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Interactions in a two-way immersion program : impact and challenges

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INTERACTIONS IN A TWO-WAY IMMERSION PROGRAM:

IMPACT AND CHALLENGES

A Dissertation Proposal Presented
to
the Faculty of the School of Education
International and Multicultural Education Department

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

by
Yoko Koki
San Francisco
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Dissertation Abstract

Interactions in a Two-Way Immersion Program:

Impact and Challenges

Although many studies have focused on teacher/student linguistic interaction in TWI classroom settings, research studies focusing on student/student linguistic and social interaction in TWI classrooms are still rare. To fill this gap in the research literature, my study explored interactions through observing students and teachers in their classrooms and listening to their voices in the TWI program. My participants were 10 students, three teachers, and the principal of a Spanish/English TWI school in San Francisco. I used a qualitative approach to engage my participants in a dialogue regarding their experiences and opinions in the TWI program. The data collection process consisted of four steps: (a) observing a class for 105 hours, which was six and half hours a day twice a week for three months, and taking field notes; (b) conducting an audio-taped 30-minute face-to-face interview with each student and the teacher using open-ended questions based on the class observations,; (c) transcribing the dialogues and having participants review the transcripts for validity and accuracy during a group meeting; and (d) revising the transcriptions based on their feedback. This study revealed that: (a) language mixing positively impacted the learning experience of bilingual children in the Spanish/English TWI program, (b) TWI teachers may benefit from taking a different approach to language mixing in classrooms, and (c) standardized testing is counteracting the TWI school's effort for language equality and is a detriment to fulfilling the philosophy of TWI. My study narrowed the gap in the research literature

by showing that the language mixing can positively impact the learning experience of bilingual children in a Spanish/English TWI program. For this reason, my research is significant and adds to the scholarly research in the field of Two-Way Immersion.

This dissertation, written under the direction of the candidate's dissertation committee and approved by the members of the committee, has been presented to and accepted by the Faculty of the School of Education in partial fulfillment of the requirements for the degree of Doctor of education. The content and research methodologies presented in this work represent the work of the candidate alone.

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CHAPTER I

THE RESEARCH PROBLEM

Statement of the Problem

Two-way immersion (TWI) programs have been shown to be effective in providing both native language and English instruction to English language learning (ELL) students as well as developing English proficiency for all students (Lindholm-Leary, 2005; Mahrer & Christian, 1993). According to the Center for Applied Linguistics (2010), the number of TWI programs has steadily increased since their inception in the U.S. in 1962, with their most dramatic spike after 1995. While in 1994, only seven new programs were launched, this number tripled in 1995, and as many as 30 new programs were added in 2000. As of October 1, 2010, there were 372 TWI programs across 28 states and D.C. in the U.S. Despite the increase, considering the growing number of students with home languages other than English, the U.S. can still benefit from housing more TWI programs. As they are drawing attention for being more effective bilingual programs than in the past (Freeman, 2007), TWI programs need to be further researched and discussed by educators.

Although many studies have focused on teacher/student linguistic interaction in TWI classroom settings (Creese, Bhatt, Bhojani, & Martin, 2006; Takahashi-Breines, 2002), research studies focusing on student/student linguistic and social interaction in TWI classrooms are still rare (Angelova, Gunawardena, & Volk, 2006). This study focused upon that interaction.

Nieto (2001) stated "one way to change school policies and practices is to listen to

students' views about them; however, research that focuses on student voices is relatively recent and scarce" (p. 123). Nieto further addressed that students' voices and teachers' voices are often missing in discussions about educational problems and school reform. For these reasons, I focused on observing students and teachers in their classrooms and listening to their voices in the TWI program.

Nieto (2001) suggested that students' critical perspectives may help educators adjust how they plan curriculum, pedagogy, and other school practices (p.125). The results of this research study can encourage educators to discuss what kind of interaction among students should be facilitated, and what kind of interactions should not be discouraged in TWI programs in order to achieve bilingualism.

Background of the Study

In this multicultural society in the U.S., being bilingual is considered an "asset," and Baker (2006) reported that bilinguals are increasingly in demand in a world economy (p. 422). In such a society, bilingual education is essential, benefitting all students including both native and non-native speakers of English. Research studies have shown that students in bilingual education in the U.S. achieve higher levels of English proficiency and academic achievement compared to students in other programs (Collier, 1995; Thomas & Collier, 1997). Also, Hakuta (1990) explained that bilingual education motivates students to continue the pursuit of education and strengthens family ties as children maintain their home language.

Baker (2006) categorized bilingual education into ten different types. One type of bilingual program, immersion education, is a content-based method of teaching languages in which students are immersed in the target language. Students are taught regular

subjects such as math, science, and art using the target language in order to acquire both academic knowledge and second language proficiency (Johnson & Swain 1997). According to Genesee (1987), "Generally speaking, at least 50 percent of instruction during a given academic year must be provided through the second language for the program to be regarded as immersion" (p. 1).

Within immersion education exists the Two-Way Immersion (TWI) program. Also known as a dual or double immersion program, a TWI program is for both language-majority and language-minority students. Through TWI programs, both groups of students study all subjects using two languages aiming for bilingualism, biliteracy, and grade level or higher academic achievement. As lessons are not translated and students are encouraged to use the language of instruction, all students in the TWI programs benefit from taking both the roles of a language expert and a language learner (Bikle, Billings, & Hakuta, 2004). Lindholm-Leary (2005) explained its effectiveness in terms of second-language acquisition and academic development. Supporting TWI programs, she stated that the program has great potential. She reported that the program successfully educates both the speakers of the majority language and minority language within the same classroom and helps both groups achieve the goals of full bilingualism, grade-level academic achievement, and multicultural competency.

Of the many researchers who have addressed the important role of interaction in language acquisition, Vygotsky (1978) remains one of the most significant. In his work, he stated that language can be acquired fully from social interaction. He maintained that if a child has supportive interaction with adults or other children, the child can acquire a higher level of performance and knowledge than he can on his own. In the case of

language acquisition, a child would acquire both knowledge of language and language performance through interaction with adults and other children. Vygotsky discovered the significance of such interactions and explored the close relationship between language and development.

This study researched interaction in a TWI program. By closely observing a Spanish/English TWI program in San Francisco, the researcher investigated what kind of linguistic and social interactions among students contributed to bilingualism within the TWI program.

<div align="center">Purpose of the Study</div>

The purpose of this study was to explore interactions among students in a TWI program. By conducting a classroom ethnography, the researcher collected descriptive data on the following topics: interactions among students that contribute to nurturing bilingualism in the program, the challenges faced by the TWI teachers in nurturing and developing bilingual proficiency, and what actions teachers can take to overcome such challenges.

<div align="center">Research Questions</div>

The study addressed these questions:

1. What kind of linguistic and social interactions occur between and among students during the English portion of the TWI program?

2. What kind of challenges do the TWI teachers face in nurturing and developing bilingual proficiency among students?

3. According to the three TWI teachers and the principal, what actions can the teachers take to address the challenges in developing bilingual proficiency?

Theoretical Framework

My study researched the experiences of 5th grade students, their teachers, and the school principal in a Spanish/English TWI program to determine what kind of linguistic and social interaction among students contributes to bilingualism. This study was guided by four major theories: (a) Vygotsky's (1978) "zone of proximal development" (p. 86), (b) Krashen's (1982) "comprehensible input," Long's (1996) "interaction hypothesis," and Swain's (1985) "output hypothesis," (c) the rationale for social interaction between teachers and students and among students themselves in TWI programs (Peregoy & Boyle, 1999; Angelova, Gunawardena, & Volk, 2006; Hayes, 2005), and (d) the rationale for immersion education and TWI education (Howard, Christian, & Genesee, 2003; Lindholm-Leary, 2001).

In TWI programs, linguistic and social interactions among students are critical for language development. Such interactions can happen in two languages, in just one of two languages, or a mixture of both. However, the basic rule of TWI programs is not to mix two languages. TWI programs provide comprehensible input because teachers try to explain academic topics in a way all students can understand by giving explanations slowly, rephrasing words and expressions, using visual aids and so on. At the same time, teachers are discouraged to mix two languages in one subject so that students listen to new words and expressions. In the next section, the relationship between interaction and second language acquisition is explored.

Of all second language acquisition theories, Krashen's (1982) comprehensible input hypothesis is one of the most well-known. He argued that a person acquires languages only by exposure to comprehensible input. A language learner has to be exposed to forms

and structures in the target language that meet his or her language development level (represented as "i" in his theory) or just beyond it (represented as "i+1", "1" represents the new linguistic knowledge or language structure). As the learner's exposure shifts from "i" to "i+1," she can understand and acquire the language. Krashen emphasized that the input cannot be just any input, but has to be comprehensible to the learner in order for language acquisition to occur. While this hypothesis has not been substantiated by empirical studies, it is one of the most widely accepted theories in the field of first and second language acquisition.

While Krashen (1982) argued for comprehensible input as the only way for a language learner to acquire a language, other researchers have had different points of view about language acquisition. Swain (1985) and Long (1996) agreed with the essential role of comprehensible input in language acquisition, but they considered comprehensible input by itself insufficient.

Swain (1985) and Long (1996) discussed that in language acquisition, learners need not only comprehensible input but also responses to such input. By receiving comprehensible input from someone and responding to the input verbally or nonverbally, a language learner may communicate smoothly, or may make mistakes and subsequently learn from them. Either way, through such interaction, the language learner has an opportunity to receive the input, try out the output, and also get the feedback from the person she is communicating with. By repeating the process, the language learner can effectively develop language proficiency. The difference is that while Krashen's (1982) theory focused on input, Swain (1985) and Long (1996) suggest including both input and output. Swain's "Output Hypothesis" (1985, p. 248) asserted that an integral language

output is a part of language learning. She suggested that the learning happens when a learner encounters a gap in the linguistic knowledge of the second language. The learner notices the gap and she might modify her output and learn something new about the language.

Moreover, Long emphasized the essential role of interaction in language acquisition with his "Interaction Hypothesis" (p. 451). He claimed that language learning is strongly facilitated by the use of the language in interaction. According to Long, interaction is not just a medium to practice what the learner has already learned, but also that the learning itself takes place in the interaction particularly in regards to the negotiation of meanings. "Especially negotiation work that triggers interactional adjustments by the Native Speaker or more competent interlocutor, facilitates acquisition because it connects input, internal learner capacities, particularly selective attention, and output in productive ways" (Long, 1996, p. 451).

Both "Output Hypothesis" and "Interaction Hypothesis" complement Krashen's work because while "Input Hypothesis" focus solely on language input, "Output Hypothesis" and "Interaction Hypothesis" address both input and output. Both Swain and Long valued the importance of input but they also proposed the necessity of the output. Their hypotheses are inclusive while Krashen's was exclusive.

As students receive "comprehensible input" in TWI programs, they are also given opportunities for output. Not only do they respond to teachers, but also they can interact with their peers who become the "language expert" for the period (Peregoy & Boyle, 1999). In TWI programs, students receive comprehensible input and provide output to test out their new knowledge, receive feedback from their teachers and peer "language

experts," and correct their mistakes based on the feedback. Throughout such a process, students can maximize their language development.

Vygotsky (1978), in his concept "Zone of Proximal Development," claimed that a child is capable of achieving more when guided by a more experienced person than when functioning alone without such assistance. This achievement requires social interaction between the child and more experienced people. This notion can be applied to TWI programs. A student in a TWI program can achieve a higher level of proficiency through the interaction with his/her teacher and/or his/her more experienced "language experts" peers. With the help of such experts, a student can take in more input and send out more output in their second language, maximizing his/her second language acquisition experience. In other bilingual programs, the "more experienced person" is usually the classroom teacher responsible for many students. Naturally, the opportunity for students to exchange input and output is limited compared to TWI programs. TWI programs can be considered as an ideal environment for students to function in their Zone of Proximal Development. As can be seen in TWI programs, interaction has a central role in terms of language acquisition.

<div align="center">Delimitation of the Study</div>

This study limited its scope to an elementary school that offers a Spanish/English TWI program for kindergarten through fifth grade. Since the student participants were fifth graders, this study does not extend its findings to other levels of TWI programs, TWI programs with different languages other than Spanish/English, or any other types of bilingual programs. However, the types of interaction observed as beneficial or not to

bilingualism might be applicable to other levels of TWI programs, TWI programs with different languages, and different types of bilingual programs.

Significance of the Study

First, the findings of this study could serve as resources to develop a TWI program. These findings might provide important tips for successful TWI programs, assisting educators with writing materials and developing new curricula, and offering tangible steps in promoting a bilingual learning environment at the school level. Second, the findings of this study may add to the current body of literature in the field of TWI and bilingual education as a whole, showing how educators can operate TWI programs more effectively.

Researcher's Background

I was born and raised in Okinawa, Japan. My first language is Japanese. In Okinawa, there are a number of U.S. military bases, and Okinawans are used to a life surrounded by Americans and the English language. I was always fascinated by English and wanted to learn the language. I started studying English officially in the 7th grade in the junior high school. In the 10th and 11th grades, I also attended a night school twice a week to learn English.

When I was 17, I went to Wisconsin as an exchange student and spent my senior year of high school there. After that, I studied English and Applied Linguistics in university and graduate school in Tokyo, Japan. I spent half a year in British Columbia, Canada, in a program through my university in Japan. All through my schooling, I had difficulty learning the English language, though I did enjoy the process. Through meeting people from different countries in the U.S. and Canada, I always wondered why so many

of them could speak multiple languages so easily, while most Japanese people that I know, including myself, had such a hard time using English despite our great interest in the language and many years of diligent English studies.

Upon completion of graduate school, I taught English as a foreign language for four years as a full-time teacher in a high school in my hometown, Okinawa. During four years of teaching, I often felt that the current English teaching method was ineffective. I wondered about a more effective teaching method. This led me to return to graduate school to investigate different methods for teaching English.

I came to San Francisco and started studying in the current International and Multicultural Education Program in January 2006. Reading different articles, I have learned that language immersion programs are very effective language programs, so I decided to volunteer at a school with such a program. In August 2006, I started volunteering at an elementary school that hosts a Japanese language immersion program. Later, I learned that among different language immersion programs, Two-Way Immersion (TWI) programs are considered the most effective, so I started to look for this program in the city. In the school year of 2007-2008, I volunteered at an elementary school that houses a Spanish/English TWI program, then in its fourth year since launching the program. From August 2008 to June 2010, I volunteered at Osorio Alternative Elementary School (pseudonym) where the entire school is a Spanish/English TWI program. This is the oldest Spanish/English TWI program in San Francisco. I helped an English teacher one day a week with her fourth and fifth grade students by reading books to them, facilitating book groups, and providing support to individual students.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

This literature review is organized into three sections. The first section covers "bilingualism," which includes a discussion of bilingualism, balanced bilinguals, two major aspects of bilingual education, aims of bilingual education, and different types of bilingual programs.

The second section focuses on Two-Way Immersion (TWI) programs. The first half focuses on immersion programs, the basis of TWI programs, and the origin of immersion education. The second half introduces TWI programs from different aspects: two-way / double/dual immersion programs, major goals and keys to success of TWI programs, and concerns about TWI programs. The third section introduces several empirical research studies on interaction in the field of language acquisition.

Definition of Bilingualism

As bilingualism is one of the main aims of a Two-Way Immersion (TWI) program (Johnson and Swain, 1997), it is essential to discuss the definition of the term "bilingualism." Therefore, this section examines what bilingualism entails.

Attempts to define the word bilingualism have led to much variation. The typical definition was presented by Bloomfield (1933), who identified it as "the native-like control of two or more languages" (p. 56). This is considered maximalist because by this definition, one must have native-like control of the language which is a narrow criterion compared to others. In contrast to Bloomfield is the minimalist definition of Diebold (1964). Diebold's notion is called "incipient bilingualism," which includes possessing

minimal linguistic competence in a second language. If a person can greet in a second language, he could be considered bilingual by this definition. While the former is very exclusive, the latter is highly inclusive.

Between these two extreme definitions are many other interpretations of the word "bilingualism." For example, Valdés (2003) depicts bilinguals on a continuum (Figure 1) where the left end is a monolingual of one language and the right end is a monolingual of another language. The first letter shows the dominant language and the second letter shows the weaker language. The font sizes and letter case displays differing degrees of proficiency. As one gets closer to the center of the line, he gets closer and closer to becoming a balanced bilingual, equally competent in both languages. This is a gradual process which does not allow one to draw a clear line as to who is bilingual and who is not.

Figure 1

Continuum of Bilinguals (Valdés, 2003)

A   A$_b$ A$_b$ Ab Ab Ab AB AB aB aB Ba Ba B$_a$ B$_a$ B$_a$ B

↑ Monolingual of Language A   Monolingual of Language B ↑
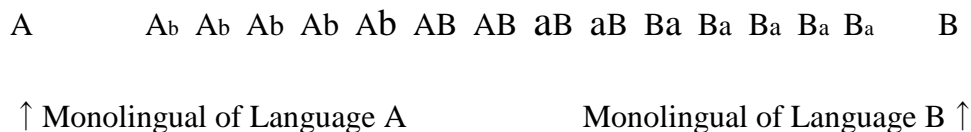
Baker (2006) warned against making cut-off points about who is and who is not bilingual along the competence dimensions, and stated "defining exactly who is or is not bilingual is essentially elusive and ultimately impossible" (p. 16). Instead he suggested that classifications and approximations might be needed; in this vein, definitions such as Bloomfield's (1933) might be too exclusive.

We can divide bilingualism into two concepts: "bilingual usage" and "bilingual ability" (Baker, 2006). According to Baker, bilingual usage inquires about when, where,

and with whom a person uses each language. For instance, one might use English at a certain time of the day, in a certain place or situation, and with a certain group of people. In contrast, the same person might use Spanish at a different time of the day, in a different place or situation, and with a different group of people. This means that usage of the languages is closely related to the domain or context.

Bilingual ability involves four separate skills: listening, speaking, reading and writing. A bilingual person has those skills in two different languages. However, a bilingual person might have better listening and speaking skills in English than in Spanish, or better reading and writing skills in Spanish than in English. A person could be bilingual and capable of using both English and Spanish, but might not use Spanish in everyday life. As can be seen, locating distinctions around the word "bilingual" is essential to gaining a deeper understanding of the concept.

<center>Balanced Bilinguals</center>

Among the multiple definitions of bilinguals, TWI programs aim to produce "balanced bilinguals." The following definition of the "balanced bilingual" is the definition of bilingualism used in this study.

A "balanced bilingual," also known as equilingual, or ambilingual, is "someone who is approximately equally fluent in two languages across various contexts" (Baker, 2006, p. 9). Baker further suggests that the meaning of this concept often entails appropriate capability in two languages. For example, a balanced bilingual student would understand the curriculum at his school in two languages and be able to function in both languages throughout all school activities. Bilingualism is one of the goals of the Two-

Way Immersion (TWI) programs. Related to bilingual usage and ability, "balanced bilingual" is an important notion in the discussion of TWI programs.

Similar to the examples above, one may have equal verbal abilities in both English and Spanish, but have much stronger reading and writing skills in English than in Spanish, or vice versa. This person is considered bilingual, but not necessarily a "balanced bilingual." Baker (2006) expresses caution about using a literal definition. A person could have equivalent, yet very low proficiency in two languages; this person may appear to fit into this category of "balanced bilinguals." However, Baker suggested that researchers in the field of bilingualism do not regard this type of bilingual as balanced.

<p style="text-align:center">Two Major Aspects of Bilingual Education</p>

Two major aspects in bilingual education are linguistic and cultural. The California Department of Education (1981) suggested the most basic form of a bilingual education entails the following characteristics: "1. The continued development of the student's primary language. 2. acquisition of the second language, which for many language minority students is English. 3. instruction in the content areas utilizing both L1 and L2" (p. 215). The above description involves the linguistic aspect of bilingual education, but the cultural aspect is also essential. Bilingual programs usually educate students not only in two languages, but also in two cultures. Ulibarri (1972) talked about the connection between language, people and culture:

> In the beginning was the Word. And the Word was made flesh. It was so in the beginning and it is so today. The language, the Word, carries within it the history, the culture, the traditions, the very life of a people, the flesh. Language is people.

We cannot conceive of a people without a language, or a language without a people.

The two are one and the same. To know one is to know the other. (p. 295)

As Ulibarri (1972) indicated above, language, people, and culture have a strong tie to each other; one cannot be detached from the other. This is also true in bilingual education. When an educator teaches one language to students, she cannot just teach the language by itself, but also has to teach about the people who speak the language and practice the culture. Therefore, one can say that a language education is a cultural education, and a cultural education is a language education. Without learning a language, one cannot fully understand the culture that the language is spoken in, and without understanding a culture, one cannot fully learn the language that is used in the culture.

<div align="center">Aims of Bilingual Education</div>

Baker (2006) claims that the aims of bilingual education are often accompanied by unsteady or contrary ideas and politics. He raises four chief aspects of bilingual education which shape points of view: as language planning, politics, economics and cost-efficiency, and pedagogy. Baker also emphasizes how the debate on bilingual education involves much more than just education. It also includes sociocultural, political and economic issues. One can see Baker's points in the following ten aims of bilingual education as introduced by Ferguson, Houghton, and Wells (1977).

(1) To assimilate individuals or groups into the mainstream of society; to socialize people for full participation in the community.

(2) To unify a multilingual society; to bring unity to a multi-ethnic, multi-tribal, or multi-national linguistically diverse state.

(3) To enable people to communicate with the outside world.

(4) To provide language skills which are marketable, aiding employment and status.

(5) To preserve ethnic and religious identity.

(6) To reconcile and mediate between different linguistic and political communities.

(7) To spread the use of a colonial language, socializing an entire population to a society.

(8) To strengthen elite groups and preserve their privileged position in society.

(9) To give equal status in law to languages of unequal status in daily life.

(10) To deepen an understanding of language and culture (pp.163-172).

While all the above aims are educational, they are also associated with either sociocultural, political and/or economic issues. Based on those aims, one can also see how bilingual education can involve both language minorities and language majorities. Lambert (1980) describes bilingual education as having two faces: one for language minorities and the other for language majorities.

