

EDUCATIONAL POLICY AND SCHOLASTIC COMPETENCE AMONG ENGLISH  
LANGUAGE LEARNERS

by

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## DEDICATION

*This work is dedicated to my husband, Javier López, who has encouraged, supported, and inspired this journey; and my children, Javier, Diego, and Anni, who have given me the desire to see the world through their eyes.*

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## ABSTRACT

In this study, I explore the potential impact of differing educational policies and reform efforts that influence state and federal standards-based assessments and their interpretations. Specifically, I examine the educational policies of Arizona (Structured English Immersion [SEI]) and Texas (bilingual education) for their effect on the belief systems of students, parents, and teachers. I also examine the role of identity and language in the motivation to learn and student disposition toward school among English Language Learners (ELLs). In support of a co-regulation model of emerging identity, acculturation, acculturative stress, and student perceptions of scholastic competence, student disposition toward school, and student motivational dynamics contributed to the accurate prediction of 77.5% of the participants' group membership in either SEI or bilingual education. ELLs in bilingual education had higher perceptions of scholastic competence than ELLs in SEI ( $d = .54$ ). Four types of dispositions toward school, *Pride in Achieving*, *Participation and Belonging*, *Literacy*, and *Math*, were higher for ELLs in bilingual education than for ELLs in SEI. Contrary to the hypothesized results, however, there were no differences in the *Rigid and Right* disposition between ELLs in SEI and bilingual education. In reference to motivation, scores on *Disengaged and Distracting* were higher for ELLs in SEI (Arizona) than for ELLs in bilingual programs (Texas). However, contrary to the hypotheses, *Good Worker/Engaged Learner*, and *Struggling and Persistent* were higher for ELLs in SEI than for ELLs in bilingual programs. I conclude by discussing the potential impact of differing educational policies and reform efforts on the belief systems of ELLs, their parents, and teachers.

## **CHAPTER 1**

### **INTRODUCTION**

American schools are increasingly diverse and differences in student achievement align with ethnicity and socioeconomic status. The No Child Left Behind Act of 2001 (NCLB) proclaimed closing the “achievement gap” as a national priority. NCLB specifically addresses those groups that are in heightened jeopardy (“at-risk”) of dropping out of school. Included among the at-risk populations are students who have not mastered the English language, also referred to as Limited English Proficient (LEP) or English Language Learners (ELLs). Despite an attempt to address aggressively the achievement disparity with NCLB, ethnicity, socioeconomic status, and gender continue to be the dominant predictors of academic success (US Department of Education, 2003). Much of the recent research on the academic achievement of minorities has focused on the influence of socio-economic status (Battle & Pastrana, 2007; Sirin, 2005). However, although just over 60% of both Hispanic and African American children live in low-income families (National Center for Children in Poverty, 2006), 22.4% of Hispanic youths drop out of school compared to 10.4% of their African American counterparts (US Department of Education, 2007). Further, the post-secondary educational attainment of Mexican American students is 18% lower than that of other Hispanic groups (Garcia & Bayer, 2005).

The federal government has defined the achievement problem of public schools; however, individual states are responsible for solving it. Despite analogous goals across states (i.e., closing the achievement gap), the interpretations of federal policies at the

state-level may more accurately reflect political climates than evidence-based instructional practices. For ELLs in particular, states' interpretations of NCLB can result in dissimilar philosophical frameworks and instructional opportunities for the acquisition of English, which may result in disparate opportunities for academic achievement.

### ***Purpose and Rationale***

Consequences that arise from testing programs that inform policy must be evaluated (Cronbach, 1982). The interpretations of ELL achievement on state and federal standards-based assessments have resulted in disparate language acquisition policies in two states: the structured English immersion (SEI) policies of Arizona (AZ) and the bilingual education approach of Texas (TX). Researchers have affirmed the importance of viewing the academic achievement among minority students from a *within-group perspective*, abandoning the traditional between-group or *deficit model* (Gallimore & Goldenberg, 2001; Meece & Kurtz-Costes, 2001). My research builds on a within-group perspective and explores the potential impact of differing educational policies and reform efforts that influence state and federal standards-based assessments and their interpretations. Specifically, the educational policies of Arizona (Structured English Immersion [SEI]) and Texas (bilingual education) are examined for their effect on the belief systems of students, parents, and teachers. I also examine the role of identity and language in disposition toward school and motivation to learn among ELLs.

In a preliminary study (López, 2008) I explored acculturation, parent beliefs, and teacher beliefs about student scholastic competence as predictors of scholastic competence perceptions among Mexican American elementary students in Arizona.

