**Teacher attitudes toward bilingual education: The power
and possibility of a two-way immersion program to effect change**

by

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INTRODUCTION

"The nature of the problem with the education of Hispanic Americans is rooted in a refusal to accept, to recognize, and to value the central role of Hispanics in the past, present, and future of this nation. The education of Hispanic Americans is characterized by a history of neglect, oppression, and periods of wanton denial of opportunity" (President's Advisory Commission, 1996). As the President's Advisory Commission on Educational Excellence for Hispanic Americans indicates, there is indeed a problem with the education of Hispanic Americans in the United States. There is perhaps no other time in history when the future of Latinos in the U.S. has been so bleak. Today, one of every three Hispanic Americans has dropped out of high school (President's Advisory Commission, 2003), over one-fifth live at or below the poverty line (National Poverty Center, 2006), and Hispanic Americans continue to lag behind their White and non-White peers on national, norm-referenced measures of achievement. "In 1999, average NAEP scores for Hispanics were consistently below those of non-Hispanic Whites. Hispanic 9-year-olds performed 13 percent below non-Hispanic Whites, and 13- and 17-year-olds performed 9 and 8 percent respectively below their non-Hispanic White peers" (President's Advisory Commission, 2003, p. 15). The statistics are even less promising for those Hispanics whose primary language is not English and who were not born in this country. These language-minority students face a dropout rate of over fifty percent and over one-third live in poverty (Suárez-Orozco, Suárez-Orozco, & Doucet, 2004). Hispanic children face more risk factors[1] than non-Hispanic White children; the

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[1] "At-risk factors being defined as: coming from a single-parent home, having a mother with less than a high school education, being in a family that has received welfare or food stamps, and having a parent whose

proportion of children with two or more risk factors among Hispanics (33 percent) remains over five times that of non-Hispanic Whites (6 percent) (President's Advisory Commission, 2003). This ethnic group is also one of the fastest growing groups in the U.S. today. U.S. census figures report that Hispanics comprised 12.5% of the U.S. population in 2000, a number that has grown to 14.7% by 2006 (U.S. Census Bureau, 2007). Overall, the Hispanic population has grown rapidly over the last four decades and is currently the largest minority ethnic group in the U.S. Conservative estimates predict that by the year 2040, less than half of all school age students will be non-Hispanic White (Hernández, 2004) and over one-third of the workforce will be representatives of non-White ethnic groups. As one researcher put it, in thirty years' time, the current majority-White workforce will be relying on a majority Hispanic, Asian, and African American workforce for its support and well-being (2004).

The issues surrounding the effective education of Hispanic Americans are complicated by the high number of language-minority children represented in their number. The term "language-minority children" refers to children whose first language is other than English. Educating language-minority children has long been an issue of debate, ranging from a focus on the language of instruction to the methodology used in the classroom. Despite decades of research regarding effective programs and approaches, the controversy rages on, having become more of a political issue than a pedagogical one (Lucas & Katz, 1994). In fact, to more fully understand what is involved in educating language-minority students, one must understand the history and politics that have shaped the crisis Hispanics

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primary language is something other than English" (President's Advisory Commission on Educational Excellence for Hispanic Americans, 2003, p. 18).

face today.

In the early 16th Century, Spaniards began to establish settlements and missions across the Americas, setting into motion the "collision of cultures, languages, and religions over three centuries [that] produced a new people who are the ancestors of today's Southwestern Latinos" (MacDonald, 2004, p. 7). The missions themselves were established to educate and acculturate the existing indigenous populations (Gutiérrez, 2004), and continued in this vein for several centuries. A primary focus of the missions was to eradicate the indigenous populations' culture and languages, educate them in the "true" faith, and assimilate them into the dominant Spanish culture. In 1821, Mexico won independence from Spain—a short-lived independence, since the subsequent Mexican-American war in 1848 resulted in Mexico ceding New Mexico (which then included most of Arizona), parts of Colorado and Nevada, and California to the United States (MacDonald, 2004).

The latter part of the 19th Century was a period of Anglo settlement in the Southwest, Anglos who represented anti-Spanish, anti-Catholic, and racist ideologies (Gutierrez, 2004). The results of Anglo settlements were devastating to the Mexican Americans, a people who had lived on that land since the 1500s (MacDonald, 2004). They lost millions of acres of private land, 1.7 million acres of communal lands, and 1.8 million acres of timber land to the state and federal governments, all without compensation (Yohn, 1991). Even then, the Mexican-Americans' disadvantage at having limited proficiency in English was apparent; Latinos were unable to read or understand the statements of new laws nor fight against such legislation in the courts (MacDonald, 2004).

Public schools were becoming commonplace by the late 19th Century, and legislation in several southwestern states was enacted that required education to be transmitted in

English, although Spanish-speaking Mexican-Americans outnumbered Anglos many times over in several areas. Female, Anglo missionaries flocked to the southwest and engaged in educating the Hispanic Catholics in an effort to convert them to Protestantism (Yohn, 1991). Many of these women developed such close personal relationships with their Latino students that they no longer considered their previously-held stereotypes valid (Yohn, 1991).

Racism and stereotyping of the Latino population was rampant during the latter 19th and early 20th Centuries. Mexican-Americans were considered poor, dirty, indolent, disease-ridden, superstitious, and dumb, infinitely inferior to Whites. Scientific racism was at its peak at the turn of the century, resulting in the general public's looking on people of color as intellectually inferior by reason of genetics (Gutiérrez, 2004). These mindsets were reflected in the classrooms of the day: many schools segregated Hispanics from the Anglo children, and the new influx of Spanish-speaking laborers from Mexico made educators acknowledge the need to educate these students effectively, but within the framework of English monolingualism. Over 100 years ago, the debate over monolingual versus bilingual instruction was in force and laws and records in various states bear testimony to the public sentiment that English must be the language of instruction. Even so, educators who worked in the schools with ever-rising minority-language student populations recognized the value of bilingual teachers, and one Arizona school superintendent publicly acknowledged the improved attendance of Latinos as a result of those teachers (MacDonald, 2004). Many local schools, especially those who served a majority Latino population, ignored the legislative edicts and taught in both Spanish and English, but more insisted on English alone, despite dismal results. Latino immigrants around the country experienced increasing and various forms of prejudice and oppression as a result of their language-minority status, from being

relegated to rundown, unsafe buildings to being tracked into low-performing, special education classes due to low proficiency (MacDonald, 2004).

The 20th Century was rife with continued segregation, oppression, and increased immigration from countries in addition to Mexico, such as Cuba and Puerto Rico. Not until 1974 and the case of *Lau vs. Nichols* (Mills, 2003) were language-minority students finally guaranteed equal educational opportunity, their language needs being taken into account. Attaining equal educational opportunity is far more problematic, however, than simply requiring it. The history of Latinos in this country is marked by marginalization and oppression; many would contend their case has not measurably improved, particularly for those Latinos who only recently call the U.S. home (MacDonald, 2004). Decades of discussion over the best way to educate language-minority Hispanics have perhaps yielded some consensus regarding effective methods and programs with certain groups, but these methods have yet to gain political approval. In fact, the politicization of the issue has led to educational decisions being made according to public sentiment, rather than minority rights or even clear research findings. In states such as California and Arizona, English-only legislation has banned bilingual education and forced language-minority students into structured English immersion classes for one year, after which they are shunted into the mainstream classes (Leistyna, 2002). This is in the face of compelling, overwhelming research that academic English proficiency requires at least 5-7 years, conservatively, to develop (Cummins, 1998; García, 1993; August & Hakuta, 1998).

The cases in California and Arizona shed light on public sentiment regarding immigration and the subsequent education of language-minority students across the country today. Immigration, both legal and illegal, is at its peak—California has grown astoundingly

in the last decade, twice as fast as the rest of the nation, and 85% of that growth is due to the immigration of Hispanics and Asians (Valdez, 2001).   Although other states may not be experiencing the level of growth California has, the issue of increased English language learner enrollment has affected nearly every state in the nation. ELL enrollment in public schools has risen by 55% in just seven years, from 5.1% in 1994 to 7.9% in 2001 (National Center for Education Statistics, 2004). While the percentage may seem small, the reality is that ELL students are not spread evenly across the United States. The western U.S. has an average ELL enrollment of 16.1%; the National Center for Education Statistics (2004) reports that the 100 largest districts in the country average an ELL enrollment of almost 12%. Even in the Midwest, the ELL population has increased rapidly, growing from 1.4% of all students in 1994 to 2.6% of all students in 2000 (National Center for Education Statistics, 2004).

California and Arizona have historically been states with high percentages of Latinos. In fact, many bilingual advocates considered Arizona a national leader in the scope and quality of educational programming the state required districts to provide to ELLs (Byrnes, Kiger, & Manning, 1997). Nevertheless, recent efforts led by such organizations as U.S. English have led to a resurgence of negative sentiments toward both immigrants and bilingual education, and resulted in that state passing Proposition 203 in 2000, an English-only law that banned bilingual education in the schools (Rolstad, Mahoney, & Glass, 2005). Arizona's law was passed only a few short years after Proposition 227—a similar law banning blingual education—passed in California. The readiness with which voters embraced the ideology behind the two propositions is a clear indicator of the public's reaction to the issue of immigration and particularly the education of language-minority students. A clear

majority of Latinos voted against Proposition 227 in California, but the White majority approved the legislation in a move not unlike the acculturation sentiments typical of the 19th and early 20th Centuries (Valdez, 2001).

Today, 30 states have enacted English-only legislation (U.S. English, Inc., 2007). Although not all states' English-only laws impact public schools the same way as in California and Arizona, it is clear the public is dissatisfied with the current state of affairs concerning language-minority residents and their children. Majority public sentiment often runs contrary to minority rights; U.S. history is replete with accounts of persecution, isolation, and marginalization of ethnic groups (Sleeter & Bernal, 2004; Leistyna, 2002; MacDonald, 2004; Valdez, 2001). The impact this is having on the education of language-minority groups, however, must be considered. Research is clear regarding the positive effects certain programs and program characteristics have on language-minority students (Collier & Thomas, 2004; Rolstad & Mahoney, 2005; Senesac, 2002; Willig, 1985), but the successful implementation of such programs is complicated by the real social and political contexts in which they are placed. It is well established that teacher attitudes and beliefs have tremendous impact on students in the classroom (Cotton, 1989; Good & Brophy, 1986); therefore, implementing effective educational programs for language-minority children must take into account the beliefs and attitudes prevalent in the school and district neighborhoods, as well as among the teachers and the staff themselves. Understanding those beliefs and attitudes, and subsequently responding to them, are essential to establishing strong and effective ELL programs.

It is in light of this information that this study was undertaken. The effective education of language-minority students is more important than ever before; it is hoped that

this study will add to the growing body of research concerning those factors found to be most critical to implementing and sustaining quality programs for language-minority students. This study, undertaken in part in response to a request by the Iowa Department of Education personnel, focuses on teacher attitudes and beliefs concerning bilingual education and the impact a new bilingual program might have on those attitudes. A detailed description of the study, along with a comprehensive outline of the state and local social contexts in which it was conducted, will be presented in Chapter 3. In the next chapter, the investigator will present strong rationale from the research literature for implementing a bilingual program of this type, particularly within the larger context of the effective education of language-minority students. How teacher attitudes and beliefs contribute to and impact program implementation and maintenance, and the resulting impact the program itself might have on teachers, will be discussed, leading to the postulation of the specific hypotheses this study seeks to test.

REVIEW OF LITERATURE

Effectively Educating Language-Minority Students

Despite prevalent attitudes among the U.S. public concerning what English language learner (ELL) education should look like and what its primary goals should be, the research literature presents a different picture. Before exploring the various studies and themes surrounding language-minority education, the investigator will first describe in a bit more detail the barriers and challenges a language-minority student commonly experiences. After highlighting these key aspects of the issue of educating language-minority students, in particular Hispanics, the investigator will report on findings in the literature regarding what effective programs look like and the characteristics they have in common. Then the research on native language maintenance and the various forms of bilingual education will be discussed, followed by a concluding description of two-way immersion programs, the promising research about their results, and the impact these programs may have on the issues facing Latino students today.

Current attitudes in the U.S. among the general public reflect a growing fixation with teaching English as quickly as possible, accompanied by a fundamental misunderstanding of the time it takes to master academic English (Lucas & Katz, 1994). Society continues to view multilingualism as divisive. The myth persists that parents of language-minority students should speak English at home so as not to confuse or delay their children's development in that language, despite research that contradicts these views (Lee & Oxelson, 2006; Valdez, 2001). Zentella (as cited in Valdez, 2001) calls the prevalent attitudes toward Hispanics "Hispanophobia" (p. 240). The social conflicts create a maelstrom of identity

issues for the Hispanic language-minority child. As Suárez-Orozco, Suárez-Orozco, and

Doucet (2004) describe it, immigrant youths must contend with the fact that they are

culturally, ethnically, and racially 'Other.' Sociologists have documented how immigration

generates ambivalence at best, and latent and manifest hostilities at worst. Language-

minority students are not immune to how the ethnic majority views them. One study found

that, on a survey of immigrants regarding what they perceived to be others' attitudes toward

themselves, over 65% of the respondents had negative associations of what others thought of

them (García, 2004). Immigrant youth of color indeed perceive that many in the dominant

culture do not like them or welcome them. This "social mirroring" can be potentially

harmful; it can also perhaps explain the current phenomenon revealed in a National Research

Council meta-analysis cited by Suárez-Orozco, Suárez-Orozco, and Doucet (2004) that the

longer an immigrant has resided in this country, the poorer their physical and psychological

health. In addition, increased time in this country is also associated with lower academic

achievement, despite gains in English proficiency over that same period of time.

 The characteristics of effective programs for language-minority students stand in

stark contrast to the issues described in the previous paragraph. For example, one

characteristic that effective programs share is the emphasis on cultural relevance—what

García (2004) calls, "responsive pedagogy" (p. 503). Responsive pedagogy involves meeting

the child where they are at, linguistically, culturally, and affectively, and responding

accordingly with classroom instruction. This represents an opposing perspective to the goal

of "americanization" that still prevails in many programs for Latino students, a goal to

eliminate the linguistic and cultural differences of that ethnic group (García, 2004). This

perspective of the purpose of U.S. education is still espoused by many educators today

(2004).

Researchers have identified the general characteristics of the most effective programs for language-minority students, separate from the specific model and language of instruction. These latter characteristics are discussed subsequent to this paragraph. The characteristics include: 1) Student-centered learning. Students are actively engaged in their own learning, activities are meaningful and language-rich, and students are engaged in cooperative, interactive learning activities. 2) Strategies and contexts for second-language development. These are carefully constructed and organized to meet individual needs, are meaningful, and enhance student understanding. 3) Parent (and community) involvement. There are strong home-school connections at work; parents are involved in their child's education and are welcomed in the building. 4) Cross-cultural interactions/mainstream integration. Cross-cultural interactions are planned and supported by teachers and school leaders to foster cross-cultural awareness and appreciation. These interactions include integration at some level with mainstream classrooms and students (August & Hakuta, 1998, García, 2004; Thomas & Collier, 1997).

Other researchers have expanded on similar themes, emphasizing the need to elevate the status of the native language to ensure students' self-esteem remains high (García, 1993), and for students to feel liked and cared for by their teachers (García, 1993; Tan, 2001). One study found that teachers with a higher "affinity" with their students (and the cultures and languages they represent) have students with higher achievement (García, 1993). Effective programs, contrary to a focus on "Americanization," are characterized by pedagogy that is meaningful and student centered, focused on students' academic, cognitive, as well as affective needs, and affirming of linguistic and cultural diversity (August & Hakuta, 1998;

Tan, 2001).

The other aspect of effective programs for language-minority students, particularly Hispanic students, concerns the integration and use of native language. It is interesting that participants in the debate regarding bilingual education commonly see the issue as either/or; in other words, language minority education must be fully bilingual or fully monolingual (English-only), which is perhaps derived from a common adherence to the notion that time-on-task in the language is directly correlated with its development—something research has shown to be patently false (Leistyna, 2002). The most surprising finding, and the one that is perhaps the most counter-intuitive, is that integration of students' native language into instruction has a significantly positive effect not only on their English development, but on overall achievement, as well (Bikle, Billings, & Hakuta, 2004; Collier & Thomas, 2004; de Jong, 2004; García, 1993; Hakuta & D'Andrea, 1992; Rolstad, Mahoney & Glass, 2005; Thomas & Collier, 1997). Cummins (1996, 1998) has long argued the interdependence theory of language development: the more advanced and proficient a students' native language, the better their second language development. This theory has been supported by multiple studies. Hakuta and D'Andrea (1992) found that Mexican-American students (both native and foreign born) with stronger Spanish language skills (reading, writing, speaking) developed stronger English skills. The effect is realized even in programs where the native language is merely integrated, rather than a primary vehicle for instructional delivery (Lucas & Katz, 1994). Somehow, integrating students' native language into instructional contexts, even when the teacher lacks proficiency in the student's native language, assists students in acquiring content as well as English skills (Young, 1996).

Bilingual Education Programs

If one sees the integration of students' native language along a continuum, the next step from integrating some native language would be a comprehensive bilingual program. Despite the many different kinds of programs that fall under the bilingual umbrella, the term refers to the delivery of instruction in two languages. The distribution of the languages in terms of the percentage of instructional time spent in each can vary. Specific bilingual program models (also called dual language programs) are named to denote the balance of the first language with the second language (L1/L2), the longevity of the program, the population, or even the program goals. Such models include transitional bilingual education, maintenance bilingual education, early-exit transitional bilingual education, additive transitional bilingual education, dual immersion, and two-way immersion, to name but some (Minami & Ovando, 2004). Whatever the kind of program, research is clear regarding their benefits. Study after study has supported the effectiveness of bilingual programs over monolingual English programs on measures of student academic achievement and English proficiency.

Thomas and Collier (1997) found two-way developmental bilingual programs (population: mixed language) to have the most significant impact on students' long-term norm-curve equivalent scores (NCEs) on standardized tests in English reading and one-way developmental bilingual programs (population: all one language) to have the second-highest impact on students' long-term NCEs. Both one-way and two-way developmental bilingual programs have the goal of full bilingualism and biliteracy in both the native and target language. Transitional bilingual education and content English as a Second language (ESL) tied for the third-highest impact; these two programs integrate some of the students' native

language, but transitional bilingual education seeks to transition the students to all-English as quickly as possible. ESL programs, or those programs delivered entirely in English, ranked lowest. Only the one- and two-way bilingual programs attained proficiency above that of native English speakers on long-term measures.

Willig's (1985) meta-analysis yielded similar findings, and "participation in bilingual education was found to consistently produce small to moderate differences favoring bilingual education for tests of reading, language skills, mathematics, and total achievement" (p. 269). Even Baker (1992), an inconsistent supporter of bilingual programming, found students in bilingual programs to have greater gains on academic measures than students in all-English programs. Another study, conducted by Rolstad, Mahoney, and Glass (2005) in Arizona, directly after the passage of Proposition 203 and the subsequent prohibiting of bilingual education in that state, found bilingual education to be more effective in raising students' test scores than the all-English programs in that state. A different study, conducted by Hakuta (1985), sought to test whether or not bilingual programs have any effect on students' cognitive functioning, in isolation from English language development and academic achievement. He found that there was a positive relationship between bilingualism and the students' ability to think abstractly about language, as well as a relationship between bilingualism and nonverbal thinking, as measured by a standard test of intelligence.

Two-Way Immersion Programs

Within the realm of bilingual education is a new model that has shown extremely positive results: dual immersion. Dual immersion is a type of bilingual program that balances instruction between the majority and minority languages, typically allocating more instructional time in the minority language and less in the majority language for the first few

years, and transitioning to a fifty-fifty balance by third or fourth grade. This is called the

90/10 or 70/30 model, alluding to the percentage of time spent in each language. The 50/50

model begins in kindergarten with both languages equally represented in instruction. How

that balance occurs may differ greatly from one program to the next, but over the course of a

school year, students have received equal amounts of instruction in each language (Bikle,

Billings, & Hakuta, 2004; Hakuta, 1985). Under the dual immersion umbrella are two

distinct types of programs, each referring to the student population enrolled in the program.

One-way dual immersion programs are those that typically serve students

representing a single language, usually the minority language, such as Spanish. Two-way

immersion programs are those that serve a population representing both the minority and

majority languages, such as Spanish and English, heterogeneously grouped in the classroom.

The balance of languages represented in the classroom is also important in a two-way

immersion model. Most experts agree the minority or majority language should not be

represented by more than 70 percent of the entire population, so as to prevent one language

becoming more dominant than the other (Bikle, Billings & Hakuta, 2004; Hakuta, 1985;

Senesac, 2002). Over the last decade, researchers have found evidence that this particular

type of bilingual education program, especially two-way, has the greatest impact on students'

language development and academic achievement (Arce, 2000; Bikle, Billings, & Hakuta,

2004; Collier & Thomas, 2004; de Jong, 2004; Senesac, 2002). While more long-term

research is needed (Senesac, 2002), the results are still extremely promising. The number of

programs adopting this particular one- and two-way model has increased across the country

in recent years (Center for Applied Linguistics, 2000).

Senesac (2002) mentions that researchers should acknowledge the need to pay

attention to the specific program characteristics of the subjects of each study, as there can be quite a bit of variation in how each program is structured and delivered. She reviewed ten years of data from a two-way immersion program in the Chicago Public Schools. Senesac found that students scored at or above grade level (on national, norm-referenced measures) in mathematics and reading, and at or above grade level in Spanish reading and writing (2002). The students also consistently score above other students in Chicago Public Schools on the Illinois Standards Achievement Test, and on the same level or above students across the state (2002).

Collier and Thomas' (2004) research on dual immersion programs was so impressive they used the word "astounding" in the title: *The Astounding Effectiveness of Dual Language Education for All*. They found ELL student gains on measures of academic performance in both English and Spanish (using Norm-Curve Equivalent [NCE] scores from Stanford 9 and Aprenda) to be much higher for two-way immersion programs (90/10 model, transitioning to 50/50 by 5th grade) in one large urban school district, when compared with ELL student performance in other language-minority programs. Findings were similar when comparing ELL student achievement between those in two-way immersion programs and those in English-only programs. DeJong (2004) found similar results in a study of two-way immersion students' performance when compared to students in a developmental bilingual program (DBE). Students in the two-way immersion program consistently and significantly outperformed students in the DBE program on standardized tests of English (L2) reading and writing; differences were apparent as early as 2nd grade.

The research in favor of two-way immersion and dual immersion programming for the education of language-minority students has one speculating as to why the model has

such significant results. As with any model, it is not one that works well within every school or district. Schools must have the appropriate demographics for a two-way program, to ensure a balance of languages and cultures among students in the classroom. This may not be feasible in many districts. A second aspect is the minority language of instruction. Spanish is the most commonly-taught minority language due not only to the greater availability of teachers who speak Spanish, but also because 75% of all ELL students in the U.S. are Hispanic or from a Spanish-speaking background (National Center for Education Statistics, 2007). However, in schools and districts where it is feasible, the philosophical underpinnings of the model as well as its corresponding goals may give one insight regarding its effectiveness.