Types of Bilingual Programs

Baker (2006) divided bilingual education into ten types, which can be categorized into three main groups: monolingual forms of education for bilinguals, weak forms of bilingual education for bilinguals, and strong forms for bilingualism and biliteracy. According to Baker (2006), the first group (Table 1), monolingual forms of education for bilinguals, contains three different types of programs: mainstreaming/submersion; mainstreaming/submersion with withdrawal classes/sheltered English/content-based ESL; and segregationist. Typical students in all these programs are language minority children with the aim of monolingualism. The first two programs are very similar. The language of the classroom is the majority language, and the educational aims are assimilation and subtractive. Only the minority language is used in the third program and the educational

aim is apartheid. Therefore, the typical outcome of these forms of education for

bilingualism is not bilingualism but monolingualism.

Table 1

Monolingual Forms of Education for Bilinguals

Type of Program	Typical Type of Child	Language of the classroom	Societal and Educational Aim	Aim in Language Outcome
MAINSTREAMING /SUBMERSION (Structured Immersion)	Language Minority	Majority Language	Assimilation/ Subtractive	Monolingualism
MAINSTREAMING /SUBMERSION with Withdrawal Classes/ Sheltered English/ Content-based ESL	Language Minority	Majority Language with "Pull-out" L2 lessons	Assimilation/ Subtractive	Monolingualism
SEGREGATIONIST	Language Minority	Minority Language (forced, no choice)	Apartheid	Monolingualism

Note. L2= Second Language. (Baker, 2006, p. 215)

Baker (2006) reported that the second group (Table 2) is the weak form of bilingual

education for bilinguals. Transitional, mainstream with foreign language teaching, and

separatist programs all belong to this group. In a transitional program, minority language

speaking students study with the aim of assimilation to the majority culture/language.

Students are taught in their home language only until they become competent enough in

the majority language to comprehend mainstream education in the majority language.

The mainstream program with foreign language teaching is common where majority

language speaking students learn a second or foreign language. The separatist program is

chosen for language minority students who want to only acquire the minority language

resulting in detachment from the mainstream culture and gain/maintain autonomy. The

typical students for transitional and separatist programs are composed of language

minority children while language majority children are the participants in the mainstream

program with foreign language teaching. In this "weak" group, bilingual students are

often in the classroom. Yet because the basic educational aim is assimilation of language

minorities instead of maintenance of their first language, the language outcome is not

bilingualism and biliteracy, but rather relative monolingualism or limited bilingualism.

Table 2

Weak Forms of Bilingual Education for Bilinguals

Type of Program	Typical Type of Child	Language of the classroom	Societal and Educational Aim	Aim in Language Outcome
TRANSITIONAL	Language Minority	Moves from Minority to Majority Language	Assimilation/ Subtractive	Relative Monolingualism
MAINSTREAMING with Foreign Language Teaching	Language Majority	Majority Language with L2/ FL lessons	Limited Enrichment	Limited Bilingualism
SEPARATIST	Language Minority	Minority Language (out of choice)	Detachment/ Autonomy	Limited Bilingualism

Notes. L2= Second Language; FL=Foreign Language. (Baker, 2006, p. 215)

The third group (Table 3) is composed of the strong forms of bilingual education

for bilingualism and biliteracy. It includes four types of programs: immersion,

maintenance/heritage language, two way/dual language, and mainstream bilingual (Baker,

2006). The most important point is that they have common outcome goals of bilingualism

and biliteracy. Strong form programs also share the societal and educational aims of

pluralism and enrichment, and are additive rather than deductive. Of the four strong

forms of bilingual programs, the two-way/dual language program is unique. It is the only

program that hosts both minority and majority language speaking students in the same

classroom and emphasizes the use of both minority and majority languages throughout

the day.

Table 3

Strong Forms of Bilingual Education for Bilingualism and Biliteracy

Type of Program	Typical Type of Child	Language of the classroom	Societal and Educational Aim	Aim in Language Outcome
IMMERSION	Language Majority	Bilingual with initial emphasis on L2	Pluralism & Enrichment. Additive	Bilingualism & Biliteracy
MAINTENANC/ HERITAGE LANGUAGE	Language Minority	Bilingual with emphasis on L1	Maintenance, Pluralism & Enrichment. Additive	Bilingualism & Biliteracy
TWO WAY/ DUAL LANGUAGE	Mixed Language Minority & Majority	Minority & Majority	Maintenance, Pluralism & Enrichment. Additive	Bilingualism & Biliteracy
MAINSTREAM BILINGUAL	Language Majority	Two Majority Languages Pluralism	Maintenance, Biliteracy & Enrichment. Additive	Bilingualism

Notes. L2= Second Language; L1=First Language. (Baker, 2006, p. 216)

Although the term "bilingual education" is commonly used by many people, its

meaning is complicated and often misunderstood. Baker (2006) calls it "a simplistic label

for a complex phenomenon" (p. 213). As mentioned above, bilingual education contains

multiple variations with each having different types of students, mediums of instruction,

societal and educational aims, and language outcomes. Because the term "bilingual

education" has multiple definitions, defining the word is essential. In Freeman's (1996)

case study, one teacher at Oyster Bilingual School states "Bilingual education can mean many different things to different people" (p. 13). She explains how it is necessary that parents, teachers, and administrators have a common understanding of the goals, processes, and expected results of the educational reform of bilingual education.

Immersion Education: The Basis of TWI Programs

Immersion education is a content-based method of teaching languages. In immersion education, students are immersed in the target language. Students learn regular subjects such as math, science, and art through the target language and This effectively acquire both regular academic knowledge and the target language (Johnson & Swain, 1997)

The most commonly used definition of immersion is by Genesee, one of the world's leading authorities on immersion education. In his book, *Learning Through Two Languages: Studies in Immersion and Bilingual Education* (1987), he defined immersion as follows: "Generally speaking, at least 50 percent of instruction during a given academic year must be provided through the second language for the program to be regarded as immersion. Programs in which one subject and language arts are taught through the second language are generally identified as enriched second language programs" (p. 1). This means that if a class of students who are native speakers of English were taught different subjects in a second language such as Spanish at least half a school day, then the program can be regarded as immersion.

Swain and Lapkin (2005) explained that immersion programs "emphasize developing fluency in an initially unknown language through content-based teaching in the second/foreign language, at no expense to the home/first language of the students"

(p.170). A number of researchers such as Curtain and Dahlberg (2004) recognize immersion education as a highly effective approach to teach/learn a foreign language. Many nations—the United States, Canada, and Australia—have been using a foreign language immersion education system. As of June 2, 2009, throughout 27 states (plus Washington D.C.), 346 schools housed some form of a language immersion program in the United States (Center for Applied Linguistics, 2010).

<p align="center">The Origin of Immersion Education</p>

The first immersion program, documented during the mid-1960s, occurred in St. Lambert, Quebec Province, Canada. A group of English-speaking parents were concerned about their children's communication ability in French. They lobbied their school board for improvements in the teaching of French as a second language and formed the St. Lambert Bilingual Study group. They proposed that their school board should start educating unilingual English-speaking children entirely in French starting at the kindergarten level. So the children learned French first, and then English later when they reached second grade. The amount of instruction in English gradually increased as they entered a higher grade; by sixth grade, approximately half the curriculum was instructed in English and half in French. The parents and school board labeled this model an "Immersion Program" (Johnson & Swain, 1997).

<p align="center">Two-Way/Double/Dual Immersion Programs and its Criteria</p>

A Two-Way Immersion (TWI) program, also called double/dual immersion program, is a form of bilingual education. A TWI program is for both language-majority and language-minority students. Through TWI programs, both groups of students study all subjects using two languages. The students aim for bilingualism, biliteracy, and high

academic achievement. As lessons are not translated and students are encouraged to use the language of instruction at the time, all students in the TWI programs benefit from taking roles of both language model and language learner (Bikle, Billings & Hakuta, 2004).

Howard and Christian (2002) defined the three criteria of TWI programs: (1) the programs include equal numbers of two groups of students, (2) the programs are integrated and two groups of students study together for all or most of the day, and (3) the programs provide core academic instruction to both groups in both languages. For example, in a Spanish/English TWI program, if there were 20 students in a classroom, ideally10 students would be native speakers of Spanish and the other 10 students would be native speakers of English. All instruction would be only in Spanish for half a day, and in English for the rest of the day. While art, social studies, math, Spanish language arts may be taught in Spanish, science, P.E., English language arts may be taught in English all through the school year. Different programs carry out TWI in different ways and make decisions on how to divide the day into two different languages, which academic subjects are taught in what language, and the ratio of the usage of two languages. Table 4 contains examples of four different TWI programs with different models. Each school is unique in terms models, language of initial literacy, language of content areas, ESL/SSL instruction by a specialist, and ethnicity of students.

Table 4

Summary of Program Models

School	Model	Language of Initial Literacy	Language of Content Areas	ESL/SSL Instruction by a Specialist	Ethnicity of Students
Alicia Chacon International School (TX)	Spanish dominant (80/10/10-modified 90/10)	Spanish	Math/science in Spanish Social studies in English	None	Hispanic95% White 3% Others (NA, Black, Asian or PI) 2%
Barbieri Elementary School (MA)	Differentiated; amount of Spanish instruction varies by native language	Native language	Math in English Science and social studies alternate languages by unit	All students receive K-3 Targeted thereafter	Hispanic57% White 34% Black 5% Asian/PI 2% AI/AN 1% Unspecified 1%
Inter-American Magnet School (IL)	Spanish dominant (80/20-modified 90/10)	Native language	All content in Spanish K-4 Science in English 5-8	All students receive K-1 Targeted thereafter	Hispanic74% White 8% Black 6% Asian/PI 1% AI/AN 1% Unspecified 10%
Key Elementary School (VA)	Balanced (50/50)	Both	Math/science in Spanish Social studies in English	ESL K-5 for students who qualify for services	White 46% Hispanic 44% Black 5% Asian 3% Unspecified 2%

Notes. At Alicia Chacon, students receive instruction in their third language of their choice from Mandarin Chinese, German, Japanese, or Russian; His=Hispanic, NH White=Non-Hispanic White, NH Black=Non-Hispanic Black, PI=Pacific Islander, AI=American Indian, AN=Alaskan Native
(Howard & Sugarman, 2007, p. 14)

Components of Two-Way Immersion Programs

According to Lindholm-Leary (2005), TWI programs have two basic models of

instruction: 90:10 and 50:50. In the former design, the amount of time for instruction in

each language differs across the grade levels, but not in the latter design. In the 90:10

model, 90 percent of the instruction is delivered through the target, or non-English,

language in K-1st grade. The remaining 10 percent focuses on oral English language

proficiency. In 2nd and 3rd grade, 80 percent of the class time is spent in the target

language and the rest in English. In the 4th and 5th grade, instructional time is half in the

target language and the half in English.

On the other hand, in the 50:50 model, all instructional time across all grades is

evenly divided for the target language and English. Within the 50:50 model are two

variations. In the *simultaneous model*, reading instruction starts in kindergarten in both

languages, while in the *successive model*, students first start receiving reading instruction

in their native language and begin reading instruction in the target language.

Major Goals of Two-Way Immersion Programs

Bikle, Billings, and Hakuta (2004) introduced three goals of the program: (1)

academic achievement, (2) language development and (3) cross-cultural understanding.

Bikle, Billings, and Hakuta reported that the success of TWI programs can be seen in the

increase of academic achievement as evidenced by the results of standardized tests. The

authors state that the students are displaying consistent growth and achievement in

language arts and mathematics in both L1 and L2.

The second goal of TWI programs is language development. Bikle, Billings, and

Hakuta (2004) mentioned that the aim of TWI programs is to develop a high level of

biliteracy for all students. Within this are four sub-goals: (1) language assessment, (2)

language use in the classroom, (3) language equity and (4) student language attitudes. For

the language assessment sub-goal, Bikle, Billings, and Hakuta maintained that it provides

successful results for the language proficiency of TWI students. They comment on the

downside of commonly used language assessments, such as standardized academic

measures, because they are not capable of capturing the breadth and depth of a student's

linguistic proficiency. Bikle, Billings, and Hakuta also proposed the Student Oral

Proficiency Assessment (SOPA) as a type of assessment. The goal of SOPA is to elicit

the natural use and range of language of the students, while other assessments tend to just

capture specific usage of morphology, tense, or vocabulary. Also, the authors suggested

mixing usage of different measurements to assess students' linguistic ability: traditional

measures, students' writing and reading samples.

In the second sub-goal of language use in the classroom, Bikle, Billings, and

Hakuta (2004) argued for the effectiveness of teaching content through a second language,

rather than teaching the second language as its own subject. Also, the authors emphasized

the importance of providing more opportunities for students to express themselves in the

second language and how having native-speaking peers in their classroom helps their

learning. Bikle, Billings, and Hakuta indicated a possible usefulness and validity of code-

switching in a TWI program, despite the common current feature of separating two

languages completely.

In discussing language equity, Bikle, Billings, and Hakuta (2004) talked about

how school is actually feeding into the inequity of languages by emphasizing English

standardized tests more than Spanish, or delivering announcements in English first and

Spanish second. In the final sub-goal of TWI programs, student language attitudes, Bikle,

Billings, and Hakuta confirmed the main aim of the programs citing Christian (1994):

TWI programs are designed to "promote positive attitudes toward both languages and

cultures and is supportive of full bilingual proficiency for both native and non-native speakers of English" (p. 1). Bikle, Billings, and Hakuta then pointed out that the emerging evidence indicates the successes and the complexities of cultivating the value of two languages, especially in the social environment of regarding English as holding the highest status.

Bikle, Billings, and Hakuta (2004) argued that despite the fact that this third goal of cross-cultural understanding might be the most desirable, it is the least understood. They discuss that multiple studies show the positive psychosocial attitudes and a high level of self-esteem may be nourished by TWI programs. Cazabon, Lambert, and Hall (1993) conducted a study on multiple topics which included social-interactional patterns among students from different ethnic backgrounds in the TWI program called Amigos. The Amigos program is housed both at Maynard School and Kennedy School in Massachusetts, serving roughly 250 public elementary school students (half native speakers of Spanish and half native speakers of English.) Based on the data collected in this research, friendships did not depend on students' ethnicity or cultural background in the TWI studied. The students in Amigos program instead chose their friendships in "an ethnic-blind and color-blind random fashion" (p. 27).

While Bikle, Billings, and Hakuta (2004) raised three major goals of TWI programs, Howard and Christian (2002) define four central goals of TWI programs: (1) high levels of proficiency in L1, (2) high levels of proficiency in L2, (3) grade level or above academic performance for both groups of students, and (4) fostering cross-cultural attitudes and behaviors. This is identical to the three main goals of TWI programs

suggested by Bikle, Billings, and Hakuta, except that Bikle, Billings, and Hakuta combined goals number one and two.

Christian, Howard, and Loeb's (2000) work stated that the majority of research studies on TWI programs have focused on academic achievement. This is related to Bikle, Billings, and Hakuta's (2004) argument that even though cross-cultural understanding might be the most desirable goal in TWI programs, most research focuses on the other goal--students' academic achievement.

<div align="center">Keys to Success of a Two-Way Immersion Program</div>

August and Hakuta (1997) identified the attributes of success of a two-way immersion (TWI) program through a comprehensive review of effective schools and practices:

> A supportive school-wide climate, school leadership, a customized learning environment, articulation and coordination within and between schools, use of native language and culture in instruction, a balanced curriculum that includes both basic and higher-order skills, explicit skills instruction, opportunities for student-directed instruction, use of instructional strategies that enhance understanding, opportunities for practice, systematic student assessment, staff development, and home and parent involvement. (p. 171)

These attributes of success identified by August and Hakuta (1997) are almost identical to Lindholm-Leary's (2005) list of factors for success for TWI program. Lindholm-Leary's (2005) list of factors for success for a TWI program includes: a cohesive school-wide vision with clear goals; the use of multiple measures in both languages to assess students' progress; high quality teachers, hopefully fluent in both

languages; and strong family involvement. Both August and Hakuta (1997) and

Lindholm-Leary (2005) specifically pointed out a school-wide support for the program, a

curriculum that values the native language and culture of all students, and strong family

involvement as key factors to success for a TWI program.

Howard and Christian (2002) introduced Lindholm's (1990) criteria for success in

a TWI program.

1. Programs should provide a minimum of 4 to 6 years of bilingual instruction to participating students.

2. The focus of instruction should be the same core academic curriculum that students in other programs experience.

3. Optimal language input as well as opportunities for output should be provided to students, including quality language arts instruction in both languages.

4. A minimum of 50% of the time should be used for instruction in the target language, and English should be used at least 10% of the time.

5. The program should provide an additive bilingual environment where all students have the opportunity to learn a second language while continuing to develop their native language proficiency.

6. Classroom should include a balance of students from the target language and English backgrounds who participate in instructional activities together.

7. Positive interactions among students should be facilitated by the use of strategies such as cooperative learning.

8. Characteristics of effective school should be incorporated into programs, such as qualified personnel and home-school collaboration. (p. 7)

Howard and Christian (2002) suggested that regardless of language of instruction,

the teacher has to make content comprehensible to second language learners, while at the

same time providing a challenging learning experiences to native speakers. They also

emphasize the significance of the strict separation of languages. This includes not only

the language of instruction and the student output, but also environmental print in the classroom such as materials, posters, visual aids. They suggest that if one classroom were used for two languages, one side of the wall should be used for posters and materials in one language and the other side for the second language.

In contrast, Bikle, Billings, and Hakuta (2004) indicated the possible usefulness and validity of code-switching in TWI programs. This feature of language separation might need further investigation. Bikle, Billings, and Hakuta explained that bilingual students who code-switch between two languages do so for good and natural reasons with purpose, rather than as a result of confusion. Furthermore, they are concerned about the negative effect on students when they are forced to use only one of the languages that they speak.

Additionally, Howard and Christian (2002) gave examples of how to give effective "sheltered instruction" that is still challenging to native speakers of the language of instruction. The strategies include: adjusting the rate and level of speech for the students, using visual aids, building on prior knowledge, giving students adequate chances to interact with one another, modeling academic tasks, and reviewing content concepts and vocabulary. Furthermore, Howard and Christian maintained that it is crucial to have objectives for both language and content learning for every lesson. They assert that it is more effective if the teacher shares the objectives with her students.

Cooperative learning is also essential in TWI programs according to Howard and Christian (2002). It gives students more opportunities to practice their first and second languages than do traditional teaching methods. It also provides students with opportunities to work in heterogeneous groups, leading to one of the central goals of TWI programs—fostering cross-cultural understanding.

The Effectiveness of Two-Way Immersion Programs

Lindholm-Leary and Ferrante (2005) conducted a follow-up study of 199 7th and 8th grade students who were enrolled in TWI programs in elementary schools. The purpose of the study was to investigate the achievement and attitudes of the students in the programs. They came from four different elementary schools: two in California, one in Texas, and one in Alaska. These participants composed three ethnic/language groups: (1) Hispanic Spanish bilinguals (Hisp-SB) who began the program as English language learners; (2) Hispanic English bilinguals (Hisp-EB) who began the program as English-only or English-dominant speakers; and (3) Euro-European American English bilinguals who began the program as English-only speakers. The authors compared the outcomes for these three ethnic/language groups of students.

Through the study, Lindholm-Leary and Ferrante (2005) discovered three main points: most students held very positive attitudes toward bilingualism, gave TWI programs very high marks, and were still using and felt comfortable speaking in Spanish even after elementary school. The first result is consistent with Lindholm-Leary and Borsato's (2001) finding that students in TWI elementary school programs held positive attitudes toward college, school, and the TWI education. Lindholm-Leary and Ferrante's research revealed that most students believed that learning in two languages assisted them to learn to think better, made them smarter, and aided them to do better in the class. Another finding was that the students felt valued in the program, particularly among Hispanics who started as English learners. These students reported that they were glad they had enrolled in the TWI program and would recommend this program to others.

Lindholm-Leary and Ferrante (2005) illustrated several differences in results among three groups. First, Hisp-SB's grades were the poorest, while Euro achieved the highest grades in language arts and social studies. More Hisp-SB had higher grades than Hisp-EB in language arts and social studies, even though these subjects tend to favor native English speakers rather than English learners. Hisp-SB did better than other groups in Spanish language arts courses. Based on the results, Lindholm-Leary and Ferrante argued that even though the Hisp-SB students had positive attitudes and were coping in their classes with native-English speaking peers, TWI programs could benefit from helping Hisp-SB students improve English reading, English writing, and social studies.

While Lindholm-Leary and Ferrante (2005) emphasized student outcomes, Takahashi-Breines (2002) focused on the important role of teacher-talk in a successful TWI program. She observed Teresa, a third grade English/Spanish bilingual teacher in her elementary school classroom in New Mexico for two years. Through her ethnographic study, the author found out that Teresa used her teacher-talk to provide support in four areas: sociocultural, linguistic, cognitive, and academic. Takahashi-Breines argued that all those four areas of support are essential in the success of a TWI program, and consequently, the students' academic success. Teresa was bilingual in Spanish and English and used Spanish exclusively in the mornings and English in the afternoons. Lindholm-Leary's (2005) list of factors for successful TWI programs included high quality teachers, like Teresa, who are hopefully bilingual. Because she was bilingual and fluent in both Spanish and English, she could manage to tell jokes in both languages, call students by her original nicknames, share laughter with both native

Spanish-speaking students and English-speaking students, and maintain a close relationship with all her students.

Takahashi-Breines (2002) explained that teachers have to be able to take a multifaceted role; sometimes as a serious and knowledgeable mentor, as a sympathetic friend who listens to the students, as a funny comedian who makes students laugh and relax, and often as a parent who disciplines and cares for students. In TWI programs, teachers are required not only to take this multifaceted role but also to fulfill it in two languages and cultures.

Teresa in Takahashi-Breines' (2002) study valued students' home language and culture by incorporating each student's home language and culture. Her students often had a chance to talk about their own experiences and knowledge in their classroom. So all students felt included and without marginalization. Takahashi-Breines maintained that this was an optimal environment for students to learn. She stated that all teachers could learn from TWI program teachers in terms of teacher-talk.