Students completed *The Brief Acculturation Rating Scale for Mexican Americans-II* (ARSMA-II; Cuéllar, Arnold, & Maldonado, 1995) and *The Self-Perception Profile for Children* (Harter, 1985). Both parents and teachers completed a scholastic competence rating scale (Harter, 1985) to describe their beliefs about their children or students, respectively. Data were subjected to a multiple regression design using teacher ratings, parent ratings, and acculturation (ARSMA-II scores) as predictor variables and student scholastic competence ratings as the outcome variable. The model was significant,  $F(3, 12) = 4.01, p = .05$ , accounting for 43% of the variance (Adjusted R-square). However, contrary to extant research (Eccles-Parsons, Adler, & Kaczala, 1982; Jodl, Michael, Malanchuk, Eccles, & Sameffoff, 2001; Wigfield, Eccles, Yoon, & Harold, 1997), when each variable was examined separately, only the teacher ratings were significant. Additionally, contrary to acculturation theories (Ryder, Alden, & Paulhus, 2000), students were found to be primarily assimilated despite generational status and proximity of the homeland. One of the marked differences between the extant research and the preliminary study is the sample (i.e., only students of Mexican descent participated in the preliminary study whereas there is ample variability in the extant research). The incongruence of the preliminary findings with those in the extant research suggested the need to explore further the differences among prior studies and in variables related to the academic achievement among Mexican American ELLs in particular.

### ***Research Questions***

It was necessary to contextualize the climate of recent reform efforts intended to close the ELL achievement gap before exploring the belief systems of students, parents, and

teachers and role of identity and language in the motivation to learn. I used the following research questions to evaluate the relative academic achievement of ELLs in the context of different educational policies regarding language acquisition in AZ and TX:

1) Is there a difference in the proportion of 4<sup>th</sup> grade ELLs in AZ and TX who meet the minimum state proficiency standards as determined by the Arizona Instrument to Measure Standards (AIMS) and the Texas Assessment of Knowledge and Skills (TAKS), respectively? What is the magnitude of the difference?

2) Is there is a difference in Reading National Assessment of Educational Progress (NAEP) scores between 4th grade ELLs in AZ and TX? What is the magnitude of the difference?

3) Is there a difference in the proportion of 4<sup>th</sup> grade ELLs in AZ and TX who score *Below Basic* on NAEP Reading? What is the magnitude of the difference?

The following research question is included to evaluate whether ELLs in AZ have improved since SEI replaced bilingual education:

4) Have ELLs' scores on Reading NAEP increased since 1998? What is the magnitude of the increase?

I used the following research questions to explore the impact of differing educational policies on the belief systems of students, parents, and teachers, and their relation to student achievement:

5) Are there differences between ELLs receiving SEI in AZ and bilingual education in TX on measures of acculturation, acculturative stress student, parent, and teacher

perceptions of scholastic competence, student disposition toward school, and student motivational dynamics? What is the magnitude of each mean difference?

6) Do acculturation, acculturative stress, student scholastic competence, student disposition toward school, and student motivational dynamics variables correlate with student membership in SEI and bilingual programs? What are the effect sizes?

7) Are parent and teacher beliefs of scholastic competence predictors of student scholastic competence for ELLs in SEI? Are parent and teacher beliefs of scholastic competence predictors of student scholastic competence for ELLs in bilingual programs? What is the effect size? Is there differential predictability?

8) Are student disposition toward school variables predictors of student scholastic competence for ELLs in SEI? Are student disposition toward school variables predictors of student scholastic competence for ELLs in bilingual education? What is the effect size? Is there differential predictability?

9) Are student motivational dynamics variables predictors of student scholastic competence for ELLs in SEI? Are students motivation variables predictors of student scholastic competence for ELLs in bilingual education? What is the effect size? Is there differential predictability?

10) Is there an impact of reading proficiency, as measured by prior-year reading state-assessment results, on levels of acculturation, scholastic competence, student disposition toward school, and motivational dynamics for ELLs in SEI? Is there an impact of reading proficiency, as measured by prior-year reading state-assessment results, on levels of

scholastic competence, acculturation, disposition toward school, and motivation for ELLs in bilingual education? What is the effect size?

***Expected Results***

I propose the following hypotheses based on research supporting bilingual education:

H<sub>1</sub>: A greater proportion of ELLs in TX will meet state proficiency standards than in AZ. I anticipate at least a small difference ( $h \geq .20$ ).