Two-way immersion programs typically share certain characteristics and goals (Bikle, Billings, & Hakuta, 2004; Collier & Thomas, 2004; Senesac, 2002). The first goal is high academic achievement. Two-way immersion programs teach to the same standards and objectives as their monolingual counterparts; the curriculum is not watered down or simplified; rather, the strategies and approaches teachers use are modified to ensure student comprehension (Bikle, Billings, & Hakuta, 2004; Collier & Thomas 2004). A second goal of two-way immersion programs is strong language development, in both languages. The very nature of the program, delivering content instruction in both languages, promotes language equity and elevates the status of the minority students' language to a standing on par with the dominant language. This is considered a prime factor not only in raising language-minority students' self esteem, but also in improving their second language acquisition (García, 1993; Hakuta & D'Andrea, 1992). Many times, literacy instruction in two-way immersion programs is conducted in both languages; students learn to read in both languages

simultaneously (Collier & Thomas, 2004). The third goal relates to the characteristic that the student population must represent both languages of instruction; therefore, a major goal is for students to develop strong cross-cultural proficiency and understanding (Bikle, Billings, & Hakuta, 2004). Encouraging students to learn about one another and one another's cultures in a safe and secure environment is a major aspect of two-way immersion programs, and the reason behind having both cultures and languages represented in the student population (Bikle, Billings & Hakuta, 2004).

This last goal of two-way immersion programs may suggest further insight regarding their effectiveness. In the research literature on multicultural and culturally-sensitive education, scholars have hypothesized regarding the benefits of a collaborative, pluralistic approach to educating minority and language-minority students. One such theory is intergroup contact theory (Pettigrew, 2004). This theory suggests that intimate contact among ethnic groups results in a lessening of prejudice and an increase in positive regard toward members of the other group (2004). In fact, some maintain that when groups are kept segregated from one another (as with Structured English Immersion, used in California and Arizona), "prejudice and conflict grow like a disease" (Pettigrew, 2004, p. 771). Two-way immersion programs intentionally mix students together and level the playing field for both groups: English speakers are learning Spanish while Spanish speakers are learning English, all sharing similar language acquisition experiences and learning from each other. Cooperative learning approaches are often used in two-way immersion programs (Senesac, 2002) to further encourage cross-cultural understanding and appreciation, and many programs incorporate events and special projects highlighting the cultural and linguistic diversity in the classroom (Arce, 2000; Senesac, 2002).

Another aspect of the cross-cultural goal of two-way immersion that may impact student achievement is the notion of student-centered or student-attentive instruction that such culturally-responsive curriculum incorporates. García (2004) refers to this as "responsive pedagogy," a methodology that refrains from ethnic stereotyping in planning instruction; rather, each student is treated as an individual within a culturally-rich classroom, and the teacher contextualizes instruction based on observed individual background, needs, and even preferences. The teacher is continuously responding to the child as an individual— their heritage, language, and background all being an integral part of their successful education. Such an approach is a landmark characteristic of Responsive Learning Communities, which are schools dedicated to promoting cultural diversity as an asset (August & Hakuta, 1997; García, 2004).

The capacity of two-way immersion programs to do good in the realm of educating language-minority students has led many to refer to such programs as models of school reform (Collier & Thomas, 2004; de Jong, 2004). While it is possible these programs offer much needed relief for students facing a bleak, if not depressing, future, it is time to consider a further element of all educational programs serving language-minority students: the teacher. The next section considers the vital role of teachers and their attitudes, within the context of bilingual and language-minority education.

Teacher Beliefs, Attitudes, and Expectancy

Any discussion of teacher beliefs must first address how such research is framed and defined, and what the significance or impact of those beliefs may be. In this section, it is the principal investigator's intent to first define teacher beliefs, attitudes, and expectancy based on what has been presented in the literature, then discuss the impact teacher attitudes and

expectations have on students in their classrooms. Then the investigator will discuss findings

regarding teacher beliefs and attitudes toward ELL students in mainstream classroom

environments and toward language-minority students, in general, followed by a discussion of

teachers' attitudes regarding bilingual principles and programs. The section will conclude

with a presentation of the obvious disconnect between mainstream teacher beliefs and

research findings, and the possible conclusions or results when the discourses regarding

bilingual education and teacher beliefs (among the general population) intersect.

The research on teacher attitudes and expectations in the realm of education has a

long, messy history. Researchers have long argued regarding the plausibility and even the

ethics of trying to research teacher beliefs and attitudes. Regarding this topic, Pajares (1992)

sought to define both and to distinguish the differences between belief and knowledge. He

says, "beliefs are seldom clearly defined in studies or used explicitly as a conceptual tool, but

the chosen and perhaps artificial distinction between belief and knowledge is common to

most definitions: belief is based on evaluation and judgment; knowledge is based on

objective fact" (p. 313). He further distinguishes attitudes from beliefs, calling attitudes,

"clusters of beliefs organized around an object or situation and predisposed to action . . . [a]

holistic organization" (p. 314). Pajares (1992) states that inferences regarding beliefs are

"fraught with difficulty, because individuals are often unable or unwilling, for many reasons,

to accurately represent their beliefs. For this reason, beliefs cannot be directly observed or

measured, but must be inferred from what people say, intend, and do" (p. 314).

Why, then, should one research beliefs, attitudes, and expectations, if doing so proves

so problematic? Simply because teacher attitudes, beliefs, and expectations so clearly impact

student achievement and classroom learning (Cotton, 1989; García, 1993; García-Nevarez,

Stafford, & Arias, 2005; Good & Brophy, 1986; Penfield, 1987; Ramos, 2001; Steinberg,

Blinde, & Chan, 1984). Good and Brophy (1986) collected years of data regarding the

relationship teacher attitudes and expectations have on student learning. They found teachers

must communicate to all of their students their belief that students "want to be, and are trying

to be, fair, cooperative, reasonable, and responsible" (p. 118). If students see that teachers do

not believe in them, they lose the motivation to keep trying. In this manner, expectations are

self-perpetuating—if one expects to see something, one is much more likely to see it than

when one is not looking for it (1986). Good and Brophy (1986) also found that many

teachers are not even aware of their own beliefs and expectations, which contributes to their

self-fulfilling prophecies. A surprising outcome of Good and Brophy's (1986) research is the

affective nature of expectations. Students must feel that teachers like them; teachers need to

not only like their students, but respect them as well. They emphasize that it is important for

a teacher "to get close to students during private interactions" (p. 181). This presents a

unique challenge for a teacher who is culturally disconnected from his or her students

(Monzó & Rueda, 2001).

Cultural connection with students is recognized as an important factor in the role of

the teacher in effective education. Monzó and Rueda (2001) found that those teachers and

paraeducators who could connect with their Latino students on a personal and even cultural

level assist their students in developing scaffolds for their learning, which they found to be

congruent with Vygotsky's zone of proximal development (2001). Such connections

promote an ethic of caring, as well, something García (1993) maintains is essential to

students' positive growth and achievement. Conversely, negative attitudes can impact

students negatively. Negative teacher attitudes may influence their evaluations of student

performance and achievement (August & Hakuta, 1998; García-Nevarez, Stafford, & Arias, 2005), and increase the sense of isolation and marginalization felt by many language-minority students (Suárez-Orozco, Suárez-Orozco, & Doucet, 2004). Tan (2001) found that this impacts their willingness to stay in school or their motivation to learn. Her study on Latino dropouts among Mexican Americans found that those schools that strive for cohesion, communication, collegiality, and strong multicultural understanding had the lowest dropout rates, even thought their student populations reflected a higher percentage of at-risk students. In schools with high drop-out rates, teachers lacked cultural knowledge and sensitivity and tended to blame the students for academic failure or leaving (Tan, 2001). These teachers were often of European or Anglo descent.

Determining teacher attitudes and beliefs, then, is essential. A program is only as effective as the teachers who deliver it; knowing what teachers believe or the attitudes they hold toward a particular philosophy, practice, or ethnic group can inform administrators and leaders so subsequent professional development and professional experiences can be designed to address the issue. Otherwise, teachers simply become or remain reproducers of the status quo (Pajares, 1992).

A large body of research exists concerning teachers' beliefs, attitudes, and expectancies regarding ELL students in their mainstream classrooms (Youngs & Youngs, 2001). These first studies deal mainly with mainstream teachers who have ELL students in their classroom although they have not been formally trained in ESL or sheltered instruction methodology. Avery & Walker (1993) found that when prospective teachers were asked to explain differences in student achievement based on gender, teachers overwhelmingly attributed such differences to societal factors. When asked the same question regarding

differences in achievement based on race, the preservice teachers attributed those differences to characteristics of that ethnic group. This was especially true of elementary teachers, who also demonstrated the least quality and complexity in their responses to the open-ended questionnaire. In a small yet comprehensive qualitative study, Clair (1995) found that mainstream classroom teachers possess misinformation regarding their ESL students' cultures, and that teachers oversimplify the ESL issue. Likewise, these same teachers overestimate their own abilities in effectively educating language-minority students, claiming "good teaching is good teaching" (p. 192), regardless of the individual differences and needs their ESL students possess. Like Penfield (1987), Clair (1995) found that the teachers in her study failed to acknowledge the complexities of integrating ESL students into mainstream classroom settings, classrooms typically dominated by White middle-class culture.

Penfield's (1987) study of 162 regular classroom teachers who had ELL students in their classrooms but had had no formal training for teaching them revealed that these teachers are completely unprepared to effectively deal with successfully integrating ELL students into the classroom, and even displayed remarkable ignorance or misunderstanding of how students acquire a second language, the role of the primary language in second-language acquisition, and how to create a climate of social and cultural acceptance. Many of the teachers wondered at ELL students' "banding together"—as if deliberately trying to isolate themselves, and cited a high degree of peer friction in the classroom. Penfield found this climate in the classroom to be of primary importance; it can impact the kind of language acquired and the speed with which it acquired. Penfield also found that regular classroom teachers often abdicated responsibility for establishing or maintaining contact with ELL students' parents or families, stating, "that's the ESL teacher's job" (p. 34).

Other researchers found that the ethnicity or perceived "foreign-ness" of the language-minority students affected teachers' attitudes and behaviors, as well. García (1993) found that teachers rated students with heavy accents and nonstandard English as less competent than their standard-English peers. Williams, Whitehead, and Miller (1972) found that Anglo teachers rated minority students as having more non-standard English and as being more ethnic compared to the ratings of their ethnic/minority colleagues. They also found that many teachers confuse language difference with deficits, regardless of observed cognitive functioning or ability. Byrnes, Kiger, and Manning (1997) mention a study that found 50% of teachers held negative, stereotypic language attitudes toward nonstandard-English speaking children, especially those from lower-socioeconomic-status groups. They maintain that "teachers' frustrations over not understanding a child's language and culture can turn to negative feelings and affect a teacher's academic expectations for a language-minority student" (p. 639). In a study on Latino students who drop out, Steinberg, Blinde, and Chan (1984) found that teachers and school personnel are more likely to interact negatively with lower-class, minority, and non-English speaking students.

The content of these studies raises awareness that regardless of the language of instruction, educating language-minority students is fraught with misunderstanding, friction, and even prejudice. Teachers need opportunities to acquire the specialized skills needed to work effectively with ESL students (Young, 1996); moreover, districts must seek to employ teachers who possess the experiences and background—although not necessarily the ethnicity—to connect with language-minority students in all three domains: linguistic, cognitive, and social (García, 1993; García-Nevarez, Stafford, & Arias, 2005; Monzó & Rueda, 2001). The next studies address teacher beliefs, attitudes, and expectancy concerning

the use of the native language within a mainstream or regular classroom context.

Byrnes et al. (1997), in a study on teachers' attitudes toward language diversity, found that negative, stereotypic attitudes are less likely to be found among persons who exercise complexity in their reasoning, and that related experience also positively impacted language attitudes. Many other studies found that mainstream teachers with little or no background in ESL or bilingual methodology demonstrated significantly lower levels of support for using the native language in the classroom as an instructional support device (García-Nevarez, Stafford, & Arias, 2005; Lee & Oxelson, 2006). In fact, García-Nevarez et al. (2005) found that the more experienced the teacher, the more negative their attitude. By contrast, those English-only (non-bilingual) programs that draw on students' prior experiences and incorporate students' native language into classroom instruction and activities have higher student achievement (Lucas & Katz, 1994). Strategic use of the native language, even when the teacher has no proficiency in that language, not only has psychological benefits for the students, but helps them develop English proficiency as well (Lucas & Katz, 1994; Young, 1996). This is one example where teachers' beliefs are incongruent with research, although the time-on-task myth is widespread and pernicious (Lucas & Katz, 1994). Lack of support for native language use may also be related to lack of training. Lee and Oxelson (2005) report that the three main reasons teachers are not concerned with maintaining heritage (native) language are seeing it as a personal or family activity rather than a school one; insufficient time in class to support native language development; and a lack of knowledge regarding how to do it.

There are many studies, as well, regarding teachers' attitudes toward bilingual education itself. One of the best-known and most-replicated is the study conducted by Shin

and Krashen (1996) in California, with 794 K-12 teachers from six different school districts. The teachers were asked to complete a 13-item survey; the three possible responses for each item were yes, no, or not sure. They found that teachers with bilingual credentials had significantly more positive attitudes toward bilingual education than teachers with regular credentials. No other characteristic was significant, although proficiency in a second language approached significance in predicting more positive attitudes. Although the majority of respondents indicated a generally positive attitude toward the theory of bilingual education, there was far less support for student participation in bilingual programs. This finding was supported by a study conducted by Ramos (2001). He investigated teacher attitudes toward the theory and practice of bilingual education, and found participants' responses showed clear contradictions. For example, participants (n=218) strongly recognized the value of achieving literacy in two languages, but did not appear to support primary language maintenance. Teachers also supported the development of literacy in the native language, but failed to reject the theory that such literacy would have negative consequences or might lead to confusion. Finally, Ramos found teachers did not strongly oppose placing students in English-only classrooms.

Such contradictions in teacher attitudes are neither unusual nor unexpected, particularly when considered within the context of the literature on beliefs. Beliefs are more subjective in nature and less responsive to fact (Clark, 1988; Pajares, 1992), and studies have found many teachers do not reflect on their own beliefs (Flores, 2001). In fact, many researchers have discovered that people are often resistant to changing their beliefs, even when presented with concrete evidence of their inaccuracy or falsehood, although they do seem able to modify or add to their knowledge—another distinction between the two

(Guskey, 1986; Pajares, 1992). When considering the impact teacher beliefs and attitudes have on students, it is imperative to take them into account when implementing any new program or intervention. But how does one change beliefs if people are so resistant? Guskey (1986) suggests an interesting model for how specific types of change might be facilitated and sustained, through the traditional staff development model.

Guskey's (1986) model suggests a departure from the formerly accepted sequence of staff development programs: staff development, change in teachers' knowledge/beliefs/ attitudes, change in teacher practices, and change in student learning outcomes. Instead, he suggests that the primary change needing to take place is change in teachers' practices— which then leads to a change in student learning, followed ultimately by a change in teachers' beliefs and attitudes. Guskey maintains that it is the proof in the impact of different practices on student learning that causes what Pajares (1992) considered a conversion or gestalt shift in teachers' beliefs. In fact, Guskey believes that the evidence of improved student achievement may in fact be a prerequisite to effecting change in teachers' beliefs, given the difficulty in doing so at all. Guskey also stipulates that for the change to be sustained, teachers must have frequent, meaningful feedback regarding their students' learning progress. And finally, according to Pajares, teachers need on-going support and training with new approaches, to assist with anxiety or other stressors preventing teachers' successful implementation of the approach.

Where, then, do the discourses regarding teacher beliefs and attitudes and bilingual education intersect? Although credentialed and trained bilingual teachers typically exhibit very positive attitudes toward bilingual programs, what can one do to promote a change in beliefs and attitudes among mainstream teachers working with language-minority students?

The research shows that many mainstream teachers lack a basic understanding of the benefits of native language development and maintenance for a language-minority child (García, 1993; García-Nevarez, Stafford, & Arias, 2005; Hakuta & D'Andrea, 1992; Lee & Oxelson, 2006; Penfield, 1987), few understand fully how a second language is acquired (Reeves, 2006), and few are willing to support a full bilingual program (Leistyna, 2002; Valdez, 2001). If what Guskey promotes has validity, then any group seeking to implement a new bilingual program must take teacher beliefs and attitudes into account. It is with this idea that the need for this study developed.

Already aware of the many benefits inherent to bilingual programs for language-minority and language-majority students, the principal investigator joined the team at the National K-12 Foreign Language Resource Center (NFLRC) at Iowa State University for the purpose of working on a project to implement kindergarten two-way immersion programs in the State of Iowa. In this model, a content-related foreign language program (FLES) in all traditional education classes was to be initiated simultaneous to the kindergarten two-way immersion. Given the conservative and predominantly white population in the state, the investigator was encouraged to assess the level of support the teachers and staff at the respective two-way immersion schools would demonstrate. In addition, the investigator wondered whether the existence of such a program in two formerly English-only schools would have any impact on the teachers in the school, as well, not to mention on the two-way immersion teachers. Given the trends in mainstream teacher attitudes toward bilingual or heritage language maintenance programs, would teachers in Iowa schools have similar attitudes? Would their attitudes be affected over time by the existence of a fledgling two-way immersion program and FLES program in their school? Would their beliefs be changed,

as Guskey maintains, if they observe for themselves the impact and benefits of bilingual

programming? To answer these questions, the investigator posed the following hypothesis

and central question for the two sections of this study:

1. Hypothesis: Teachers from schools with a two-way immersion/foreign language in the

elementary school (FLES) program will have more positive attitudes toward the principles of

bilingual education after one year's treatment than teachers of schools that do not have a two-

way immersion program or FLES program.

2. Central Question: What is the effect on teachers of teaching in a new two-way immersion

program for one year and participating in corresponding professional development activities?

The hypothesis relates to the quantitative section, and the central question relates to

the qualitative section of this study. In Chapter three, Methods, the principal investigator

describes in detail the development and implementation of the two-way immersion and

foreign language in the elementary school programs that were the background for this study,

presents the methods for implementing the surveys and interviews, and presents the specific

research questions and related questions.

METHODOLOGY

Background and context of study

Before outlining the specific details of this study and the grant project, it is important to first discuss the context of the education of language-minority students in Iowa. Iowa is one of the 30 states that currently has an English-only law in place, although this law does not restrict bilingual education nor specify any requirements regarding educating language-minority students. The population across Iowa is 92% white and 8% minority (Iowa Department of Education, 2006), and the average English language learner (ELL) enrollment across the state in the fall of 2006 was 3.8 percent (Iowa Department of Education, 2006). Although the overall ELL enrollment percentage is low compared to the national average, the ELL population itself is not distributed evenly across the state. Rather, the ELL population has come to live in predominantly small to medium-size towns, thereby rendering the ELL enrollment highly diverse across the state: from 0.1% in some districts to 56.3% in others. In fact, as is consistent with the national statistics, the majority of this growth has occurred over the last 12 years.

This rapid growth has led to increased challenges, as well; districts that formerly served only one or two students a year now open their doors to classes that are over one-third children of color. The ELL population is largely Hispanic[2], particularly in small towns (Iowa Department of Education, 2006). Only in the large urban centers is the ELL population representative of several languages. Schools are attempting to equip their ELL students for success on the state test, a nationally-normed, standardized assessment for which

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[2] In this Thesis, the terms Latino and Hispanic are used interchangeably.

schools and students have only one year to prepare—the amount of time the No Child Left

Behind act (NCLB) allows districts to exempt ELL students from taking the test. After one

year of being in this country, ELL students are required to take the mandated test and have

their scores be incorporated into those of the general population. Meeting the academic

needs of these students, then, has become a top priority in districts with high ELL

populations. Table 1 displays the fifteen school district in the state that had the greatest

increases in ELL enrollment over the last twelve years.

Table 1. Iowa Districts with Highest ELL Population Growth

Community School District	ELL enrollment 1994 (%)	ELL enrollment 2006 (%)	Percentage increase	District Total Enrollment
Denison	0.2	33.9	169,500%	1,968
Rock Valley	0.0	8.3	8300%	627
Belmond-Klemme	0.0	7.8	7800%	742
Postville	0.4	27.9	6975%	569
Chariton	0.0	6.1	6100%	1,483
MOC-Floyd Valley	0.0	5.6	5600%	1,315
Ottumwa	0.3	9.4	3133%	4,907
West Sioux	0.6	16.7	2783%	681
Alta	0.7	6.3	900%	573
Marshalltown	3.6	28.4	789%	5,007
Perry	2.9	17.7	613%	1,812
Lenox	3.4	15.1	444%	370
Storm Lake	16.6	56.3	339%	2,022
Des Moines	4.2	12	285%	31,866
Sioux City	7.6	16	210%	13,835

*Iowa Department of Education, 2006

The populations of the various school districts around Iowa differ greatly in size, and

therefore differ greatly in ELL enrollment size. Although many of the districts are quite

small, resulting in a small ELL population (although a large percentage, such as in Lenox), these districts are often less equipped to deal with the new students, since the majority of the teachers are Anglo and many lack any English as a second language (ESL) endorsement.

An additional complication for school districts with high ELL populations is the concentration of school-age English language-learners in the primary grades. While 18,124 of school-age children in the State of Iowa are classified as ELL, over 11,427 of those students are in grades K-5. This represents over 65% of all the English language learners enrolled in the state in the 2006-2007 school year. Table 2 presents the percentage of ELL students by grade level in Iowa for the 2006-2007 school year (Iowa Department of Education, 2006), and Table 3 presents a graphic image of the English language learner enrollment. As can be seen in the two tables, English language learner enrollment is concentrated at the lower grade levels and this trend appears to be consistent across the state (Iowa Department of Education, 2006).

The Iowa Department of Education has attempted to alleviate the stress of these districts by offering grant-funded staff development for all teachers across the state over the last several years in the summer (Iowa Department of Education, 2007), but many teachers in the small towns are endeavoring to do the best they can with the limited training they've had (or not had). The majority of the ESL programs in Iowa are of a pullout nature (Iowa Department of Education, 2006), serving ESL students for 30-45 minutes each day. At the conclusion of the 2005 school year, the ESL consultant at the Iowa Department of Education (DE) began seeking possible funding sources for alternative program models to serve language-minority students; she then approached the National K-12 Foreign Language Resource Center (NFLRC) to participate in this proposed project.