Describing the effectiveness of TWI programs in terms of second language acquisition and academic development, Lindholm-Leary (2005) supported TWI programs because the program has great potential for achieving the goal of bilingualism. The author reports that the program successfully educates both the speakers of majority language and minority language within the same classroom and helps both groups achieve the goals of full bilingualism and biliteracy, grade-level academic achievement, and multicultural competency. Christian, Howard, and Loeb (2000) believe that TWI programs also improve the relationship between majority and minority language groups. While in other bilingual programs, only one group of students, often native English

speakers, takes a role as an expert in the language, in TWI programs, both majority and minority language speakers have an opportunity to be the expert in their primary language, and to be the learner in their second language. In classrooms, students teach and learn from each other, ultimately increasing the interaction among the two groups of students. Because all students have the chance to be the expert in their language, no one group of students feels superior or inferior based on their primary language.

Howard and Christian (2002) maintained that TWI is "a dynamic form of education that holds great promise" (p. 1) which develops high levels of academic achievement, bilingualism and biliteracy, and fosters cross-cultural awareness. Howard and Christian stressed that when TWI is well-implemented, it is "among the most impressive forms of education available in the United States" (p. 16). Although a TWI program is challenging to implement, students have grade-level academic ability, high level of bilingualism and biliteracy and cross-cultural competency upon graduating from a TWI program.

Based on their research, Bikle, Billings, and Hakuta (2004) concluded that of all bilingual program models, "a TWI program is the elite" (p. 601). Christian, Howard, and Loeb's (2000) research study agrees with many other research studies on the success of TWI programs in the United States.

Case Studies on Two-Way Immersion Programs

Lindholm-Leary (2005) conducted two studies on English and Spanish reading and writing proficiency of higher-grade elementary students in Spanish/English TWI programs. They indicate that both native Spanish-speaking students and native English-speaking students progressed to high levels of reading and writing ability in both languages in composition, grammar, and mechanics (Howard, Christian, & Genesee,

2003; Serrano & Howard, 2003). This evidence confirms the linguistic success for both minority and majority students in both languages in TWI programs.

Lindholm-Leary (2001) also investigated the reading and math achievement test scores of students in TWI programs at higher elementary and secondary levels to see the long-term impact of such programs. The findings showed three major points. First, both native English speaking students and English language learners in such programs demonstrated large gains in their reading and math achievement test scores. Secondly, both groups scored at or above grade level in reading and math when measured in both languages by middle school. Lastly, by the time students reached fifth grade, both groups' academic achievement was comparable to, or above, the levels of the achievement of peers who spoke the same native language but had not gone through a TWI program. This study is evidence of academic success in a TWI program.

According to the data Lindholm-Leary (2005) provided, seventh graders in California who had finished a TWI program scored above the state average for all seventh graders. English language learners (ELLs) who attended a TWI program not only scored higher than ELLs in English-only programs, but also achieved on par with native English speakers in English-only programs (Lindholm-Leary, 2004; Lindholm-Leary & Borsato, 2001). By Grade 8, ELLs who had studied in a TWI program scored comparably to native English speaking students on tests in English. All these findings show TWI program's effectiveness in terms of both language proficiency and academic achievement.

Similarly, Calderon and Slavin (2001) studied the literacy-based English-Spanish TWI program at Hueco Elementary School in El Paso, Texas. This school incorporates the Success for All/Exito Para Todos (SFA/EPT) program in its curriculum, focusing on

the development of speaking, reading and writing skills in both English and Spanish. It has been implemented in approximately 300 schools throughout the country. At Hueco Elementary School, the 50-50 TWI is practiced in which students receive half of their daily instruction in Spanish and the other half in English through all grades.

In Calderon and Slavin (2001), extensive professional development is given to the teachers in SFA/EPT. The teachers also receive everything they need for instruction in this program, such as literature books, children's books, classroom posters, teacher's manuals, and supplementary materials. In this program, students receive reading instruction according to their reading level. The reading instruction in L2 is introduced in Grade 2. They focus on reading and writing along with oral language development for students' success. Calderon and Slavin concluded that the program at Hueco Elementary School is promising because it has all the elements for success identified by August and Hakuta (1997).

According to Lindholm-Leary (2001), English learners in TWI programs often do better than their counterparts in other programs. Lindholm-Leary conducted a longitudinal study over 15 years in 20 schools. The results indicated that regardless of the students' background, program type (90:10, 50:50), or school characteristics, both English-speaking and Spanish-speaking students benefited from dual language education. The author also reported that the students in the program learned subject content in one language and still understood the same content in the other language. Bikle, Billings, and Hakuta (2004) emphasized that learning a second language did not interfere with academic development in the first language.

Also, Lindholm-Leary (2005) reported the rewarding outcomes of TWI programs include general language proficiency, reading and writing ability, academic achievement and positive attitudes towards school. A number of studies of fifth and sixth grade students in a TWI program since kindergarten or first grade display that both native English-speaking and English language-learning students became competent in both languages (Christian et al., 1977; Howard, Christian, & Genesee, 2003; Howard, Sugarman, & Christian, 2003). Furthermore, Lindholm-Leary (2001) pointed out an important finding: students in 90:10 programs tend to be more fully bilingual than their counterparts in 50:50 programs.

Christian, Howard, and Loeb (2000) mentioned preserving minority languages. They maintained that societal pressures encourage minority students to assimilate to English, citing the example from McCollum (1993) of how a Spanish-background student in a TWI program used primarily English at school. McCollum argued that students perceived English as the "language of power" and behaved accordingly. The following studies introduce the effort of teachers to counter balance the issue of "language of power."

Freeman's (1996) case study closely observed and explained how Oyster Bilingual School's Spanish/English TWI program functioned in its societal and political contexts. She pointed out how the members of Oyster Bilingual School looked at bilingualism and cultural pluralism as resources to be developed, rather than issues to be solved. Freeman reported how Oyster used to be a monolingual English program, but a coalition of Hispanic leaders, parents, and educators encouraged the superintendent to replace that

with a TWI program. Twenty experienced native Spanish-speaking teachers representing different Spanish speaking countries helped in the process of the transition.

Freeman (1998) expressed that TWI programs can elevate the status of both the minority languages and the students who speak the languages. She argued that equal distribution and evaluation of minority and majority languages throughout the school elevates minority language. Freeman maintained the presence of a close relationship between language use and societal identity. If students learn to look at minority language as a "legitimate" means of fulfilling the official educational function, they will see the speakers of the minority language as "legitimate participants" (p. 16) of the community. She further explains how teaching the minority language is an effort to heighten the social identity of minority language speakers.

Christian, Howard, and Loeb (2000) emphasized the need for focused attention on the preservation and development of languages other than English in schools. Some programs have increased the usage of minority languages from 50% to 90% to preserve the minority language, while others have tried to give equal status to minority languages by making all signs and announcements in the minority language in addition to English. These efforts resemble what can be seen in studies by Bikle, Billings, and Hakuta (2004), such as making announcements first in the minority language and then in English. Such effort is needed in order to overcome the problem of English being the "language of power" in TWI programs.

Christian, Howard, and Loeb (2000) also reported that in most studies on TWI programs (Lindholm-Leary, 2001, 2005), students often perform as well as, or even better than, students in monolingual English or traditional bilingual programs on English

standardized achievement tests. Christian, Howard, and Loeb also stated that some research studies (Freeman, 1998) show that TWI programs promote positive cross-cultural relationships among students. Bikle, Billings, and Hakuta (2004) introduced cross-cultural understanding as one of three major goals of TWI programs in their research. These two research studies demonstrate that these TWI objectives are indeed being realized in schools.

<center>Concerns about TWI Programs</center>

Christian, Howard, and Loeb (2000) raised an important issue to consider in the study of TWI programs given that in the United States, 240 out of 251 TWI programs are Spanish/English programs at the time of the survey. The authors discussed the needs of TWI programs in languages other than Spanish as ethnic diversity is increasing in the country. They brought up significant questions regarding pairing of non-cognate languages in a TWI program, especially those that do not share the same writing system with English such as Japanese, Chinese, or Arabic. Christian, Howard, and Loeb ask questions such as which pedagogical strategies teachers should use to teach reading and writing in two different writing systems, and if their instruction should be given simultaneously or sequentially. They caution educators about the possibility that assumptions based on Spanish/English immersion programs might not be suited for TWI programs with other languages.

The problem of implementing TWI programs at the secondary level was also addressed by Christian, Howard, and Loeb (2000). They state that it is desirable to offer TWI programs from K-12, but the reality is that there are not yet enough TWI programs above the elementary level. Many educators recommend the continuation of TWI, but

they struggle to operate TWI programs at this level because of several reasons. First, classes are not self-contained as in the elementary level. More teachers are involved because not just one teacher teaches everything to the same students all day. Secondly, teachers are pressured to cover much more complicated curricula in two languages. In addition to these main issues, more issues such as language distribution, attrition and late entries, teaching and learning materials, class scheduling, and staffing need to be considered as well.

Although many researchers (Bikle, Billings, & Hakuta, 2004; Lindholm, 1990; Howard and Christian, 2002) have regarded TWI programs one of the best bilingual education programs, Valdés (1997) offered a different perspective. She demanded parents, researchers, policymakers, and educators take a cautious approach to this fairly new type of program, especially when used for language-minority students, specifically Mexican-origin students. Valdés' (1997) discussion entailed three key points: (1) the use of minority languages in public education, (2) the issue of intergroup relations, and (3) issues of language and power.

First, Valdés (1997) argued that poor quality bilingual programs are not any better than any other programs. Language minority children need the best quality education. Valdés was concerned about the quality of language education minority children receive in TWI programs as the instruction is always modified for the second language speakers of the language. She pointed out the fact that no research study has answered how using language in a distorted way influences the language development of children who are native speakers of this language. Valdés questioned if the Spanish-speaking Mexican students acquired native-like academic Spanish through TWI programs. She proposed

that educators must try very hard to make sure that minority-language children receive the highest quality education in their native language.

Second, Valdés (1997) identified an issue surrounding intergroup relations by raising the example from Freeman's (1996) study of the Oyster School. Even though students in two-way immersion programs developed friendships across different races and language groups (Cazabon et al. 1993), at the Oyster School students tended to sit separately during lunch based on race and class. Freeman wondered to what extent it was possible for teachers to counter the influence of interactional norms that are a product of the larger society. Valdés expressed that school personnel need to be very sensitive to the realities of how students interacted with each other. Also, she commented on how minority students were expected to speak English fluently, while mainstream students were enthusiastically applauded for speaking the minority language. Valdés pointed out that the minority children go through such experiences often and can get wounded by such differential treatment by surrounding adults.

Lastly, Valdés (1997) discussed the issue of language and power, describing how educators must be careful when examining who benefits from these language resources in TWI programs. She gave the example of a Mexican community where bilingualism has given Mexican people more opportunities for jobs. If TWI programs expanded throughout the United States, it would result in an increased number of mainstream white Americans who could speak both English and Spanish. The special advantage that Mexican bilinguals have would no longer be special, and probably the Euro American bilingual would have more advantages in getting a job than Mexican bilinguals. Valdés concluded by stating that language is never neutral. She argued that bilingualism can be

an advantage, but also a disadvantage, depending upon the student's position in the power hierarchy. Valdés emphasized the importance of exercising great caution to the TWI approach while confirming the success of the program thus far.

<center>Research on Interactions in Language Acquisition</center>

Antón (1999) conducted a qualitative research study on interactions in two different types of teaching/learning environments. One was in the first-year university Italian class where the professor used a traditional teacher-centered method. The other was in the first-year university French class where the professor used a learner-centered approach. Antón (1999) observed both classes and recorded many episodes of dialogues between each teacher and their students. She introduced ten episodes in her study. The researcher's focus of the analysis was the negotiation that unfolded in the interaction and the communicative moves used by the teachers to provide scaffolded assistance to learners within the Zone of Proximal Development. (Vygotsky, 1978) Antón concentrated on four relevant themes that emerged from the data analysis: the discourse of formal instruction, providing feedback, allocating turns, and discussing learners' preferences and strategies.

In her class observations, Antón (1999) witnessed the Italian teacher dominating the instruction and not involving the students as much. The entire time, the professor was feeding information on Italian grammar, pronunciation, and expression, and his students were passively receiving the information without having many chances to use them in a communicative sense.

In contrast, the French teacher consistently gave more control of the conversation to her students during the class by having students role play in front of the class, being patient when students make mistakes so the students themselves or their peers can correct

their mistakes without the teacher's help, asking students questions, and giving students plenty of opportunities for pair work and group activities so that the students have more chance for meaningful input and output. Antón (1999) describes the French teacher as a "true facilitator" (p. 314) for encouraging students to share their knowledge and ideas in her French class.

Antón (1999) argued that her study demonstrated that teachers are able to facilitate students through dialogue to become highly involved in the negotiation of meaning and linguistic form during classroom activities. She also suggested the importance of further SLA research to investigate the nature of the interaction in which negotiation occurs.

Another study related to interaction in language acquisition is by de Courcy (1997), who emphasized the vital role of teachers providing students with abundant opportunities for interaction, language input and language output in L2. De Courcy conducted a case study from 1991 to 1995 at Australia's French immersion school Benowa State High, investigating the learning experiences of the students in grade 8, grade 9, and grade 10. Through a number of class observations, she discovered that one of the keys to the program's success was attributed to the teachers' constant effort to provide students with ample opportunities for comprehensible language input and output. Teachers patiently repeated words without translating them into English, the students' L1.

De Courcy (1997) observed students often producing the French language output in class, such as answering a teacher's question, initiating dialogue with the teacher, taking on the role of the teacher by teaching their peers what they have learned in front of the class, and being involved in a whole class discussion. The researcher reported that the exchange program with New Caledonia gave students great opportunities for interaction

in French with their peers, and was also a strong motivating factor for learning French. This case study confirmed the essential role of interaction in language acquisition and comprehensible input and output within the interaction.

Summary

Research on bilingualism reveals the ambiguity of the words "bilingual" and "bilingual education," which are commonly used as if they were self-evident. While Baker (2006) maintained that it is ultimately impossible to draw a clear line between bilinguals and non-bilinguals, he also talked about the notion of a "balanced bilingual" as one of the goals of bilingual education. According to Baker, "balanced bilingual" is "someone who is approximately equally fluent in two languages across various contexts." This is also the ultimate linguistic aim of TWI programs, and it is the definition of bilingualism that used in this study.

Literature on two-way immersion (TWI) programs revealed the effectiveness of TWI programs in such dimensions as bilingual and biliteracy development, academic development, and sociocultural/cross-cultural understanding for both language minority and language majority students (Bikle, Billings, & Hakuta, 2004; Calderon & Slavin, 2001; Cazabon et al., 1993; Christian, Howard, & Loeb, 2000; Freeman, 1998; Lindholm-Leary, 2005; Lindholm-Leary & Borsato, 2001; Lindholm-Leary & Ferrante, 2005; Takahashi-Breines, 2002; Valdés,1997).

Teacher-talk is a major part of interaction that takes place in the classroom environment. Takahashi-Breines (2002) emphasized the importance of a bilingual teacher who could teach effectively in TWI programs. Bikle, Billings, and Hakuta (2004) questioned one of the biggest features of TWI programs: strict separation of two

languages. They argued for the possible usefulness and validity of code-switching in the programs. Howard and Christian (2002) as well as Bikle, Billings, and Hakuta (2004) indicated the significance of providing more opportunities for students to express themselves in the second language, and how having native-speaking peers in their classroom helps their learning. They also suggested the potential value of code-switching in TWI programs, despite the current practice of language separation. Since code-switching and language-mixing play interesting roles in TWI programs, my dissertation will include observation of these phenomena in a TWI program's classroom interaction.

In my study, I dealt with the notion of "language of power" in a TWI setting. While Christian, Howard, and Loeb (2000) reported how Spanish-background students in a TWI program perceived English as the "language of power" and thus primarily used English at school in order to assimilate to the mainstream culture, Valdés (1997) warned educators to be careful when examining who benefits from these language resources in TWI programs. Furthermore, Valdés stated that school personnel need to be very sensitive to the realities of how students interact with each other. She commented on how minority students were expected to speak English fluently, while mainstream students were enthusiastically applauded for speaking the minority language.

Although many research studies have been conducted on TWI programs, Christian, Howard, and Loeb (2000) and Bikle, Billings, and Hakuta (2004) reported that the majority have focused solely on academic achievement. Not enough research has been conducted on the effect of linguistic and social interactions among students in the English classroom on the development of bilingualism in a Spanish/English TWI program. Therefore, my study addressed this gap in the research literature. The objective was to

explore the impact and challenges of interactions in a TWI program. This study was

unique in exploring the role of linguistic and social interactions among students in a TWI

program, and how these interactions contribute to the development of bilingualism.

CHAPTER III

METHODOLOGY

Restatement of the Purpose and Overview

The purpose of my study was to explore linguistic and social interaction among students in the classroom of a Spanish/English Two-Way Immersion (TWI) program. I provide descriptive data on students' interaction that contributed to nurturing bilingualism in the program, the challenges faced by the principal and teachers in nurturing and developing bilingual proficiency and what actions the teachers can take to overcome such challenges. This part consists of a description of the methodology, research design used in this study, and a rationale for the selection of this design. Additionally, the setting, participants, sample selection process, data collection process and analysis are described here.

Research Design

I conducted a qualitative research study to document, describe, and analyze a TWI program in San Francisco. Creswell (2003) stated that qualitative research "takes place in the natural setting" (p. 181). I conducted a study in a classroom, the natural setting of students' learning and teachers teaching. According to Creswell, qualitative researchers "look for involvement of their participants in data collection and seek to build rapport and credibility with the individual in the study" (p. 181). My participants – a principal, three teachers and ten of their students – were involved in class observation and interviews; their opinions and viewpoints were central to my study. Developing a strong rapport and credibility with participants was essential in this procedure. I developed these by volunteering in the class; interacting with the principal, teachers and students; and

assisting them with their work for one and a half years before I started collecting data. By the time of data collection, the teachers and students were accustomed to having me in their teaching/learning environment; therefore, they behaved as usual which made the data collected more authentic.

In this qualitative research, I specifically employed the ethnographic design. Creswell (2005) stated that in an ethnographic study, researchers concentrate on "one group of individuals, in examining them in the setting where they live and work, and in developing a portrait of how they interact" (p. 53). Creswell also pointed out that ethnographers are "describing, analyzing, and interpreting a cultural group's shared patterns of behavior, beliefs, and language that develop over time" (p. 53). Additionally, Creswell mentioned that the ethnographic researcher "describes the group within its setting, explores themes or issues that develop over time as the group interacts, and details a portrait of the group" (p. 53).

In this study, the "group of individuals" consisted of the students, their teachers and the principal in the selected TWI program. The "setting where they live and work" was Osorio Alternative Elementary School (pseudonym), mainly the 5th grade classroom. Data was collected through observations, field notes, and taped open-ended interviews. I observed an English class of 5th graders two to four times a week for a duration of three months and kept field notes of unique interactions that took place. Based on the observations, I conducted one-on-one interviews with 10 students from the English class, one English-only teacher, two Spanish/English teachers, and the school principal. The interviews had five questions for the students and nine different questions for the teachers and the principal. Each interview lasted less than one hour. The taped interviews were

transcribed for data analysis purposes. As this was a qualitative research study, a detailed description of the participants, their experiences in class, and their feelings and opinions were at the center of this study.

Research Setting

The research took place at a public school in San Francisco, California. This is the oldest model for Spanish/English TWI program in the city and serves from K to 5th grade (San Francisco Unified School District, 2010). The school implements a "90/10 model" of TWI program, in which students begin in Kindergarten 82% of their time at school in Spanish and 18 % in English. In first grade: 78% Spanish/22% English, in second grade: 73% Spanish/27% English, in third grade: 67% Spanish/33% English, in fourth and fifth grades: 50% Spanish/50% English. There is a specific time to serve students who have English Language Development needs. At the school, there is a Spanish Language Specialist who assists students who need extra Spanish support. The teachers meet regularly to discuss and address the academic concerns of their students.

Research Participants

All 14 participants (a principal, three teachers and ten students) in this study were selected from Osorio Alternative Elementary School. I used pseudonyms for all participants to protect their privacy. The 10 students for this study were chosen from the 5th grade English class according to their home language and gender in order to have a balance, and also according to their eagerness to openly discuss their feelings and experiences regarding interactions in their classroom. I observed and interviewed the 5th grade English teacher, Maestra Lucy, and interviewed the 5th grade Spanish/English teachers, Maestra Victoria, and Maestra Jennifer, and the school principal, Maestro Smith,

in hopes to gain the teachers' and administrator's perceptions on students' interactions and challenges in the TWI program.

I chose to observe and interview Maestra Lucy because I wanted to see how English was taught and how students interacted during the English class. Also, when I talked to the school principal about my research interest, he highly recommended observing Maestra Lucy's class because she was such an effective and inspiring teacher. Maestra Lucy was a native English speaker who also spoke Spanish as a second language. She had been teaching at Osorio Alternative Elementary School for five years. Two of her own children went to the school, so she had been involved with the school for a long time, first as a parent, and now as a teacher.

I chose to interview Maestra Victoria and Maestra Jennifer because they taught the Spanish portion in the 5th grade classrooms. I wanted to learn what kind of unique interactions they observed in their Spanish classes. I also wanted to gain their insights on the challenges they faced in nurturing and developing bilingual proficiency among their students during the Spanish class. Each of them taught half of the students from Maestra Lucy's English class.

I chose to interview Maestro Smith, school principal, because I wanted to learn his opinion on student/student interactions, as well as challenges the teachers faced in nurturing and developing bilingual proficiency among the students in the TWI.

<div align="center">Research Questions</div>

My research questions were:

1. What kind of linguistic and social interactions occur between and among
    students during the English portion of the TWI?

2. What kind of challenges do the TWI teachers face in nurturing and developing bilingual proficiency among students?

3. According to the three TWI teachers and the principal, what actions can the teachers take to address the challenges in developing bilingual proficiency?

<div align="center">Interview Questions</div>

The interview process was guided by three broad research questions. Following are the research questions and the probing questions under each.

Research Question #1: What kind of linguistic and social interactions occur between and among students during the English portion of the TWI program?

Interview Questions for the teachers:

A. How do you describe the language usage among your students in your class?

B. In what situations do your students use Spanish during your class?

C. What types of unique linguistic and social interactions do you notice among students?

D. What types of interactions are encouraged within the TWI program and what do you think about these interactions?

E. How do you think these interactions contribute – or not –to the development of bilingualism?

Interview Questions for the students:

A. Do you learn Spanish and English when you are speaking with your friends during your class? If so, how do you learn it?