H<sub>2</sub>: The mean NAEP Reading score for ELLs in TX will be higher than the mean NAEP Reading score for ELLs in AZ. I anticipate at least a small difference ( $d \geq .20$ ).

H<sub>3</sub>: TX will have a greater proportion of ELLs scoring *At Basic* and higher on NAEP than AZ. I anticipate at least a small difference ( $h \geq .20$ ).

H<sub>4</sub>: There will be no difference in the NAEP Reading scores for ELLs in AZ from 1998 (when bilingual education was the method of language of instruction in AZ) to 2005 (when ELLs in AZ would have received SEI throughout their elementary school years). There will be no difference in the NAEP Reading scores for ELLs in AZ from 1998 to 2007. I anticipate a negligible difference ( $d < .20$ ).

Given the current understanding of acculturation, acculturative stress, student scholastic competence, student disposition toward school, and student motivational dynamics, the following hypotheses were proposed:

H<sub>5A</sub>: There will be a higher proportion of ELLs in SEI meeting the criteria for assimilation than ELLs in bilingual programs. I anticipate at least a small difference ( $h \geq .20$ ).

H<sub>5B</sub>: ELLs in SEI will have higher means on *Acculturative Stress* and *Perceived Discrimination* than ELLs in bilingual programs. I anticipate at least a small mean difference ( $d \geq .20$ ) for each subtest. There will be no difference in means on *General Stress* between ELLs in SEI and bilingual education. I anticipate a negligible difference between the means ( $d < .20$ ).

H<sub>5C</sub>: ELLs in bilingual education will have higher student, parent, and teacher perceptions of scholastic competence than students in SEI. I anticipate at least a small mean difference ( $d \geq .20$ ) for each group (students, parents, and teachers).

H<sub>5D</sub>: ELLs in SEI and bilingual programs will differ in disposition toward school. ELLs in SEI will have higher means on *Rigid and Right* than ELLs in bilingual programs; ELLs in bilingual programs will have higher means on *Pride in Achieving, Participation and Belonging, Reading and Literacy, and Math* than ELLs in SEI. I anticipate at least a small mean difference ( $d \geq .20$ ) for each of the subtests.

H<sub>5E</sub>: ELLs in SEI and bilingual programs will differ in motivational dynamics. ELLs in SEI will have higher means on *Anxious and Withdrawn* and *Disengaged and Distracting* than ELLs in bilingual programs; ELLs in bilingual programs will have higher means on *Good Worker/Engaged Learner* and *Struggling and Persistent* than ELLs in SEI. I anticipate at least a small mean difference ( $d \geq .20$ ) for each of the categories.

H<sub>6</sub>: Acculturation, acculturative stress, student scholastic competence, student disposition toward school, and student motivational dynamics school will be correlated

with student membership in SEI and bilingual programs. I anticipate at least a small effect size ( $R \geq .10$ ).

H<sub>7A</sub>: For ELLs in SEI, there will be a direct relationship between teacher and parent ratings of student scholastic competence and student ratings of scholastic competence. I anticipate a large effect size ( $R > .40$ ) based on the results from the preliminary study.

H<sub>7B</sub>: For ELLs in bilingual programs, there will be a direct relationship between teacher and parent ratings of student scholastic competence on student ratings of scholastic competence. I anticipate a large effect size ( $R > .40$ ).

H<sub>7C</sub>: There will be differential predictability between bilingual and SEI students' scholastic competence predictors.

H<sub>8A</sub>: For ELLs in SEI, there will be a direct relationship between students' dispositions toward school and student scholastic competence. I anticipate at least a small effect size ( $R > .10$ ).

H<sub>8B</sub>: For ELLs in bilingual education, there will be a direct relationship between students' dispositions toward school and student scholastic competence. I anticipate at least a small effect size ( $R > .10$ ).

H<sub>8C</sub>: There will be differential predictability between bilingual and SEI students' scholastic competence predictors.

H<sub>9A</sub>: For ELLs in SEI, there will be a direct relationship between students' motivational dynamics and student scholastic competence. I anticipate at least a small effect size ( $R > .10$ ).

H<sub>9B</sub>: For ELLs in bilingual education, there will be a direct relationship between students' motivational dynamics and student scholastic competence. I anticipate at least a small effect size ( $R > .10$ ).