Table 2. Enrollment of English language learners by grade level and percentages*

Grade	Number	Percentage
PreK	56	<1%
K	2,094	12%
1st	2,192	12%
2nd	1,942	11%
3rd	1,904	11%
4th	1,793	10%
5th	1,446	8%
6th	1,326	7%
7th	1,127	6%
8th	1,006	6%
9th	981	5%
10th	836	5%
11th	793	4%
12th	628	3%
Total	18, 124	100%

*Iowa Department of Education, 2006

Table 3. Graph of English language learner enrollment*
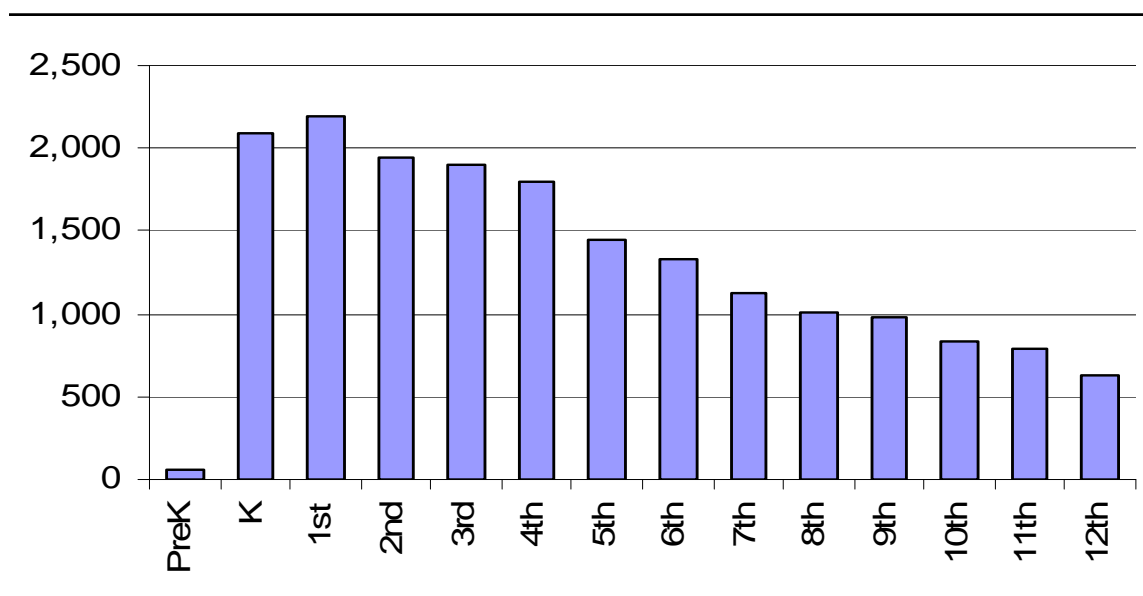
*Iowa Department of Education, 2006

In 2005, the State of Iowa had only two programs in existence that were considered two-way immersion programs (K-5), and a few districts expressed interest in the program model as a means to better serve their ELL populations. The consultant at the Iowa Department of Education for English as a Second Language had been successful in securing grant funding for two additional districts to implement the establishment of two-way immersion programs in the state of Iowa. The NFLRC was invited to co-collaborate on the project and conduct research concerning all possible benefits and outcomes of the program. The NFLRC then applied for funding from the U.S. Department of Education for the project. Funding for a four-year period was approved and initiated in August of 2006[3].

Two schools were selected by NFLRC and DE personnel in the spring prior to NFLRC project approval, and two kindergarten two-way immersion Spanish programs were initiated in August of 2006. The two schools have very different characteristics and are located in completely different areas of the state. The first two-way immersion school, in this study, referred to as Urban Elementary School, is located in a medium-sized city and has an enrollment of over 600 students K-5. Over 40% of the students at this school are English language learners and they are almost entirely Hispanic. Consistent with state trends, the highest percentage of English language learners is in the lower grades. Kindergarten had six sections in the 2006-2007 school year, two of which were two-way immersion. Despite the immigrant status of the parents, the majority of the children are native born, and many come to school with a marked degree of bilingualism. The second two-way immersion school, in this study, referred to as Rural Elementary School, is a K-8 building on a K-12 campus in a

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[3] This project was supported with funding from the U.S. Department of Education, Office of Postsecondary Education, Center for International Education, under grant no. P229A060013-07 to Iowa State University.

very small town quite far removed from Urban Elementary School. Rural Elementary School boasts a K-12 enrollment less than that of Urban Elementary School; as a result, given that there are only three sections of kindergarten in this building, all three were made two-way immersion classrooms, to satisfy board members and parents. At Rural Elementary School, over 55% of incoming kindergarteners speak a language other than English at home.

The program in both Rural Elementary School and Urban Elementary School is a two-way immersion design, which means students represent both native-English and native-Spanish speakers and all instruction is equally balanced in Spanish and English. The model adapted for this program, after discussions with teachers and experts in the field, was to divide instruction within the school day to ensure a 50% English, 50% Spanish balance and to minimize student stress levels, which might result from keeping students in a second language for the entire day. Because funding for the program itself was provided to districts from the Iowa DE, the stipulation was attached that both schools must also implement a K-5 foreign language in the elementary school (FLES) program, as well, in all other classrooms except the two-way immersion classrooms. The goals for the two-way immersion program are: 1) high academic achievement; 2) full biliteracy/bilingual proficiency; and 3) cultural and ethnic competency (cross-cultural skills); these goals are congruent with the philosophical approach assigned to two-way immersion programs in the literature (Bikle, Billings, & Hakuta, 2004; Collier & Thomas, 2004; de Jong, 2004).

This study is a part of the larger research grant project undertaken by the NFLRC, in cooperation with the Iowa DE. The grant project overseen and funded by the NFLRC involves collecting a vast array of longitudinal data from students, parents, teachers, administrators, and community members concerning attitudes, beliefs, and responses to the

programs over a four-year period. The 2006-07 school year represented the first year of the

four-year project. The principal investigator is also involved in the project to assist the

schools in curriculum development, in addition to providing staff development and

consulting to the teachers involved in the program. The investigator collectively made

sixteen separate trips to the two schools, Urban Elementary School and Rural Elementary

School, and coordinated staff development for teachers and administrators over the course of

the year.

Because the programs were new, DE personnel specifically requested surveying the

teachers in the two buildings to determine their attitudes and beliefs regarding bilingual

education. Both schools have high ELL populations (over 30%), the majority of which are

Hispanic. Both schools employ a predominantly White teaching staff; Iowa's population

over all is 92% White (NCES, 2007). The purpose of this study, and one of the goals of the

larger NFLRC grant project, is to determine what teacher attitudes are concerning the

principles of bilingual education and to explore the possible impact a two-way immersion

program might have on those attitudes and beliefs. Both quantitative and qualitative

approaches were used probe teacher attitudes and responses; these are explained in greater

detail in the following sections.

Quantitative Study

An experimental research design was chosen for the four-year project. The

"treatment" in this context is the two-way immersion program, and the two treatment schools

are Urban Elementary School and Rural Elementary School. The team matched the two

treatment schools with two demographically-similar control schools in the state to facilitate a

two-way analysis.   This allows not only for the collection of repeated-measures data over

time, but also a comparative analysis of treatment school and control school data. This study presents the results from the first year's survey of teachers' attitudes and beliefs regarding the principles and implementation of a bilingual program for Hispanic language-minority students. The survey was administered at the end of the year in a pre-/post-test format, to collect baseline data and to evaluate differences in teacher attitudes from the beginning of the year to the end.

The first task in implementing the two-way immersion research project was to develop the specific research questions aimed at proving the hypothesis. This task, rather than informing the survey that was subsequently developed, was accomplished simultaneous to the development of the survey. This was due to the problems inherent to late grant funding and project approval, in addition to the pressured timeline for securing Institutional Review Board approval for the research and instruments. Therefore, the research team at the National K-12 Foreign Language Resource Center (NFLRC) met frequently over the course of the first few months of the project to define research questions and finalize the needed surveys.

The intent to survey teachers and staff of the treatment and control schools regarding their prevalent attitudes toward bilingual education involved approaching participants' attitudes regarding the principles or theories underlying bilingual education, as well as their attitudes regarding the actual implementation of those theories. The decision to survey teachers' attitudes concerning both theory and practice is congruent with approaches and findings from current research literature: that educators support bilingual education in theory, but contradictorily demonstrate weak support for its practical implementation (Shin & Krashen, 1996; Ramos, 2001).

Research Questions

The research questions specifically addressed by the survey instrument are presented

in Table 4. The questions are designed to test the hypothesis presented in Chapter 2, Review

of Literature (p. 29). Each question addresses a different aspect of two-way immersion

programming, encompassing the theoretical underpinnings of bilingual education (questions

one and two), its practical implications (question five), and its impact on students (questions

three and four).

Table 4. Quantitative research questions

1. a.	Do classroom teachers in schools that have a two-way immersion program demonstrate greater support for the principles of two-way bilingual education than classroom teachers in schools that do not have a two-way immersion program?
b.	Does this support for the principles of two-way bilingual education increase over time for teachers in schools that have a two-way immersion program?
2. a.	Do classroom teachers in schools that have a two-way immersion program demonstrate more support for the use of students' native language in the classroom than classroom teachers in schools that do not have a two-way immersion program?
b.	Does this support for the use of students' native language in the classroom increase over time for teachers in schools that have a two-way immersion program?
3. a.	Do classroom teachers in schools that have a two-way immersion program demonstrate more positive attitudes toward maintaining students' native language than classroom teachers in schools that do not have a two-way immersion program?
b.	Do these attitudes become more positive over time for teachers in schools that have a two-way immersion program?
4. a.	Do classroom teachers in schools that have a two-way immersion program demonstrate stronger belief in the concept that bilingual programs develop cross-cultural skills than classroom teachers in schools that do not have a two-way immersion program?
b.	Does this belief in the development of cross-cultural skills increase over time for teachers in schools that have a two-way immersion program?
5. a.	Do classroom teachers in schools that have a two-way immersion program demonstrate more agreement with the statement that bilingual education enhances (language-minority) students' self esteem than classroom teachers in schools that do not have a two-way immersion program?
b.	Does this support for the principles of two-way bilingual education increase over time for teachers in schools that have a two-way immersion program?

Each question has two parts; the first addresses the variables determined by the presence of a two-way immersion program in the school (treatment versus control) while the second part aims at the variable of one school year's treatment (pre-test vs. post-test). These variables constitute the basis for the data analysis and results and reflect the intent of the hypothesis to determine effects of a two-way immersion program on teachers' attitudes over time.

Instruments

The resulting surveys had two forms, one developed for use with the teachers and staff of the treatment schools where the kindergarten two-way immersion program had been implemented, and a second for use with the teacher and staff at the control schools. Both forms had in common eight, four-point Likert-scale questions and one open-ended question; the survey for teachers and staff in two-way immersion schools included six additional four-point Likert-scale questions and two additional open-ended questions specific to the implementation of the two-way immersion program. In order to collect what would be considered baseline data, the research team decided to ask teachers and staff to report their attitudes for the beginning of the school year (prior to project implementation) as well as for the end of the school year, at the time when the survey was completed, both on a single survey instrument (see Appendix A and Appendix B). The data collected from open-ended survey questions are presented and discussed in the qualitative section of this chapter. Both surveys and the qualitative interview questions were reviewed and approved by the Institutional Review Board at Iowa State University.

Participants

The survey was administered to all teachers and staff of the four schools, two

treatment and two control, involved in the project. Both treatment schools agreed to full participation in the research study as a criterion to receiving grant funds from the Department of Education for two-way immersion program implementation. The two control schools were selected after matching them demographically with the two treatment schools and the schools were offered a modest stipend if they accepted the invitation to also participate in the study. The population surveyed, then, was not a random sample of individuals and the response rate was relatively high: of the 201 faculty and staff invited to participate, 116 responded. This represents an overall response rate of 58%. Of all respondents, 53% (*n*=57) were classroom teachers, 13% (*n*=22) were special area teachers (such as art, music, physical education), while 13% (*n*=22) were paraprofessional or support staff. Eleven percent (*n*=15) were "other staff;" which includes building-level or district-level administrators as well as office or other personnel. General staff members and building administrators were invited to participate in the survey to satisfy requirements and suggestions made by DE representatives, and this group will continue to be surveyed over the project's four-year term.

This study, however, focuses only on the responses from classroom and other area teachers. Focusing only on teachers was to ensure manageability of this study and to keep discussion relevant to teacher attitudes and practices, as it is the teachers that have the most direct interaction with students and impact on their achievement (Cotton, 1989). The group of teachers (*n*=79) also included, of course, the five TWI teachers directly involved with the implementation of the two-way immersion program in the four schools.

Procedure

All participants from the four schools received their respective form of the survey at

the conclusion of the first year of the grant project. These surveys were sent along with a

letter explaining the purpose of the survey and a consent form (see Appendices A and B) in

an envelope labeled with their name, which was distributed by the principal or his or her

designee from a packet containing all the envelopes for the staff. If teachers or staff members

consented to participate, teachers were asked to complete the survey, sign the consent form,

and return it in the same envelope to the office, where a member of the office staff was

designated by the principal to record the receipt of the envelope and place it in a large

addressed and postage-paid envelope for return to the NFLRC. This procedure was

established to maintain confidentiality as well as efficacy; principals at the four sites assumed

responsibility for reminding teachers and staff to complete the surveys and place them in the

envelopes by the designated date. The principals also received a letter with instructions for

disseminating the survey (see Appendix D).

The survey itself took about ten to fifteen minutes to complete. When ready, the

envelope was then mailed to the NFLRC by building principals or picked up by the principal

investigator during a subsequent visit to the school sites. Data from the surveys were entered

into a spreadsheet and coded to facilitate analyses; common questions from both survey

forms were matched to allow treatment vs. control analyses, and data were also grouped

according to beginning-of-year and end-of-year responses.

The four possible responses for each question included strongly agree, agree,

disagree, and strongly disagree. They were coded 1 through 4, with 4 representing the

highest level of agreement. The survey data were then subjected to a correlation analysis of

the pre/post variable, after which various statistical tests were applied to determine if any

variance or change in attitude between the treatment and control schools, or over time, was

significant. The actual tests and results are presented in Chapter Four, Analysis and Results.

Qualitative Study

The central question for this part of the study was presented in Chapter Two, Review of Literature. This question provides the focus for the qualitative interviews and subsequent data analysis. In keeping with qualitative approaches (Glesne, 2006), the principal investigator has avoided developing a hypothesis or theory before the study; rather, theories are revealed as the data are analyzed and possible themes presented. The central question concerns the impact teaching in a new two-way immersion program and participating in corresponding professional development will have on the teachers. Related to this question are questions regarding: What issues teachers will find most challenging over the course of the year? What will be the most rewarding? What benefits or disadvantages will they observe on the part of their students? How will their experience(s) change them or change their teaching? Based on the review of literature, the investigator hoped to see if teaching in a program that actually required teachers to change practices would indeed impact their thinking, beliefs, or attitudes. She also wanted to learn how the teachers felt, in general, about the entire experience, and know if the professional development (coordinated and/or conducted by the investigator) had an impact on them, as well.

The principal investigator was particularly interested in teachers' responses due to the close nature of her work with the teachers over the course of the school year. The investigator was responsible for overseeing the development and implementation of the project at both school sites, and as such served as the "expert consultant" in determining the program model, working out the schedule, designing the curriculum, and selecting needed materials and resources. The principal investigator made visits to each school site every 4-6

weeks, working with the two-way immersion teachers on curriculum and discussing the

program, as well as making classroom visits. The principal investigator also coordinated

staff development activities for the teachers and encouraged them to call her with any

questions or problems that might arise. As a result, the principal investigator developed a

close working relationship with the five teachers and decided to interview the teachers

personally, rather than asking somebody else to do it. She felt that the relationship she

enjoyed with the teachers would prompt more personal, in-depth responses, since the

teachers perceived the investigator as somebody equally supportive of bilingual

programming and trustworthy, as well. Such an approach is not uncommon with qualitative

methodology (Glesne, 2006); therefore, it was decided that the principal investigator would

conduct the interviews herself.

Instrument and Participants

To probe more deeply into the teachers' experiences and reactions, the principal

investigator assisted the research team in developing 12 questions to pose to the teachers in

an end-of-year interview. These are presented in Table 5 and are included in Appendix C, as

well. The questions posed to the participants ranged from general, education-related

questions to questions that specifically addressed the principles of bilingual education. The

investigator hoped to elicit feedback from the teachers that clearly expressed what they felt

most important about their experience and what their attitudes concerning the teaching in two

languages were. The principal investigator also asked questions to elicit responses regarding

the teachers' personal changes, challenges, and what they might change if given the chance.

The qualitative questions were approved by the Institutional Review Board at Iowa State

University.

The investigator had also worked with teachers over the course of the year, meetings regularly every 4-6 weeks, to discuss curriculum and professional development initiatives. The investigator was looking for evidence in teachers' responses that the trainings had impacted practice.

Table 5. Qualitative survey questions

1. In your opinion, what are the characteristics of effective education for all students?

2. What do you think is the primary responsibility of an elementary teacher?

3. Describe what you think constitutes an effective educational program for English language learners.

4. What are the advantages of being biliterate/bilingual (for students)?

5. What are the disadvantages of being biliterate/bilingual (for students)?

6. What are the strengths/weaknesses of a two-way immersion program?

7. What has been your greatest triumph?

8. What has been your greatest challenge?

9. What event or moment stands out for you the most from this past year?

10. Is there anything you have learned from being involved in this project that has changed how you approach your teaching?

11. How does this two-way immersion program meet the needs of your students compared to traditional monolingual educational programs?

12. If you could change one thing about the two-way immersion program, what would it be?

The participants in the study were the five teachers how had been selected or hired by the schools to teach kindergarten in the two-way immersion program. In Rural Elementary

School, there were three sections of kindergarten. Since public and parental support was so strong, Rural Elementary School decided to allow all students to participate in the two-way immersion program. Therefore, all three kindergarten teachers at this school were involved. Two kindergarten teachers had taught in the building the year before: Jane, a native of the town, had taught in Rural Elementary School for many years and Marisa, who emigrated from Peru just five years before, had taught there for several months. The third teacher, Juan, was hired through a teacher exchange program at the Iowa Department of Education and came to the school from Spain. In Urban Elementary School, Ana, originally from Mexico, had been teaching English as a second language (ESL) in a kindergarten/lower elementary pull-out program in a separate elementary school in the district. She had served in that position for only a few years. Roxanne had also been teaching in another elementary school in the district, but had five years' experience there teaching kindergarten in a regular classroom. The background and assignments of the five teachers are presented in Table 6.

Table 6. Teacher background and assignments for first year of program

Teacher	School	Primary Language	Special training/credentials	Assignment
Jane	Rural Elementary School	English	Elementary certification	English Kindergarten
Marisa	Rural Elementary School	Spanish	Native Speaker, Peru Speech pathologist credentials	Spanish/English Kindergarten
Juan	Rural Elementary School	Spanish	Native Speaker, Spain Elementary certification	Spanish Kindergarten
Ana	Urban Elementary School	Spanish	Native Speaker, Mexico Elementary ESL	Spanish Kindergarten
Roxanne	Urban Elementary School	English	Secondary ESL (Elem. licensure pending)	English Kindergarten

Procedure:

The teachers were asked to participate in one-on-one interviews with the principal investigator at their convenience, at the end or directly following the end of the school year. Two of the teachers at Rural Elementary School were interviewed on-site during a regularly-scheduled visit by the principal investigator, as was Ana at Urban Elementary School. Teachers two and five were interviewed over the phone during the summer. All interviews were tape recorded and later transcribed by the principal investigator for further analysis. The transcriptions were then analyzed and encoded to see if any themes were apparent. The investigator read through the transcripts several times, making notes regarding key or repetitive points in the teachers' responses. Then codes were developed, and subsequently added to, and assigned to the related parts of narrative. The codes are listed in Table 7.

Table 7. Codes used for initial data analysis

Code	Theme or related topic
CONN	Connections: cross-cultural, personal, with students or parents
ROL	Teacher role
LANG	Language: student development of language, language development in general, benefits.
GRO	Evidence of growth, change, or new learning/surprises for teacher
CONTR	Contradictions to beliefs: teacher-observed
WHA	Content being taught
CAR	Evidence of an ethic of caring; affective considerations
BEN	Benefits mentioned: to kids, of program
CULT	Culture, cultural understanding
FUN	Having fun, making program/instruction enjoyable
APP	Approaches, methods used: student-centered, hands-on, real-life, etc.
MAT	Materials, adequate/inadequate, authentic
ENJ	Enjoying program, liking it
DBT	Insecurities, doubts, challenges during the year; questioning

Once codes were assigned to statements within the narrative of the transcripts, the data were sorted according to the codes. On reviewing the data, the principal investigator found certain themes to be repetitive throughout the teachers' comments and that many of the themes already identified could be grouped together. Table 8 shows how data were then organized:

Table 8. Second-tier coding

Instructional Approaches (APP)	Benefits (BEN)	Professional and Personal Growth (GRO)	Materials (MAT)
Role of teacher (ROL)	Benefits to children: Academic, language, cognitive, sociocultural, personal/affective (BEN, LANG)	Surprises/New learning (SUR)	Materials (MAT)
Student-centered, hands-on approaches/quality methods (QUAL)		Personal Change (PERS)	
Keeping instruction fun (FUN)	Connections: Communication, Across cultures, Personal, w/ parents, Community (CONN, CULT)	New Practices with Students	
Connecting with students individually as a result of approach (CONN)		Observed aspects contradictory with belief (CONTR)	
	General benefits, Enjoyment (ENJ)	Doubts DBT:: Challenges Pressures	

The narrative from all five teachers was then re-coded and organized, with sub-themes organized under the new two-tier codes. Themes were evident and the investigator was able to outline the analysis and results of the data, which are presented in the qualitative section of Chapter Four, Analysis and Results.

ANALYSIS AND RESULTS

This chapter presents the analysis of all survey data and results, for both the quantitative as well as the qualitative analyses. Each is presented in a separate section.

Quantitative Analysis and Results

The quantitative analysis is organized according to the five research questions and the two methods used to test the null hypotheses are presented for each. The first test applied to the data was to determine the relationship between the two pre-/post-test variables, independent and dependent, for each question on the survey. Kendall's tau-*b* was selected as a more conservative measure of correlation. Table 9 presents the tau-*b* correlation value between the variables as well as the mode response for each question for all teacher respondents (treatment and control groups). The mode rather than the mean of the responses was chosen for presentation, in order to be congruent with the decision to treat these survey data as categorical rather than continuous. It was felt that the small size of the sample (*n*=79), the lack of normality in the data distribution, and the fact that respondents were not randomly selected, prevented using tests otherwise reserved for parametric, continuous data.

The correlation analysis shows a strong positive relationship between variables. The Kendall's tau-*b* correlation value is greater than .70 for every question except 6, 8, 12, and 13; the values for these four questions ranged from .58 (question 12) to .69 (question 6); which is still a strong correlation. This shows that post-test responses are highly correlated to pre-test responses; the two variables are highly correlated.

Two different ways of testing the significance of the two sets of variables were selected.

Table 9. Correlations of pre-test and post-test variables

Survey question		Mode: T & C	N	Kendall's tau-*b*
1. I believe all students have the ability to learn a second language.	Pre:	4	79	0.71
	Post:	4	81	
2. I believe that being biliterate (the ability to read and write in two languages) is an advantage for all students.	Pre:	4	79	0.78
	Post:	4	81	
3. I believe that English language learners (ELLs) acquire classroom content more rapidly when they have support in their native language.	Pre:	3	78	0.77
	Post:	3	81	
4. I believe that having cross-cultural skills (the ability to function successfully in multiple cultures) is an advantage for all students.	Pre:	4	78	0.78
	Post:	4	81	
5. I believe that ELLs should learn English as quickly as possible even if it means the loss of the native language.	Pre:	2	78	0.79
	Post:	2	81	
6. I believe that ELL students acquire English more quickly in school if they also receive instruction in their native language.	Pre:	3	75	0.69
	Post:	3	78	
7. I believe that non-English speakers and native English speakers can learn from each other in the classroom.	Pre:	4	78	0.75
	Post:	4	81	
8. I believe that having students who are learning to speak Spanish can enhance student progress in school. (T only*)	Pre:	3	35	0.67
	Post:	3	38	
9. I believe the TWI program enhances cross-cultural appreciation in this school (or in this community). (T only)	Pre:	3	36	0.79
	Post:	4	39	
10. I believe students' ability to speak in two languages helps their self esteem. (#8 control)	Pre:	3	76	0.76
	Post:	3	81	
11. I am well informed about the purpose of the TWI program in my school. (T only)	Pre:	3	38	0.79
	Post:	3	40	
12. I believe that parents of students in this school seem pleased with the TWI program. (T only)	Pre:	3	33	0.58
	Post:	3	35	
13. I like the TWI program in my school. (T only)	Pre:	3	36	0.65
	Post:	3	38	
14. I have personally seen the TWI classroom in this school in action (T only)	Pre:	2	34	0.88
	Post:	4	36	

*T only=Treatment school questions only

The first variables are related to the two administrations of the survey, the pre- and

post-tests, and the test used is intended to measure whether the responses on the post-test

differ significantly from the responses on the pre-test. In this instance, the variables are

highly correlated, influencing the subsequent choice of test. All questions had a tau-*b* value

(>.58). The second set of variables relates to the two types of schools: treatment and control.