B. Do you sometimes help your friends learn/understand English/Spanish? If so, how? How do you feel about it? Do you like it?

C. Does your teacher or friends help you learn/understand English/Spanish? If so, how? How do you feel about it? Do you like it?

Research Question #2: What kind of challenges do the TWI teachers face in nurturing and developing bilingual proficiency among students?

Interview Questions for the teachers and the principal:

A. What kind of challenges do you as a teacher/the principal face in nurturing and developing bilingualism?

B. What role does student/student interaction play in those challenges?

Interview Questions for the students:

A. What situations keep you from becoming more bilingual in the classroom among your friends?

B. What situations keep you from becoming more bilingual outside the classroom among your friends?

Research Question #3: According to the two TWI teachers and the principal, what actions can the teachers take to address the challenges in developing bilingual proficiency?

Interview Questions for the teachers and principal:

A. Given the challenges you mentioned, what actions can you/do you take to address these challenges?

B. What do you think you can do to develop bilingual proficiency?

Data Collection

The data collection process consisted of four steps: (a) observing a class for 105 hours, which was six and half hours a day, twice a week, for three months and took field notes; (b) conducting an audio-taped 30-minute face-to-face interview with each student and the teacher using open-ended questions based on the class observations; (c) transcribing the dialogues and having participants review the transcripts for validity and accuracy during a group meeting; and (d) revising the transcriptions based on their feedback. Class observations, each interview, and a group meeting took place in the students' classroom during the months of February, March, April, and May of 2010.

While many researchers conduct studies in the field of TWI, I felt not enough of them actually go into TWI classrooms, spend time with the students and teachers and observe them and listen to their opinions. I was fortunate that I could spend two years with the TWI students and teachers, including both volunteer period and data collection period. I heard their voices and found out what worked and what did not work in their TWI program.

To listen to the students' and teachers' opinions, I conducted two to three interviews per week. After one-on-one interviews, I transcribed them and had the participants verify the accuracy and authenticity of the content in a group meeting. For triangulation, I included each student's unique interactions from the field notes of the class observation and the teacher reflections on each student's interaction and bilingual proficiency level.

Data Analysis

My entire data set included field notes of the class observation, audiotaped transcriptions of all interviews and group meeting, and a researcher's journal. After

collecting data from class observations and interviews, I critically reflected upon the data that I collected, analyzed, and coded them. I asked open-ended interview questions which addressed one of my research questions in detail to find several generative themes from the answers. The two major emergent items were language mixing and standardized testing.

<div align="center">Reliability and Validity</div>

The participants in the study verified the accuracy and authenticity of the data by holding a group meeting after all individual interviews and confirmed verbally with them the content of the previous interviews. Also, I examined my own assumptions and potential biases within the study by asking the participants to validate the accuracy of my analysis.

<div align="center">Protection of Human Subjects</div>

After the principal and the teachers at Osorio Alternative Elementary School agreed to assist me with my research in August 2008, I explained the purpose of my research project and assured them of the confidentiality of the information collected from the study. I told them that I would use pseudonyms for all of the participants and assured their anonymity. Before data collection, I requested human subjects approval from the Review Board for the Protection of Human Subjects at the University of San Francisco and received approval in January 2010. The audiotapes have been kept in a safe place for my personal access only.

CHAPTER IV

RESULTS

In this chapter, I first introduce profiles of the Spanish/English Two-Way

Immersion (TWI) school and the participants: the principal, three teachers, ten students

and their classrooms. Secondly, I have organized the results according to the three

research questions: student/student interactions in the classrooms, the challenges in

developing bilingual proficiency that the teachers faced, and what they were doing to

overcome those challenges.

Profile of the Spanish/English Two-Way Immersion School

Osorio Alternative Elementary School is the first Spanish/English TWI school in

the San Francisco Bay Area. It is a public school with grades Kindergarten to 5.

Currently, 372 students are enrolled in this school with 22 teachers (San Francisco

Unified School District website). Average class size for 5th grade is 31.5, as compared to

26.0 for the district. 43.5% of the students are English Language Learner (ELL) students.

44.6% of the students receive free lunch and 11.3% of the students receive reduced lunch.

The school aims to develop fluency in both Spanish and English for both the Spanish-

dominant students and English-dominant students. Osorio Alternative promotes

bilingualism and biculturalism through classes as well as celebrations of Latin American

traditions, history, arts, holidays, and various school events. The school is very much a

part of the community and involved in community events. Parents and school staff work

together to make a warm and caring environment for the students. Throughout the school,

signs are written in both languages. Teachers are encouraged to decorate the walls of

halls, staircases, and classrooms with this work, so teachers put up students' work in

Spanish and English. In their library are many books for different levels both in Spanish and English, as well as videos, CDs, and DVDs in both languages.

Profile of the Classroom

Maestra Lucy's English classroom, Room 19, is spacious with two big windows. All the walls are decorated with students' work which is colorful and mostly in English as it is an English class. Drawings and writing projects are also displayed. The upper end of one wall is covered with posters of self-portraits that each student designed with their names on them. Maestra Lucy lets students do this project toward the beginning of the school year so she can put them up on the wall and make them feel they belong to the classroom.

In the front part of the classroom are students' desks. Four students sit together as one group with five groups overall. When students sit at their desks, they face each other rather than the teacher. At the front are big whiteboards where Maestra Lucy usually conducts her lessons. On both sides of the whiteboards are big posters. The right hand side is for 4th graders, and the left hand side is for the 5th graders. Big posters made by Maestra Lucy for the reading material that they are working on at the time made are displayed in the area. There is a large drawing related to the story surrounded by new vocabulary and their definitions.

In the back corner of the room by the window are book shelves with many English books and some Spanish books. Surrounded by the bookshelves is a big rug and a rocking chair, which is what Maestra uses for reading. Maestra Lucy sits on the chair and students sit on the rug in a circle when they read together. The students can use cushions to be comfortable while they read on the rug.

Whenever Maestra Lucy needs them, she can borrow an overhead projector, TV with DVD/video deck, and computer projector. She also keeps her own computer and CD player in the room which she often uses during lessons.

Profiles of the Teachers and Principal

Maestra Lucy-English Teacher

Maestra Lucy is a European-American teacher who was born and raised in the United States. Her first language is English, and she speaks English at home. She took one year of Spanish in high school. Six years ago, she went to Spain, and four years ago, she took a Spanish language immersion program in Mexico. Currently, she is a 4th and 5th grades English teacher at Osorio Alternative Elementary School. She was first involved in the school in 1995 when her son started going there. Her daughter also went to the school few years later. Both her son and daughter are Spanish/English bilinguals because of their education at Osorio Alternative. She volunteered there as a parent; then later worked at the school between 2000 and 2005 as a Title VII coordinator. She became a full time-English teacher four years ago, working with 4th and 5th grade students.

In the mornings, she works with 5th grade students, and in the afternoons, she works with 4th grade students. Mondays thru Thursdays she teaches science, social studies, and English language arts using English. On Fridays, she teaches theater to the 4th and 5th graders in English.

Maestra Victoria-English/Spanish Teacher

Maestra Victoria taught an English-only school for five years. She came to Osorio Alternative Elementary School at the beginning of the school year 2009-2010, which was her first year at a TWI school. Although Maestra Victoria is Mexican American and

Spanish is her first language, she learned English as her second language once she started school. She is a fluent English speaker. At Osorio Alternative, she teaches 5th graders English language arts, writing, and science using English in the morning, and teaches 5th graders math, Spanish language arts, and social studies using Spanish in the afternoon. Some of her students in the morning English class take her afternoon Spanish class as well.

Maestra Jennifer-English/Spanish Teacher

Maestra Jennifer started teaching in 1997. She taught in three different schools before coming to Osorio Alternative Elementary School. She taught in bilingual programs where students were all Spanish dominant learning English at school, but Osorio Alternative is her first TWI school. She came to this school in 2005. Maestra Jennifer's first language is English, but she majored in Spanish at the University and has traveled and lived in Spanish-speaking countries multiple times. She became fluent in Spanish through those experiences. At Osorio Alternative, she teaches 5th graders English language arts, writing, and science using English in the morning, and teaches 5th graders math, Spanish language arts, and social studies using Spanish in the afternoon. Some of her students in the morning English class also take her afternoon Spanish class.

Maestro Smith-School Principal

Maestro Smith started teaching in 1984 as a Spanish bilingual teacher in San Francisco. After working as a teacher for 10 years, he became a science resource teacher, then an assistant principal, and finally a principal. When he first became a principal, he was at a different school where he worked for six years. Maestro Smith became the

principal at Osorio Alternative Elementary School five years ago in 2005. It is his first TWI school.

Maestro Smith's first language is English, but he is Spanish/English bilingual. He has traveled to Spanish speaking countries multiple times and has been studying Spanish since the age of 20. He is proud of the school's success in developing students' bilingualism/biculturalism.

<div align="center">Profile of Students</div>

All 10 student participants are in Maestra Lucy's 5th grade English class in the morning. In the afternoon, they go to two separate Spanish classes, Maestra Victoria's and Maestra Jennifer's. The students are Chloe, Eduardo, Marcos, Vanesa, Elsa, Generosa, Samantha, Erika, Nancy, and Brian. The first three of them are considered balanced bilingual, the next three are considered Spanish dominant, and the last four are considered English dominant.

<div align="center">*Balanced-Bilingual Students*</div>

Chloe

Chloe is a European American girl who was born and raised in the San Francisco Bay Area. Her parents travelled around all over Latin America. Her mother is fluent in both Spanish and English, and her father can speak some Spanish but not fluently. At home her father speaks to Chloe in English only and mother speaks to her only in Spanish. Her mother works at Osorio Alternative as a Spanish teacher. Maestra Lucy considers Chloe a balanced bilingual student. Chloe has a younger brother who is also Spanish/English bilingual. Chloe has been going to Osorio Alternative since kindergarten.

Eduardo

Eduardo is a Mexican American boy who was born and raised in the San Francisco Bay Area. Both his parents are Mexican Americans who are Spanish/English Bilingual. His parents decided to send Eduardo to Osorio Alternative so he can become bilingual and communicate more efficiently with his family members that don't speak English. Maestra Lucy considers Eduardo a balanced bilingual student. He mainly speaks in English at home, but he spends two days a week at his grandmother's house where he speaks only in Spanish. He says that he speaks English 65% and 35% Spanish while at school. He never uses Spanish in English class, but in Spanish class, he sometimes uses English during independent, pair, and group work time.

Marcos

Marcos was born and raised in the San Francisco Bay Area. Everybody in Marcos's family is Spanish/English bilingual. His mother works at Osorio Alternative as a Spanish teacher, and his twin sister attends Osorio as well. Although everybody is bilingual, they only speak in English in the household. Marcos's first language is Spanish, but now he is dominant in English. He estimates he speaks in English 75% and in Spanish 25% of the time while at school. Maestra Lucy considers Marcos a balanced bilingual student.

Spanish-Dominant Students

Elsa

Elsa was born and raised in Nicaragua by Nicaraguan parents. She moved to Mexico when she was six years old, then to the U.S. when she was eight years old for her parents' job. She had an English class at school in Nicaragua, so she had some knowledge of English prior to coming to the U.S. Her parents and younger brother are

Spanish speakers, so she mainly speaks in Spanish at home, but sometimes she speaks in English with her brother who goes to Osorio Alternative as well. She thinks she speaks in Spanish 80% and in English 20% while at school. Maestra Lucy considers Elsa a Spanish-dominant student.

Generosa

Generosa was born in Mexico. Her parents are Mexican. In Mexico, her only exposure to English was the English class at school. When she was eight years old, she moved to the U. S. with her family for her parents' work. Her parents and her older sister do not speak English well. At home, Generosa mainly speaks in Spanish, but sometimes uses English. She spends Saturdays with her cousin who can only speak English, so one day a week, Generosa gets to use her English outside of school. At school, she feels that she speaks in English only 10% and in Spanish 90% of the time. Maestra Lucy considers Generosa as a Spanish-dominant student.

Vanesa

Vanesa was born and raised in Colombia. She moved to the U.S. in 2009. She lives with her Colombian mother and European American step-father. Her mother speaks Spanish but is learning English, and her father is Spanish/English bilingual. Vanesa speaks more Spanish at home, but sometimes speaks in English with her step-father. Back in Colombia, she had an English class at school, so she had some knowledge of the language before coming to the U.S. She speaks in English outside of school when she spends time with her grandmother and aunt. Vanesa is the leader among her newcomer peers, even though she is the newest to the country among them. She thinks she speaks in

Spanish 75% and in English 25% while at school. Maestra Lucy considers Vanesa as a Spanish-dominant student.

<div align="center">English-Dominant Students</div>

Brian

Brian is a European American boy who was born and raised in the San Francisco Bay Area. His home language is English. Although his parents do not speak Spanish, his twin brother, who also goes to Osorio Alternative, can also speak Spanish. Brian speaks in English to all his family members at home. When he was younger, he had a Spanish speaking babysitter, so he learned some Spanish before coming to Osorio Alternative. He thinks he speaks in English 60% and in Spanish 40% while at school. Maestra Lucy considers Brian as an English-dominant student.

Erika

Erika was born and raised in the San Francisco Bay Area. Her father is Samoan and her mother is a 2nd generation Mexican American. Their home language is English which is Erika' first language. At home, Erika is the only Spanish speaker in her family. Erika started Osorio Alternative in kindergarten when she first started learning Spanish. Maestra Lucy considers Erika as an English-dominant student. She thinks that she speaks in English 60% and in Spanish 40% while at school.

Nancy

Nancy was born and raised in the San Francisco Bay Area. Her father is Samoan and mother is European American, and both speak English at home. Nancy has an older brother, older sister, and a younger brother. She speaks with her family in English. As her parents wanted their children to learn Spanish, they sent all their children to Osorio Alternative in kindergarten. As a result, they are all Spanish/English bilinguals. However,

Nancy still talks to her siblings in English. She thinks she speaks in English 60 % and in

Spanish 40% while at school. Maestra Lucy considers Nancy as an English-dominant

student.

Samantha

Samantha is the only African-American student participant in this study and in the

class. She was born and raised in the San Francisco Bay Area. Her parents speak only

English. Samantha's first language is English, but she became fluent in Spanish through

studying at Osorio Alternative. Her parents wanted Samantha to learn Spanish, so when

she was two months old they hired a Spanish speaking babysitter from Guatemala who

mainly spoke Spanish to Samantha. When she was entering kindergarten, her parents

wanted Samantha to continue with her Spanish, so they sent her to Osorio Alternative.

Although English is her home language, Samantha sometimes speaks with one of her

sisters in Spanish. She thinks that she speaks 85% in English and 15% in Spanish while at

school. Maestra Lucy considers Samantha as an English-dominant student.

Findings

In this section, I introduce the findings in response to my three research questions.

First, I present the findings related to my first research question. This part covers the

language mixing example interactions, reasons students mixed languages, students'

opinions on language separation and language mixing, and summary. Second, I present

the findings related to my second and third research questions. This part includes

teachers' points of view on language mixing, summary of teachers' points of view on

language mixing, teachers' opinions on standardized testing, summary of teachers'

opinions on standardized testing, and conclusion.

My first research question was: What kind of linguistic and social interactions occur between and among students during the English portion of the Two-Way Immersion (TWI) program? Various kinds of interactions between and among students took place during the English portion of the TWI program in Maestra Lucy's class. Social interaction examples include: using gestures, displaying rich facial expressions, peer learning, writing for peers, drawing for peers, demonstrating, helping each other, and working as a pair or a group. Linguistic interaction examples include: modeling sound, imitating sound, explaining, asking questions, arguing, discussing, joking, and language mixing. Of all the interactions, the most noticeable kind was language mixing.

Language Mixing

In Two-Way Immersion (TWI) programs, one of the main rules is that students and teachers adhere to the language of the period, and language mixing is discouraged. For example, at Osorio Alternative Elementary School, 5th graders learn English language arts, writing and science using English in the morning. In the afternoon they study math, Spanish language arts, and social studies using Spanish. The 5th grade instruction is designed to be 50% in Spanish and 50% in English. Osorio Alternative's principal, Maestro Smith says "We keep the model pretty clear in the classrooms. We keep to the amount of percentage at the times in the classroom." Kids understand this basic rule as well. For example, Eduardo talked about how he understands this rule.

> We are not supposed to use Spanish in English class, and in Spanish class, we are
> not supposed to speak in English………You need to practice only English in
> English class. When it's Spanish time, and not English time. You need to practice
> only Spanish.

Even though students understand this basic rule of TWI, language mixing is part of the reality in TWI in general, and Osorio Alternative is not the exception according to the teachers and students at the school. All through the class observation, during recess and school events, I witnessed language mixing taking place.

Language mixing examples witnessed in class

The kind of language mixing that I observed include: (1) translating, (2) clarifying (asking questions and explaining), (3) modeling and imitating, (4) interpreting for peers, (5) using the person's 1st language to attract attention, (6) responding in language of addressed, and (7) absence of language mixing.

The following examples of language mixing were from student interactions in Maestra Lucy's English class when students used both English and Spanish in the same dialogue:

(1) Translating.

Example 1.Generosa (Spanish dominant) and Vanesa (Spanish dominant)

During the English period in Maestra Lucy's class, the two Spanish-dominant students, Generosa and Vanesa, started a conversation in English. Generosa did not know what she was supposed to do, so she asked Vanesa in English. Vanesa explained in English that she had to write a biography of a famous person in the history, but Generosa did not know what "biography" was in English, so Vanesa translated it into Spanish which Generosa then understood.

Generosa: What's this?

Vanesa: What? Oh, you have to read a book of a famous person, and write a

biography.

Generosa: "Biography?" What's that? (with a confused face expression.)

Vanesa: Hmmm (thinking.) "*biografía*", you know?

Generosa: *Ahh, sí, sí, biografí*a! (with a pleasant face expression.)

The two native speakers of Spanish started the dialogue in English. They were in the process of learning English, so they were trying to use English, but they encountered the word "biography," and Vanesa realized it would be easier and faster if she just gave Generosa the Spanish translation, so she did, and Generosa understood what she was supposed to do.

(2)Clarifying (asking questions and explaining).

Example 2. Vanesa (Spanish dominant) and Generosa (Spanish dominant)

During the science class in the English portion of the day, Maestra Lucy just introduced a concept of "element" to the class. Generosa was not clear about what she just heard, nor what was on the handout that she just received. She asked Vanesa a question in Spanish. First, Vanesa read the English word aloud, and then gave the Spanish word for it. Generosa did not know the meaning of the word, so she asked again what it meant in Spanish. Vanesa gave the answer in English with the gesture for the concept "element" that she just learned. Generosa still was not sure about the meaning, so she asked the meaning in Spanish, but Vanesa could not give the answer in Spanish as they had not learned the concept in English.

Generosa: *Qué dice aquí*? (What does it say here?)[Showing her handout]

Vanesa: *Dice*, "element," "*elemento*." (It says "element," "*elemento*")

Generosa: ¿*Qué significa "elemento?*"(What does "*elemento*" mean?)

Vanesa: "Element" means "one pure substance." (putting her index finger up in the air, doing the gesture for "element" that Maestra Lucy taught)

Generosa: Mnnn. One pure substance? ¿*Qué significa* "one pure substance?" (laughing)

Vanesa: Well….(smiled, thinking how to explain it in Spanish to Generosa)

When Generosa asked Vanesa how to read a word, "element," Vanesa read it aloud in English for her, but also translated it into Spanish without Generosa asking her to do so. Generosa did not know the concept of "element," so she asked again what it meant. Vanesa repeated the definition in English that Maestra Lucy gave to the class. Still, Generosa did not understand, and asked again what that meant in Spanish. As Vanesa had just learned the concept in English, she could not easily translate or explain the concept of the word in Spanish.

Example 3. Samantha (English dominant) and Anita (Spanish dominant)

During the English language arts period, Maestra Lucy came to Anita's table and gave her some suggestions on her persuasive essay. After Maestra Lucy left, Samantha noticed Anita was confused and did not know exactly what to do. So she told Anita what Maestra Lucy said. Even though Anita was not sure about the teacher's explanation, she did not ask the teacher any questions. But when her peer, Samantha, explained the same thing to Anita, she felt comfortable to ask what she meant when she said "adjective."

Samantha: Lucy [Maestra Lucy] said you have to change the adjective here.

Anita: What's adjective?

Samantha: Well, adjectives are like…hmm, they explain things…like nouns.

Anita: (with a confused look)

Samantha: *Los adjectivos explican cosas como "nombres." Como un perro*

blanco."blanco" es un "adjectivo," O.K.? (Adjectives explain things

like "nouns." Like a white dog. "White" is an "adjective," O.K.?)

Anita: *Sí, sí....O.K.*

Samantha: So, here, you have to change this adjective. O.K.? (pointing to Anita's

notebook)

Samantha explained what Anita had to do with her writing project in English. Samantha

first explained it in English, but Anita looked confused, so she explained again in Spanish

giving examples. Then, Anita understood what Samantha was saying. Then, Samantha

confirmed what Anita had to do in English again.

(3)Modeling and imitating.

Example 4. Chloe (balanced bilingual) and Generosa (Spanish dominant)

Maestra Lucy had her class write poetry during the English language arts period.

Spanish dominant student, Generosa, wanted to use the English word "calm" in her

poetry, but did not know it, so she asked balanced bilingual student, Chloe, in Spanish

how to say it in English. When Chloe translated the word into English, Generosa could

not catch it at once, so Chloe slowed down and pronounced it clearly for Generosa. Since

Generosa was not sure, she spelled it for Chloe to make sure she got it right. As it was

wrong, Chloe spelled the correct word and pronounced it again for Generosa. She

repeated herself to emphasize the correct word to Generosa, so she would get it right.

Finally, Generosa heard it correctly and wrote it down.

Generosa: *Chloe, cómo es esta "tranquila" en inglés?* (how do you say

"tranquila" in English?)

Chloe: *¿Tranquila?* Calm. (with a confident smile)

Generosa: Come?

Chloe: No. Calm. (pronounced slowly and clearly)

Generosa: Court? (with a confused look)

Chloe: No. Calm. (pronounced even more slowly)

Generosa: *Cee, oo, Uu, erre, te?*

Chloe: No. C, A, L, M….calm, peaceful. Caaalm. C, A, L, M. Calm.