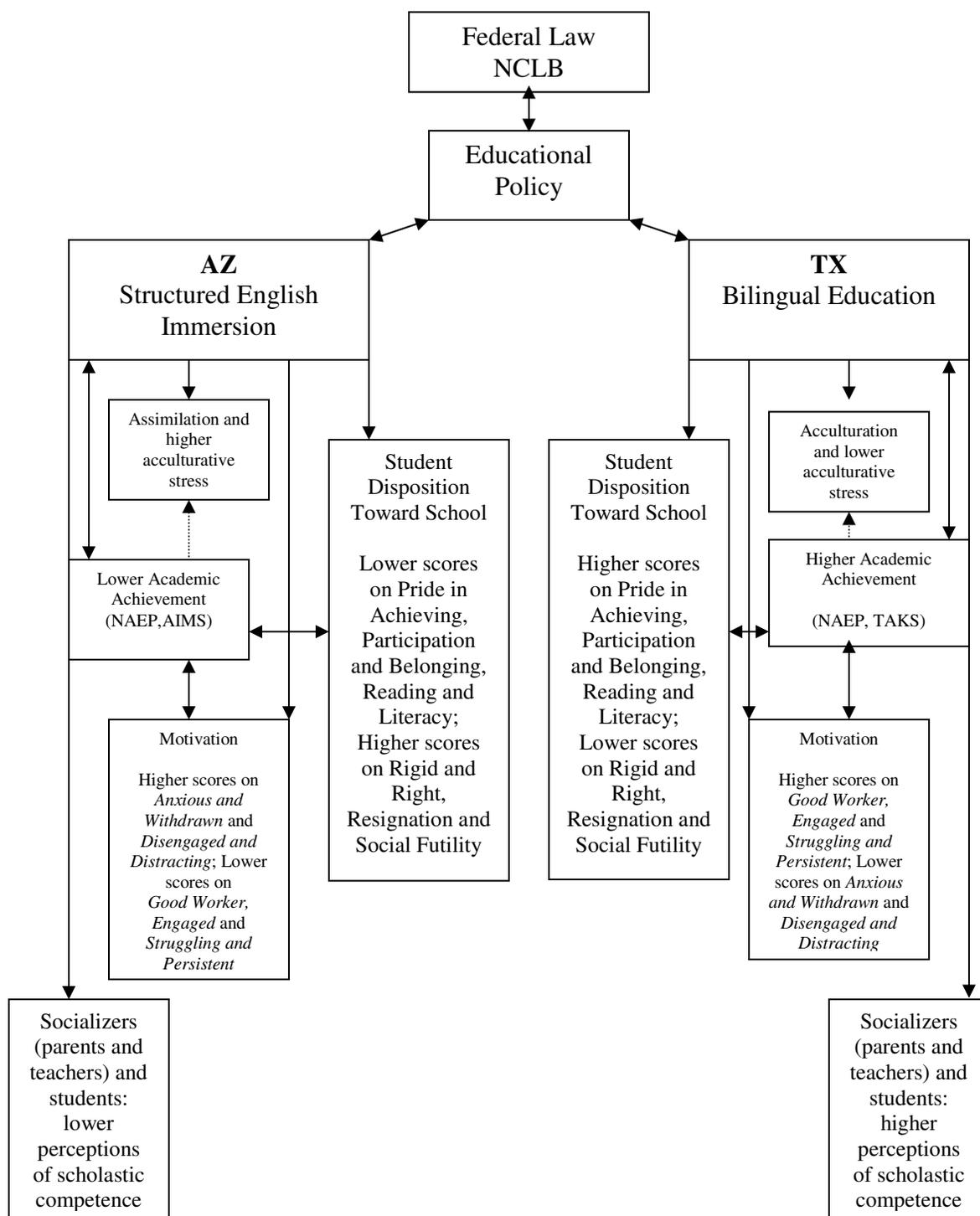
H<sub>9C</sub>: There will be differential predictability between bilingual and SEI students' scholastic competence predictors.

H<sub>10</sub>: There will be an impact of reading proficiency on levels of scholastic competence, acculturation, student disposition toward school, and student motivational dynamics for ELLs in SEI. There will be an impact of reading proficiency on levels of scholastic competence, acculturation, student disposition toward school, and student motivational dynamics for ELLs in bilingual education. I anticipate at least a small effect size ( $\eta = .10$ ).