These two variables, coming from two independent samples, were treated as independent

measures.

The correspondence between the treatment survey questions and research questions is

presented in Table 10.

Table 10. Research question and treatment survey correspondence

Research Questions	Survey Questions
1. a. Do classroom teachers in schools that have a two-way immersion program demonstrate greater support for the principles of two-way bilingual education than classroom teachers in schools that do not have a two-way immersion program?	1, 2, 8
b. Does this support for the principles of two-way bilingual education increase over time for teachers in schools that have a two-way immersion program?	
2. a. Do classroom teachers in schools that have a two-way immersion program demonstrate more support for the use of students' native language in the classroom than classroom teachers in schools that do not have a two-way immersion program?	3, 6
b. Does this support for the use of students' native language in the classroom increase over time for teachers in schools that have a two-way immersion program?	
3. a. Do classroom teachers in schools that have a two-way immersion program demonstrate more positive attitudes toward maintaining students' native language than classroom teachers in schools that do not have a two-way immersion program?	5
b. Do these attitudes become more positive over time for teachers in schools that have a two-way immersion program?	
4. a. Do classroom teachers in schools that have a two-way immersion program demonstrate stronger belief in the concept that bilingual programs develop cross-cultural skills than classroom teachers in schools that do not have a two-way immersion program?	4, 9, 7
b. Does this belief in the development of cross-cultural skills increase over time for teachers in schools that have a two-way immersion program?	
5. a. Do classroom teachers in schools that have a two-way immersion program demonstrate more agreement with the statement that bilingual education enhances (language-minority) students' self esteem than classroom teachers in schools that do not have a two-way immersion program?	10
b. Does this support for the principles of two-way bilingual education increase over time for teachers in schools that have a two-way immersion program?	

The first null hypothesis tested, for the pre-/post-test variable, is: teachers' responses to questions at the end of the year will not differ significantly from their responses at the beginning of the year, after one year's treatment. The Wilcoxon test for significance ($p<.05$) was selected, since this test is appropriate for non-parametric, repeated measures data. The Wilcoxon is also appropriate when sample sizes are small. The results of the Wilcoxon test are presented in Table 11.

Table 11. Wilcoxon test for significance of pre-/post-tests

Q. No.	Group	Z	Asymptotic Significance (2-tailed)*
1	T	-1.85	0.064
2	T	-0.26	0.796
3	T	-1.39	0.165
4	T	-0.07	0.941
5	T	-2.18	**0.029**
6	T	-0.18	0.854
7	T	-1.07	0.286
8	T	-2.11	**0.035**
9	T	-0.38	0.705
10	T	-0.44	0.660
11	T	-3.00	**0.003**
12	T	-0.63	0.527
13	T	0.00	1.000
14	T	-1.89	0.059

*values in bold are significant ($<.05$)

The p-value of questions 5, 8, and 11 were all less than .05, indicating that the null hypothesis was rejected for those three questions. This indicates that teachers' attitudes on the post-test had changed significantly from their attitudes on the pre-test over one-year's

time on these three questions. Questions 8 and 11 were from the treatment group survey, only. Question 5 addressed whether students should learn English as quickly as possible, even if it meant a loss of their native language, and was intended to measure teachers' attitudes regarding native language maintenance (research question three, Table 4). Questions 8 and 11 concerned issues specific to the two-way immersion programming: Question 8 addressed whether or not learning to speak Spanish (for non-Spanish speakers) enhances student progress in school. Treatment school teachers were found to have a significantly more positive attitude toward this statement at the end of the year when compared to the beginning of the year, and question 11 asked whether teachers in treatment schools were familiar with the two-way immersion program. The response on the post-test was significantly different from the pre-test, which is expected given the newness of the program and the expediency with which it was implemented at the time of the pre-test. Data from questions 11 through 14 were collected as part of the larger scope of the research project but were not included in the research questions and focus of this specific study.

The second null hypothesis, which tested the difference in responses based on the variable of the school—treatment or control, is: teachers' responses in schools that have a two-way immersion program will not differ significantly from teachers' responses in schools that do not have a two-way immersion program. The Mann-Whitney-Wilcoxon method for testing the null hypothesis was chosen, since the data are from two independent samples rather than repeated measures; are not distributed normally with constant variance; and are ordinal or continous. The Mann-Whitney-Wilcoxon test assesses whether two data sets are drawn from the same distribution. The results of the Mann-Whitney-Wilcoxon test are presented in Table 13.

Table 13. Mann-Whitney-Wilcoxon test for significance, control vs. treatment

Question Number*	Mann-Whitney U	Z	Asymptotic Significance (2-tailed)†
1a	296.5	-1.31	0.19
1b	268.5	-1.88	0.06
2a	303.5	-1.24	0.21
2b	296	-1.38	0.17
3a	318.5	-0.91	0.36
3b	354.5	-0.19	0.85
4a	344.5	-0.40	0.69
4b	352	-0.24	0.81
5a	336.5	-0.56	0.57
5b	257	-2.11	**0.03**
6a	328.5	-0.68	0.49
6b	348	-0.31	0.76
7a	343.5	-0.42	0.67
7b	352	-0.25	0.80
10a	339.5	-0.49	0.63
10b	335	-0.57	0.57

*a = pre-test question, b = post-test question
† numbers in bold are significant (< .05)

Question number 5b, post-test, is the only question for which treatment school teachers' responses differed significantly from control school teachers' responses. Question 5 asks teachers whether they believe ELL students should acquire English as quickly as possible, even if it means the loss of their native language (Table 5). Treatment-school teachers significantly differed from control-school teachers on this question on the post-test, showing a higher level of disagreement that students should lose their native languages. In other words, teachers in the two-way immersion schools were more supportive of students' maintaining their native language, thereby demonstrating a more positive attitude toward

bilingual education than their control school counterparts. Question 5 relates to research

question 3b, Table 10: Do teachers in two-way immersion schools demonstrate more positive

attitudes toward students' maintaining their native language.

Question number 1b, post-test, had a *p*-value close to significant levels (.06).

Question 1 asks teachers whether all students have the ability to learn a foreign language.

There were marked differences in the responses of teachers in treatment and control schools,

although not statistically significant. Teachers in the treatment schools responded more

positively to this statement; question one is intended to address research question 1b, Table

10, regarding whether or not teachers in two-way immersion schools show greater support

for the principles of bilingual education. Questions 8, 9, and 11 through 14 were not included

in this analysis as they were directed to treatment school teachers, only.

The implications of these results and a closer interpretation of their meaning is

presented in Chapter Five, Conclusions.

Qualitative Analysis and Results:

After coding and sorting the qualitative data, the investigator discovered three major,

overarching themes under which all data were easily organized., and one lesser category for a

minor yet persistent theme (Table 8).   These were: Approaches, Benefits, and Growth, and

the last category, Materials. Teachers detailed the many benefits of the program, offering

anecdotes and describing their reactions to what they observed over the course of the year.

Instructional approaches

The first theme related to the participants' approaches used to deliver instruction in

the classroom. There were several sub-themes under this domain; these included the role of

the teacher, the nature of the instructional approaches or teaching strategies used, the focus on fun, and the connections made with students as a result of the approaches (Table 8).

Role of the teacher. Regarding their role, all five teachers indicated a tendency toward constructivism; they saw themselves as guides for students' discovering knowledge rather than only distributors of that knowledge. A sub-theme running through some responses was the ethic of caring, as well. As Jane and Ana (Table 6) put it:

- *"Caring, nurturing, that's where I'm at. And facilitate learning. And I see myself as a facilitator because . . it's not all stand in the front and teach them."*

- *"I think [my role is to] guide the kids, give them enough interest for [them] to learn, and to guide their learning."*

Juan called the students the "protagonists of their learning:"

- *"I think that the most important [thing] we have to know [is that] they (students) are the protagonists of their learning, so teachers have to take into account what they (students) know, what they come from, what their interests [are]."*

It was interesting that all five teachers indicated that instruction should start with student interests, be more student initiated. Roxanne saw her role as blending what the students are interested in with what she is responsible for teaching them:

- *"I think the primary responsibility is to kind of focus the kids' instruction on things that are useful. We've got the things that they need to learn, but there's also other things they want to learn so it's kind of wrapping it all up in one."*

One teacher, Jane, again emphasized the part caring has in her role as a teacher. This was a strong component for her; caring is something that appeared as a thread throughout her narrative, beyond making sure students' basic needs are met. She said:

- *"We're finding that as the years go on, [kindergarteners] come tired, they come without eating breakfast, which the school now serves, they come without the needed necessary things for school. So they aren't really coming ready to learn, are they? So motivating kids to learn is absolutely essential. So, of course, we show caring. As soon as you greet them and show them you're happy they're here that helps bridge a little bit of that gap, making sure they have the basic necessities they need . . . their pencils, their paper, their breakfast, their book bags."*

Teaching strategies. An additional sub-theme in the domain of teaching approaches is the actual methods and strategies teachers value and use to deliver instruction. All five teachers stressed the importance of hands-on, meaningful, student-centered teaching, which is congruent with best practices for second-language learning (August & Hakuta, 1998). One aspect of this sub-theme is using activities and approaches that engage students in all modalities of learning. As Jane said:

- *"Effective education for all kids would mean that they are motivated to learn and they're engaged in what they're doing, so, therefore, the learning makes sense and has meaning. And as a kid at the kindergarten level, we need manipulatives and we need movement, and we need to connect their learning to what they've come with and with what they know and with literature."*

Jane believes every student learns a different way, and it's her responsibility to offer many different types of activities that ensure each child is motivated and engaged. Ana and Jane also discussed the need to address instruction to the individual child; successful teaching is identifying the students' level and adjusting instruction accordingly:

- *"I believe that all kids can learn. You just have to get what they are at, the*

instructional level, and then go from there."

- *"Therefore, if you give an open-ended writing activity, it could lead them [from] where they're at, so . . . your top-end kids would be writing 3 sentences and your lower kids might be writing the first letter of each word, but . . . they feel successful with what they're doing."*

Sense of fun. Another sub-theme throughout the instructional approaches domain was to incorporate a sense of fun into the instructional environment. This was somewhat surprising to the principal investigator, but several of the teachers mentioned making instruction fun and engaging for the students; this sub-theme supports a student-centered approach, Ana described that aspect of their teaching:

- *"First I think you have to provide a positive environment and make it fun for the kids. If you make it fun and you provide a positive environment, the kids will respond to you."*

Marisa saw incorporating fun a way to reach the low-income students in her class with high stress levels at home. She felt strongly that it was important to make her classroom a fun place children wanted to be, with activities they were naturally drawn to. In this way, she tailors instruction for her students and their personal histories. She said:

- *"And we were trying to have fun in the classroom. Because you know, the kids have way too much stress at home, you know?"*

Student connections. The final sub-theme under approaches is the integration of hands-on or real-life experiences in the classroom that connect in meaningful ways with the students. The teachers saw the hands-on experiences and integration of visuals and manipulatives as ways to support meaning and comprehension in the classroom, connecting

with students' experiences and prior knowledge. Ana commented:

- *"[To] provide a lot of opportunity for interaction, a lot of opportunity to produce the language, a lot of pictures, a lot of modeling. I think most of all it's a lot of visuals, visuals, visuals. That's my philosophy, visuals. Visuals say a lot.."*

Marisa also stressed hands-on activities that students can relate to:

- *"And then have a hands-on activities that the teachers use, and lead the students to participate. They need to be active, because if it has a meaning for them they will learn better."*

Roxanne also discussed using real-life experiences and hands-on learning:

- *"Everything I learned this year . . . is effective instruction, like using props, realia, and hands-on instruction, . . . and not just giving them information and having them tell it back to you, but like giving them a real-life experience to use it with."*

Jane describes her own journey in learning the importance of hands-on activities, something she had previously not considered before having English language learners in her classroom:

- *"I think we need to remember meaningful, hands-on manipulatives, so if you're doing the unit on the flower you aren't going to hand them a paper that says petal, stem, leaf; you're going to give them a flower and they're going to smell it, they're going to hold it, they're going to tear it apart and then you're going to bring the pictures in and then you're going to bring the words in. Hands-on and real things. I think that's for ELL learners, but it doesn't hurt anybody. Isn't it more fun to learn that way?"*

As Marisa put it, "yes, because if we talk with them [and] we let them know everything [and] we don't let them discover anything, they will not remember [it] the next

day." The teachers express their belief that students need to experience their learning in personal, hands-on ways in a simulated, real-life context for the learning to be meaningful.

As part of the teachers' increasing understanding of student-centered, hands-on instruction, Jane discussed her use of concept mapping in the classroom and how it was a tool that assisted her in personalizing instruction. This was a key benchmark in her understanding about the experiences, skills, and knowledge with which language-minority and children of poverty come to school. She no longer sees these children as deficient; rather, she understands their experiences are simply different from what one could expect a kindergartener to come to school with 20 or 30 years ago. For her, concept mapping is a strategy she can use to elicit student input and personalize instruction, accessing students' prior knowledge and experiences, whatever they may be. She said,

- *"Concept mapping makes you think about them and what they know, and it makes you realize not to take anything for granted because you know when they come here you kind of think, 'oh they must know that.' You must not think that . . . anymore because you don't know what experiences they've had. You can't think they know that. You have to talk to them to find out what it really is."*

Benefits

The next theme, and the one that was mentioned most frequently during interviews, was the many benefits a two-way immersion program offers not only to students, but to parents, teachers, and the community as well. The sub-themes under this domain are the benefits for children, specifically in academics and language proficiency, and then the benefit of improving cross-cultural understanding at both personal and societal levels.

Academic benefits. The teachers had many things to say about the benefits they saw their students enjoying over the course of the year. The most gratifying for them was the academic benefits. Teachers described what they observed, citing students' amazing progress. Ana claimed it was incredible; she stated:

- *"Strengths?   Kids who would be bilingual anyway because they came speaking Spanish--I've seen so much gain in those students compared to Spanish-speaking kids who were in a regular kindergarten classroom and were pulled out for ESL. [Did you have kindergarten pullout before?] Yes, I did, so I'm comparing the gains that my kids are making here to the gains they were making last year.   It's incredible! Six of my kids . . . are reading in English because they exceeded level 5 in Spanish It's like amazing. I don't see any weakness with this program honestly. I don't."*

Ana continued to express her amazement at how the students progressed:

- *"When I first started, I had 4 kids who started reading a couple of weeks after school started. I was like . . . [wow!] "I can't believe it. You guys never even told me . . . a couple of weeks?! By the first nine weeks I had like five kids reading, not memorizing. Reading."*

Roxanne had similar reactions to the amazing progress the students made:

- *"To be able to see that . . . seeing my little English speakers speaking so much Spanish. Whenever I would sub for [Ana] or whenever I was in her room, it just astonished me. I'm always amazed at the language level, and this year especially I think my biggest triumph is these kids leaving this program [are] higher than any other kindergarten class I have ever taught. I just feel like they've made leaps and bounds above where my kids used to leave at the end of the year. I don't think it's*

just the class of kids. They may be a smart class of kids, but I've had smart classes of

kids that are not at the same level intellectually."

Ana continued to share her feelings regarding the impact of the program on student progress, this time regarding literacy instruction:

- *"I think providing them instruction in their first language for guided reading has*

  really helped. I feel like the kids that we transitioned from the Spanish room to the

  English room for guided reading are far and above where kindergarteners should be.

  I hope this program can continue on and get them out of elementary school so that

  they will be higher than their peers for sure."

These teachers from Urban Elementary School were surprised, even amazed, at their own students' performance. Jane from Rural Elementary School also testified to being surprised at her students' progress. Jane describes the concern she had at the middle of the year regarding her students' mathematics skills. She felt mathematics had been sidelined to allow more time for the concept-based, social studies-rich two-way immersion curriculum. She describes her experience:

- *"I was worried that we were too heavy [into] social studies about Christmastime . . .*

  that their math wasn't coming strong enough, but I think the wisdom of [the principal

  investigator] came back to haunt me, and she said that it catches up, Jane! And it

  does catch up, because now I think they're just as strong in math as if I would have . .

  . run the program like usual."

This teacher had clear concerns mid-year, but allowed the program to run its course. She has had, as Pajares (1992) described it, a "gestalt shift." Jane now believes that skills do not always progress or develop at a gradual rate; she has seen the evidence from this year's

experience, since her students attained the same levels of progress as students in other years, despite changing the sequence of instruction and the amount of time allocated to it. She has since expressed her willingness to be flexible in the coming year, as well, trusting that the students will attain the same objectives as in a traditional kindergarten.

In addition to the academic benefits, Jane also mentioned the cognitive benefits—something she mentioned while trying to think of any possible disadvantages to being bilingual:

- *"I think it crosses over in the brain to help you process and learn more. I was trying to think, 'well what could it be?' I could only think of positive things of being bilingual and biliterate."*

Language benefits. The second most common type of benefit for children mentioned by the teachers was the development of proficiency in two languages. Typically, the students who were mentioned most often or who were considered the most impressive were the English-speaking children who were using Spanish. This is not because the Spanish-speakers have not had marked improvement in their English skills; rather, the language-minority students tend to develop English at a faster rate than the English-speakers develop Spanish, simply because English is so dominant in the society in which these children live. Therefore, their progress is seen as typical, whereas for an English-speaking child to attempt Spanish is something unusual and remarkable. The teachers described what they heard from parents or observed in the classrooms regarding the progress of the English-dominant students. Ana mentioned:

- *"One mom came to me . . . and she said, 'I'm just so happy with this program. [Our daughter's] doing so well we took her to Los Juanita's.' That's a Mexican*

restaurant. She could order her own food and get it right. She knew exactly what she wanted. She could just go and order when any other time she would be intimidated by the environment and the people and she wasn't, because she could order her own food."

Jane also shared a moment that impressed her:

- *"The event that stands out this last year [is] when this one English speaking student came to Marisa and said, 'Good morning Mrs. --, I'm going to breakfast.' And he said it in Spanish—in two sentences in complete Spanish, and she responds back to him in complete Spanish . . . and she said, 'Oh, he said, "Good morning Mrs. --, I'm going to breakfast."' And I thought that shows that the gap was being bridged on the languages and I thought that was really neat. That was a moment for me to see that that could happen, and I bet that wasn't even half [way through] the year."*

Roxanne also shared anecdotes from parent conferences:

- *"Another great moment, at parent-teacher conferences . . . in the first (fall) conference . . . was having parents say to me, 'They are using so much Spanish at home. And they're so excited. We're so excited about this program.' And to have kids that moved away for a short period of time and then have come back and their parents wanted them in the program again."*

These teachers all shared stories of children using the second language in real-life situations and meaningful exchanges, even with only a few months of school behind them. For English-dominant students, especially, using the second language outside of school is truly impressive, given the lack of opportunities to do so in an English-dominant society. The teachers themselves voiced surprise at the students' progress and achievement, both

academically and in proficiency in the second language.

The students' use of the minority language is also indicative of a prevalence not typically enjoyed by minority languages, giving credence to the theory that conducting instruction in two languages "levels the playing field" for language-minority and language-majority students (García, 1993). The teachers described why such language development in the second language was so successful for both groups, language-minority and language-majority students. Jane described her perspective on it this way:

- *"The TWI program helped all of our people practice their second language in a non-threatening way. If you would just go to Spanish class, you would learn it during class, practice during class, you would go home and speak your first language with your family. Here, you are able to learn something new, practice it at play time, practice it at center time, practice it at lunch time and then you would remember it better . . . you would retain it longer because you had more opportunity to practice. Isn't that key for new learning?"*

Juan also saw the value of the two-way immersion program in developing second-language skills, since it provides a real-life context in which students can practice. He said:

- *"I think it is so engaging for them. I have some very, very smart kids that they are catching a lot of [Spanish]. Here Spanish is a real language, so [students] can speak with their friends and maybe they go with their parents, they go shopping or something [and] they can translate. I think they . . . get so excited with this so they are using the language [more]."*

Roxanne mentioned the value of English language learners being able to practice in the classroom in their native language—something they are not able to do in an English-only

classroom until they have developed adequate proficiency. She stated:

- *"For ELL learners I think the biggest part is the language acquisition, but I think--*
  having been able to not just learn the language, but apply it . . . getting them to learn
  the academic English that is used in the classroom and being able to use that during
  instruction. For them to be able to participate—[that's huge]."

Teachers saw the two-way immersion program as a non-threatening environment in which the children could try their new language skills and also have opportunity to use their first language. Such opportunities have the added effect of increasing cultural appreciation, the sub-theme discussed in the next section.

Cultural connections. The teachers all connected students' language development with their development of cross-cultural awareness. They mentioned the relationship between language and culture; learning a language is synonymous with learning about the culture. They also acknowledged that using the minority language in the classroom appeared to elevate the status of that language, affirming its use and its speakers. Ana mentioned this when reflecting on her former ESL pull-out students' attitudes toward using Spanish and comparing them with her current two-way immersion students' attitudes. She described her former students' reactions:

- *"I also see a lot of [positive] attitude toward the Spanish. A lot of kids who knew*
  some Spanish wouldn't use it [last year in ESL] because they were kind of
  embarrassed or things like that. When I was teaching ESL pull-out, I had the
  kindergartners or first graders tell me their parents' last names or the parents' names.
  They were embarrassed to say their parents' names. They were totally Hispanic, and
  . . . they were embarrassed to say their parents' names. Here I see the kids being

proud of speaking Spanish . . . proud of their heritage. Which is awesome!"

Ana saw the children take pride in their heritage and their native language. When asked

whether this experience impacts the children's enjoyment of school, she responded:

- *"Definitely, definitely, because you're valuing their knowledge, you're valuing who*

  they are, and who they are is important. It counts in school. They enjoy the school a

  lot more and they're open more."

Ana, who emigrated from Mexico when in grade school, sees the program as

beneficial in helping students feel better about themselves. She also related a story that, to

her, was a beautiful example of culture being shared and bridges being built in the classroom:

- *"[The benefits] are endless. They have access to two worlds . . . .two cultures. And if*

  you add to that then when they go to school..when they go to college   I mean just

  today, [my Anglo student] has a Mexican bracelet that has La Virgen de Guadalupe

  on it. Another girl (Hispanic) had two and gave her one. They're just cheap

  bracelets, but they're totally Hispanic bracelets . . . just little things like that."

This capacity for the program to build inter-cultural relations and improve

communication was a major theme throughout all teachers' interviews. Teachers described it

as a phenomenon of acquiring the language, but all saw the cultural aspect of the language to

be inseparable or an integrated part of acquiring that language. Jane commented:

- *"For students, I think . . . it opens the doors for them to learn about more cultures*

  and just being able to get to know the world around them a little bit better before

  they're actually in the world."

Juan describes his own viewpoint of the inter-relationship between language and culture,

which he sees as inseparable. Learning a second language involves learning a second

culture, as well. He stated:

- *"Not only that, it's your point of view of the world because language is not only a*
  language. There's culture, there's points of views. I like . . . to think about language;
  . . . why you use one word and I use a different word for the same situation in
  different languages and you can understand how people think."

Marisa also described the aspect of learning about cultures as well as learning a second

language. She sees this as an advantage for the students:

- *"Advantages? They will have probably more open minds, first—to be able to have*
  two languages . . . you learn about cultures, traditions, celebrations. . . . It's not
  only the language you learn, but everything behind the language we can give them,
  too."