Generosa: C, A, L, M….(writing it down carefully)

Generosa: Calm, calm…. (practicing to pronounce the word several times to

   herself)

Chloe: Yup, calm. You got it!

Generosa: Thank you.

(Chloe was already gone)

In the dialogue, Chloe modeled and said the word "calm" several times. She made

sure Generosa heard the word correctly by saying it slowly and clearly. Generosa tried to

imitate the sound Chloe was trying to communicate several times. After trying a couple

of times, Generosa got it right. In the process, Generosa spelled the word out to confirm

what she heard. Chloe used the same technique to teach Generosa the correct word. She

also gave the synonym of the word, and repeated herself so Generosa could catch the

word. Once Generosa learned the correct spelling, she imitated how Chloe pronounced

the word and practiced saying it few times.

 (4)Interpreting for peers.

 Example 5. Nancy (English dominant), Elsa (Spanish dominant), and

Sierra (Spanish dominant)

Nancy was trying to help Sierra with her persuasive essay in English language arts class. Nancy saw Sierra's writing, and asked her why she wrote she liked the school. Nancy was trying to help Sierra expand on the part. Sierra was thinking about what Nancy said, meanwhile, Elsa who was sitting next to Sierra, asked her the same question in a simple form in Spanish. Sierra did not understand and just stated what she already wrote in English. Elsa was frustrated and asked Sierra the same question in Spanish. Sierra gave a simple answer in English. And Nancy connected the answer with Sierra's prior statement and made a complete sentence, and asked Sierra if that's what she meant. Sierra confirmed that it was correct.

Nancy: Ok, you like J. R. [a Middle School]. Why do you think J. R. is a good

school for you? Why? (asking Sierra)

Sierra: (thinking)

Elsa: *Por qué?* (why?) (translating for Sierra)

Sierra: I like J. R. Middle School.

Elsa: *Pero por qué?* (but why?)

Sierra: Because comfortable.

Nancy: Because J. R. Middle School is comfortable?

Sierra: Yes. (trying to write the sentence down)

Nancy and Elsa asked Sierra why she liked J. R. Middle School. Sierra simply said "comfortable," but Nancy interpreted it and made the complete sentence using the information she obtained from Sierra and asked Sierra if that was what she meant. Sierra agreed that was what she meant and wrote the complete sentence down.

Example 6. Elsa (Spanish dominant) and Erika (English dominant)

Erika was helping Elsa during a peer editing period in English writing class. Erika found a mistake in Elsa's writing and asked Elsa if she meant "school cafeteria." Elsa tried to explain in English, but Spanish words came out of her mouth along with English words. Erika understood and interpreted what Elsa wanted to say and translated them into English for Elsa. Elsa tried to say "school cafeteria" in English again, and Erika corrected her. Then, Elsa got it right.

Erika: (pointing to what Elsa wrote in her notebook) "Cafeteria school?" Do you
    mean "school cafeteria?"

Elsa: Eschool,…. *otra* school.

Erika: Oh, other schools? (Erika just translated what Elsa said)

Elsa: Yes,… other school, cafeteria.

Erika: Other schools' cafeteria? (emphasizing the plural and possessive "s")

Elsa: Other schools' cafeteria.

When Erika saw "cafeteria school" in Elsa's writing, she interpreted it as "school cafeteria" and asked Elsa if that was what she meant. Elsa just said "Eschool,…. otra school." Erika connected "school cafeteria" and "otra school," and interpreted as "other school's cafeteria" and asked Elsa if that was what she wanted to write. Elsa confirmed that was what she meant and tried to say it right herself as she was writing it down.

(5) Using the person's 1st language to attract attention.

Example 7. Eduardo (balanced bilingual) and Vanesa (Spanish dominant)

At the beginning of the science period in Maestra Lucy's English class, Eduardo opened his science journal and was about to write the date. He could not remember the

day of the week, so asked Vanesa in English. Vanesa did not hear him first, so he used

Spanish to catch her attention and asked the same question. When Vanesa heard

Eduardo's question in Spanish, she naturally and simply answered in Spanish first. Then,

she remembered it was an English class and answered him again this time in English. He

confirmed what he heard in Spanish. It was Vanesa's natural response to hearing a

question in one language and tried to answer in the same language.

Eduardo: What day is today?

Vanesa: (not listening)

Eduardo: *¿Qué día es hoy, Vanesa?* (What day is today?)

Vanesa: (noticed Eduardo asking her a question)

Vanesa: *Martes*, Tuesday.

Eduardo: *Martes?*

When Eduardo asked Vanesa a question in English, he could not get her attention, so he

used her first language, Spanish, then he successfully caught her attention and got the

answer. Vanesa answered in Spanish, but quickly said the same word in English as well

since they were in the English class. Generally, both Eduardo and Vanesa always try to

adhere to the language of the period and speak in English during the English class.

(6) Responding in language of address.

Example 8. Marcos (balanced bilingual), Delicia (Spanish dominant) and

Anita (Spanish dominant)

Marcos and Delicia were talking in English about the solar system during science

period in Maestra Lucy's English class. Then, Anita interrupted and asked a question in

Spanish. Marcos answered her in Spanish. Anita then asked him how to spell it; Marcos

gave the spelling of the word, and Anita thanked him in Spanish.

Delicia: What goes in here? (pointing to her notebook)

Marcos: I think it's "orbit." That's what I wrote.

Anita: *¿Es esto corecto?* (Is this correct?)

Marcos: *No. Tienes que escribir* "orbit." (No, you have to write "orbit")

Anita: *¿Cómo se escribe* "orbit"*?* (How do you spell "orbit"?)

Marcos: O, r, b, i, t.

Anita: *Gracias.*

The three students were in English class. Delicia and Marcos were speaking in English,

but as soon as Anita talked to Marcos in Spanish, he quickly responded to her in the

language of address, Spanish. Right after the short dialogue, he switched back to English

and kept talking with Delicia about the solar system.

(7) Absence of language mixing.

Example 9. Brian (English dominant)

The only student who did not mix languages was an English-dominant student.

Among the 10 student participants, Brian was the only one who adhered to the language

separation policy and never spoke in Spanish with his classmates in his English class

during my observation. Some of his classmates even said "We never see him speaking in

Spanish." When teacher asked Brian questions in Spanish in Spanish class, he answered

in Spanish, and whenever his Spanish teacher caught Brian speaking in English in the

Spanish class, he switched back to Spanish. Therefore he is capable of expressing himself

in Spanish and comprehending Spanish. He just chose to use English only in English

class. Although he adhered to the language separation policy in his English class, he constantly did the opposite in his Spanish class by often chosing to use English. He said he tends to use more English because it's his first language.

As seen in the dialogue examples above, most students except for one mixed languages when they asked questions, translated, explained, modeled, imitated, repeated, and gave examples to their peers in English class.

Summary.

The eight dialogue examples above displayed various types of interactions among students. The types of interactions included (1) translating, (2) clarifying (asking questions and explaining), (3) modeling and imitating, (4) interpreting for peers, (5) using the person's 1st language to attract attention, (6) responding in language of address. Students skillfully switched from one language to another and back in order to solve problems and make themselves understood.

Reasons Students Mixed Languages

Students mixed languages for different reasons, such as being shy about using the second language, wanting to use a language that's more comfortable, and not being able to say certain things in one language. Here I present students' reasons why they mixed languages in class based on the interviews that I conducted with the ten students (three bilingual, three Spanish dominant, and four English-dominant students) from Maestra Lucy's class. I introduce the different reasons for language mixing based on the students' language group.

Balanced bilingual students.

Even though these students are considered balanced bilingual by their teachers and they are comfortable in both Spanish and English, all of them still mixed languages in classes. One out of three students used the opposite language of the period because she could not find a right expression for the situation in the language of the period. All three students used the opposite language of the period because they did not understand one language well. Two out of three students helped someone using the person's first language for a better understanding, resulting in language mixing. Two out of three students mixed languages because they found one language easier to communicate in than the other. One out of three students mixed languages because he found one language faster to communicate with compared to the other.

A balanced bilingual student, Chloe, talked about her language mixing behavior, "I sometimes use English in my Spanish class, and English in my Spanish class. Why? Hmmm, because, I guess, sometimes, you just cannot say certain things or expressions in the other language, you know?" Another balanced bilingual student, Eduardo, mentioned why he used more English than Spanish although he was fluent in both languages, "I sometimes speak in English during the Spanish class, because I'm a little bit more comfortable with English." Along with Eduardo, another balanced bilingual student, Marcos, had a similar opinion.

I don't really speak Spanish in English class because I like English better.

It is kind of hard for me in the Spanish class. I forget Spanish words a lot, then, I

speak English. I speak in English a lot in Spanish class. I try to speak in Spanish

during the Spanish class, but I'm more fluent in English, and English is faster. So I

end up using English when I can't say something in Spanish.

Some of these comments by the balanced bilingual students revealed that even though

they were fluent in both languages and used them in their everyday life at school and

home, they still felt more comfortable in one language than the other and that sometimes

contributed to their language mixing behaviors.

Spanish-dominant students.

All three students used Spanish, their first language, because they did not

understand English, their second language well. Two out of three students helped

someone using the person's first language for a better understanding, resulting in

language mixing. Two out of three students mentioned that they forgot which language

they were supposed to use in the particular classroom and used the other language by

accident. One out of three students thought it was fun to use one language over the other,

so she used the other language that was not the language of the period. One out of three

students mixed languages during class because she simply found it fun to mix two

languages.

The three Spanish-dominant students gave me their honest opinions on situations

where they mixed languages. Vanesa talked about helping one another with her peers and

mixing languages in the process.

When I don't understand, I ask my friends to help. I don't really understand a lot of

English, so I ask. Because I don't understand everything, so I ask in Spanish in

English class. If I don't understand something, they explain it to me. They explain to

me in English first usually, but if I don't understand, they explain to me in Spanish,

too. And, I understand. I sometimes speak in English in Spanish class, because I explain to others that speak English that are learning Spanish.

Another Spanish-dominant student, Elsa, gave a similar reason as to why she mixed languages in her class. "I speak Spanish in English class because sometimes my friends don't speak English, so I have to speak Spanish." Elsa herself was a newcomer student who was Spanish dominant, but her English was more advanced than some of her newcomer peers. I often found Elsa explaining things to her friends in Spanish in English class. Another Spanish-dominant student, Generosa, told me a different reason for mixing languages,

I forget I'm in English class sometimes and speak Spanish to my friends. Sometimes, I use Spanish because I can't say it in English. Sometimes, I use Spanish because it's fun to use Spanish and English. Sometimes, I use English in my Spanish class, too. I think it's fun. I like English, but difficult.

All the Spanish-dominant students' comments involved mixing languages in the process of helping their peers or getting help from their peers. One girl's mentioning of the reason of mixing languages as being fun was interesting and unique. It seems that she was enjoying the process of learning her second language, English.

English-dominant students.

Three out of four students stated they mixed languages because they found their first language, English, easier than the second language, Spanish. Two out of four students used the language which was not the language of the period in order to help peers who were more comfortable in their first language. One out of four students forgot

which language she was supposed to use in the particular class and used the other language.

An English-dominant student, Samantha, said "I often speak Spanish in my English class because not everybody understands English well, so I translate for them." She also said "In Spanish class, I sometimes forget and I catch myself off guard and speaking English. Then, I switch to Spanish." Another English-dominant student, Nancy, said "I use English in my Spanish class sometimes. English is easier, I guess." Another English-dominant student, Erika, said;

> I sometimes mix English and Spanish because some kids are learning English, they don't really understand English well, and we [English-dominant students] help translate things. My friends often help me with Spanish. If I don't understand something in Spanish, they translate it for me. Sometimes, I don't know a Spanish word in Spanish class, then I ask my friends in English.

Another English-dominant student, Brian, simply said "I sometimes speak in English in Spanish class because English is my first language" as a reason for why he used English in his Spanish class. He also mentioned English usage in Spanish class by him and his English dominant peers, "In Spanish class, we [English-dominant students] ask each other what a word means in English because it's much easier for us, we do it without thinking." Brian's comment was interesting in a sense that he mentioned how it was almost automatic for him and his English-dominant peers to use their first language even in their Spanish class, simply because it was their first language. This shows how difficult it can be to switch their language from English to Spanish completely.

Summary.

Students expressed various reasons why they mixed languages. Multiple students mentioned that they did not understand their second language well enough, therefore they used their first language in order to understand what they are learning in class or what their peers are saying. Also, regardless of their language group, multiple students stated they used the language that was not the language of the class period, to help someone who did not understand the language of the class period well. Two students stated that they sometimes forgot which language period they were in and used the other language by accident.

Students' Opinions on Language Separation and Language Mixing

In the interviews, students shared various opinions on the language separation policy in the Two-Way Immersion (TWI) program at Osorio Alternative Elementary School. I introduce their opinions based on their language groups.

Balanced bilingual students.

Balanced bilingual student, Chloe, supported language mixing in class, "I think it's really helpful if we were allowed to use the other language too, so we can help each other and explain and learn the languages." While Eduardo thought language separation was a good policy, he thought they also needed some exceptions to the rule.

I think it's a good rule because it's English time, and not Spanish time. You need to practice only English in English class. When it's Spanish time, and not English time, you need to practice only Spanish. But you shouldn't be completely prohibited to speak in another language in class. If we don't know what one word or phrase means, we can translate it for a better understanding. It would help me if I was

allowed to use Spanish and English class only sometimes, and use English in Spanish class only sometimes.

Marcos agreed with Eduardo. While he saw the value in the language separation policy, he emphasized the importance of the exceptions as well.

It would be easy for me if we could use both languages in both classes, but I think it is good that we are not allowed to use the other language. If we were allowed to use the other language, then people would only speak their language and wouldn't learn a new language. If people use both English and Spanish all the time in the same class, it wouldn't be an English class or Spanish class, but it would be a "Spanglish" class. Sometimes, if a teacher needs to explain something in the other language, I think it would help. Sometimes, teacher can explain something in Spanish, but some people don't understand. Then, some kids explain it in English and they understand. So, sometimes, it is good to use the other language.

Two out of three balanced bilingual students supported the language separation policy while emphasizing the significance of the exceptions at the times. One out of three balanced bilingual students openly supported language mixing because she believed it would help students with their learning in the classroom.

Spanish-dominant students.

All three Spanish-dominant students supported language mixing in class and gave their reasons why. Vanesa, who often switched back and forth between languages in both Spanish and English classes, stated "I think it's good if we can use Spanish in English class, because anybody can ask in their language if they don't understand."

Elsa had a similar opinion. She thought it was helpful for her classmates and herself if some language mixing were allowed. Elsa expressed how she felt proud of herself when she could use her first language and help her Spanish dominant friends who were less fluent in their English, "I like it when I can talk in Spanish in English class. Sierra and Generosa don't understand something and ask me in Spanish. I explain in Spanish. When I help them, I feel proud of me." She continued and told me about when she received help from her peers, "When I am confused with something in English, my friends help me. I can ask in Spanish. I don't like to ask teachers all the time. I like teachers but friends are easier to ask." She mentioned the teacher's usage of two languages as well.

I think it will help if I can use Spanish in English class, because you can help people that don't speak English. I think it's bad if I couldn't use my language in class, it will be confusing. I think it's a good idea that our English teacher speak in Spanish, because some kids need a help in Spanish.

Along with Vanesa and Elsa, another Spanish-dominant student, Generosa, also shared her anxiety about the policy of language separation,

I don't like it if we can never use Spanish in English class, because I don't feel good. Sometimes, I can't say some things in English. If I can't use Spanish, I can't ask. But Lucy [Maestra Lucy] says it's ok to ask in Spanish if I don't know in English. So I feel good."

Generosa's comment emphasized her uneasiness of the strict language separation policy and her sense of security and safety in Maestra Lucy's class where she was permitted to use her first language in certain circumstances. The most intriguing point was that unlike

the balanced bilingual student group, when I was talking to the three Spanish-dominant students, I felt there was a consistent underlying fear of being prohibited from using their first language in their classroom, yet all had the strong desire to use their first language, Spanish. All three Spanish-dominant students supported the language mixing.

English-dominant students.

As opposed to the three Spanish-dominant students, Samantha supported the language separation policy among students. However, she mentioned the benefit of her teachers mixing languages.

If you can use only English in English class, only Spanish in Spanish, I think you can learn more. But it helps me a lot and I can learn more if an English teacher used some Spanish and Spanish teacher used some English.

Contrary to Samantha, Erika supported the language mixing. At the same time, she stressed that students had to make the conscious effort to speak the language of the period. Erika agreed with Samantha in that she wanted her teacher to use both languages for instruction.

I think it's good if we can use both languages during the class, because it might be hard for some kids to understand and they might be confused. So, I think it's good to have the rule [of allowing language mixing], but we also have to try to speak in the language of the class. Also, if teachers used both languages to explain things, that will help a lot of kids.

Just like Erika, Brian also thought it would be beneficial for students if language mixing were permitted for their better learning. He agreed with Erika in that he wanted his teachers to use both languages for instruction.

I think it is helpful if we were allowed to use English in Spanish class because it might help us learn more. If we can't use English in Spanish class, it is not a good way to learn. Also, it will definitely help you learn a word or phrase if your teacher explained in both languages in class.

Nancy was another supporter of language mixing:

I think I like it better if we were allowed to use any language we want because not all kids can speak English and Spanish really well. Sometimes, I want to say something in English in my Spanish class, but I'm not supposed to speak in English. In English, I can ask more questions and I can learn much faster.

Three out of four English-dominant students supported the language mixing because they felt that they could learn more if they were allowed to use both languages. It was intriguing that one student mentioned how students must "try to speak the language of the class" while she supported language mixing. From her comment, it seemed that she identified the needs and benefit of language mixing but at the same time, she was aware that students had to pay attention and attempt to stick to the language of the period as much as they can. All four English-dominant students expressed their opinion that they wanted their teachers to use both languages for instruction in the same period so students could learn effectively.

Summary.

Students had various opinions on language mixing and the language separation policy. Only three out of ten students supported the language separation policy. Out of the three students, two were balanced bilingual students and one was an English-dominant students. Seven out of ten students supported language mixing. Out of the

seven students, one was balanced bilingual, three were English dominant, and three were Spanish-dominant students. It was noteworthy to mention that it sounded as if three Spanish-dominant students had some anxiety from not being permitted to use their first language in their English class. This might have had something to do with that they were still new in the country and could not fully express themselves in their second language, English. Although all except for one English-dominant students expressed that they believed that language mixing would be beneficial for students, I did not detect a similar fear of not being permitted to use their first language, English, in their Spanish class, which I detected in the Spanish dominant counterpart.

Challenges and Solutions

My second and third research questions address the challenges the Two-Way Immersion (TWI) teachers face in nurturing and developing bilingual proficiency among students and how to overcome those challenges. To answer these questions, I interviewed the three 5th grade teachers, Maestras Lucy, Victoria, and Jennifer, and the principal Maestro Smith.

Language mixing –Teachers' point of view

As strict language separation is encouraged and comprises one of the main principles of the TWI programs. Language mixing is perceived as a negative behavior in general. However, throughout my observations, I constantly witnessed students using Spanish in the English class and using English in the Spanish class. Often, TWI teachers see this particular issue as a challenge in the program. I interviewed the three teachers and the principal to find out their views on this based on their experience at Osorio Elementary School.

(1) Maestra Lucy.

When Maestra Lucy caught her students speaking in Spanish in her English class, she did not scold them, but took different actions depending on the situation. In the situations mentioned above, she encouraged students to help each other even using Spanish. She understood that some of her students, especially newcomers, could learn and be included by their peers more effectively using Spanish.

> I hope I tried to make a creative climate where you say what you need to say in the language you need to say, at the same time, I am encouraging people to use English. I just think it is not realistic to expect them to be strictly in one language or another. And also, if they can get some benefit out of what they know…I feel like it is very important, I am trying to learn more about how to talk to them about "this is where it's same in English and Spanish, this is where it's similar, this is where completely different, this is what English has, and in Spanish doesn't have it at all, or vice versa.

While Maestra Lucy allowed students to use Spanish when necessary, she also constantly reminded students that they could say things in English more than they thought. For example, Anita, Sierra, and Nema were all native speakers of Spanish who often tried to speak to Maestra Lucy and their peers in Spanish. Maestra Lucy kindly but firmly reminded them that it was English class and they were capable of saying the same things in English.

Example 10. Maestra Lucy (English dominant), Sierra (Spanish dominant) and
           Generosa (Spanish dominat)

Sierra: *¿puedo usar este?* (can I use this?) (to Generosa, pointing to the paper
           on the desk)

Generosa: (tried to answer but noticed Maestra Lucy and stopped)

Maestra Lucy: Sierra, can you say that in English? (with a warm smile)

Sierra: …Yes. (Thinking, with a shy smile)

Sierra: Can I use this?

Generosa: Yes.

Maestra Lucy: There you go!

Sierra: (a big smile.)

Sierra was one of five newcomer students in the class. She was not confident when she spoke in English, so she often tried to use Spanish. She was shy in her English class, but in her Spanish class, she was much more outspoken and loud.

Anita was a Mexican girl who came to the country when she was in kindergarten but was not yet comfortable in English. Whenever she could, she tried to speak in Spanish with teachers and her peers. Because of her behavior, her peers formed a pattern of translating for Anita. When the teacher said something to her in English, her group member, Ronaldo, would quickly translate it into Spanish for her. When Anita said something in Spanish to a class guest who did not speak Spanish, Ronaldo or Delicia would translate it into English. Anita learned the pattern and she often did not even try to speak in English even when she knew how to say it in English.

I repeatedly observed that when Maestra Lucy gave an instruction to the class in English, Anita was not really paying attention. When Maestra Lucy was done speaking, Anita would ask her friends what she was supposed to do. Her friends were happy and eager to help her, so they would translate what they just heard in English into Spanish for

Anita. Maestra Lucy was aware that Anita knew much more English than Anita herself thought.

I regularly observed Maestra Lucy encouraging Anita to speak in English. The following dialogue is just one example of many similar dialogues.

Example 11. Maestra Lucy (English dominant) and Anita (Spanish dominant)

Anita: *¿Tengo que terminar este ahora?* (Do I have to turn finish this now?)

