to be in this study, we would ask you to do the following things:

Take a brief online survey that requests information about students' attitudes towards education,

cultural appreciation, and self-esteem. The survey consists of 30 questions and should take

approximately 15 minutes to complete.

Risks and Benefits of Being in the Study

This study involves no greater risk than would be encountered in everyday activities.

The benefits to participation are: This study will provide important data about two way

immersion programs and their effectiveness. This study will help educators understand the

benefits and differences between students enrolled in two way immersion education. Students

will not receive direct benefits from participation in this study.

Compensation

No compensation will be given to the students for participation in this study.

Confidentiality

The records of this study will be kept private. In any sort of report we might publish, we will not

include any information that will make it possible to identify a subject. Research records will be

stored securely and only researchers will have access to the records. All data from the survey

will be kept confidential by the researcher, and will remain confidential at the conclusion of the

study. The individual scores of students will not be released to the school, or any other outside

entity.

Voluntary Nature of the Study

Participation in this study is voluntary. Your decision whether or not to participate will not affect

your current or future relations with the Liberty University or with the International School of

Broward. If you decide to participate, you are free to not answer any question or withdraw at any

time without affecting those relationships.

Contacts and Questions:

The researcher conducting this study is: Jonathan Pedrone. You may ask any questions you have

now. If you have questions later, you are encouraged to contact him at ████████████████

████████, ████████████, ████████████████████████.

Faculty Chair: Sharon B. Hahnlen, Ed.D

████████████████████

████████████

If you have any questions or concerns regarding this study and would like to talk to someone

other than the researcher(s), you are encouraged to contact the Institutional Review Board, Dr.

Fernando Garzon, Chair, 1971 University Blvd, Suite 1582, Lynchburg, VA 24502 or email at

██████████.

You will be given a copy of this information to keep for your records.

Statement of Consent:

I have read and understood the above information. I have asked questions and have received

answers. I consent to participate in the study.

Student Signature:_____   Date: _____

Signature of parent or guardian:_____   Date: _____
(If minors are involved)

Signature of Investigator:_____   Date: _____