Jane described the benefit of learning a second language as being critical to future

success, as well:

- *"Being bilingual and biliterate would foster communication. I see that as a great*
  need in today's society . . . because the people who can talk and communicate better
  with other people are going to get better jobs. The job market needs people who are
  bilingual and biliterate."

She also saw the program as a way to open doors to worlds the students would not

otherwise know in their small town:

- *"I thought [we did more] with global awareness and geography--now that we've*
  done this [program], we were looking at the globe more. We were looking at the map
  more. Where did the other teachers live? Where do these other kids come from?
  What was the name of that country? . . . So we did a lot with social studies and

global awareness which I think is just wonderful. That was really good."

Her comments also allude to the lack of awareness so many young children have regarding race and ethnicity, affirming the value of a two-way immersion program in kindergarten. She said, "people are just people—when you're five." She sees the unique capacity of the program in nurturing that perspective, fostering greater caring among groups. For this teacher, communication is the means by which such caring is achieved, and the means by which people attain and maintain that sense of community:

- *"And that [communication] brings about caring, helpfulness, and kindness. When people first came to [our small town], it was pretty standoffish on both sides . . . and so if we can learn a little bit more about each other . . . then people are more interested to learn about each other. The bilingual/biliterate person is the one that can facilitate the communication between everybody. . . . That really is key."*

Jane feels that without this program, the potential for the community to suffer is very real. It's an essential part of maintaining the community and helping those families who have come here to live:

- *"This program is needed in this community because . . . we're like 70% Hispanic here, and if we can't build communication between us, the community is not going to grow in a positive way. Our parents were excited about their kids learning to read in their native language 'cause some of our parents do not read in their native language and this is exciting for them to keep that Spanish language growing, so this community needs this program. We really do."*

This Anglo teacher who has never lived outside of the small town in which she also works now supports the students and their families maintaining their heritage and their

language. She now sees the need in the community for a program that encourages students and their parents to maintain their native language while learning English. She continues:

- *"It's important that the parents pick up more of their speaking, and read in their native language. . . . Our kids are going home with our books and our papers and they're explaining it to their parents; it's helping their parents grow and it's helping them grow . . . because we don't want to lose the Spanish and that's what happened years ago. You would spend all of your time on English and the kids couldn't even speak the Spanish language when they got older and that hurt their families. So this program needs to keep going."*

The Latino teacher from the same building felt the program connected with parents and the community to the school in an unprecedented way, in no small part due to her own efforts to stay in contact with the parents:

- *"If the parent helps his child learn, they (the child) learn better. If [parents] are not involved, . . . [the students] are learning Spanish, but it doesn't matter as much to [the parents].* [Were parents in your classroom?] *Yes—lots. They brought things in, were very attentive—and [there was] always communication by phone, to let them know what's going on in Spanish class. Because if they don't read, I knew I could contact them by phone. [Then] they feel they are part of the school, [they feel] they're important. And this is something very important, [because] . . . the Latino parents that for one reason or another are here in the U.S. think that they are only visitors here. And if you are a visitor here, you won't care as much about the school as if it were yours. So they think they're visitors, but I call them and tell them they're not visitors and get them involved and they feel a part of the community. . . . .They feel*

much more proud, because they feel they can help, and don't feel like, 'Why should I

get involved? I might do something wrong'—or they're afraid. So when the teacher

keeps up the communication, the parents develop trust, and ask more questions and

everything—and the students improve."

Her comments are an insightful picture of what so many immigrants experience, as she herself has experienced. Marisa emigrated to the U.S. over five years ago and relates to the parents personally. She staunchly advocates for parental involvement, seeing it as both natural and necesssary. She maintains that such contact with the teachers does not happen in traditional, English-only classrooms, especially if the teachers do not understand the culture their students represent.

Finally, the teachers related stories of the children enjoying one another's cultures or simply each other, in celebration of their heritage or innocent unawareness of their cultural differences. Marisa mentioned a big celebration they had at Rural Elementary School:

- "Big moment? When we had the 100s day—it was really good. I was so amazed at how the parents were so excited, and they brought tamales—we had 100 tamales. Everybody got one tamale. . . . Those kids were really really involved."

Jane spoke about the students' learning poems in the second language:

- *"And what a joy that is to learn that and then go and learn their poems . . . the other country's poems in another language. That just fosters all that much more too. More understanding, more caring. Our kids have caught that."*

Ana also described the cultural connections among students she was being established in the classroom:

- *"I feel that they don't see a difference, like, you're Spanish, I'm English speaking.*

Like at the beginning of the year, we had [an English-speaking boy] and [a Spanish-speaking girl]. [He] did not speak a word of Spanish, [And she,] . . . very, very little English. And they were best friends. So that was one of my goals this year . . . to have the kids interact as if there was [sic] no culture differences. And I see it."

The teachers clearly communicated that the program made good progress in attaining the goal of affirming cultural pluralism and developing cross-cultural awareness. They felt the program encouraged students to not only learn each other's language, but each other's culture, as well.

The teachers' emphasis on diversity may have had something to do with the diversity among the group of teachers themselves. Of the five teachers, only Jane and Roxanne are U.S.-born; Marisa is from Peru, Ana from Mexico, and Juan from Spain. Roxanne has lived abroad and studied Spanish, but Jane has lived her entire life in the small town in which Rural Elementary School is located. Regardless of their own ethnic heritage, all the teachers valued the inter-cultural relations fostered by the two-way immersion program and saw its positive outcomes.

Personal and Professional Growth

The third main theme in teachers' comments is the growth each experienced as a result of their involvement in the program. The sub-themes related to personal growth were the doubts and challenges they faced over the year and the change in their personal beliefs and practices the program engendered.

Doubts and challenges. Along with the teachers' tales of success came tales of frustration,challenge, and even doubts. Taken as a whole, teachers' comments were

extremely positive and even when expressing doubts, questions, or mistakes, it was within a context of seeing them as challenges and acknowledging mistakes only because they do not want to repeat them. They also shared their doubts because to share them eases the burden and helps them grow. What was perhaps most gratifying to the principal investigator was the framing of these challenges as just that: opportunities to succeed next time.

Ana tells of her own frustration at the beginning of the year when trying to maintain Spanish at all times:

- *"The other big challenge was speaking [Spanish] when I knew half of them were not understanding me. That was very hard for me. I could not get used to the fact that I was talking and they were not understanding me, and now they understand. But at the beginning I did a lot of switching just because when I saw . . . blank looks, you do everything to get them to understand, and my last resource was switching, [which] . . . at the beginning I did a lot, which I shouldn't have. But it was what I had to do to survive."*

Ana struggled with wanting to give the English-speakers support since comprehension was so difficult for them. She continued to describe her first year as a classroom teacher:

- *"This was totally a new experience for me. I have never taught a regular education classroom. I've taught ESL pull-out, so I had to make a lot of adjustments to my teaching. It was like a learning experience for me . . . it was not a tweaking experience . . . it was a learning experience."*

Ana is completely honest regarding her own inexperience and frustration. But to her credit, she chose to stay with her first class of students as they progressed into first grade—

once again, stepping out of her comfort zone with completely new content and a new grade level. She chose to move with the students because her desire to stay with them and watch them grow and progress is so great. She concludes the year with these words:

- *"I thought it was a great year, even though it was the first year. It was a great year. I feel very, very positive about the year."*

Other teaches spoke of the challenge the new program presented. Roxanne shared her experience:

- *"The greatest challenge I think has been planning, because I've been working in the [Urban Elementary School District] for five years, and I've not done the same thing every year. [But] this year, going away from the way [Urban district] usually teaches, I was trying new concepts, new methods--it's been great, but it's also been taxing."*

Jane shared another concern, regarding an autistic child in her class. She had not yet decided whether the program had benefited the child or not, but she can't help but wonder. She stated:

- *"I got to thinking with the autistic child, was this [program] a good thing? And I thought, well, it helps your brain process in a new way, but was he really able to catch it? I'm not sure. And what about the children who were kind of really low . . . like low enough that they might be in a moderate program. Did this help them or should we have just helped them learn the English? And I'm not sure where we fit with that, but . . . We kept thinking it's gonna bring the brain up anyway, . . . it's gonna help them learn because they're processing in another way."*

In her own processing of the comments, it is apparent that Jane is almost resolving the

question for herself, and eventually states: "I'm not sure how it's gonna turn out for those folks. [We'll have] to see how it turns out in the end. It didn't hurt them at all." She acknowledges that while the program may not have been what she would have chosen for the children who had special needs or who learn more slowly, the program certainly did not hurt them.

The teachers had definite challenges and doubts throughout the year. As with anything new, there were glitches and difficulties, but also growth. The principal investigator observed growth in the teachers' philosophies and beliefs, as well as in their professional practices. The next section presents these data.

Change in beliefs and understanding. The final sub-theme related to personal growth was change in the teachers' beliefs and understanding about educating language-minority and language-majority children. The teachers acknowledged the difficulty of the program and its incumbent stress, but also had good things to say about the way the program impacted them, personally. They recounted their surprise at how well students did—the unexpected benefits that impacted their own understanding of the program and its underlying philosophy. Juan shared one surprising situation he had formerly not believed possible:

- "I [had] a book in Spanish . . . [and] an English kid . . . started to read and it was almost perfect. I didn't teach him how to read in Spanish. I don't know how long he was reading, but not much. It was a big book and he read the title. He is very smart, but I didn't believe that this could happen."

Ana also shared how her beliefs have changed as a result of the surprising impact the program has had. She was always supportive of the philosophy, but had some reservations. She related:

- *"Before I first started this program I felt that not teaching all day in English was going to put them back in . . . .learning their English. I'm thinking about [for] the Spanish speaking kids. I thought they would learn less (English) because they are half-day speaking Spanish and only half-day getting the English, so I thought they're going to be behind. I've been so amazed of how well they have learned the English and developed their Spanish even farther. . . .Our kids are way ahead of what [Roxanne] did last year so our kids are ahead of the regular education classroom that she had. . . . I mean, it's not the teachers . . . so it's actually the program."*

Ana goes on to describe her reaction to students' progress:

- *"I'm telling you I am so amazed of how well they can read. It's just, like, shocking! I knew this was a good program when I started and it sounded so interesting, and I wanted to do it. I never, never thought it was going to have this much impact on the kids. I just never thought it was going to be so great."*

For Ana, although she supported the program before she began, she could not imagine how well the students would do. Her own support for the program increased as a result of what she observed. Other teachers also grew from the experience of teaching in the program, particularly in their professional practices. Two of the teachers, Jan and Roxanne, mentioned the professional development they participated in and the impact it had on their teaching. All of the teachers received training in concept-mapping, a process by which graphic organizers, related to the overarching concepts of the thematic unit, are constructed on a large sheet of paper, such as a bulletin board, with high levels of student input. Jane shared:

- *"I learned that concept mapping skill from you and I think that that is just essential*

because, like we talked before, kids come with experiences, not the academic

experiences that we're used to them having, but they're coming with experiences

nonetheless and concept mapping brings them all together focused in on one topic.   .

. . They all feel connected to the topic because they can share something that makes

sense to them, or how they're making sense of this learning, and I think that that's

big. So I think that we're going to be doing that."

Jane's experience with concept mapping was so positive she is planning on incorporating the process into future lessons. Roxanne had a similar experience to share. She said:

- *"I think I teach more concept-based now. I have always used themes, but I don't think I delved into them as deeply as I could. And especially with the concept-mapping that we did this year..that was something that was very new to me. I was reluctant about it, but after doing it once, I'll never do it any other way I think [the students] brought more of themselves into it . . . they brought more of their life experiences into it. . . . I just feel like they made it more personal."*

These teachers' accounts are, to the princinpal investigator's mind, a beautiful picture of responsive pedagogy (García 2004): engaging students personally in instruction and accessing their prior knowledge and experiences. Both Jane and Roxanne indicated surprise at the effectiveness of the process and an intention to use it in the future. This is a clear indication of change in their instructional approach and evidence of professional growth.

Congruent with Guskey's (1986) model of changing beliefs, the teachers in the two-way imnmersion project definitely had powerful experiences that changed the way they saw and approached things, both in the classroom and in the community. For a few it was minor, for a few, major. One teacher in particular, Jane, expressed an entirely new way of seeing

her world as a result of working in this program. She describes herself now:

- *"But I think I'm gonna change that answer because I think it (biggest triumph) was*

  global awareness. I think I became a more global thinker. I am a person that has

  lived in [rural town], Iowa my entire life and I now think that it would be fun to travel

  to other countries and see other countries and I think that's exciting. . . . But I think

  that's opened up the door . . . that people are people no matter where we are."

For a small-town female teacher from Iowa, developing an interest in the larger world

is certainly a change and shift in her thinking. This teacher sees her students in a new light,

and her teaching, too. The program had a definite effect on the teachers' thinking; observing

its impact increased their beliefs in the benefits and advisability of initiating two-way

immersion programs and even changed two of the teachers' (the two most experienced

kindergarten teachers, Jane and Roxanne) instructional practices.

Materials

All of the teachers mentioned the need for materials, better materials, more materials,

authentic materials, or even just more money to buy materials. This was the fourth and final

theme of the teachers' interviews, and was invariably the topic raised when asked what they

would change about the program: Have more materials. This comes as no surprise if the

teachers are seeking to do more engaging, hands-on instruction, since such instruction

necessitates the use of a variety of manipulatives, real-life objects, and quality visuals. What

was of note was the acknowledged need for more authentic materials in Spanish, even from

the Anglo teachers. As Jane put it,

- *"I think we have to keep looking for more materials in the Spanish language, and that*

was an eye opener because I always thought Spanish was Spanish, so if I have a

workbook in English and it's translated in Spanish. Then Juan and Marisa would say

that's not really Spanish, that's translated English, so bringing up . . . right, that's the

word I was looking for (authentic). Having that authentic literature would open up

the door a whole lot more, and if I went to another country and didn't have anything

in my language, I would feel bad too."

Juan also mentioned the need for authentic materials:

- *"And most of [the materials in Spanish] are translations. Sometimes it's good, but*
  sometimes I like real materials."

The problem was exacerbated due to the newness of the program and the fact that none of the teachers had taught in Spanish before, so none had materials of their own. They agreed that materials in Spanish were difficult to find, costly, and sometimes just not available, forcing them to make their own. Roxanne shared her experience:

- *"Materials are harder to find. With Spanish, or any language at the elementary*
  level, there's not an over-abundance of materials. I think it's becoming easier to find
  them, but I think that as the process or this program continues it will be easer, but
  starting out it is just so hard to find ways to help the students with their learning
  because we have a lack of materials. I think that the biggest weakness is not having
  enough stuff to teach with."

Marisa also shared about the lack of quality materials:

- *"I think the materials. Sometimes it's hard to find the better ones. It's not about*
  better ones; it's about the ones that can be adapted to your way of teaching."

Ana shared a similar experience:

- *"My greatest challenge was having materials. That is my greatest challenge. I go to the stores, try to find things in Spanish. I don't find much. I've been having to make a lot of the stuff I use for reading myself. So that has been my greatest challenge."*

The lack of materials presented a definite challenge to the teachers, especially to those teaching in Spanish.

CONCLUSION

The study described and presented in this manuscript is an interesting probe into teacher attitudes and beliefs, and how those attitudes and beliefs may be impacted by involvement, both direct and indirect, with a two-way immersion program. The study involved two distinct approaches to collecting data: quantitative and qualitative, but in discussing the meaning of the data and the implications this study has for future research, the principal investigator intends to interpret the data collectively, rather than in separate sections as was done in previous chapters. The investigator shall first interpret the findings of the data, discuss their significance in light of the current context of language-minority education, and then discuss how this study impacts not only the future research within the context of this two-way immersion grant project, but the larger body of research on language-minority education and issues, as well.

Findings and Interpretation

The implementation of a two-way immersion and elementary foreign language (FLES) program in the two treatment schools had a definite impact on teachers' attitudes toward bilingual education, especially regarding students' native language maintenance. The importance of maintaining the students' native language is an important aspect of any bilingual program, and in two-way immersion programs must be promoted equally with English language maintenance and development (Collier & Thomas, 2004; de Jong, 2004). However, mainstream teachers typically resist this idea and do not support native language maintenance. The issue of native language maintenance versus second-language development is seen as an either-or issue (Hakuta & D'Andrea, 1992; Penfield, 1987; Valdez, 2001), rather than a simultaneous development process.

The question on the survey used with treatment and control school teachers that had the most significant results was question number 5. This question asked teachers whether students should learn English as quickly as possible, even if it means a loss of their native language. On this question there was no statistically-significant difference in how teachers from the control schools responded compared to teachers from the treatment schools at the beginning of the year, but there was a statistically significant difference in their responses at the end of the year on the post-test. Teachers at the treatment schools agreed far less with the loss of students' native languages while learning English as quickly as possible than teachers at the control schools. This indicates that teachers at the treatment schools were more supportive of students maintaining their native language. The difference in responses on the pre-test versus the post-test was also significant; teachers showed a statistically significant change in their attitudes over the course of the year.

Was this change due to the presence of the two-way immersion program in their school? The principal investigator cannot isolate these results to the two-way immersion program treatment, since the project also involved the implementation of a Spanish foreign language in the elementary school (FLES) program in the building. It is more prudent to say that the presence of both programs had a statistically significant impact. The findings may not be generalizable to a national or even state-wide population since the sample comes from a limited population, but the results are nevertheless promising.

It is also interesting to note the strength of the post-test results for question 1, which asked whether all students have the ability to learn a second language. On the post-test, teachers from the treatment schools were far more likely to agree with this statement than teachers from the control schools. This difference is not statistically significant; however,

this question merits further study. The investigator attributes the more positive attitudes toward second-language learning in the treatment schools to the presence of the two-way immersion and FLES programs, although not for any sound statistical reasons. In her experience, having taught for six years in a FLES program, teachers become more positively disposed toward a foreign language program when they, themselves, see the impact the program has on the students. The teachers in the building may also have been influenced by the presence of the two-way immersion program, from hearing comments in the teacher workroom or perhaps from visiting the two-way immersion classrooms themselves. As Guskey (1986) maintains, personal observation of the impact of practices on students is the main force behind a change in attitudes.

On the measure of difference in responses based on pre- and post-test data, treatment school question number 8 was also statistically significant. This question asked teachers whether having students who are learning Spanish enhances student progress in school. Interestingly, teachers' responses at the end of the year were significantly more positive toward this statement than at the beginning of the year, indicating that teachers' attitudes regarding the benefits of students learning Spanish in a two-way immerison program changed over the nine months it was in action. Studies indicate that bilingual programs, especially two-way immersion programs, result in higher academic performance for ELL students (Willig,1985; Baker, 1992; Hakuta, 1985; Rolstad, Mahoney, & Glass, 2005), although mainstream teachers often do not support the implementation of bilingual programs (Ramos, 2001; Shin & Krashen, 1996). Even though the majority of the teachers surveyed for this study had no direct contact or involvement with the two-way immersion program, it is to be expected that they heard anecdotes regarding student progress in the classroom and parent

support for the program. It may be that the positive messages regarding people's feelings toward a program were further construed to be improved achievement. It may also be that teachers were surprisingly impressed with the combination of the two-way immersion and FLES programs and the impact these two programs had on students and the inter-cultural relationships within the school.

There is no question, however, of the impact the two-way immersion program had on the teachers who taught in the two-way immersion program themselves. All five volunteered to work within the program, all five evinced distinctly positive attitudes (orally) in speaking about bilingual education at the beginning of the year, and all five were nevertheless surprised at the things students accomplished and the many benefits the program had, not only for the students themselves and their academic performance, but for enhanced cultural understanding and appreciation in the classroom and community. Especially at Rural Elementary School, teachers discussed the impact of the two-way immersion program on the parents and on their interaction at the school, while at Urban Elementary School, the teachers repeatedly heard from the English-speaking parents regarding their excitement and support for the program. The teachers also mentioned the new level of cross-cultural appreciation engendered in their students by the activities and performances they engaged in throughout the year. This impact on inter-cultural relations is, in the opinion of the principal investigator, possibly the single greatest benefit of two-way immersion programming. As Collier and Thomas (2004) maintain, dual language programs have an immense potential to resolve sociocultural concerns.

The five teachers all were surprised at the degree to which children worked together, apparently oblivious to their linguistic and cultural differences. The teachers observed

friendships being forged and traditions and customs shared, with eagerness and positivism not unlike mono-cultural relationships. As Jane said, to five-year olds, "people are just people." Despite the teachers' earlier support for the two-way immersion program, the teachers all shared that their experiences teaching in this program only strengthened their commitment to this model as the very best one for both language-minority and language-majority students.

In addition to their renewed and intensified support for two-way immersion, the teachers all addressed another aspect of the impact of the program on their attitudes and approaches. As described in earlier chapters, the two-way immersion teachers participated in professional development opportunities over the course of the year and worked with the principal investigator in designing curriculum units and approaches based on that training. A foundational training was conducted in November concerning the development of concept-based units and concept mapping. This training was referred to by the teachers many times during the interviews and was attributed to having the most impact on their instruction. Jane and Roxanne, particularly, being the two most experienced kindergarten teachers of the five, mentioned the power they felt such an approach had with their students. As Roxanne described it, students brought "more of themselves" into the activity in the classroom.

The process of concept mapping involves creating a language-rich map of a concept or big idea and the sub-themes and concepts that support it. How the map looks is largely directed by student input and feedback, thereby making it responsive to student input rather than a teacher-controlled activity. The teachers recognized the degree to which students engaged with this activity, since it was so student-centered, and expressed an intent to continue concept-mapping well into the future. They saw the value of personalizing their

instruction, even with students as young as age five.

The teachers all demonstrated a student-centered philosophy in their approaches. A surprising aspect of the interviews for the principal investigator was the consistency with which the five teachers referred to making instruction student-centered, All mentioned responding to student interests and engaging them in hands-on, simulated real-life experiences, while validating students' backgrounds and experiences.

The principal investigator considered this development to be congruent with Guskey's (1986) model of effecting change in teacher beliefs. The experience of teaching in a new program using new methods and approaches apparently had an effect on the teachers' attitudes, although perhaps not at an entirely conscious level. As Good and Brophy (1986) maintain, most teachers are not even aware of their own attitudes and expectations. In the experience of the principal investigator, who enjoyed a close working relationship with the teachers for over a year, the teachers approached their students differently at the end of the year than at the beginning, and approached the program differently, too. This is perhaps the most gratifying result of the entire project, and has resulted in a great desire on the part of the investigator to continue researching and exploring the benefits and impact of this two-way immersion program.

Any program or experiences that result in teachers' reflecting on their practices and approaches and that effect change in both beliefs, philosophy, and practices are, in the opinion of the principal investigator, worth pursuing, particularly since research studies have found such programs to have beneficial results for the students involved. The effect observed by the principal investigator over the course of the school year was exciting: In one year, teachers in the treatment schools demonstrated more positive attitudes toward some of the

principles of bilingual education than they did at the beginning of the year. This is an encouraging beginning for a brand-new program.

Implications for Future Research

In analyzing the data for this study, many weaknesses and gaps were revealed that the investigator hopes to redress with future efforts. The survey of the teachers in all four schools was a useful first step, but the investigator hopes to add questions that directly address more comprehensively the issue of bilingual program implementation, rather than just theory. This is in keeping with findings of other studies (Shin & Krashen, 1996, Ramos, 2001) where teachers supported bilingual education in theory but not in practice. This aspect of bilingual programs was inadequately measured by this survey, and the investigator will propose altering the survey accordingly for future administrations.