Maestra Lucy: Anita, I know you can say this in English. Let's try saying this in English.

Anita: ……. (looking elsewhere, thinking.)

Maestra Lucy: Come on! You can say it. "Do I….?" (encouraging Anita to say it with her.)

Anita: Do I ….have to….finish this…today? (being shy. Uncomfortable.)

Maestra Lucy: Yes, you have to finish this now. See? Wasn't it easy? Thank you for saying it in English! (with a big smile.)

Anita: You're welcome. (smiling. Being shy, but looks happier.)

Maestra Lucy understood how much Anita could say in English, so she frequently asked Anita to speak in English. Whenever Anita even tried to do so, Maestra Lucy complimented her and tried to motivate her to speak more in English.

Whenever students spoke in Spanish, Maestra Lucy observed carefully to determine if that were an appropriate occasion for the students to use Spanish. When she decided it would be beneficial to the students, she let them use Spanish to help each other. When she concluded that it would be beneficial to stick to the model, she gently reminded kids to try saying it in English. She gave enough time to the child so he or she could think

carefully and come up with the English sentence. If the children were struggling, she helped them with English. If the English sentence were incorrect, she complimented or thanked the child for trying to speak in English, and then modeled a correct sentence for the child to repeat. I noticed that she was very careful and sensitive about correcting students' language mixing behavior. With her effort, all students in her class were displaying much more effort to speak in English as compared to the beginning of the school year.

(2) Maestra Victoria.

Maestra Victoria emphasized why she thought it was essential for both teachers and students to stick to the model.

> I think it's very important to stick to the model. Especially for kids who don't speak the language as a first language, whatever language it is. I think that if they have structure and consistency, and they have the expectation that they have to be speaking in a certain language, then at least they try to get more practice in the language that they are not comfortable with….. you have students who really want to learn Spanish, but if you don't stick to the model and to the structure, they won't get the opportunity. So you wanna provide structure. My partners are really good about sticking to the minutes. And I really like that because that provides structure for the kids, and structure to ourselves.

At Osorio Alternative Elementary School, each 5th grader spends every morning in an English classroom and every afternoon in the Spanish classroom. The time students receive instruction in Spanish and English are designed to be equal. Most students have different teachers for their English class and Spanish class; therefore, it is necessary for

teachers to cooperate with each other and make sure the first half of the day (English portion) ends at the planned time, so students have the same amount of time for the second half of the day in Spanish. All three 5th grade teachers work together as a team and keep the 50/50 balance of Spanish and English.

Maestra Victoria mentioned how her students mixed languages in her classroom and explained why she thought her students mixed languages.

> Kids do speak in English in my Spanish class and speak Spanish in my English class. I think what they do is that they kind of tend to go with their native language as their comfort zone. Every so often, they communicate with their friends in their native language because that's where they're most comfortable.

Maestra Victoria had a very similar stance as Maestra Lucy in terms of separating languages in class, but her approach appeared slightly stricter than Maestra Lucy's. Maestra Victoria analyzed how she viewed this rule and spoke about her own struggle of staying with this basic rule.

> ….because we are in a very academic environment, I really make a point of saying "ok, English is in the English class, and Spanish is in the Spanish class", which, being in my first year, it was a little hard for myself at first to remember to turn off my English brain, and turn on my Spanish brain, vice versa. One thing I noticed that I told my kids, I notice that if someone is talking to me in Spanish, I naturally want to answer in Spanish even if it's in English class. It's just an instinct. I do the same thing in English. If someone is talking to me in English, I naturally want to respond to them in English. So, I always have to be very conscious about "this is Spanish time, this is English time." So, I always tell kids to make sure they know the

distinction themselves.

Maestra Victoria stressed and communicated to her students how she understood why they mixed languages, drawing upon the example of her own speech/behavior pattern. While she believed in sticking to the model strictly, she also understood the needs for some flexibility.

> I think there are exceptions, but the exceptions have to be very limited. Depends on the situation, otherwise you will lose the structure of the program. At the end of the year, we have all those graduation preparation, things like that, those are the exceptions that I am talking about. Just because we have to adjust our schedule or during the test period, we may not have exact minutes. For the kids, I try not to give them too many exceptions, because as soon as they know that they can break rules, they break them repeatedly. So, I don't like to give them exceptions.

In this comment, Maestra Victoria talked about what should be the exception to the rule of language separation at Osorio Alternative. She stressed how she did not desire to give her students too many exceptions and wanted them to stick to the language separation policy.

Maestra Victoria's comments about how she felt that students mixed languages because they just tended to go with the more familiar language, was supported by two students' comments. One was Brian, who was in Maestra Lucy's English class in the morning and Maestra Victoria's Spanish class in the afternoon; "I sometimes speak in English in Spanish class because English is my first language." A similar opinion was expressed by an English-dominant student, Nancy, who was also in Maestra Lucy's English class in the morning and Maestra Jennifer's Spanish class in the afternoon; "I use

English in my Spanish class sometime. English is easier, I guess." Both Brian and Nancy expressed how they used their first language, English, in their Spanish class because it was more comfortable for them.

Maestra Victoria mentioned how she reminds students what language they are supposed to speak in each class. Marcos remembered how Maestra Victoria kindly made students aware of what language they were using.

In Spanish class, if someone was speaking in English, the teacher [Maestra Victoria] says "Whoever speaking English, you'd better stop." I think she does that, or you would be speaking English the whole time and you wouldn't learn Spanish. My teacher [Maestra Victoria] would say "¿Estás hablando en inglés?" (Are you talking in English?) with a funny smile.

This comment by Marcos depicts how Maestra Victoria was trying not to be too intimidating to students when she caught her students speaking English in Spanish class and reminded them of the language allocated for the period. I also noticed every time she told her students to use the language of the period, she was smiling and reminded students of the language policy without making them feel embarrassed or guilty.

(2) Maestra Jennifer.

Maestra Jennifer talked about the policy of language separation and language mixing at Osorio Alternative Elementary School.

I think the basic rule of not mixing languages is great. I think it is really important not to switch. When kids don't understand something in English, I don't wanna just translate it into Spanish, but I want to explain it in English, and vice versa. I think the older you get, the separation of languages is especially more important.

Maestra Jennifer firmly believed in the language separation policy. She believed
it is ideal to strictly discipline her students to stick to the language of the period.
However, despite her belief, she said she observed language mixing in her class. She
talked about who was doing more language mixing in her classrooms as well.

> They [her students] do mix languages in my class. I wouldn't say it's heavier. I
> don't have any newcomers in my English class because they are all in Maestra
> Lucy's class this year. So, I almost hear no Spanish in my English time. But I hear a
> fair amount of English in my Spanish time. The kids who are Spanish dominant
> who have been in this school the whole time, by now, they are totally fluent in
> English. They are fine. The newer arrivals, who came in the 3rd grade, they are very
> motivated to learn English and they are so comfortable in English, so I don't hear
> any Spanish in English class. The kids speak a lot of English in my Spanish class
> because the kids who are English dominant at home are more comfortable, naturally.

In Maestra Jennifer's Spanish class, she heard a great deal of English because her
English-dominant students felt much more comfortable in English. In her English class,
there hardly existed any language mixing because all her Spanish-dominant students had
been in the country for many years and their English skill was so high that they did not
need to use their first language, Spanish. Maestra Jennifer analyzed the reasons why her
students mixed languages in her classroom.

> It's much different for newcomers. They don't feel it's safe with the new language
> yet. But now I don't have newcomers in my class. In my class, it's just easier, bit of
> laziness, not in a bad way, but just a habit. And they are used to talking with their
> friends in English. They would be in the yard, they are all talking in English, and

they come up to the classroom and they just keep talking in English. I can see how when you get used to speaking to someone in one language, it's hard to switch. It's habit. It's easier. They would be lazy. Kids would say something like, "*Jennifer, esta pensando en a* Tornado?" and I say, "*No, no, no, ententaro*" Cause they just don't have the vocabulary.

For the main reasons why Maestra Jennifer's students used the language that was not the language of the period, she mentioned laziness and habit. She said "I try to stop them. I always remind them not to [mix languages]. I always try to praise using the right language. They have to be reminded in class" in order to challenge the issue of language mixing in her class.

Maestra Jennifer also stated another approach to overcome the issue which is to teach students the similarities and differences of Spanish and English including Spanish/English cognates, so students can learn more and use the right language more.

By 4th and 5th grade, once you get proficient in both languages, you can start building bridges between them and have them help you. Someone bilingual, I always think about oh, "this is this in that language" and that helps me get better in both. So, we started in the last couple years doing a lot more of showing them cognates, and pointing out the difference like "In Spanish, we do it like this, but in English we do it like that." So, I think it is helpful to teach them about the similarities and differences, without just translating everything. I think strategically you have to use both Spanish and English at moments, but certainly it has to be purposeful.

While Maestra Jennifer supports language separation policy among students, she stressed the need for teachers to use both languages for a better instruction.

(4) Maestro Smith.

Maestro Smith spoke about the language separation policy at Osorio Alternative Elementary School, "We keep the models pretty clear in the classrooms. Part of the success of this program is that the model is pretty adhered to that we keep to the model, we keep to the amount of percentage at the times in the classroom." Despite the policy, he still saw a fair amount of language mixing, "Sometimes they mix languages. Pretty much if an English speaker notices that a Spanish speaker does not speak much English, they would speak Spanish with them even in the English class, but if they notice they speak English, they go back to English, most of them."

Another challenge he mentioned regarding nurturing bilingualism is the balance of language usage, "there is a tendency towards English, it's the dominant language. Everywhere is English. It's always a struggle with English. Too much English. I would like it if children spoke Spanish more at lunch time." This might be related to Maestra Jennifer's mentioning of how she heard a lot of English in Spanish class but no Spanish in English class. Maestro Smith gave an example, "I give announcements in Spanish first, and then English" to give Spanish language higher status. Because he wanted his students to be bilingual, but observed that students were not using enough Spanish, he felt the need to heighten Spanish language's status

Summary.

Through the interviews, I learned that the teachers had different perspectives on the policy of language separation and the reality of language mixing in the TWI. While all

teachers I interviewed, as well as the principal, regarded language separation as ideal, they were aware of the reality of language mixing and understood why language mixing occured in their classrooms. Although two teachers saw language mixing as rather negative and unwelcomed, another teacher believed language mixing could be beneficial to students in certain circumstances in order to nurture students' bilingualism. This teacher's opinion of language mixing as a contributor to bilingualism synchronized with many of the students' opinions.

Standardized Testing

During my observation period, the California State Standardized Testing and Report (STAR test) took place at Osorio Alternative Elementary School. It consumed much time for the school to prepare students and administer this test. During the test period, I could not observe students' interactions as they were not allowed to interact with one another. While standardized testing was not the main focus of this study, I realized that teachers had their own individual and unique views on this testing system. As educators who work with students everyday, and I decided to inquire about their opinions. I gathered the teachers' and principal's perspectives through individual interviews with Maestro Smith, Maestras Lucy, Victoria, and Jennifer.

(1) Maestro Smith.

When I asked the principal, Maestro Smith, about the challenge that the school faced in terms of nurturing students' bilingualism, the first thing that he mentioned was the testing:

The main challenge is testing. That creates a lot of pressure to dominate in English. In some bilingual schools now they change their principals, because there are

consequences, because their test scores aren't up. So there are negative

consequences. So the system is not set up for bilingual education, but for

monolingual English education. The state tests aren't really designed for immersion

programs. In 2nd grade, they start giving the test. At Osorio Alternative Elementary

School, in 2nd grade they mostly learn in Spanish [only 20% of the instructions are

in English and 80% of the instructions are in Spanish], so…

Maestro Smith emphasized passionately that the current standardized testing, such as the

STAR test, is not designed for immersion programs such as Osorio Alternative's, and it

drives immersion programs to compromise to teach more of the dominant language-

English.

When you are compared to all other populations like monolingual, you [immersion/

bilingual programs] have lower scores most of the times. Chinese, and Spanish

bilingual schools that have higher scores usually end up doing a lot more English,

and Chinese and Spanish suffers. We've [Osorio Alternative] always kept a certain

model here, and our scores had been low. We also have a lot of immigrants. They

are tested in English after only 2 years [of being in the U.S.].

In cases where immersion/bilingual schools tried to raise standardized test scores,

they sacrificed their target language such as Spanish and Chinese. As a result, their

students received less instruction time in the target language, and the students' target

language skill declined. Maestro Smith was against such an approach. So Osorio

Alternative stuck to the 50/50 model at the cost of the standardized scores. For a while,

Osorio Alternative tended to score lower than other immersion/bilingual schools, but the

scores increased in the recent years. He thought the way the STAR test was conducted

was not appropriate for immersion schools such as Osorio Alternative, and expressed that it should be changed.

> I think it should be adjusted for immersion or bilingual programs. I think the way we do test in this country is very rigid, and I think it's good to have high expectations, but there are non-realistic expectations for immersion programs. So I think that's one of the biggest challenges.

He continued to suggest how change should be made on the standardized tests for immersion schools such as Osorio Alternative.

> It would be a good idea if they give tests in both Spanish and English. If we are teaching children in Spanish, we should be judged in Spanish. Right now, it's like "well, Spanish is not really that important" except for the Spanish speakers. So for the English speakers, they are not worried about Spanish academically. So, it's kinda like you can come to school, and you don't really have to perform in Spanish which I believe that Spanish learners should be held accountable just like English learners are held accountable. I think children shouldn't be tested in English till the 3rd grade, not in 2nd grade, too young. Maybe in Spanish, but not in English. Because not that much time. 2nd grade, only 30% of the day is in English. So that needs to be adjusted, I do think.

> Here, Maestro Smith suggested that the state should not administer the English test at an immersion school such as Osorio Alternative until the 3rd grade. By 2nd or 3rd grade, students have not had enough instruction in English to take the test in English. The program is designed to help students become bilingual by the end of the 5th grade. At the 2nd or 3rd grade level, the students' academic level cannot be measured properly in

English. Instead, students have more academic knowledge in Spanish in the lower grades because they are receiving a larger portion of their instruction in the Spanish language. Unless students were given an opportunity to perform both in Spanish and English, they cannot measure the students' actual academic knowledge.

Maestro Smith further discussed the issue;

They can be discouraging and it does not show what they [students] really know. Even their Spanish scores are not published. Everything is pretty much English driven in California. We should know better. We are still in an old system. That's a big challenge. One of the biggest challenges. It's really discouraging. This year, we got good scores, but next year, who knows. They show that the scores go up and down in an immersion bilingual, depends on how many new comers we have. That's very very discouraging. That's something that should be changed.

Another issue is that English-dominant students are made to take tests only in English, so their effort in the Spanish portion of the curriculum is not measured. For Spanish-dominant students, the problem is that their academic knowledge is tested in their stronger language. Yet, the scores do not get published unlike the scores for the English test, sending signals to students that Spanish is not important, not official, and an inferior to English. Thus there is a danger that the status of Spanish speakers be considered lower than that of English speakers.

Maestro Smith expressed what schools can do to overcome this challenge of standardized testing;

Only thing we can do is keep talking about it. And keep exerting whatever

political pressure we have. I think politically we have to continue lobbying,

continue working with our educational unions. But we try to teach English better.

So we try to make more of an attempt to teach English better. So that's one of the

biggest things we do here. That's the pressure. The positive thing about pressure,

but it can be very discouraging.

Although the school feels pressure from the state to teach more English rather than

focusing on Spanish, Maestro Smith mentioned that the school does not get the same kind

of pressure from the parents. "Many parents who send their children to Osorio

Alternative don't care much about test scores, they understand. So they don't pressure the

school to teach more English."

In the student interviews, most said that the reason they came to Osorio Alternative

was that their parents wanted them to become Spanish/English bilingual. This supports

the fact that the parents at the school have a good understanding of the TWI program at

Osorio Alternative and do not pressure the school to deviate from its original design to

make their children bilingual.

A few weeks before the testing period, students were taught all sorts of test taking

skills to prepare for the STAR test and get better scores. All three teachers that I observed

organized test taking strategies, such as "elimination of the obviously wrong answer,"

"elimination of the answer that includes absolute words such as 'never' and 'always',"

and "choose one answer even when you have no idea which is the correct one." They

taught the strategies to their students and gave them plenty of time to practice taking the

test. Regarding such a practice that has been repeated every year, Maestro Smith stated:

At this point, we think it is a good thing to teach them how to take tests. Because they [students] gonna be taking tests for their whole lives. Sort of a survival preparation. That happens. Many schools start very early doing that. And they get good scores. It's not always the best education. But testing is given such a high honor…

Although Maestro Smith mentioned such practices did not provide the best education for students, he and the teachers considered teaching test-taking strategies beneficial for students as they have to take tests all through their lives, and test scores are the main deciding factor when they are selected for colleges and jobs. When Maestro Smith made this comment, he seemed reluctant to admit this reality. He almost sounded that if he had a choice, he would not want to teach his students these test-taking skills and instead teach them what is important. However, he understood that the reality is that his students live in the society where test scores are highly regarded and they cannot get around them. Given this reality, Maestro Smith and his teachers decided to teach their students how to score high on tests.

An the end of the interview, Maestro Smith addressed the status of English, the status of Spanish, and the atmosphere around bilingualism and bilingual education in the United States today:

So there are all sorts of ramifications of that. You have to understand why people want to learn English in this country. The government and everybody want to make sure that English is the top language. But the thing about bilingualism is that the ultimate threat is that someday that will change. Here in the United States, it could change to Spanish. It could change, and that's the political part. In two generations,

you never know what's gonna happen here. This country is like so fluid, and

Spanish could be the top language with all the south America and middle America.

English in the middle, and some in Canada. That's what Americans are afraid of

and that's the root of people's fears of bilingualism. They wanna make sure what

they know, their language is definitely protected. It's just so that's when they have

laws, they passed the laws here in California, that English is the dominant language.

This comment by Maestro Smith may show the reason why all students are

made to take the English version of the STAR test and only Spanish speaking students

take the Spanish version. In today's society, everywhere in the world, English is often

regarded as a more prestigious language than other languages, particularly Spanish. The

children at Osorio Alternative Elementary School may also feel the same way about the

languages. This may not be by accident, but by societal design.

(2)Maestra Lucy.

During the interview, Maestra Lucy mentioned who takes the testing in English and

who takes the test in Spanish. She expressed how she felt about this current system.

Now only kids who have Spanish as a home language take the Spanish test, but

everybody takes the English test. It is terrible, because in our school, we should

really know how kids are doing in both languages. So that's one thing kinda awful.

They [Spanish-dominant students] take twice as many tests.

Maestra Lucy also talked about the duration of the STAR test period at Osorio

Alternative Elementary School for the school year, 2009-2010.

If you are 5th grade English dominant kids, you do six and half days of testing. Plus a placement test for a math, seven days. Plus a PE test, eight days. And if you are 5th grade Spanish dominant kids, you have about 12 days of testing.

It was not just Maestra Lucy but all teachers who felt that eight days of testing for an elementary school student was too long, let alone 12 days. Spanish-dominant students had to take tests for 12 days because they were made to take the same test in Spanish on top of the regular English version of the test. Maestra Lucy expressed her emotions about this current standardized test system.

I have mixed feelings. I understand you need methods of looking at what kids do. I do understand the credibility, accountability process, and I do believe in assessment. Most of these standardized test scores are a fair reflection of how the kids do and act in the class during the year. I would tell you for 90% of the kids, how they do on the standardized test is how they act in the class.

Maestra Lucy understood the value of the standardized test and believed test scores reflected how students behaved in the class throughout the school year. At the same time, she expressed how she felt standardized test could not measure every aspect of students:

But I also think this is not the only measure. We need lots of different measurement point to look at, because human beings are complicated to analyze. And part of that is just experiencing them. Teacher observation and watching them learn. One of the greatest thing about the 5th grade trip is, the ability for teachers to spend four days watching their kids where they are not the primary instructor, and you can actually watch the way kids learn and their interaction with their peers. When you are teaching, it is really hard to watch the kids simultaneously. It is really cool to

team-teach with somebody, so you get to watch what's happening in the room. I

don't think most of us get enough time to do that. It is interesting to look at.

While she supported the standardized testing, Maestra Lucy felt it alone was not enough

and emphasized the significance of using multiple tools and approaches to measure and

evaluate students appropriately. She especially stressed the importance of teachers having

enough chances to step back and observe students objectively while somebody else

teaches the class.

(3) Maestra Victoria.

Maestra Victoria talked about the STAR test during the interview:

This is from the state. All schools had to take the English test for the state of the

California, cause it was a standards-based test. But the immersion schools are the

ones that were offered to give the Spanish tests to the native Spanish speakers.

She mentioned how English-dominant students took only one test in English, and only

Spanish-dominant students took two separate tests; one in English, and another in

Spanish. However, both populations sat in the same classrooms and received the same

instruction throughout the school year annually.

The English only students would not have to take the Spanish test. Native Spanish

speaking students have to take both. They took an English language arts test, they

took math in English, and then turned around and took a Spanish language arts test,

and math in Spanish as well. Two different languages, same content, except when

they did the math, it's not the exact same problems. It's different problems, they did

not simply translate it: Same content, same concept, but different numbers, and

completely different.

Maestra Victoria, who herself is Spanish dominant, stated how she supported Spanish-dominant students taking the test in their first language.

> English speaking kids are able to demonstrate their understanding completely with their English test. For those who are still learning English, it's kinda hard to take an English test. It's not that they can't do it, but they don't understand the language enough to be able to demonstrate their comprehension. I think it's good because it gives us, the native Spanish speakers, the opportunity to really express and show their understanding in their native language.

Maestra Victoria's comment made it clear that Spanish-dominant students were given the opportunity to demonstrate their knowledge in both of languages in which they receive instruction. However, this left me with the question as to why English-dominant students were not given the opportunity to do the same even though they had been receiving the same instruction, especially when they had been learning math and social studies in Spanish.

I wondered if English-dominant students could perform in English as well as they could in Spanish when they had learned the content in Spanish. I am skeptical if their test scores genuinely reflected their true knowledge level for those subjects. Also, the main part of learning at Osorio Alternative is learning two languages, but English-dominant students' Spanish linguistic ability was not measured by the test.

(4) Maestra Jennifer.

Maestra Jennifer spoke about the relationship between which population takes which test and the financial reason behind it.