In addition to adding questions regarding program implementation, the investigator also sees a need to collect additional data regarding teachers' background and training. This is an important part of determining why teachers hold the attitudes and beliefs they do and whether their background, training, and personal experiences have influenced their beliefs. This is part of the current body of literature and is an aspect the investigator also will propose adding, since this project is funded for an additional three years (2006-2010).

On a more general note, the investigator found no research study that specifically investigated the impact a school program might have on the attitudes of the teachers in the school. Most research studies addressed the impact of teachers' beliefs on their students and the impact of programs on student achievement, but not on the impact a new bilingual program might have on the teachers involved with it—both directly and indirectly. This is an interesting perspective; the program was implemented regardless of teacher feeling or

opinion, so this study, almost by default, had to measure the difference in teachers' opinions from the beginning of the year to the end. Apparently, there was some impact, although not in every area studied. It does appear, then, that a new program can have an effect, something that previous attitude surveys could not or did not measure, because the bilingual programs were already of long standing. Attitude surveys, then, should comprise a component of all research concerning newly implemented bilingual and foreign languge programs. There may indeed be wisdom in doing so if supporters hope to increase support for such programs to serve both language-minority and language-majority children.

Finally, researching beliefs regarding specific programs or models is only a beginning. Beliefs present a tricky construct: they are subjective, resistant to change, and do not respond well to correction or contradiction, even when the evidence is irrefutable (Pajares, 1992; Clark, 1988). Therefore, all research on beliefs should be conducted with care. Beliefs are extremely important from a programmatic standpoint, as teacher beliefs can strongly influence the support a fledgling program enjoys, particularly in the surrounding community. In the case of educating language-minority children, beliefs-driven politics have essentially stripped minorities of their rights and resulted in ineffective approaches in several states with high language-minority populations. Evaluating teachers' beliefs is important to fully assess a context in which one hopes to work and to determine where program stakeholders need to focus their efforts. Changing beliefs, based on the experiences and observations in this project, involves more than just sharing information with teachers. Information is inadequate; personal experience is paramount. Therefore, two-way immersion programs themselves can be catalysts for engendering more support for bilingual education and biliteracy, when teachers are able to personally witness how the program benefits both

language-minority and language-majority students.

Finally, the original hypothesis of this study is that teachers in schools with two-way immersion and FLES programs will have more positive attitudes toward the principles of bilingual education after one year's treatment than teachers in schools that do not have two-way immersion or FLES programs. The principal investigator has concluded that this study does indeed support the hypothesis. While the data do not show teacher support for all of the principles of bilingual education, there is definitely more support at the treatment schools than at the control schools. At the end of the first year of the program, teachers in treatment schools were more positive regarding English language learners maintaining their native language while learning English, and they were also more positive about the statement that learning Spanish enhances student progress in the school.

The two-way immersion teachers themselves were even more positive about the program at the end of the year than at the beginning, and indicated a desire to continue with new practices and approaches gained as a result of participating in the project and related staff development opportunities. All five teachers saw the two-way immersion model as a definite benefit to all participating students, academically, personally, and socially. It is the investigator's hope that this study will contribute to the larger body of knowledge regarding the benefits of bilingual education programs and will provide a model to those seeking direction in effectively educating language-minority students.

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APPENDIX A

TREATMENT SCHOOL SURVEY, LETTER, AND CONSENT FORM

Date: January 3, 2007

To: Teachers and Administrator/s of the Two-Way Immersion (TWI) and Foreign
Language in the Elementary School Programs (FLES) in ▮▮▮▮▮.

From: Mack C. Shelley II, Director
Research Institute for Studies in Education
E005B Lagomarcino Hall, Iowa State University
Ames, IA 50011-3196

The multi-year project *Dual Language Program* (2006-2010), in which ▮▮▮▮ is
participating, is a unique opportunity for the participating schools to serve as a model for
other schools around the country. Therefore, evaluation is an important part of the
program. We invite you to be part of the Two-Way Immersion program evaluation even
though there are no direct benefits reasonably expected to you as a teacher or
administrator for participating in this evaluation.

The ▮▮▮▮ School District has arranged for the National K-12 Foreign Language
Resource Center (NFLRC) and the Research Institute for Studies in Education (RISE),
both at Iowa State University, to conduct the research evaluation of this program.

With this letter is enclosed a consent form that we request you as administrator or teacher
to sign giving consent for your participation in this evaluation research by participating
in: (a) survey, (b) discussion groups, and (c) focus groups.

To ensure confidentiality for the evaluation, you will be assigned an identification
number that will be used instead of your name throughout the study, and all evaluation
information will be presented as group results. All information will be used only for
evaluating the effectiveness and impact of the project, not for evaluating your work.
There are no foreseeable risks or discomforts anticipated for your involvement in the
research evaluation of the program. Additionally, you will not be excluded from
participation in this program if you do not consent to participate in the research
evaluation of the program.

*Please sign the attached consent form indicating your willingness to participate in the
evaluation of this project and mail it in the attached self-addressed and stamped envelope
by Monday, January 15, 2007.* We have included an extra copy of the consent form for
you to keep in your files along with this letter.

If you have any questions about the evaluation, feel free to contact RISE at 515-294-7009
and ask for Dr. Mack Shelley or contact the NFLRC at 515-294-6699 and ask for Dr.
Marcia Rosenbusch. For questions about participants' rights in research, please contact
Diane Ament, Director of Research Assurances, ISU, 515-294-3115.

Thank you.

Please sign this consent form indicating your willingness to participate in the evaluation of this project and Mail it in the attached self-addressed and stamped envelope by Monday, January 15, 2007.

I understand that:

- My elementary school is participating in the *Dual Language Program* funded in part by the Iowa Department of Education. Through this multi-year project (2006-2010), students will have the opportunity to participate in a Two-Way (or Dual) Spanish Language program. This is a unique opportunity for participating schools and eventually this project, if successful, could serve as a model for other schools around the country. Therefore, evaluation is an important part of program improvement. There are no direct benefits reasonably expected to me as a teacher or administrator, however, for participating in this evaluation.

- The ¦   School District has arranged for the National K-12 Foreign Language Resource Center (NFLRC) and the Research Institute for Studies in Education (RISE), both at Iowa State University, to conduct the research evaluation of this program.

- My participation in this evaluation research of the Two-Way Immersion program may involve completing surveys and participating in discussions and/or focus groups.

- To ensure confidentiality for the evaluation, I will be assigned an identification number that will be used instead of my name throughout the study, and that all evaluation information will be presented as group results.

- All information will be used only for evaluating the effectiveness and impact of the project, not for evaluating me.

- There are no foreseeable risks or discomforts anticipated for my involvement in the research evaluation of the program.

- My participation in this evaluation research is voluntary and may be terminated at any time.

- If I decide to participate in this project, there will be no direct benefit to me. I will not be compensated for participating in this study.

- I will not incur any costs from participating in this study.

- The results of this evaluation research will be published or reported to the funding government agencies and the profession, but my name will not be associated in any way with the published results. I understand that only group data will be reported in any published results.

- In the event that I have questions or concerns, I can contact the Project Evaluator, Mack Shelley, Ph.D. at mshelley@iastate.edu or by phone at 515-294-8346; or Marcia Rosenbusch, Ph.D. at mrosenbu@iastate.edu or by phone at 515-294-6699.

- If I have any questions about the rights of research subjects or research-related injury, I can contact Diane Ament, Research Compliance Officer, 515-294-3115, dament@iastate.edu.

- By signing this form, I give my consent for my participation in this evaluation research.

I understand the information presented above and do _____ / do not _____ agree to participate in the multi-year evaluation of the Two-Way Spanish Immersion Project. I understand that the information will be kept confidential, and that I can withdraw permission at any time.

_____
Teacher/Administrator Name (Print)

_____   _____
Teacher/Administrator Signature   Date

Please keep this extra copy of the consent form with the letter in your files.

I understand that:

- My elementary school is participating in the *Dual Language Program* funded in part by the Iowa Department of Education. Through this multi-year project (2006-2010), students will have the opportunity to participate in a Two-Way (or Dual) Spanish Language program. This is a unique opportunity for participating schools and eventually this project, if successful, could serve as a model for other schools around the country. Therefore, evaluation is an important part of program improvement. There are no direct benefits reasonably expected to me as a teacher or administrator, however, for participating in this evaluation.

- The ▮▮▮▮ School District has arranged for the National K-12 Foreign Language Resource Center (NFLRC) and the Research Institute for Studies in Education (RISE), both at Iowa State University, to conduct the research evaluation of this program.

- My participation in this evaluation research of the Two-Way Immersion program may involve completing surveys and participating in discussions and/or focus groups.

- To ensure confidentiality for the evaluation, I will be assigned an identification number that will be used instead of my name throughout the study, and that all evaluation information will be presented as group results.

- All information will be used only for evaluating the effectiveness and impact of the project, not for evaluating me.

- There are no foreseeable risks or discomforts anticipated for my involvement in the research evaluation of the program.

- My participation in this evaluation research is voluntary and may be terminated at any time.

- If I decide to participate in this project, there will be no direct benefit to me. I will not be compensated for participating in this study.

- I will not incur any costs from participating in this study.

- The results of this evaluation research will be published or reported to the funding government agencies and the profession, but my name will not be associated in any way with the published results. I understand that only group data will be reported in any published results.

- In the event that I have questions or concerns, I can contact the Project Evaluator, Mack Shelley, Ph.D. at mshelley@iastate.edu or by phone at 515-294-8346; or Marcia Rosenbusch, Ph.D. at mrosenbu@iastate.edu or by phone at 515-294-6699.

- If I have any questions about the rights of research subjects or research-related injury, I can contact Diane Ament, Research Compliance Officer, 515-294-3115, dament@iastate.edu.

- By signing this form, I give my consent for my participation in this evaluation research.

I understand the information presented above and do _____ / do not _____ agree to participate in the multi-year evaluation of the Two-Way Spanish Immersion Project. I understand that the information will be kept confidential, and that I can withdraw permission at any time.

_____

Teacher/Administrator Name (Print)

_____   _____

Teacher/Administrator Signature   Date

Teacher, Staff, and Administrator Attitude Survey

The purpose of this survey is to provide researchers with important information regarding teacher attitudes toward dual language programs and basic principles of bilingual education. Please consider the following questions, and respond according to formerly and currently held attitudes. Please place your survey in the envelope with your name on it, seal it, and return it to the office. Thank you!

Key: **TWI = Two-Way Immersion**
   ELL = English language learners

a. **Gender:** ☐M ☐F

b. **Position:** ☐ classroom teacher   ☐ other teacher   ☐ paraprofessional   ☐other staff

c. **Age:** _____

d. **Number of years at present occupation:** _____

Respond according to the attitudes you held at the *beginning* of this school year (2006-2007)				Questions	Respond according to your *current* attitudes			
strongly disagree	disagree	agree	strongly agree		strongly disagree	disagree	agree	strongly agree
☐	☐	☐	☐	1. I believe all students have the ability to learn a second language.	☐	☐	☐	☐
☐	☐	☐	☐	2. I believe that being biliterate (the ability to read and write in two languages) is an advantage for all students.	☐	☐	☐	☐
☐	☐	☐	☐	3. I believe that English language learners (ELL) acquire classroom content more rapidly when they have support in their native language.	☐	☐	☐	☐
☐	☐	☐	☐	4. I believe that having cross-cultural skills (the ability to function successfully in multiple cultures) is an advantage for all students.	☐	☐	☐	☐
☐	☐	☐	☐	5. I believe that ELL should learn English as quickly as possible even if it means the loss of the native language.	☐	☐	☐	☐
☐	☐	☐	☐	6. I believe that ELL students acquire English more quickly in school if they also receive instruction in their native language.	☐	☐	☐	☐
☐	☐	☐	☐	7. I believe that non-English speakers and native English speakers can learn from each other in the classroom.	☐	☐	☐	☐
☐	☐	☐	☐	8. I believe that having students who are learning to speak Spanish can enhance student progress in school.	☐	☐	☐	☐
☐	☐	☐	☐	9. I believe the TWI program enhances cross-cultural appreciation in this school (or in this community)	☐	☐	☐	☐
☐	☐	☐	☐	10. I believe students' ability to speak in two languages helps their self esteem.	☐	☐	☐	☐
☐	☐	☐	☐	11. I am well informed about the purpose of the TWI program in my school.	☐	☐	☐	☐
☐	☐	☐	☐	12. I believe that parents of students in this school seem pleased with the TWI program.	☐	☐	☐	☐

National K-12 Foreign Language Resource Center and Research Institute for Studies in Education, Iowa State University –TS
Two-Way Immersion Project

	strongly disagree	disagree	agree	strongly agree
13. I like the TWI program in my school.	☐	☐	☐	☐
14. I have personally seen the TWI classroom in this school in action.	☐	☐	☐	☐

Please respond according to your current attitudes to these open-ended questions:

15. What are the greatest needs of all the students in your school (address any/all: academic, emotional, physical, etc.)?

16. What are the greatest needs of the English language learners in your school (address any/all: academic, emotional, physical, etc.)?

17. What are your greatest concerns about having a TWI program in your school?

18. What are the greatest advantages you perceive of having a TWI program in your school?

Thank you and please place your survey in the envelope with your name on it, seal it, and return it to the office. Your input is greatly appreciated!

APPENDIX B

CONTROL SCHOOL SURVEY, LETTER, AND CONSENT FORM

Date: January 3, 2007

To: Teachers and Administrator/s of ███ Elementary School

From: Mack C. Shelley II, Director
Research Institute for Studies in Education, Iowa State University
E005B Lagomarcino Hall
Ames, IA 50011-3196

The Iowa Department of Education has established a multi-year project (2006-2010), *Spanish Dual Language Program*, in Irving elementary school in ██████ and the elementary school in ██████, for which it is providing partial funding. Through this project, these two Iowa elementary schools have established Spanish Two-Way (Dual) Immersion programs for students in Kindergarten and will expand these programs one grade level each year in coming years.

The ████ School District has agreed to have ████ Elementary School serve as a comparison school for the *Spanish Dual Language Program* project since a Spanish language program is not offered at ████ Elementary School. The participation of the ████ School District in this project is a unique opportunity for the district to support data-driven evaluation and research on student outcomes related to Dual Language programs.

The National K-12 Foreign Language Resource Center (NFLRC) and the Research Institute for Studies in Education (RISE), both at Iowa State University, will conduct the research and evaluation at Lenox Elementary School. We invite you to be part of the Spanish Dual Language Program evaluation, even though there are no direct benefits reasonably expected to you as a teacher or administrator for participating in this evaluation. With this letter is enclosed a consent form that we request you sign as administrator or teacher giving consent for your participation in this evaluation research by participating in: (a) a survey, (b) discussion groups, and/or (c) focus groups.

To ensure confidentiality for the evaluation, you will be assigned an identification number that will be used instead of your name throughout the study, and all evaluation information will be presented as group results. All information will be used only for evaluating the effectiveness and impact of the project, not for evaluating your work. There are no foreseeable risks or discomforts anticipated for your involvement in the program's research and evaluation. Additionally, you will not be excluded from participation in this program if you do not consent to participate in the research and evaluation of the program.

Please sign the attached consent form indicating your willingness to participate in the evaluation of this project and mail it in the attached self-addressed and stamped envelope by Monday, January 15, 2007. We have included an extra copy of the consent form for you to keep in your files along with this letter.

If you have any questions about the evaluation, feel free to contact RISE at 515-294-7009 and ask for Dr. Mack Shelley or contact the NFLRC at 515-294-6699 and ask for Dr. Marcia Rosenbusch. For questions about participants' rights in research, please contact Diane Ament, Director of Research Assurances, ISU, 515-294-3115.

Thank you

Please sign this consent form indicating your willingness to participate in the evaluation for this project and mail it in the attached self-addressed and stamped envelope by *Monday, January 15, 2007*

I understand that:

- The ▇▇▇ School District has agreed to have ▇▇▇ Elementary School serve as a comparison school for the *Spanish Dual Language Program* project since a Spanish language program is not offered at ▇▇▇ Elementary School. The participation of the ▇▇▇ School District in this project is a unique opportunity for the district to support data-driven evaluation and research on student outcomes related to Spanish Dual Language programs. There are no direct benefits reasonably expected to me as a teacher or administrator, however, for participating in this evaluation.
- The ▇▇▇ School District has arranged for the National K-12 Foreign Language Resource Center (NFLRC) and the Research Institute for Studies in Education (RISE), both at Iowa State University, to conduct the research evaluation of Lenox Elementary School as a comparison school.
- My participation in this evaluation research may involve completing surveys and participating in discussions and/or focus groups.
- To ensure confidentiality for the evaluation, I will be assigned an identification number that will be used instead of my name throughout the study, and that all evaluation information will be presented as group results.
- All information will be used only for evaluating the effectiveness and impact of the project, not for evaluating me.
- There are no foreseeable risks or discomforts anticipated for my involvement in the research evaluation of the program.
- My participation in this evaluation research is voluntary and may be terminated at any time.
- If I decide to participate in this project, there will be no direct benefit to me. I will not be compensated for participating in this study.
- I will not incur any costs from participating in this study.
- The results of this evaluation research will be published or reported to the funding government agencies and the profession, but my name will not be associated in any way with the published results. I understand that only group data will be reported in any published results.
- In the event that I have questions or concerns, I can contact the Project Evaluator at RISE, Mack Shelley, Ph.D., at mshelley@iastate.edu or by phone at 515-294-8346; or at the NFLRC, Marcia Rosenbusch, Ph.D. at mrosenbu@iastate.edu or by phone at 515-294-6699.
- If I have any questions about the rights of research subjects or research-related injury, I can contact Diane Ament, Research Compliance Officer, 515-294-3115, dament@iastate.edu.
- By signing this form, I give my consent for my participation in this evaluation research.

I understand the information presented above and do _____ / do not _____ agree to participate in the multi-year evaluation of the Spanish Dual Language Program project as a teacher/administrator in ▇▇▇ Elementary School. I understand that ▇▇▇ Elementary School will serve as a comparison school to the Spanish Dual Language Program schools. I understand that the information will be kept confidential, and that I can withdraw permission at any time.

_____

Teacher/Administrator Name (Print)

_____   _____

Teacher/Administrator Signature   Date

Please keep this extra copy of the consent form with the letter in your files.

I understand that:

- The ⬛School District has agreed to have ⬛ Elementary School serve as a comparison school for the *Spanish Dual Language Program* project since a Spanish language program is not offered at ⬛Elementary School. The participation of the ⬛ School District in this project is a unique opportunity for the district to support data-driven evaluation and research on student outcomes related to Spanish Dual Language programs. There are no direct benefits reasonably expected to me as a teacher or administrator, however, for participating in this evaluation.
- The ⬛ School District has arranged for the National K-12 Foreign Language Resource Center (NFLRC) and the Research Institute for Studies in Education (RISE), both at Iowa State University, to conduct the research evaluation of Lenox Elementary School as a comparison school.
- My participation in this evaluation research may involve completing surveys and participating in discussions and/or focus groups.
- To ensure confidentiality for the evaluation, I will be assigned an identification number that will be used instead of my name throughout the study, and that all evaluation information will be presented as group results.
- All information will be used only for evaluating the effectiveness and impact of the project, not for evaluating me.
- There are no foreseeable risks or discomforts anticipated for my involvement in the research evaluation of the program.
- My participation in this evaluation research is voluntary and may be terminated at any time.
- If I decide to participate in this project, there will be no direct benefit to me. I will not be compensated for participating in this study.
- I will not incur any costs from participating in this study.
- The results of this evaluation research will be published or reported to the funding government agencies and the profession, but my name will not be associated in any way with the published results. I understand that only group data will be reported in any published results.
- In the event that I have questions or concerns, I can contact the Project Evaluator at RISE, Mack Shelley, Ph.D., at mshelley@iastate.edu or by phone at 515-294-8346; or at the NFLRC, Marcia Rosenbusch, Ph.D. at mrosenbu@iastate.edu or by phone at 515-294-6699.
- If I have any questions about the rights of research subjects or research-related injury, I can contact Diane Ament, Research Compliance Officer, 515-294-3115, dament@iastate.edu.
- By signing this form, I give my consent for my participation in this evaluation research.

I understand the information presented above and do _____ / do not _____ agree to participate in the multi-year evaluation of the Spanish Dual Language Program project as a teacher/administrator in ⬛ Elementary School. I understand that ⬛Elementary School will serve as a comparison school to the Spanish Dual Language Program schools. I understand that the information will be kept confidential, and that I can withdraw permission at any time.

_____

Teacher/Administrator Name (Print)

_____   _____

Teacher/Administrator Signature   Date

Teacher, Staff, and Administrator Attitude Survey

The purpose of this survey is to provide researchers with important information regarding teacher attitudes toward the basic principles of bilingual education. Please consider the following questions, and respond according to the attitudes you held at the beginning of the year, and then according to your current attitudes. Please place your survey in the envelope with your name on it, seal it, and return it to the office. Thank you!

Key: TWI = Two-Way Immersion
     ELL = English language learners

a. **Gender:**   ☐M   ☐F

b. **Position:**   ☐ classroom teacher   ☐ other teacher   ☐ paraprofessional   ☐other staff

c. **Age:** _____

d. **Number of years at present occupation:** _____

Respond according to the attitudes you held at the beginning of this school year (2006-2007)				Questions	Respond according to your current attitudes			
strongly disagree ☐	disagree ☐	agree ☐	strongly agree ☐	1. I believe all students have the ability to learn a second language.	strongly disagree ☐	disagree ☐	agree ☐	strongly agree ☐
strongly disagree ☐	disagree ☐	agree ☐	strongly agree ☐	2. I believe that being biliterate (the ability to read and write in two languages) is an advantage for all students.	strongly disagree ☐	disagree ☐	agree ☐	strongly agree ☐
strongly disagree ☐	disagree ☐	agree ☐	strongly agree ☐	3. I believe that English language learners (ELL) acquire classroom content more rapidly when they have support in their native language.	strongly disagree ☐	disagree ☐	agree ☐	strongly agree ☐
strongly disagree ☐	disagree ☐	agree ☐	strongly agree ☐	4. I believe that having cross-cultural skills (the ability to function successfully in multiple cultures) is an advantage for all students.	strongly disagree ☐	disagree ☐	agree ☐	strongly agree ☐
strongly disagree ☐	disagree ☐	agree ☐	strongly agree ☐	5. I believe that ELL should learn English as quickly as possible even if it means the loss of the native language.	strongly disagree ☐	disagree ☐	agree ☐	strongly agree ☐
strongly disagree ☐	disagree ☐	agree ☐	strongly agree ☐	6. I believe that ELL students acquire English more quickly in school if they also receive instruction in their native language.	strongly disagree ☐	disagree ☐	agree ☐	strongly agree ☐
strongly disagree ☐	disagree ☐	agree ☐	strongly agree ☐	7. I believe that non-English speakers and native English speakers can learn from each other in the classroom.	strongly disagree ☐	disagree ☐	agree ☐	strongly agree ☐
strongly disagree ☐	disagree ☐	agree ☐	strongly agree ☐	8. I believe students' ability to speak in two languages helps their self esteem.	strongly disagree ☐	disagree ☐	agree ☐	strongly agree ☐

Please respond according to your current attitudes to this open-ended question:

9. What are the greatest needs of all the students in your school (address any/all: academic, emotional, physical, etc.)?

10. What are the greatest needs of the English language learners in your school (address any/all: academic, emotional, physical, etc.)?

Thank you and please place your survey in the envelope with your name on it, seal it, and return it to the office. Your input is greatly appreciated!

APPENDIX C

QUALITATIVE QUESTIONS: TWI RESEARCH PROJECT

Note: These questions will be used in an individual face-to-face interview by project research personnel with the five Two-Way Immersion teachers in the treatment schools Postville and Irving (Sioux City). The interview will be audio-recorded for later analysis by the project research personnel.

1. In your opinion, what are the characteristics of effective education for all students?

2. What do you think is the primary responsibility of an elementary teacher?

3. Describe what you think constitutes an effective educational program for English language learners.

4. What are the advantages of being biliterate/bilingual (for students)?

5. What are the disadvantages of being biliterate/bilingual (for students)?

6. What are the strengths/weaknesses of a two-way immersion program?

7. What has been your greatest triumph?

8. What has been your greatest challenge?

9. What event or moment stands out for you the most from this past year?

10. Is there anything you have learned from being involved in this project that has changed how you approach your teaching?

11. How does this two-way immersion program meet the needs of your students compared to traditional monolingual educational programs?

12. If you could change one thing about the two-way immersion program, what would it be?

APPENDIX D

PRINCIPAL DIRECTIONS

Thank you for your collaboration in distributing and collecting these surveys.

Please have teachers, staff, and administrators complete the consent forms
and surveys and return them to you in the sealed envelopes with their names visible.

We have enclosed a list of all staff members who received a consent form and survey. As they are turned in, you may use the list to
check off names.

Please place them in the pre-addressed, postage-paid envelope and mail by:
                    May 14, 2007

Questions? Call Marcia Rosenbusch,
                    515-294-6699

APPENDIX E

INTERVIEW TRANSCRIPTS

Juan at Rural Elementary School   Wed., May 9, 2007

Talking about his experiences teaching in the Rural Elementary School Two-Way Immersion

program this year:

I think that the most important [thing] we have to know they (students) are the protagonists of

their learning, so teachers have to take into account what they (students) know, what they come from,

what their interests [are]. That's the starting point, so from that information you can work.

I think it is not only content or academic content, it's also learning for life and ordinary things . . . life

skills so you don't have to focus only on how many numbers they know, how many letters they know.

I think it is important that the most important [thing] is how they are good citizens as well.   [Social

skills?] Just [if] they know how to clean up. The relationships between them and their parents and all

that. A list in elementary may mean high school day or middle school day they change a little, but in

elementary.

Well, this is a very tough question because I come from a country that, in my part of Spain

we speak two languages and both languages are officials. You don't have here official languages, but

because it's different.   I believed in the thing that thing that they are implementing in Quebec(??)

that you have to start with a weaker language. This is what we are doing there. We start speaking . . .

emergent only with Catalan in elementary because Spanish is supposed to be everywhere else, but

here is different I think. You don't have official languages. I think you shouldn't because I don't

believe in them.

I am so proud to be in this program. I would like to know how it works more long-term, but I

am enjoying so much, not only with the Spanish speakers, but with the English speakers. I think it is

more enjoyable because they don't have that language (Spanish) at home. Maybe they don't have

[Spanish]; they wouldn't learn this..Spanish or another language. I think it is so engaging for them. I have some very, very smart kids that they are catching a lot of [Spanish] For example, in my country where I am . . . I am a teacher of English, English is not a real language in the environment, in the context, so here Spanish is a real language. So they can speak with their friends and maybe they go with their parents, they go shopping or something [and]they can translate. I think they can get so excited with this so they are using the language [So they have more opportunities here to use the language because Spanish is real and is not a thing that somebody wants to teach?]

I think all are advantages. I am bilingual/biliterate. Spanish too. I feel more bilingual with Catalan and Spanish than with English. Well, it's my third language, English. I have read a lot about when you learn mathematics or something you are more prepared to that. [So learning more languages impacts your performance in math and other areas?] Not only that, it's your point of view of the world because language is not only a lang. There's culture, there's points of views, worlds of view. I like a lot to think about language, why you use one word and I use a different word for the same situation in different languages and you can understand how people think. Why they use that word instead of the other. I think it is philosophical. I think it is better for you.

Maybe the people that are not in these kind of programs. They wanted to see the results very quick, and they don't know that when you work in this kind of programs that they are slower and they need more time to accomplish one milestone. When they get that first step they go further also. For ex. We had so many problems changing/switching groups and all that. Sometimes I feel that . . . if we see problems . . . it is only seen by the adults because they (the kids) are so adaptable. They adapt themselves very quick. So if you see any problems most of the time it is because of you; not because of the teachers. I felt some problems . . . going there, treating boys/girls, I felt so much more secure the beginning of the year with my group. I could speak more Spanish with my group than with the other? (HK---It was hard sharing kids like that) Yeah. I think it was my problem, not with the

kids or with the program. I don't know if it's better to do one whole day in the language and then the next day in the other language. I think the problem was me.

[Or to switch the day in the middle like Marisa does and keep it with the same teacher.]

For example, I do that there. Some people say that they cannot see the same teacher speaking two languages because they get confused, but they should know when they have to speak with the teacher in one language and when they have to speak [the other], they have to choose the language they are going to speak with her.

First being in both. As a teacher when you see they get so excited about these because at the beginning this is something strange even for the Spanish ones/Hispanics because some went from alternative kindergarten and they learned some English and they felt a little insecure, but when they start with a new teacher, they said this teacher speaks different and all that. When you feel that they feel more comfortable, that they understand more day by day, they are improving. This is the greatest triumph.

I felt that kindergarten should be different. Should be less stressful for them [less academic?]. Sometimes I felt a little overwhelmed because you can focus on learning the letters and only the letters, but if the final goal is only to learn the letters then focus on learning the letters and put the other things aside. Sometimes I felt the pressure to pass a test or to get the higher score on the test. Not for me, but for them. [Do you think it's philosophy?] I think so. I don't know if you . . . I need, sometimes I need to know what the approach is behind every teaching activity. I was trying to know which [it] was here. In my country I don't know if you call it a way--Constructivism. That they call their way. Very different philosophy. I like to know which one so if I understand it I can apply that.   That way I can implement it. That was my greatest challenge.

When a kid . . . I [had] a book in Spanish . . . an English kid and he started to read and it was almost perfect. I didn't teach him how to read in Spanish. I don't know how long he was reading,

but not much. It was a big book and he read the title. He is very smart, but I didn't believe that this

could happen.

[Will you use your experiences in Spain?] I don't know, now. I should think. [That's a hard

one probably. To think about how you approached it in Spain.] Because everything is new here. [So

here's the question then. Will you teach differently when you get home? When you go back to Spain,

do you think?] You know what's my big [problem?] I never taught in kindergarten so everything

was new so all my kids went. They already learned how to read because second grade . . . my

teaching time. So everything is new so I'm sure I'm going to transfer this American teaching

experience to my Spanish. [Are you going to still teach upper level? I mean the older 2nd, 3rd, and 4th

grade?] I'm not sure because I have to . . . .well the situation there is different so they have to tell me

where I'm going to teach, but there's a possibility that I will be in 1st grade so it will be closer to

kindergarten then. I'm sure I'm going to use what I learned here. I will adapt to the situation there,

but I cannot express if I will do the same.

I think the materials. Sometimes it's hard to find the better ones. It's not about better ones;

it's about the ones that can be adapted to your way of teaching. [It seemed that you were trying to

take a lot of English]. I went with the thought that I shouldn't [take materials to the U.S.] because

I'm going there to learn. I'm not coming to learn. I'm coming to teach my way and if that, if I would

have thought that, I would have brought [more materials]. [If you would have thought that you would

have brought more materials?] Yeah. And most of them are translations. Sometimes it's good, but

sometimes I like real materials. Even there. I came to get a lot of English materials to teach English

there, so that's the same feeling I have here.

I will like to do it better and all that. [New country, new school, new philosophy. That's a huge shift.]

I chose it though. [I know, but you didn't come in really knowing the expectations of this building.

Even the expectations here are not the same as another school. Say where my kids went to

kindergarten or the philosophy maybe isn't always the same. That's a big challenge so I don't want

you to be too hard on yourself.] Yeah, but at the beginning I went without knowing what I'm going to teach, what I'm going to start from the very first day, focusing on teaching. I think that I failed because of that and that I should do it better. [I don't think you should look at this year as a failure.] Yeah, but . . . [I think there's a lot of cultural differences where you come from versus what is expected here. I philosophically don't believe in a huge academic focus in kindergarten.]

Yeah, I don't say it's only fun. It's not only playing all the time. [It's a big change.] You know I think it's that kind of change from a philosophical difference that's the hard one. My philosophical ways of teaching are very set and it would be very hard for me to change. My philosophy is based on what I believe about the children. So you have to take that into consideration. I don't think it's a matter of failing or succeeding. It's a matter of difference. Like a mismatch.) Yeah, but I'm so happy to have this opportunity . . . so happy and proud.

Jane at Rural Elementary School   Wed., May 9

Effective education for all kids would mean that they are motivated to learn and they're engaged in what they're doing, so, therefore, the learning makes sense and has meaning. And as a kid at the kindergarten level, we need manipulatives and we need movement, and we need to connect their learning to what they've come with and with what they know and with literature, so total engagement I would say is how do you engage 5-year-olds? Music and movement and rhythm and manipulatives and graphic organizers. Effective teaching would mean that they really want to learn and that they're going to stretch themselves, so therefore, if you give an open-ended writing activity it could lead them where they're at so you say your top end kids would be writing 3 sentences and your lower kids might be writing the first letter of each word, but it takes them where they're at, and they feel successful with what they're doing.

[Talk to me a little bit more about being motivated. How do you see yourself doing that or getting them there?]

It used to be that kids were always motivated to learn. Even at five years old they would say "Oh kindergarten . . . that must be so fun to teach. They're always ready to go. And yes, they're ready to go, but are they ready for learning?" And we're finding that as the years go on, they come tired, they come without eating breakfast which the school now serves, they come without the needed necessary things for school. So they aren't really coming ready to learn, are they? So motivating kids to learn is absolutely essential. So what we have to do is build this in and sometimes we are very good at it, and sometimes we're not because we're still learning ourselves what each kid will click on. What makes them excited to be here. So, of course, we show caring. As soon as you greet them and show them you're happy they're here that helps bridge a little bit of that gap, making sure they have the basic necessities they need . . . their pencils, their paper, their breakfast, their book bags. That all helps too. And then when they get motivated on the carpet to learn sometimes it takes a song because you have to learn who likes to sing. We got some that like to sing and some that would rather not sing. So some would rather learn through singing, and some would rather learn through counting, and some would rather learn through movement, and some would rather just learn by you know leave me alone and tell me what you want me to do and I'll do it. So you try to get all those ideas together and you try to pick out what helps them the best. 'Course computer, I should have thought of that too. [Yeah, they like that.] There's a lot of computer learners because if they come with that knowledge so we try.

[You probably already partially answered number 2.] Caring, nurturing, that's where I'm at. And facilitate learning. And I see myself as a facilitator because you're working and you're walking in between the groups and it's not all stand in the front and teach them. It's the small group, it's the individual. So I see myself as a facilitator. I don't want to forget encourage and I don't want to forget teach because that's what I'm here to do. I think we also have to teach character because if they come in, and they don't really have those character building blocks in them sometimes. The

responsibility to sit and listen, so we do have to correct where we need to correct so that they can learn anywhere in any grade.

For ELL learners, and we've had those at Rural Town for quite a few years and now we just started this TWI program which we will talk more about later. But when we just had the ELL learners here, in the very beginning, we thought they needed an individual aide so that they could translate for them and they would understand the concept. Then we got too many students to give everybody their aide or their translator so they teachers went "Oh, what do we do?" And then we've had in-services and we have had speakers on this, so what it basically boils down to is finding materials at their level of understanding English so materials are essential. And the other thing that we need to do is remember all the modalities of learning which I talked about before, and also I think we need to remember meaningful hands-on manipultaives so if you're doing the unit on the flower you aren't going to hand them a paper that says petal, stem, leaf; you're going to give them a flower and they're going to smell it, they're going to hold it, they're going to tear it apart and then you're going to bring the pictures in and then you're going to bring the words in. So we had to learn to do things in reverse 'cause that used to be the enrichment activity at the end is when you get to play with the real flower. And we've had to turn that learning completely around and do the enrichment in the beginning. [Real life] And we're still working on remembering to do that for every lesson, but every time we do remember to do that for every lesson, they're right there for you. Hands-on and real things. So with our TAG program, we get the ant farm and they learn about how busy insects really are and they get to see that, and that's exciting. Then we went to this tadpole to frog unit and we got to keep the frogs because they're African water frogs, and we get to watch them in the aquariums swim and eat and that has been real and they will never forget that. They'll know that cycle. And then we have the butterfly unit, just now. And they have just enjoyed watching those butterflies. The more things like that. I think that's for ELL learners, but it doesn't hurt anybody. Isn't it more fun to learn that way? [Oh yeah.] Yeah, much more fun to learn that way, than the workbook page.

Being bilingual and biliterate would foster communication. I see that as a great need in today's society and in the future society because the people who can talk and communicate better with other people are going to get better jobs. The job market needs people who are bilingual and biliterate, and you can do your job better if you're communicating with your co-workers. [That's so interesting because Juan and I were just having a conversation about how you can communicate in languages more than just words; it's about relationships and understanding people] yes, yes [Their background and where they come from and their experiences and you have access not only to that, but it just broadens your perceptions and point of view.] And that is brings about caring, helpfulness, and kindness. When people first came to Rural Town, it was pretty standoffish on both sides. And that's no fun. Nobody likes a community like that. And so if we can learn a little bit more about each other and then so and so learn this, then people are more interested to learn about each other. The bilingual/biliterate person is the one that can facilitate the communication between everybody. Some things can only get better. [That's so great!] Yeah, that really is key.

[Disadvantages?] I really couldn't think of one of being bilingual. I think it crosses over in the brain to help you process and learn more. I was trying to think well what could it be? I could only think of positive things of being bilingual and biliterate. [That is great!]

The strengths of a TWI program? [Or weaknesses or both?] I'm a positive person so let's start with the positives first. I thought with global awareness and geography, now that we've done this, we were looking at the globe more. We were looking at the map more. Where did the other teachers live? Where do these other kids come from? What was the name of that country? So geography was strong and social studies is strong and we had really good materials with pictures and that brought out similarities and differences in people, but 5-year-olds really never see that. People are just people. When you're 5, they don't really see racial difference, so the pictures--and they didn't pick up on that in the pictures so it was just like, oh yeah, ok. And the food choices so we did a lot with social studies and global awareness which I think is just wonderful. That was really good.

The TWI program helped all of our people practice their second language in a non-threatening way. If you would just go to Spanish class, you would learn it during class, practice during class, you would go home and speak your first language with your family. Here, you are able to learn something new, practice it at play time, practice it at center time, practice it at lunch time and then you would remember it better, you would retain it longer because you had more opportunity to practice. Isn't that key for new learning? Yep, we need to do that so I thought that was really a positive and I thought the positive of having Juan from Spain and from Marisa from Peru. You're really learning real Spanish from real people that are fluent in the language, it's gonna be good when we have it with teachers teaching Spanish and [my] being a first English speaker. That's gonna be effective..that's gonna be good, but I think what we had this year was the ultimate. This was the elite way of doing it because they learned it from someone who could do it so fluently. [Educated?] Yes. What a role model. [I like your way of saying that..the elite way of doing it.] We have the top of the line here.

If there was a weakness of the TWI program? I did come up with this thought,. Kids come with different, I don't want to say styles of learning, I want to say abilities to learn and this group has quite a few challenges with ability to learn. And so then I got to thinking with the autistic child, was this a good thing? And I thought, well it helps your brain process in a new way, but was he really able to catch it? I'm not sure. And what about the children who were kind of really low, like low enough that they might be in a moderate program. Did this help them or should we have just helped them learn the English? And I'm not sure where we fit with that, but global awareness, communication, that's all good. But I'm not sure for some of those kids [Were those kids English speakers, Spanish speakers?] English speakers. [Oh, ok really your low English speakers.] Yeah. I don't know either. We kept thinking it's gonna bring the brain up anyway, it's gonna help them learn because they're process in another way. [I don't know that there's much research on that.] I don't know either and so I'm not sure how it's gonna turn out for those folks. [That's an interesting

question. That's kind of one where you go "I guess we'll have to wait and see."] Yeah to see how it

turns out in the end. It didn't hurt them at all. [You think they made just as many gains in English as

they probably would have?] I don't know. I hope so. I don't know because maybe they just couldn't

click in to the second language. [Maybe they didn't make the gains in Spanish the way that other kids

did, but it didn't hurt them in terms of where their English is at?] Right. [That would be consistent

with what we know from other programs . . . that it's never hurt anybody in their English

development no matter what their level. Or where they're at. If it's developmental or if it is some

kind of disability or whatever it is. It's kind of hard to know sometimes.] And then those kids that

are at a disadvantage with a disability, they do need a lot of repetition to learn so if they are needing

more repetition to learn the English, I don't know. [They're good questions though.]

[Moment that stands out for you?] I was gonna say Hundreds Day Program because we did

that with more bilingualism than we've ever done before and what made me realize when the

preschool came to see us they already are doing so much stuff in Spanish that next year we've got to

pick up the pace because counting to 30 is no big deal.   So we can't make that a big deal because

preschoolers can do that, and they already know the weather song so well we'll just have to add a

little more to the top there. But I think I'm gonna change that answer because I think it was global

awareness. I think I became a more global thinker. I am a person that has lived in Rural Town, Iowa

my entire life and I now think that it would be fun to travel to other countries and see other countries

and I think that's exciting. I find it interesting to see how Juan and Marisa learned in their culture

and what would their kindergarten program look like and when would they finally take a field trip and

just spend a month maybe, whatever, you know? But I think that's opened up the door for that and

hasn't it opened up the door that people are people no matter where we are. People are people and so I

think it brought a lot of communication in. It brought learning. [It goes back to those relationships.]

Yep, that's the word, building relationships and connections. Globally and I think that's huge. [It is.

I think that's the biggest benefit.] And wanting to learn more about other people. You know, don't

get stagnant in your thinking this is the way the world is. [Has it made you look at people in the community differently? I mean just people that have been here, have just come here?] Well, I have to smile now when I go through town. [It's not just Hispanic.] No, but in Rural Town, when you stop at the stop sign and you see the Jewish fathers strolling their children across the street, and you see the Mexican fathers walking up the street to go to the laundromat, and you see the White women with their babies in their strollers walking on the other side of the street you have to just smile and go "Yep, here's Rural Town." But people aren't afraid of each other. You know this is commonplace. You go to the grocery store and you wait in line and you're learning. It's like, just smile. [It really is a unique place.]

[Challenges?] I think the scheduling. The scheduling is..is [Not ideal?] Well, to make it smooth for kids so they don't feel stress. It's that switching across the hallway was stressful the first half of the year. And I'm thinking how we can do that, and of course, the way would be to have biliterate teachers teach it. That would be the way because the switching was upsetting in the beginning of the year for them. Now it's routine, no problem. But I think if you had your kids in your own classroom you could connect things better from morning to afternoon if you were biliterate. I think Marisa has that option. I think that works better. So Juan and I had to plan really close, and when we did plan close things went pretty smooth, but then there were times when we didn't have time to plan as close as maybe we should. Like, say you have a child who's really having a tough day, always remembering to go back across the hall and say, "Oh, but I need to see so and so again at the end of the day" sometimes that discipline didn't always cross over because I got busy and forgot to go get so and so for the time-out. In a positive light, so and so is doing a great job with writing, but he didn't quite finish, could you help him finish that paper because he really wants to finish that story, but that didn't always connect like it should have. Let's remember this is the first year we have ever done this, so the second year we would be stronger with that. We would know each other better and we would say, "Well, yeah, you know so and so just started that paper and he was doing so good, he

needs a little more help could you find a little time in the day to help him finish? I know that would have happened had I walked across the hall and asked. No problem with that, but it was just [Like a mechanism that occurs or takes place without.] Otherwise what would happen is I would hold that paper until tomorrow and I would say, "Well, you didn't get it done, but when I see you tomorrow it's going to be here." And that works too, but I just thought if you had him in your whole day you would find that ten minutes to go back to that child and finish that paper in the same day. But they understood when I hold their paper and give it back to them the next day that we were going to work on it again, so they learned that was fine. There wasn't any problem, but I was just thinking that that would be better the second year around we could get closer. [Then you get the benefit of working out the kinks.] Yes, that's what we need to do.

The event that stands out this last year. I told you this story before, but I will repeat it again. I don't know if it's an a ha moment and it's such a small one. I wanted to think of something more monumental, but when this one English speaking student came to Mrs. Munyos and said, "Good morning Mrs. [Spanish-speaking teacher], I'm going to breakfast." And he said it in Spanish in two sentences in complete Spanish and she responds back to him in complete Spanish and I looked at her like . . . and she said, "Oh, he said, "Good morning Mrs. --, I'm going to breakfast." And I thought that shows that the gap was being bridged on the languages and I thought that was really neat. That was a moment for me to see that that could happen, and I bet that wasn't even half the year. I don't even remember when that happened, but I do remember seeing it, hearing it, and thinking whoa, that's really cool.

I learned that concept mapping skill from you and I think that that is just essential because, like we talked before, kids come with experiences, not the academic experiences that we're used to them having, but they're coming with experiences nonetheless and concept mapping brings them all together focused in on one topic, and they all feel connected to the topic because they can share something that makes sense to them or how they're making sense of this learning, and I think that

that's big. So I think that we're going to be doing that. [Getting back to a personal relevance?] Yeah, there you go. They all want to share and they're not scootching to the back of the carpet because they don't want to listen to you. They're all right there which brings back the motivation, which brings back the wanting to learn. [And I think too the caring because you're showing you care] About them, and what they know. And it makes you realize not to take anything for granted because you know when they come here you kind of think, oh they must know that. You must not think that. Don't think that anymore because you don't know what experiences they've had. You can't think they know that. You have to talk to them to find out what it really is. So I think that's a big one.

This program is needed in this community because all people, we're like 70% Hispanic here, and if we can't build communication between us the community is not going to grow in a positive way. The parents came to us and said but I can't teach to speak it. They couldn't teach their children to read Spanish and they can't teach their children how to write in Spanish very well. And so then when we brought this program in, we said but if you can keep on learning the Spanish, and we will teach them the English then both will grow. They were excited about that, and our parents were excited about their kids learning to read in their native language 'cause some of our parents do not read in their native language and this is exciting for them to keep that Spanish language growing, so this community needs this program. We really do. We need to keep it running because then when our young people are going home, years ago, last year when, they would help their families learn English. And they wanted to learn English. They're here, they want to learn our language, and they would do that for them. It's important that the parents pick up more of their speaking, and read in their native language. When our kids are going home with our books and our papers and they're explaining it to their parents, it's helping their parents grow and it's helping them grow in another new way. And keeping that language because we don't want to lose the Spanish and that's what happened years ago. You would spend all of your time on English and the kids couldn't even speak

the Spanish language when they got older and that hurt their families. So this program needs to keep going.