The requirement by the state law is that everybody would take it in English. Spanish test is only given to kids who are still designated officially as English language learners. English-dominant kids used to be able to take Spanish test if they requested it, like 10 years ago, but testing actually cost the district a lot of money because they have to pay for the test, and pay for the scoring, so they stopped doing that. So a lot of people here would like everybody to take it in both English and Spanish because that's how we could track how we are teaching in Spanish, but they won't let us do it

According to Maestra Jennifer, this financial reason dictated who took what test and what extent teachers, parents and students themselves could learn how much students learned, and how well teachers taught each year, regardless of their desire to know these things.

Furthermore, Maestra Jennifer continued and shared how she felt about Spanish-dominant students taking two tests.

Every year, everybody takes the test in English. Then, all the English only kids, they did an extra unit in poetry. Only Spanish speakers take the Spanish test. All the Spanish dominant kids went to Maestra Victoria's class taking the test. They had to take two tests. It's a bomber, but it also gives them a chance to take the test in their native language, and they usually do a lot better in that test. So it's good for them. While Spanish-dominant students were taking the Spanish version of the test, English-dominant students studied poetry. Spanish-dominant students missed out on the valuable learning opportunity, while English-dominant students missed out on being evaluated on the subject test in the taught language.

Maestra Jennifer, who taught half a day in English and the other half in Spanish,

expressed her desire of learning how English-dominant students would perform on the

Spanish version of the test and her reason why.

> I wish I could see how English dominant kids would score on the Spanish test
>
> because they have all had just as much Spanish. I'm sure they don't wanna take
>
> another test though. But I'm sure parents want to see the results.

All 10 students who I interviewed told me one of the main reasons why their parents

decided to send them to Osorio Alternative Elementary School was that it teaches both

English and Spanish. Their parents were very interested in their children becoming

bilingual, and many of them drove their children a long distance to this school just so

their children could learn the two languages. Knowing their children were spending half a

day every day for years learning subjects in Spanish, it was easy to imagine that parents

would like to learn how their children were doing in Spanish acquisition, as well as the

subjects that they studied using Spanish.

> Though Maestra Jennifer would prefer all students take the test both in Spanish and

English, she also believed the test was too extensive and the duration of the testing time

was too long for children that young.

> I don't think anyone wants to subject any child a two full weeks of testing, it's like
>
> three. It's a lot. I wish they would make the test shorter. I don't see why you have to
>
> have so many questions. Two days of science, two days of English language arts,
>
> two days of math, so six days in total. We went from 9:30 to 12. It went for like two
>
> and half, three hours every day! There is no reason why a ten year old needs to sit
>
> through that. You can measure it with half the number of questions. Why do they

have to read 15 passages instead of seven?!

The students spent over two school weeks for the testing, and they also spent a great deal of time learning the test taking strategies prior to the test. Maestra Jennifer described her view on standardized testing at elementary school level candidly:

> If I could change the world, I would probably not have standardized testing in elementary school. They are too young. I don't think it is really necessary. I see why you have test in middle school and high school. But they are way too young. I don't think it's necessary.

She shared her honest opinion. If there were no such testing in elementary school level, students would gain an extra three to four weeks of instruction time, so they could learn more and they may understand better. In addition, she shared her observation on having to spend time on teaching her students the test taking techniques and skills before the test:

> But I do think that the strategies are helpful. Conversations around how to take a test in confidence are helpful if they are going to take a test. I know it [that students have to take the test] will not change, so I wanna help prepare them, and I wanna help them feel confident and the reality of it is that most jobs require passing an exam to get a license or to get a degree.

Maestra Jennifer's point of view of affirming the value of teaching test taking skills was identical to Maestro Smith's. They also shared the same position on how Osorio Alternative was under pressure of doing more English because of the standardized test score.

> There is always more pressure to do more English early. By the time they leave here, many of them are more dominant in English. I don't want them to be like that. I

want them to stay strong in Spanish because eventually English will take over. You

have to be able to have low scores in English in 2nd grade, 3rd grade. Because they

don't know English well enough. So the parent population has to be ok with that,

which is hard. We could do a better job with informing parents about the research in

TWI. I think the assumption is that parents either have to choose the school, choose

immersion, if they won't, they don't understand that. That's a pretty big assumption.

Maestra Jennifer accentuated the need for parents to understand why it was fine for their

students in TWI to score low in English test in the lower grades, and not pressure the

school to teach more English. She also pointed out the centrality of sharing the

information about the research in TWI with the parents so they would understand the

process of their children becoming bilingual and would not pressure the school to teach

less Spanish and more English.

Summary.

Through individual interviews, I learned how the principal and teachers felt about

the administration of the STAR test. All teachers felt the test was too long and should be

shortened. Two teachers and a principal perceived teaching the test taking skills to

students was beneficial. The principal was opposed to the school district or the state

publishing on their websites only the scores of the English version of the test and not the

scores of the Spanish version of the test. He felt they were discouraging and discounting

of students' and teachers' effort in learning/teaching Spanish and learning/teaching in

Spanish. Also, he thought it was as if they were telling everybody Spanish is not an

"official" language, the opposite of what Osorio Alternative was trying to communicate

to their students and parents.

One teacher was supportive of the test because she believed in assessment, but she seemed afraid that the standardized test would be used as the sole measurement. She emphasized the significance of having multiple types of measurement so teachers could evaluate and assess students from different aspects properly and fairly. Another teacher and the principal thought the students in lower grades were too young to take the standardized test in English and wished that they did not have to take the test at this grade level. As students at Osorio Alternative received most of their instruction in Spanish in lower grades, the STAR test could not really measure students' actual academic level.

The current system was pressuring immersion schools to give more instruction in English and less in the target language, Spanish in this school's case. All teachers and the principal wished that if the students had to take the test, they would be tested in both languages, Spanish and English, so that their actual academic achievement could be measured. Through all these opinions, I learned that the standardized test presented a major challenge in terms of nurturing bilingualism at Osorio Alternative Elementary School.

<div align="center">Conclusion</div>

In Chapter IV, I presented the research findings in response to my three research questions. My first research question was: What kind of linguistic and social interactions occur between and among students during the English portion of the Two-Way Immersion (TWI) program apart from teacher instruction? From class observations in Maestra Lucy's class and interviews with ten student participants, I learned that students exchanged all sorts of interactions among each other during the English portion of the Two-Way Immersion (TWI) program at Osorio Alternative Elementary School. From the

results, I focused on linguistic interactions, especially language mixing of Spanish and English, which is generally discouraged and seen as negative behavior in a TWI.

From the class observation, I learned how students mixed languages on a daily basis in order to negotiate various situations. They also used language mixing as a valuable tool to learn from and teach to their peers. Most students saw language mixing as beneficial in their process of becoming bilingual, except for balanced bilingual students. Even the students who supported language separation emphasized the importance of exceptions. The Spanish-dominant students showed their anxiety about not being allowed to use their first language, a fear I did not detect from their English-dominant counterparts.

My second and third research questions addressed the challenges the TWI teachers face in nurturing and developing bilingual proficiency among students and how to overcome those challenges. In response to those questions, I interviewed the three 5th grade teachers, Maestras Lucy, Victoria, and Jennifer, and the principal Maestro Smith.

The first challenge was language mixing. In TWI, language mixing is discouraged and language separation is strongly encouraged. From the interviews, I found out that the principal and two teachers saw it as something negative and discouraged its use. One teacher was stern when she disciplined her students not to mix languages in her classroom. Another teacher was strict and corrected her students very often, but without being oppressive.

The other teacher saw the language mixing as beneficial in the right circumstances, and even encouraged her students to take advantage of the assets they possess, and use the tools to learn and teach their classmates. While she constantly reminded her students

to use English in her English class, she also encouraged her students to draw knowledge and logic from their stronger language. In her classroom, students seemed very relaxed and students were actively exchanging interactions and helping each other, using the other language when necessary. A great deal of learning and teaching was witnessed in her classroom.

The second challenge was "standardized testing." The principal, Maestro Smith, was the first person who mentioned it as the school's challenge in terms of nurturing students' bilingualism, and two teachers agreed with him. One teacher did not see it as a challenge, but felt the way it was administered, and the way it was positioned in the process of student assessment, should be changed.

All teachers agreed that it was a good idea that students learned test-taking strategies, because they would need them throughout their lives. The principal and two teachers wished the tests were given to every student in both Spanish and English, rather than an English test to all students and a Spanish test to only Spanish-dominant students. They also would like the test to be shortened because it was too long and consumed too many instruction days. The principal wished the Spanish test score was also published on the State and district websites, rather than just the English scores alone.

The interviewees answered that they must keep addressing this issue of standardized testing whenever they have a chance, and to continue informing the parents about the system of TWI, and how it works to create a better understanding. This way, the parents would understand how those standardized testing scores that they see on the state or district websites do not necessarily reflect the students' actual knowledge level. It is a long process for a child to become bilingual, which cannot be measured properly in the

lower grades by a standardized test taken only in English. Once parents understood these issues, they perhaps would not pressure the school to teach more English and less Spanish, and the school could continue adhering to the existing model without compromise. The principal and the teachers shared a number of challenges which the school faced, but language mixing and standardized testing were the major concerns that they had been addressing in their own ways.

CHAPTER V

SUMMARY, DISCUSSION, AND RECOMMENDATIONS

In the context of a Spanish/English Two-Way Immersion (TWI) program, two major issues emerged from the class observations and interviews. In this chapter, I summarize the findings with a focus on language mixing and standardized testing in order to examine how they contributed to or hindered developing bilingualism at the Osorio Alternative Elementary School. I also include my interpretation of the findings. Finally, I discuss the implications of this study for Spanish/English TWI programs and TWI teachers.

Summary

In the previous chapter, I presented the study's results to my three research questions. My first research question explored the kinds of linguistic and social interactions that occurred among students during the English portion of the Two-Way Immersion (TWI) program. Through class observations in Maestra Lucy's English class and interviews with 10 student participants, I learned that students had several different kinds of interactions with each other in the TWI program at Osorio Alternative Elementary School. From these findings, I focused on language mixing of Spanish and English, which goes against the policy of strict separation of languages, a principal feature of TWI programs in general.

Based on the class observations, I became aware that the students mixed languages frequently and skillfully so as to negotiate various circumstances. They also used language mixing as an effective tool when they learned from, and taught to, their peers. Except for two balanced bilingual students, most students saw language mixing as

constructive and useful in their process of becoming bilingual. Even the students who supported language separation stressed that they should be allowed to occasionally use the other language when appropriate. The Spanish-dominant students expressed their uneasiness about not being permitted to speak in Spanish at all in their English class; English-dominant students did not display a similar uneasiness.

In the next section, I summarize the research findings of this study regarding language mixing and standardized testing. My last two research questions dealt with the challenges the TWI teachers faced in nurturing and developing students' bilingual aptitude and how to address those challenges. To answer those questions, I interviewed three fifth grade teachers, Maestras Lucy, Victoria, and Jennifer, and the principal Maestro Smith.

Language Mixing

Language mixing was the first challenge. In TWI, strict language separation is encouraged and language mixing is usually avoided. Through the interviews, I found out that while the principal and two teachers perceived language mixing as a negative behavior and felt it should be discouraged, another teacher identified language mixing as a beneficial behavior in certain situations. She always reminded her students to use English in her English class; at the same time she was also telling her students that they could use their knowledge and logic from their first languages when necessary. In her classroom, students seemed very relaxed and were actively exchanging in interactions and helping each other, using the other language as needed. Her students were actively helping each other in the appropriate language depending on the circumstances.

Standardized Testing

Standardized testing was another challenge the teachers faced. One teacher expressed her concerns that standard testing is often seen as the sole measurement when students are evaluated although students have many different assets and qualities. The principal and two teachers wished that all students could take the test in both Spanish and English and that the results of both test would be published on the state and district websites. Also, teachers thought the test was too long and needed to be shorter.

The teachers stated that they have to continue to consider the challenge of standardized testing and to provide the parents with information about the system of TWI. The students' bilingual aptitude takes a long time to develop, and the English version of the standardized test cannot measure bilingual aptitude or students' academic level when students are still in the lower grades. It would be less likely for parents to pressure the school to give more instruction in English if they had a better understanding of the TWI system. Then schools could adhere to the existing model without compromising their principles. All the interviewees openly shared their experiences in TWI at Osorio Alternative, especially regarding language mixing and standardized testing. Their experiences and opinions revealed issues that are commonly observed in TWI programs in general.

Discussion

In this part of the chapter, I discuss answers to my three research questions, including two unexpected findings that emerged in my study: language mixing and the negative impact of standardized testing. In general, language mixing is discouraged in TWI, so I did not expect language mixing to have such a positive influence, and this was

not my main focus in Chapters I-III. Therefore, I discuss language mixing using the

related studies in this chapter. Also, I discuss standardized testing as all teachers and the

principal expressed their concerns regarding the testing of TWI students.

Language Mixing

Pérez and Guzmán (2002) described code-switching as alternating "between two

language systems in an utterance or conversation" (p. 52). On the other hand, Palmer

(2009) defined code-switching as "moving easily between one linguistic code and

another within a conversation or an utterance" (p.42). Different researchers use the

following terms to describe similar phenomena: code-switching, code-mixing, language

mixing, and language switching. For example, Baker (2006) described the different uses

of codemixing and codeswitching:

> 'codemixing' has sometimes been used to describe changes at the word level
>
> (e.g. when one word or a few words in a sentence change). A mixed language
>
> sentence such as 'Leo un magazine'(I read a magazine) might be called
>
> codemixing. In contrast, 'Come to the table. Bwyd yn barod'(food is ready)
>
> might be called codeswitching. The first phrase is in English; the second in
>
> Welsh. Codeswitching has generally been used to describe any switch within
>
> the course of a single conversation, whether at word or sentence level or at the
>
> level of blocks of speech. (p.110)

While Baker (2006) distinguished between the terms "codemixing" and

"codeswitching," he mentioned that "codeswitching" is generally used in more broad

situations where two languages or dialects are mixed in the same discourse. Muysken

(2000) favored the term, "codemixing" as the more general term. On the other hand,

Palmer (2009) defined the term "code-switching" very broadly as "the use of more than one language within a single utterance, regardless of the level of integration between the languages" (p. 44). Pfaff (1979) adhered to the term "code-switching" to refer to both "code-switching" and "language borrowing;" the latter usually indicates "foreign loan words or phrases that have become an integral and permanent part of the recipient language" (Baker, 2006, p. 110). Poplack (2000) further explained that one must be bilingual with the knowledge of the grammars of both languages to "code-switch" because the behavior requires familiarity with phonologies, syntaxes and morphologies of both languages.

As different researchers have used these terms to capture slightly different linguistic behaviors, there are no consistent definitions among researchers in the field. Discussing this issue of definition of terms, Pfaff (1979) described "the categories are inherently squishy" (p. 296). In this study, I used the term "language mixing" to describe the phenomenon of using elements from both Spanish and English in one word, phrase, sentence, or discourse.

The Policy of Language Separation

In TWI programs, students' linguistic and social interactions are critical for language development. Such interactions can happen in two languages, in just one of two languages, in the other language, or a mixture of both. However, the basic rule of TWI programs is the strict separation of two languages and it appears to be a contradiction. According to Genesee and Gándara (1999) and Lindholm-Leary (2001), one of three main features of TWI programs is that in each period of instruction, only one language is used exclusively. Baker (2006) stressed the feature of language separation as follows:

A central idea in dual language bilingual schools is language separation and

compartmentalization. In each period of instruction, only one language is used.

Language boundaries are established in terms of time, curriculum content and

teaching. (p. 233)

Also, Carrera-Carrillo and Smith (2006) introduced Genesee's (1987) findings based on

his long-term research on language acquisition:

The two languages are kept distant and never mixed during instruction. For

example, in an English-Spanish dual language program, two teachers are

responsible for instructing a group of students. Both teachers are considered pure

language models. The English-speaking teacher instructs only in English and the

Spanish-speaking teacher instructs only in Spanish. (p.5)

Furthermore, Pérez and Guzmán (2002) reported "most bilingual teachers consider code-

switching as an inappropriate vehicle for school instruction (Anderson & Boyer, 1970;

Saville & Troike, 1971; Legaretta, 1979; Wong Fillmore & Valadez, 1986) and strongly

argue in favor of the separation of languages" (p. 53).

Supporting this idea of language separation, TWI schools and programs try to

ensure that teachers or students always separate the two languages that they use for

instruction, and avoid mixing them during the class. Osorio Alternative also agrees with

this concept. Maestro Smith, the principal of the school and two teachers emphasized the

essential role of the policy of strict language separation in their TWI program. Maestra

Jennifer supported it: "I think the basic rule of not mixing languages is great. I think it is

really important not to switch." Teachers consistently ensure this language separation

policy, so students understand that they are not to mix languages.

Although the strict language separation is the norm in current TWI, one might wonder about how this policy originated. Palmer (2009) pointed out that this policy was carried into TWI in the U.S. from French immersion programs in Canada, where TWI had its roots. According to Palmer, advocates of this policy argue that students receive the opportunity to more fully develop the target language. Therefore, in order to be considered a TWI program, it has to teach languages through content instruction and to have some type of a system for separating two languages of instruction (Center for Applied Linguistics, 2010; Howard, Sugarman & Christian, 2003; Lindholm, 1990).

First Language Usage

Despite the language separation policy, all three teachers at Osorio Alternative said they witnessed language mixing behaviors among their students in their classrooms. Palmer (2009) emphasized that language mixing behavior is a "natural part of being bilingual" (p.42). Contrary to the strong belief of language separation as "correct" and language mixing as an "error," the usage of the first language in second language learning in general has been studied by many researchers (Pérez, 2004; Zentella, 1984, 1997) and perceived as an effective tool in second language learning. According to Cummins's (1991) "Linguistic Interdependence Principle," when a person has gained knowledge using one language, it functions as a foundation and assists the learner in the second language.

Reasons Students Mixed Languages

Palmer (2009) expressed her frustration about how people view code-switching:

Despite over half a century of study in the field of linguistics looking at the complexity of code-switching and demonstrating the richness of the practice

(Clyne, 2000), many multilingual speakers believe that code-switching is a sign of

linguistic weakness or inadequacy. (p. 42)

Rather than simply seeing language mixing as linguistic weakness, it is important to think

of reasons why TWI students mix languages. Lindholm-Leary and Padilla (1977) raised

some reasons why children mixed languages, including that the child momentarily forgot

the correct word, and the mixed word was more noticeable in the child's environment.

Gort (2006) analyzed her participants' reasons for language mixing in their writing as to

monitor their writing: to ask questions, to show the influence of the popular culture, to

use proper nouns, and to display their understanding of unique cultural constructs.

In my study, students raised the following reasons for language mixing: not yet

having sufficient knowledge of their second language, helping a peer who did not

understand thoroughly the language of the class period, forgetting which language period

they were in, not being able to remember a word in one language, being shy about using

the second language, using the language in which they were more comfortable, not being

able to find the appropriate word or expression for the situation in one language, finding

communication in one language to be easier or faster than in the other, not being able to

say certain things in one language (not necessarily second language) because they learned

certain things only in one language, having fun in mixing languages, and using their first

language.

My participants mostly expressed the same reason as Lindholm-Leary and

Padilla's (1977) participants: they momentarily forgot the correct word in the language of

the classroom and used the other language instead. The other reason for language mixing

was that the mixed word was more frequently used in the child's environment. I

witnessed language mixing for the same reason among my participant students. For

example, even in English class, students use the term "Dia de los Muertos" for the Day of

the Dead only because they have heard the Spanish term more often. As for Pérez's

(2004) reasons, I could see the same reasons behind my participants' language mixing

behaviors. In English class, Spanish-dominant students would often brainstorm their

sentences in Spanish first then wrote them in English.

Asking questions using the other language was often seen among my participants as

well. In language mixing Example 2, the dialogue between two Spanish-dominant

students, Vanesa and Generosa, contained a clarification purpose.

Example.2.

Generosa: *Qué dice aquí*? (What does it say here?)[Showing her handout]

Vanesa: *Dice*, "element," "*elemento*." (It says "element," "*elemento*")

Generosa: *¿Qué significa "elemento?"*(What does "*elemento*" mean?)

Vanesa: "Element" means "one pure substance." (putting her index finger up in the

air, doing the gesture for "element" that Maestra Lucy taught)

Generosa: Mnnn. One pure substance? *¿Qué significa* "one pure substance?"

(laughing)

Vanesa: Well….(smiled, thinking how to explain it in Spanish to Generosa)

When Generosa asked Vanesa how to read a word, "element," Vanesa read it aloud in

English for her, but also translated it into Spanish without Generosa asking her to do so.

Generosa did not comprehend the concept of "element," so she asked again what it meant.

Vanesa repeated the definition in English that Maestra Lucy taught with the hand gesture

for it. Still, Generosa did not understand, and asked again what that meant in Spanish.

Yet another reason students mixed languages was because of the influence of popular culture, proper nouns, or unique cultural constructs; my participants mixed languages for similar reasons. When they talked about Disneyland or Hello Kitty, they used the English names even when they were speaking in Spanish. From this study, I learned about various reasons behind students' language mixing behaviors.

Positive Impact of First Language Use in Second Language Learning

While language mixing is discouraged in TWI, a number of studies related the positive impact of first language usage in second language learning. For example, Antón and DiCamilla (2000) stated that the use of learners' first language for second language learning is beneficial since the first language functions as a critical psychological device that enables learners to construct effective collaborative conversation in the completion of meaning-based language tasks by constructing scaffolded help. Graves and Graves (1994) described scaffolding as a process which enables a less experienced person to solve issues, accomplish tasks, or reach goals that would be beyond his unassisted effort. Antón and DiCamilla (2000) also pointed out that the use of the first language creates a social and cognitive space in which learners are able to provide help to each other and themselves throughout the task. The authors concluded:

Thus, prohibiting the use of L1 in the classroom situations we have described removes, in effect, two powerful tools for learning: the L1 and effective collaboration, which depends, as our study shows, on students' freedom to deploy this critical psychological tool to meet the demands of the task of learning a second language. (p. 338)

As seen above, Antón and DiCamilla (2000) believed permitting students' use of first language was essential in the second language learning classrooms.