What I would change? Right now in Rural Town, I just think the switching of the kids back and forth, and having [all] biliterate teachers. [If you can achieve the half and half balance without having to switch.] That would be nice. I think we have to keep looking for more materials in the Spanish language, and that was an eye opener because I always thought Spanish was Spanish, so if I have workbook in English and it's translated in Spanish. Then Marisa and Juan would say that's not really Spanish, that's translated English, so bringing up [authentic?] Right..that's the word I was looking for-- (authentic). Having that authentic literature would open up the door a whole lot more, and if I went to another country and didn't have anything in my language, I would feel bad too. [Well, anything that's familiar to you. As in familiar stories and things that are essentially English, you know, like our nursery rhymes some of those things that are English.] And what a joy that is to learn that and then go and learn their poems, the other country's poems in another language. That just fosters all that much more too, more understanding, more caring, more. Our kids have caught that. I think they've caught that and I think that's really good. I was worried that we were too heavy social studies about Christmastime, that they math wasn't coming strong enough, but I think the wisdom of [the principal investigator] came back to haunt me and she said that it catches up, Jane. And it does catch up because now I think they're just as strong in math as if I would have just run the program like usual. We're adding and subtracting now and I feel really good about that. That we were able to get that far, so it does catch up. The brain has to have time to process and once it's kinda got it, you can still key in on the next subject. And letting kids take time to learn. [It just kinda clicks.] I was worried about the math, but the math is there now. We were all gonna to be there in the end, it was just the different way we were taking, so it made me wonder, but we got it! [That's really good to hear. Very gratifying!] I know it was good for me to see that. It does come! It comes around. [I think everybody has to experience things first hand before it really has meaning.] Isn't that the

truth! Which brings it back to why you put the flower in the hand first and then you give them the

worksheet.

Ana, Urban Elementary School   May 16, 2007

First I think you have to provide a positive environment and make it fun for the kids. If you make it fun and you provide a positive environment, the kids will respond to you. If you start a day negative yourself you have a negative day because the kids can feed into that. I believe that all kids can learn. You just have to get what they are at..the instructional level and then go from there. [Great!]

My most important job.   Make sure that kids don't kill each other. No, just kidding. [Besides that. 2nd most important job.] I think guide the kids, give them enough interest for the kids to learn, and to guide their learning and just give them the supplies and materials to guide their learning.

Provide a lot of opportunity for interaction, a lot of opportunity to produce the language, a lot of pictures, a lot of modeling. I think most of all it's a lot of visuals, visuals, visuals. That's my philosophy—visuals. Visuals say a lot. [They like visuals, don't they?] Then you can put a picture with a word. If you just say the word, they might not know what you're talking about, but if you put a picture with a word they know exactly what you're talking about. And besides the pictures, they need the time to produce. It's very important too.

They're endless. [What are the biggest ones?] They have access to two worlds, two cultures. And if you add to that then when they go to school..when they go to college [Do you see that in your room? I mean do you see that access to two cultures?] Oh, yeah! I mean just today, [English-speaking girl], just totally why, totally, she has a Mexican bracelet that has Virgen de Guadalupe on it. And all of those things. I'm like, "Where did you get it from?" Another girl had 2 and gave her one. They're just cheap bracelets, but they're totally Hispanic bracelets because you don't see, just little things like that. Like three months ago, there was one mother who brought a whole sheet of cake for the kids. Usually the Anglo just bring the cupcakes, but for them to see a whole sheet of cake for them to share it was kind of like. Just stuff like that. Mother's Day, we had, we celebrated Mother's Day the 10th

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and then we celebrated on the Sunday so just all those things to add. One mom came to me, [lilttle girl's] mom again, came to me and she said, "I'm just so happy with this program. Raven's doing so well we took her to Los Juanita's." That's a Mexican restaurant. She could order her own food and get it right. She knew exactly what she wanted. So the mom was saying, "I'm just so happy with this program." And this and that. She could just go and order when any other time she would be intimidated by the environment and the people and she wasn't because she could order her own food. [Wow! That's amazing!]

[Disadvantages?] None.

Strengths. Kids have bilingual. Kids who would be bilingual anyway because they came speaking Spanish. I've seen so much gain in those students compared to Spanish speaking kids who were in a regular kindergarten classroom and were pulled out for ESL. They don't start producing until after Christmas because that's until they start having enough language, having enough..or feeling comfortable enough. [Did you have kindergarten pullout before?] Yes, I did, so I'm comparing the gains that my kids are making here to the gains they were making last year. [In English] It's incredible! Six of my kids, more than six of my kids, but six of my kids are reading in English because they exceeded level 5 in Spanish and I mean just for the Spanish kids the advantage it's like amazing. I don't see any weakness with this program honestly. I don't.

When I first, last year, before I first started this program I felt that not teaching all day in English was going to put them back in their English, [in].learning their English. I'm thinking about that in Spanish, like the Spanish speaking kids. [Right, they would learn less English.] I thought they would learn less because they are half-day speaking Spanish and only half-day getting the English so I thought they're going to be behind. I've been so amazed of how well they have learned the English and developed their Spanish even farther. And even we have compared like lesson plans. We always look back at what she did last year for her kids. Our kids are way ahead of what she did last year so our kids are ahead of the regular ed. Classroom that she had. We're comparing what she had last

year. [Right. Which was all English?] No, it was ESL. [Right, but instructional in English. The kids were all mixed.] Right. [Spanish speakers..mostly Spanish speakers] Mostly Spanish, but it was all day English. It was not TWI. [Wow! That's exciting!] The kids are way farther ahead than her kids last year. I mean it's not the teachers. [It's the] same teacher. So it's actually the program. [That's congruent with what research shows too.] I never taught my kids to read in Spanish because I thought they're gonna get confused with English and stuff. Now, this summer, my job is to teacher my preschooler to read [In Spanish?] because if he can read in Spanish he's just gonna go (snap, snap of fingers) in English. My first two girls don't know how to read in Spanish because I never taught them. Well, my 3rd grader, she's starting to because I just have to tell her the rules since she already reads in English I just have to, [Right, she can transfer it now to Spanish] but if I would have done that with my 2nd child..taught her reading Spanish, she would just succeeded in English this year. I didn't do that.

[How many of your kids right now do you feel are reading strongly?] Out of my 18 kids that I started with..reading in Spanish, I'll say, strong? [Really strong readers. I mean definitely beyond kindergarten.] I have all of my kids reading except for two. One is going to be retained, but I say good, good strong readers. I say 14. [Wow! That's amazing!] I'm telling you I am so amazed of how well they can read. It's just like shocking. [I noticed just giving the surveys how many kids are reading in English. I was doing it in English. I was just amazed at how many are reading. "Cause they were moving ahead of me on the questions which was pretty amazing.] It is. My greatest challenge was having materials. That is my greatest challenge. I go to the stores, try to find things in Spanish. I don't find much. I've been having to make a lot of the stuff I use for reading myself. So that has been my greatest challenge. [Yeah, I think that's what other teachers are saying.] The other big challenge was speak when I knew half of them were not understanding me. That was very hard for me. I could not get used to the fact that I was talking and they were not understanding me, and now they understand. But even if I know there are some things they're not understanding

and it's all related to pictures and I read what you can, I know it's coming. But at the beginning I did a lot of switching just because when I saw that it was totally. I guess as a teacher when you see blank looks you do everything to get them to understand, and my last resource was switching and at the beginning I did a lot, which I shouldn't of. But it was what I had to do to survive. So that was my greatest challenge. Speak even though, [I think that it's hard for a teacher and I think that it's just a growth thing, but look how much now the kids have progressed so you don't need to do that.] I don't need to switch at all. One time I said a phrase in English and the kids automatically said, "This is a Spanish room." [That came back to bite you, didn't it?] You're right, it is a Spanish room.

Having so many that I have a hard time choosing one. I guess my greatest joy is when the kids are actually reading. That is my biggest joy. When I first started I have 4 kids who started reading a couple of weeks after the school started. I mean after I introduced the vowels and then introduced the consonants. [they were able to sound out words] I was like,..[It is easier to read in Spanish] It is. It is so much easier, but I was like, "I can't believe it. You guys never even told me, .a couple weeks. Maybe by the first nine weeks I had like five kids reading, not memorizing. [Just the sounding out words] Reading. [Wow! That's awesome!]

This was totally a new experience for me. I have never taught a regular ed. classroom. I've taught ESL pull-out, so I had to make a lot of adjustments to my teaching just because I was so used to anything different, so really it was like a learning experience for me, it was not a tweaking experience, it was a learning experience.

[You talked about the Spanish speaker you think gaining in English more rapidly. What else do you see, maybe on the affective side, .their social, their emotional interactions. What do you see from that perspective with the kids?] I feel that they don't see a difference like you're Spanish, I'm English speaking. [I'm Hispanic, you're Anglo] I don't see that. And even at recess time the kids play. Like at the beginning of the year we had Andy and Annielle(?). Andy did not speak a word of Spanish. Annielle, very, very little English. And they were best friends. [Wow! That's neat!] So

that was one of my goals this year, to have the kids interact as if there was no culture differences. And I see it. [That's one thing that we're looking at specifically between this program and the school program.] I also see a lot of attitude toward the Spanish. A lot of kids who knew some Spanish wouldn't use it because they were kind of embarrassed or things like that. Just like last year when I was teaching ESL pull-out, I had the kindergartners or first graders tell me their parents' last names or the parents' names. They were embarrassed to say their parents' names. They were totally Hispanic, and I had to start by saying my parents' names that sounded so Hispanic so they would start. This is, I'm talking about 6 kids who were all Spanish speaking kids. They were embarrassed to say their parents' names. Here I see the kids being proud of speaking Spanish, of being proud of their heritage. Which is awesome! [That is so awesome. I mean that is really what this program is for. Do you think they enjoy school more?] Definitely, definitely, because you're valuing their knowledge, you're valuing who they are, and who they are is important. It counts in school. It's not that they need to keep who they are at home and adapt a new culture here because whatever they are and who they are doesn't count here. [Right, they belong.] Oh, yeah! They enjoy the school a lot more and they're open more. [That's so great!]

[-Besides all of the materials that you could possibly want all the time at your fingertips.] Get more English-speaking kids in this program. I thought it was a great year, even though it was the first year. It was a great year. I feel very, very positive about the year. [Oh, me too. I think it's exciting to hear. If you think of it, write down little things parent shave told you. It is really powerful. Things parents have said about their kid and what they've gained. That what promotes the program to other parents. I would have my kids in here in a heartbeat.] I wish I could put my boy in a program like this. They go to Catholic schools. That just makes my job harder at home. I have to make sure they stay bilingual and it's hard. [It's hard, especially if you don't have enough books. When I look at my house and all the books I have in English. The books I have in Spanish is like 25, 30 to 1. It's harder to get. It's the reading that keeps their language. Keeps them biliterate. That's what helps with their

spelling, their grammar. It's just reading, reading, reading. There are more chapter books out now.]

I knew this was a good program when I started and it sounded so interesting, and I wanted to do it, and it appealed to me. I never, never thought it was going to have this much impact on the kids. I just never thought it was going to be so great. [-Jane in Rural Town said that too. She is so 100% support. this whole idea for the kids for the same reason. It affirms who they are. It also affirms who we all are globally, and she said for the first time she has a desire to travel and see places where these kids are from.]

Roxanne---Phone Interview; July 2007

From everything I learned this year especially is effective instruction like using props, realia, and hands-on instruction and a chance for the kids to use what they've learned and not just giving them information and having them tell it back to you, but like giving them a real-life experience to use it with.

I think it's a hard one because I think the primary responsibility is to kind of focus the kids' instruction on things that are useful. We've got the things that they need to learn, but there's also other things they want to learn so it's kind of wrapping it all up in one. Might have a content area they have to learn about, but it's making them well-rounded, I guess. Letting them learn the things that they want to learn within that content area, but also focusing them on the tasks that they have to know for future learning.

For ELL learners I think the biggest part is the language acquisition, but I think having bei able to, not just learn the language, but apply it. A lot of our kids come with some form of English, but it's usually social English and it's getting them to learn the academic English that is used in the classroom and being able to use that during instruction. For them to be able to participate.

For students, I think that as they get done with school it opens up so many more doors for employment opportunities, but just being in school, just look at the way the world's changed since

any of us were in elementary school, there's so many more languages in school and to be able to communicate with your peers better is always important. It opens the doors for them to learn about more cultures and just being able to get to know the world around them a little bit better before they're actually in the world.

I think it makes their, I don't know that I see it as a real disadvantage. I think it's a challenge. Learning 2 languages while in school increase their stress level and anxiety level. It could. We didn't see this this year at all, but it could technically if you're learning another language you are so focused on the language that maybe you are not as involved in the instruction part or not as involved in the learning or the content material. It could serve as a deterrent to that, but I don't think it would, but for some kids it might be too stressful or too distracting.

Definite strengths are opening kids' eyes to different cultures. Obviously becoming bilingual, hopefully biliterate. Other strengths..it's fun..that's never a bad thing. I think it just gives them so many more opportunities in school to learn new things that some of their peers aren't learning. Weaknesses---it's hard planning wise. You have to be on the same page consistently. Materials are harder to find. With Spanish, or any language at the elementary level, there's not an over-abundance of materials. I think it's becoming easier to find them, but I think that as the process or this program continues it will be easer, but starting out it is just so hard to find ways to help the students with their learning because we have a lack of materials. I think that the biggest weakness is not having enough stuff to teach with. [-Especially for you having had 5 years with built up materials.] It is gonna be a transition.

I think just, even though I taught the English side, I still, I've always seen the growth my ESL students have made. That's always been my greatest triumph is at the end of the year seeing how far my really low English kids how come. [Yeah] Now to be able to see that in both aspects, seeing my little English speakers speaking so much Spanish. Whenever I would sub for Ana or whenever I was in her room it just astonished me because I didn't hear that in my classroom because it was the

English side. I'm always amazed at the language level, and this year especially I think my biggest

triumph is these kids leaving this program is higher than any other kindergarten class I have ever

taught. [Wow!] I just feel like they've made leaps and bounds above where my kids used to leave at

the end of the year. I don't think it's just the class of kids. They may be a smart class of kids, but

I've had smart classes of kids that are not at the same level intellectually. Grade wise they might be

the same, but intellectually I think these kids are just at a different level. [That's exciting!]

The greatest challenge I think has been planning because I've been working in the Sioux City Schools

for five years, and I've not done the same thing every year, but I had my first year of teaching where I

had to develop at lot of things and then after that it was smoother sailing so this year going away from

the way Sioux City usually teaches I was trying new concepts, new methods, it's been gross, but it's

also been taxing. [Oh, yeah! I mean looking back on it how do you feel about it?] I feel really good

about it. I feel like this is the right step for me professionally. I feel like it was the right step for me

personally. I feel like if I hadn't done this, I wouldn't be teaching kindergarten anymore. I was

getting to the point in my career where I was getting bored. Everything was so predictable. You still

do your best everyday, but I was just getting tired of it. I felt more like a babysitter instead of a

teacher somedays. [Kind of in a rut?] Yeah. So I feel like if I hadn't made this change, and the same

with teaching Spanish next year, I feel like if I hadn't decided to make that change I'd be looking for

a different position. Even though it was new and exciting this year, it was still kindergarten and I just

feel like adding the Spanish onto it is gonna be more of a challenge for me. [Yeah, that's exciting!] I

feel like it was the right step, even though I have a feeling I gonna have migraines next fall. [You

might not know what you've gotten yourself into.] I know. [All of your experience is gonna be such

a help and you have Ana and that's what's so great; you have support in the building.] Yeah, that's

going to be paramount. [I'm excited about it. I really am excited just about the whole team. I think

it's gonna be a really great year.]

I have two. I have a funny moment that I shared with Ana. And her room, she's very strict about this is a Spanish room you must use Spanish. And she has made that statement and the kids even know, you walk into the room and if you're speaking English they swill remind you it's the Spanish room. And they remind each other and they tattle on each other, but the funniest thing is something that I overheard in my room because I really have not been a stickler for it. In my years of ESL training I've kinda gone to the notion that whatever language they're using is language that they need to be using at the time. I've never really made that statement in my room that it's the English room and we only speak English. During instruction, I've always said, "How can you tell me that in English?" During independent time I've never made that statement and one of our little boys, they were talking about..one of them said something to the other in Spanish and my little Armondo said, "Yeah, it's ok if we use Spanish in here because Mrs. Woods doesn't care if we use Spanish. She's the nice one." "No, we can speak any language we want because she's the nice one." [Hilarious!] It was just so funny. I told that to Ana and said this is how much of a stickler you are because they think I'm nice because I don't care what language they use. [That is a riot and a half.] Another great moment, at parent-teacher conferences, and I wasn't at the second set of them because of my baby being born.   Even in the first conference I was having parents say to me, "They are using so much Spanish at home. And they're so excited. We're so excited about this program." And to have kids that moved away for a short period of time and then have come back and their parents wanted them in the program again. Just to see the excitement with the parents is the biggest thing because the parents have to buy into it. [Oh my, yes!] So I think just seeing the parents buy into it as quick as they did was a real exciting moment for me whenever I would talk to them. [That's great!]

I think I teach more concept-based now. I have always used themes, but I don't think I delve into them as deeply as I could. And especially with the concept-mapping that we did this year, that was something that was very new to me. I was reluctant about it, but after doing it once, I'll never do it any other way. I guess just delving into concepts deeper and the kids get more involved. I have

always done hands-on things, but when you get deeper into a concept there's even more opportunities for application. [Did you see the kids relating to it differently?] I think they brought more of themselves into it. Before whenever we would talk about a concept we learned stuff and the kids knew what they knew. I just felt like they brought more of their life experiences into it. They were able to say, like after fire safety week, we went home and we did this and we did this, and at my house we do it this way. I just feel like they made it more personal. [Oh, that's neat! That's really neat!] They come from so many different walks of life. [I know and next year a whole new crew.] Oh, my gosh, I know!

I think providing them instruction in their first language for guided reading has really helped. I feel like the kids that we transitioned from the Spanish room to the English room for guided reading are far and above where kindergarteners should be. They're reading at level 7-10, and the only thing holding some of them back was comprehension. They could read it, but could they tell you about it? Because they're getting the instruction of both languages and because they're learning to read in their own one, the transition has been so much smoother. I wish that for my kids that I had in the past years, they were able to experience that because so many of them probably can't read in Spanish. They can read in English, but their comprehension is so low they are still in lower reading groups. I feel like, I hope this program can continue on and get them out of elementary school so that they will be higher than their peers for sure. It just helps having that [that solid foundation] yeah. [I agree. I mean it's, they understand that you read to understand what the message is and when they're doing that in their native language they can. So they're just reading words out loud to make a nice sound.] I don't know. I'm tempted to say a magic teachers edition that has..like you get with your math, language arts, teacher's editions. The two way immersion teacher's edition that you don't have to come up with anything, but at the same time I think about it and even when I was using the Sioux City Schools teacher's editions that they provided I'm still doing things differently. I'm not even sure that that would be a change. I guess [Maybe all of the books that you need to support what you were

trying to teach all the time] Yeah, that would be nice. If there was some big curriculum out there with here's what you teach and here's the stuff you use with it. You don't have to make those decisions on your own. (HK___Or you don't have to dig for the right book, the right materials] Or the day when you come and you're so tired and you just don't feel like being creative, there it is. Someone's done the work for you.

Marisa   October 26, 2007

The teacher needs to be a model, needs to have a personality to be a good example for the students.

For me, it's a main thing because children copy everything.

And then have a hands-on activities that the teachers use, and lead the students to participate. They

need to be active, because if it has a meaning for them they will learn better.

Yes, because if we talk with them, we let them know everything, we don't let them discover anything,

it's not important, they will not remember the next day, I think.

To look for activities that have challenge, for kindergarten there are some objectives we have to

reach—we have to make sure they have some challenge, not be too easy for the students. That's the

main thing.

ELL? Probably not—(would not look different). In Peru, I was working with kids who are

hard of hearing, and most of the things I learned over there I used with the kids who learn normal,,

because they learn better if they have more help, like, more resources, materials, and they will get

everything that you are giving to them.

Advantages? They will have probably more open minds, first—to be able to have two

languages, you will look for more information—you learn about cultures, traditions, celebrations.

Too much more information, like if you only speak one language—it's not only the language you

learn, but everything behind the language we can give them, too. When they are young, they learn

better each year.

The process of learning will be slowly (sic), she learned her reading in Spanish. She will

transfer all that knowledge to English but that will take, we have to know they will be slower, but

they will reach that point where they will be the same level. That's a long process—it's not

something you will see right away, like in one year.

Strengths/weaknesses: Strengths are like, the kids will be able to learn better and more stuff

than traditional way to teach. They will have more more more information than the normal or

traditional class. Like, probably the time you have to spend, that will be the hard part—you have to work really hard, because everything that you want to teach probably will be hands-on, an the teacher has to do it! That's so difficult—in theory, you can say you have to do hands-on, but it takes a lot of time.

Maybe if they have this program, they can save things—materials you can re-use every time. They have to know that this is really special, so they can help too.

If something costs you, you will appreciate it more. Therefore, if the parent helps his child learn, they learn better. If they are not involved, well, they're learning Spanish, but it doesn't matter as much to them. In my classroom? Yes—lots. They brought things in, were very attentive—and always communication by phone, to let them know what's going on in Spanish class. Because if they don't read, I knew I could contact them by phone. And also, they feel they are part of the school, they're important. And this is something very important, the parents, the latino parents that for one reason or another are here in the U.S., think that they are only visitors here. And if you are a visitor here, you won't care as much about the school as if it were yours. So they think they're visitors, but I call them and tell them they're not visitors and get them involved and they feel a part of the community. That's what I want them to know., and they feel much more proud, because they feel they can help, and don't feel like, why should I get involved, I might do something wrong—or they're afraid. So when the teacher keeps up the communication, the parents develop trust, and asks more questions and everything—and the students improve.

Greatest triumph? The kids learn about traditions, and its amazing to see the Hispanic kids, that they were born here and they don't have a clue—really, it was new for everybody. I think my daughters will learn everything about that, you know, you just assume. We were teaching, and we were like, it's so amazing. At the beginning, the American kids, they knew not to touch, and that's ok. And that's so different from us. For us not to be able to hug—that connection is like, ok. But

probably at the middle of the year, they were expressing more. The Hispanics, right away, they came to me and gave me hugs. And academically, they learn a lot in Spanish, in both.

As teachers, we are always measuring what they learn, but for me the most important part is they will develop habits for being able to study—not the concepts, because in kindergarten they have to have a strong ability to sit and listen and learn. You can see the difference from one teacher to another level, because you will have students from different teachers. Like I said at the beginning, your way to teach, how you are in your classroom—and we were trying to have fun in the classroom. Because you know, they kids have way to much stress at home, you know? If you see a little bit more than your student just sitting in your class, if you just look behind—what each child comes from. SO, try to invite them to be in the class, and try to do a lot of movement in class. That was a routine in the morning, and they get used to that and they are so happy.

Probably, I had some parents who needed to work—they were not really involved. And that was hard to see that, and see the student have difficulty. See they are learning, but slow—not because the child can't do it, but because the child lacks the environment to do it. That was a challenge for me.

Big moment? When we had the 100s day—it was really good. I was so amazed at how the parents were so excited, and they brought tamales—we had 100 tamales, almost one hundred. Everybody got one tamale. They were so happy. The kids sang in English and in Spanish—all their knowledge. And that was so good. And they were so proud—that was a really good feeling for me. Those kids were really really involved.

Last year, those boys had a really hard time with Mr. [Juan]. At times, it doesn't seem they're learning anything, but the contact you had with the teacher was full of caring, very Latino—they are much more sure of themselves, in their personality. I'm not sure they learned much, but they did about themselves.

The body language—with Latinos, they stand much closer to each other. With Latinos, body language is different—personal space.

Something that I would love, if I were still teaching dual language, would be to have an account so I could buy things I needed. You can't know what you're going to need before you need it. Sometimes there are things you need to buy—if only things were cheaper!

Yes—hands-on is a lot. For example, when we wanted to do celebrations. But after, when you see the happy faces, it's worth it!!