My student participants frequently mixed languages by using Spanish in their English class. The main purpose for them to mix languages was similar to what Antón and DiCamilla (2000) pointed out: constructing scaffolds to help themselves or their peers. That manifested in the form of translating, clarifying (asking questions and explaining), modeling and imitating, interpreting for peers, using the person's 1st language to attract attention, and responding in the language of address.

This pattern is closely related to Vygotsky's (1978) theory of Zone of Proximal Development (ZPD), in that he argued that a child is capable of achieving more when guided by a more experienced peer or adult, than when functioning alone without such assistance. While students in second language classes in mainstream programs have only one person who can assist to create the ZDP, a teacher, in TWI, students have multiple people who can assist in creating the ZDP for a student, a teacher plus all the other "language experts," their peers who are native speakers of the language of the period. My participants constantly helped one another for a better understanding of the academic content on top of receiving assistance from their teacher.

For example, in the language mixing Example 3, Samantha (English dominant) was helping Anita (Spanish dominant), and in the process, they used Spanish even though it was an English classroom.

Example 3.

Samantha: Lucy [Maestra Lucy] said you have to change the adjective here.

Anita: What's adjective?

Samantha: Well, adjectives are like…hmm, they explain things…like nouns.

Anita: (with a confused look)

Samantha: *Los adjectivos explican cosas como "nombres." Como un perro blanco. "blanco" es un "adjectivo," O.K.?* (Adjectives explain things like "nouns." Like a white dog. "White" is an "adjective," O.K.?)

Anita: *Sí, sí.…O.K.*

Samantha: So, here, you have to change this adjective. O.K.? (pointing to Anita's notebook)

In the process of giving and receiving the help, students often mixed languages so they could understand each other better. This was especially true for newcomer students, like Anita in the example abovefrom Maestra Lucy's English class; relying solely on English was not sufficient for students' understanding. Spanish-dominant student Elsa said "I think it will help if I can use Spanish in English class….I think it's bad if I couldn't use my language in class, it will be confusing." Another Spanish-dominant student, Virginia, also expressed similar opinion, "I don't understand a lot of English, so I ask. They explain to me in English first, usually, but if I don't understand, they explain it to me in Spanish, too."

From the students' comments, it is clear that they sometimes got confused and because their English proficiency skills were not high enough they did not understand when they were allowed to use only English. This corresponds to Krashen's (1982) proposed comprehensible input hypothesis, which argues that a person acquires his second languages only by exposure to comprehensible input. He emphasized that the input cannot be just any input, but has to be comprehensible to the learner in order for

second language acquisition to occur. My student participants' comments revealed that sometimes the English input they received from their teachers and peers was not comprehensible to them because the learners were native Spanish speakers. In order to understand and learn the content, they often needed assistance from their teachers and peers in Spanish. By language mixing, they could comprehend the content for the first time. Next time they listen to the same information in English, the information would be "a comprehensible input."

Considerations about the Strict Prohibition of the First Language Use in Second Language Learning

While students expressed their positive opinions of first language use in the second language classroom, they also admitted their concerns about the language separation policy. During the interview, Spanish-dominant student Elsa, shared her anxiety about not being allowed to use her language in English class, "I think it's bad if I couldn't use my language in class, it will be confusing." She was a newcomer student and may have felt more secure to know that Maestra Lucy allowed her to use her first language if necessary. In general, she tried very hard to speak in English, to learn more, and to help her newcomer peers as well. However, sometimes she encountered problems understanding content, causing her to fall back on her first language.

Generosa was another Spanish-dominant student who also tried hard to acquire English and achieve her academic goals. However, her English proficiency level was not as high as Elsa's. She also had to occasionally use Spanish to understand what was going on and to make herself understood by her teacher and peers. She said, "I don't like it if we can never use Spanish in English class, because I don't feel good."

Both these girls expressed their feelings about the language separation policy. When they told me their feelings, I could hear a great anxiety in their voices. To adults, it might have been just three hours of an English period where kids had to use only English, but for Spanish-dominant children who had been in the country only for a year or two, using only English caused great stress.

Maestra Lucy explained more about this situation during the interview. In her class she had five newcomer students. Some had already experienced many challenges when they crossed the border into the U.S. Some kids came on the bus by themselves: Some crossed the border with an adult who was a total stranger to them. Other children were separated from their parents for several years because the parents came to the U.S. before them, and they had to live with their relatives in their country before they came to the U.S. Some of Maestra Lucy's students had to move from one country to another before they crossed the border of the U.S. Maestra Lucy explained that for kids, moving itself can be tough; changing schools can be tough; leaving their family, friends, and everything that they were used to back home to come to the U.S. is tough. And all these things could be happening based on adults' decisions over which the child had no control. At home, some parents kept telling their children that they did not want to be in the U.S. and soon they would go back to the country. These children did not see the value in learning English.

On the other hand, Maestra Lucy explained that many parents are committed to stay in the U.S. forever and they are trying hard to assimilate to the society in the U.S. Some parents encourage their kids to learn more English than Spanish. Yet other parents do not see the value in education, so they do not encourage their kids to try hard at school. So not all children are motivated to learn the English language equally. Not all children are

mentally ready to spend half a day only in their second language. And some students have identity issues because of their unstable surroundings.

Maestra Lucy stated that many newcomer children at Osorio Alternative had deep issues that they were dealing with other than language and they needed counseling or therapy to help their mental state. For those kids, the Spanish language was the best way to express their feelings and emotions. Taking away that tool could create a negative impact on their academic and social experiences at school. The children were still very young and they could not necessary express all their concerns and fears. I could see that Maestra Lucy was very sensitive about those children's mental and emotional state and did not think the strict separation of languages was the priority.

Suárez-Orozco (2005) discussed immigrant children's experiences in a way that was closely connected to what Maestra Lucy explained above. Based on interviews with immigrant children, Suárez-Orozco described that immigration is "one of the most stressful events a person can undergo" and "an alarming number of immigrant children experience a variety of forms of stress, which may lead to post-traumatic symptomatology" (p. 136). Her immigrant interviewees found the border crossing extremely traumatic. She also reported that the acculturation process added to the immigrant children's stress. While they experience the "sense of competence, control, and belonging" and a "keen sense of loss and marginality (p. 136)" in the new environment, they have to learn everything anew, including the language and assimilate to the culture. In such a process, the children's first language may have a cultural significance for them that goes beyond the simple communication process.

Zentella (1984), who advocated for code-switching in second language classrooms, asserted "we do not know what we are banning with it (p. 130)" when we ban code-switching in our classrooms. The researcher further mentioned a connection between code-switching and identity. Although Zentella referred to a second language classroom setting, not the TWI classroom, the argument may be valid even in TWI setting to some extent and it is worth the consideration for TWI educators. Perhaps the strict prohibition of the first language usage in second language learning in TWI could have a negative impact on those children.

Language Mixing as a Sign of Progress in Becoming More Bilingual

When someone sees bilingual children mixing languages, one might think they are confusing between two languages and not progressing to become bilingual, assuming that the bilingual education is not functioning effectively. But Gort (2006) suggested differently. She claimed that these behaviors were normal for bilingual children when they were in the process of acquiring two languages simultaneously. Instead this pattern represents children's positive bilingual development.

Gort (2006) conducted a qualitative study and investigated the writing process of children in the first grade in two Spanish/English TWI classrooms in the U.S. In her observations, students displayed strategic code-switching and drew knowledge from both Spanish and English as they looked for ways to express themselves about things that mattered to them when they worked on their writing project. She stated that there were several factors to code-switching, including each child's language dominance, bilingual development, and the linguistic or classroom context. In the following statement, Gort

emphasized how code-switching was *not* the backward development progression, but rather showed that a child was becoming biliterate:

> Interliteracy thus represents growth of biliteracy and not a backward development progression. When children apply language-specific elements from one language to the other, they are exhibiting general literacy knowledge although they may not yet know particular elements or conventions of one of their languages. This application may result in inaccurate language, but the process is consistent with normal bilingual/biliterate development. As the children's languages develop and literacy in those languages advances, they move beyond the stage of interliteracy and toward standard productions in each language. (p.348)

This study by Gort (2006) suggested that the adults involved in TWI, such as school administrators, teachers, parents and the society, have to be patient when they evaluate bilingual students' progress in TWI. Bilingual children often apply their knowledge that they acquired in one language to another in order to negotiate different situations in their learning environment, and help one another through classes using all the knowledge that they have acquired through both languages. We have to be aware that the language mixing behavior is not a sign of students' inadequacy, but rather reflects their progress to become more bilingual individuals. In the process of learning, bilingual children make an effort to comprehend the academic content and what is going on around them in the classroom using two languages. But at the end, they will go beyond the stage of applying knowledge from one language to another incorrectly, develop fully as bilingual/biliteral, and become able to produce correct speech or writing in each language. Until then, we

have to be patient and understand that it takes time for children to become truly bilingual and produce the correct version of each language.

Although most past literature in TWI (Genesee & Gándara, 1999; and Lindholm-Leary, 2001) has advocated for strict language separation, Bikle, Billings, and Hakuta (2004) suggested a potential value of code-switching in TWI programs. Based on her study, Gort (2006) explained that language mixing was normal for bilingual children when they were in the process of acquiring two languages at the same time. It represents children's bilingual development, not deficiency, in their two languages. Furthermore, Reyes (2001), Pérez (2004), and Fitts (2006) suggested that TWI teachers should welcome students' taking advantage of the dual linguistic and cultural knowledge while advising them to produce the correct output in one language or the other if asked. This seems like a better approach although it appears difficult for many teachers to put into practice.

Standardized Testing

During the interview, all three teachers and the principal expressed great concern about the current standardized testing system. The teachers' concerns included: all students are made to take only the English version of the test, only Spanish-dominant students were made to take both English and Spanish tests, students in lower grades are too young to take the test, only English test results are published, the test is too long for students, and newcomer students are forced to take the English test after being in the country only for a year or two.

Bikle, Billings, and Hakuta (2004) talked about how schools were actually feeding into the inequity of languages by emphasizing the English standardized tests more than

the Spanish. Although one of the main goals of TWI is to "promote positive attitudes toward both languages and cultures and its supportive of full bilingual proficiency for both native and non-native speakers of English" (Christian, 1994, p. 1), this does not always take place. The district and the state standardized testing practices are working against this philosophy. TWI schools need a sufficient budget to give the test in both languages of instruction. Also, the district and state should officially publish the results of both tests on their websites. Until these two goals are accomplished, they are demoting the status of the Spanish language as well as demoting its speakers and learners. These practices go against the core goal/philosophy of TWI.

Although students receive instructions in both Spanish and English, students' academic knowledge is measured by the English test only if they are English-dominant students. The following conversation among students from Maestra Lucy's class illustrates this issue.

Chloe: I don't get math in English. We don't speak English in math all our lives, except for Fridays and preparation for STAR test.

Kay (English dominant): I don't get math in English.

Erika: English and math don't connect, because we've been learning math in Spanish class. I cannot say some words that we use in math in English.

These girls were all English-dominant students, but they had been learning math in Spanish in their previous years at Osorio Alternative. This year, they learned math in English only on Fridays and during the STAR test preparation period prior to the standardized testing. The fact that they have spent so little time learning math in English

shows how one could not measure these students' actual academic knowledge with the English test alone, regardless of their dominant language.

Maestra Lucy also had concerns related to the standardized testing. In the interview, she expressed that standardized testing must not be the sole measurement of her students' comprehension, and emphasized the necessity of using various ways and approaches to evaluate students appropriately. She especially stressed the importance of teachers being given ample opportunities to observe students objectively while being taught by another instructor.

Muñoz-Sandoval, Cummins, Alvarado, and Ruef (1998) addressed both concerns of the English test being given too much status and standardized testing as the only measurement of students' progress in TWI. The authors stated that bilingual students bring a linguistic repertoire to learning which is immeasurable in one language. The current approach of giving only the English test to all students, even though they are bilingual, directly opposes Muñoz-Sandoval et al.'s conclusion. Grosjean (1992) proposed that bilingual speakers are affected by their knowledge of two languages and their experiences in two cultures; the foundation of this understanding is the holistic view of the bilingual. Grosjean saw being bilingual as an incorporated whole which cannot be broken up into two separate portions. Many researchers (Moll and Dworin, 1996; Valdés, 1992; Walsh, 1991) in the field of bilingualism expressed that a monolingual perspective was insufficient for understanding bilinguals, bilingualism, and biliteracy. Despite such research results, TWI schools such as Osorio Alternative were not given the option to test students in both languages of instruction. Moreover, Gort (2006) mentioned that a

multilingual perspective was necessary to understand bilingual development. Following

is the explanation of Gort's multilingual perspective:

A multilingual perspective is based on a holistic view of the bilingual learner,

including validation of students' cultural and linguistic backgrounds as

resources for learning, an understanding of the role of primary language

(including literacy) in the acquisition of a new language, and a consideration of

sociolinguistic, socio-historical, and sociocultural factors that contribute to the

child's development and experiences. (p.327)

With this holistic approach, one views a bilingual learner from multiple aspects and

evaluates him or her appropriately, adequately, and fairly. This approach is in line with

Maestra Lucy's concern that the English standardized test should not be the only

measurement in TWI. In her class, Maestra Lucy was using multiple ways to evaluate her

students such as portfolios, writing samples, reading tests, oral quizzes, and oral

presentations. While some students did better on standardized tests, others did better on

portfolios and yet others did better on oral presentations using PowerPoint. Maestra Lucy

provided everybody with multiple opportunities to perform well by using multiple

evaluation methods.

<div align="center">Recommendations for Future Research</div>

Based on class observations and interviews with students, teachers and the principal

at Osorio Alternative Elementary School, I recommend further research be conducted on

the impact of language mixing specifically in Two-Way Immersion programs. Bilingual

students are making their best effort to survive in the TWI classrooms using knowledge

from two languages, but the principle TWI rule is language separation. This policy

silences some students in the classroom where they are supposed to speak in their second language. Students speak up and ask questions of their teachers and peers so they can comprehend the content and move on with their study. They are showing their desire to understand and to expand their knowledge in order to become bilingual. During my observations, when students mixed languages, they actively gained knowledge and understanding. They expressed how being able to use their first language helped them learn and become more bilingual.

In current TWI programs, language mixing is seen as a negative, an error, a mistake, and something to be corrected. However, in the general second language acquisition field, language mixing is accepted as a stage in the process of learning a second language and perceived as beneficial. Thus, further research on the role of language mixing in TWI is needed to determine the strengths and weaknesses of this practice.

Another recommendation is that more research be conducted on the students' perspective on and attitude towards English-only standardized testing in TWI and its impact on their attitude towards the minority language, minority language speaking peers, and learning the minority language. At Osorio Alternative, when the students finished with their English test, Spanish-dominant students had to stay in the class and take the Spanish test and English-dominant students were sent to a different room where they wrote poetry. As the English-dominant students were walking to the other room, one of my student participants, Samantha, (English-dominant student) asked, "Why do we [English-dominant students] take only English test and they [Spanish-dominant students] take English and Spanish tests?" Students were wondering why the school treated English dominant and Spanish-dominant students differently.

Every day, TWI teachers and principals fight for language equity between Spanish and English, the "language of power" (Christian, Howard, & Loeb, 2000). The current standardized testing practices nullify the efforts of TWI students, teachers, and administrators. To change the current practice of standardized testing, students' perspectives of and attitudes towards English-only standardized testing in TWI must be reflected in the research. Researchers also need to look at how standardized testing impacts students' attitudes towards the minority language, their minority language speaking peers, and the learning of the minority language. More research is needed which addresses the students' perspectives on language mixing and the standardized testing in TWI programs. I hope more researchers will go into TWI classrooms, spend time with students and teachers, observe their behaviors and interactions, listen to their dialogues, listen to their feelings and opinions and learn more about their real experiences in TWI programs as I did through this study.

Recommendations for Future Practice

The findings of this study revealed the importance of issues in TWI such as language mixing and standardized testing. As for language mixing, TWI programs may benefit from reanalyzing the principle rule of language separation. The findings of my study show that students learn and expand their knowledge in the process of language mixing. Including the time before I started officially collecting data for this study, I helped the students as a volunteer for two years. While all students more or less used their first language in the second language classrooms, they made progress throughout the school year. Although they were using their first language when necessary, they were

still learning and producing more output (both speaking and writing) correctly in their second languages.

In the exchange below, excerpted from Example 1 in Chapter IV, two Spanish-dominant girls, Generosa and Vanesa, demonstrated that learning took place even though they mixed languages. Maestra Lucy gave instructions but Generosa did not understand them and did not know what to do. Generosa asked Vanesa for help.

Example 1.

Generosa: What's this? (showing Vanesa the assignment.)

Vanesa: What? Oh, you have to read a book of a famous person, and write a
    biography.

Generosa: "Biography?" What's that? (with a confused face expression.)

Vanesa: Hmmm (thinking.) "*biografía*", you know?

Generosa: *Ahh, sí, sí, biografí*a! (with a pleasant face expression.)

As can be seen in this dialogue example, students often learn through mixing languages.

Language mixing Example 4 depicted how students learn to produce output in their second languages by receiving their peers' assistance. Chloe (balanced bilingual) facilitated Generosa's (Spanish dominant) learning a new word in English and to pronouncing it correctly. In the process, they used both Spanish and English even though they were in English class. Maestra Lucy had her class write poetry during the English language arts period. Generosa wanted to use an English word meaning "calm" in her poetry, but since she did not know it, so she asked Chloe.

Example 4.

Generosa: *Chloe, cómo es esta "tranquila" en inglés?* (how do you say "tranquila" in English?)

Chloe: *¿Tranquila?* Calm. (with a confident smile)

Generosa: Come?

Chloe: No. Calm. (pronounced slowly and clearly)

Generosa: Court? (with a confused look)

Chloe: No. Calm. (pronounced even more slowly)

Generosa: *Cee, oo, Uu, erre, te?*

Chloe: No. C, A, L, M….calm, peaceful. Caaalm. C, A, L, M. Calm.

Generosa: C, A, L, M….(writing it down carefully)

Generosa: Calm, calm…. (practicing to pronounce the word several times to herself)

Chloe: Yup, calm. You got it!

Generosa: Thank you.

This example demonstrated how students learned to produce correct output through language mixing. On many occasions mixing languages facilitates students' learning better and faster such as in the two examples above. Therefore, we have to analyze the positive and negative impacts of language mixing.

As Reyes (2001), Pérez (2004), and Fitts (2006) suggested, TWI teachers may want to encourage students' behavior of language mixing, and drawing from two languages, and the sharing of cultural experiences if they felt it was beneficial. At the same time, teachers can train students to say what they have to say in their second language without

scolding them for using the other language and making them feel ashamed. Teachers need to recognize that language use is closely connected to students' identity.

In terms of standardized testing, TWI teachers, schools, and parents should advocate to the district and state to develop a budget that enables all TWI students to be tested in both languages of instruction and to treat both test results equally. TWI schools should also emphasize utilizing alternative assessment such as portfolios, reading tests, and oral quizzes rather than using standardized test as the sole method of assessment. I witnessed all these assessment methods being used on top of the standardized test at Osorio Alternative Elementary School.

Another action teachers can take is to discuss the current situation around standardized testing with their students in the classrooms. At the moment, English-dominant students are wondering why they are tested in only one of the languages of instruction and not measured in the other language; they ask why they have to stringently apply themselves in Spanish classes when they recognize that they will not be tested in the language. Spanish-dominant students are questioning why they are treated differently from their English-dominant peers and why they have to take the Spanish test as well. Many of them perform better on the Spanish test than in the English, but the Spanish test results are not published as if the students had not taken the test. This practice sends a wrong signal to the students in TWIs and it might be helpful if the entire class could discuss this issue in TWI programs. If students feel the standardized testing should be administered differently, TWI teachers may want to give students opportunities to express their feelings.

In the meantime, TWI schools should keep TWI students and parents informed about standardized testing. To counteract the atmosphere of emphasizing the language of power, teachers should also continue in their efforts for creating equity between English and Spanish by making announcements first in Spanish and then in English, by sending out handouts and announcements to parents in both languages, decorating school walls with Spanish posters, having students participate in Latino oriented events, and talking about language equity in classrooms as exemplified by Osorio Alternative Elementary School.

<center>Conclusion</center>

This study began with the aim to investigate the role of interactions in a Spanish/English Two-Way Immersion program in the San Francisco Bay Area. However, in the process of class observations and interviews, another issue emerged--standardized testing--so I addressed this issue as well. In the interaction portion of the study, I focused on language mixing. My study suggested that TWI teachers may benefit from taking a different approach to language mixing in classrooms as many students in my study viewed language mixing as a beneficial process in becoming bilingual and displayed their anxiety for not being allowed to use their first language. Not enough research exists that illustrates the positive or negative impacts of language mixing, particularly in Spanish/English TWI programs in the elementary level. My study narrowed the gap by showing that language mixing positively impacted the learning experience of bilingual children in a Spanish/English TWI program.

Through interviews with teachers and the principal of Osorio Alternative Elementary School in my study, a number of serious issues regarding standardized testing

came to the fore. As many of these issues cannot be solved at the school level, it may take a long time for a solution. I hope this study can become part of the foundation for solving the issues of strict language separation and standardized testing in TWI programs and facilitate researchers, TWI students, teachers, parents and administrators who are concerned in developing and nurturing students' bilingualism by providing them with the honest opinions of the students, teachers, and principal of Osorio Alternative Elementary School, and demonstrating their experiences as learners, educators, and administrators at a particular Spanish/English TWI program.

The findings revealed that language mixing had a positive impact on bilingual students' learning experience in TWI. Another finding is that standardized testing is counteracting the TWI schools' effort for language equality and is detrimental to the philosophy of TWI. For this reason, my research is significant and adds to the scholarly research in the field of Two-Way Immersion.

Every afternoon, at Osorio Alternative Elementary School, students leave school a little bit more bilingual than when they come in in the morning. After five years, the children who started school as monolinguals graduate from Osorio Alternative with two languages and two cultures. Its Spanish/English two-way immersion program is opening students' doors to the world. One of my participant students, Eduardo, described his experience at the school before his graduation ceremony:

Osorio Alternative helped me become bilingual. Speaking to friends and teachers helped me to talk in Spanish and English. I like learning two languages because I can speak to more people! There are different people from around the world. I can talk to them and hear what they are saying, so I can learn about them!

Eduardo's words convey the essence of what becoming bilingual is all about.

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