**Figure 1**

**Hypothesized Conceptual Framework for Educational Policy and**

**ELL Academic Achievement**



## CHAPTER 2

### LITERATURE REVIEW

#### *ELLs and Educational Reform*

One of the pervasive issues related to educational reform efforts that attempt to ameliorate the achievement gap for ELLs is that proponents of language acquisition philosophies adhere to conventional wisdom that has little—if any—empirical support. For example, many who favor bilingual education claim that it is the dissonance between the home and school language that creates the need to instruct ELLs in their native language (i.e., students cannot learn in a language that they do not understand). In contrast, many who favor SEI claim that the bilingual education argument is illogical in its implication that ELLs will achieve higher in English with less English instruction (Cummins, 1981). A substantial body of knowledge and empirical research regarding language acquisition (Cohen & Swain, 1974; Salazar, 1998) easily discredits both arguments. Unfortunately, research in psycholinguistics is often untapped by politicized proponents of either language acquisition method. However, there is evidence in favor of bilingual education, which I review in the sections that follow.

#### *AZ: Structured English Immersion*

In 2000, SEI replaced bilingual education in AZ via Proposition 203 (2000). Proposition 203 was promulgated on a platform that attributed the poor performance and high drop-out rates among ELLs in Arizona to the method of language acquisition (i.e., bilingual education); however, bilingual education programs were only serving approximately 30% of the ELL students in Arizona. Policymakers who favored

Proposition 203 ignored other possible factors that may have contributed to sub-standard student achievement aside from bilingual education. One possible factor is the lack of consistency in implementation of bilingual programs, compounded by issues such as a lack of qualified teachers trained in the specific program methodologies. Additionally, the attempts to address the needs of ELLs have yet to provide operational definitions of the various programs designed to meet the needs of ELLs.

Proposition 203 is modeled after California's Proposition 227 (1998). It defines bilingual education as "a language acquisition process for students in which much or all instruction, textbooks, or teaching materials are in the child's native language other than English." However, the extant literature on bilingual education programs delineates English as an integral part of the language-acquisition process, albeit during various times, depending on the program philosophy (Slavin & Cheung, 2003). Ron Unz, the chairperson of a financial services software company, provided 81% of the funding related to getting Proposition 203 on the ballot (Ryman, 2001). Unz succeeded in eliminating bilingual education in California with Proposition 227, and later eliminated bilingual education in Massachusetts. Although Unz attempted to repeat his success in Colorado, voters overwhelmingly voted against Unz's initiative (Escamilla, Shannon, Carlos, & Garcia, 2003). Unz responded to the concern of bilingual proponents regarding young children falling behind in academic subjects during the year they acquire English via immersion in an interview with Margaret Warner (1997). Unz stated, "At the age of five years old, the only academic subjects a child is really doing is drawing with crayons or cutting, and you know, with paper and that type of thing." Considering Unz's

statement was made prior to NCLB standards-based assessments, it is clear that there is a lack of cohesion between his (and other policymakers') perceptions of the academic curriculum and that which actually exists in American classrooms because of NCLB. A research-based rationale Unz used in formulating his "English for the Children" platform included studies conducted outside of the United States wherein language immersion is commonplace (Glenn & de Jong, 1996). According to Glenn (2003):

My disillusionment began when I noticed Hispanic students statewide doing poorly on all academic achievement measures. My study to learn why hundreds of these students remained five or more years (in some cases, eight or nine) in bilingual programs without developing English proficiency found that many of their teachers were very weak in English and untrained to implement the curriculum required to succeed (p. 44).

Rather than focus on the problem associated with teachers' lack of skills in the students' native language and the required training to implement the curriculum (Guerrero, 1999), Glenn's search for comparisons in the education of language minority students in other countries ignored many variables that contribute to the poor performance of Hispanic students. Teacher quality is a variable that contributes to student performance across racial and socioeconomic considerations; however, Glenn completely ignored this variable. Additionally (and perhaps most importantly), Glenn overlooked the extant research on language acquisition and the importance of the contingency of whether children have received formal academic instruction in their native language.

In AZ, SEI has replaced bilingual education for ELLs. Although SEI includes provisions for providing instructional support for ELLs, the lack of training has resulted in confusion as to the curricular details of SEI among teachers. For instance, some students are in classrooms that have SEI teachers, while other students are placed in a mainstream classroom, and pulled out once a week for thirty-minute lessons. In cases where students are taught by an SEI teacher, there is still a lack of clarity as to how much native language can be used, among other issues that have yet to be clarified (Combs, Evans, Fletcher, Parra, & Jiménez, 2005). Moreover, even though Proposition 203 proposed SEI as an alternative for bilingual education, teachers in SEI classrooms have yet to receive training (ADE, 2007). That is, even though Proposition 203 was written in a way that assured that students would receive federally mandated language instruction, it has been over six years since SEI became Arizona's method of instruction for ELL students. Teachers have only recently been required by the state to receive SEI-endorsement, even though the requirements to teach ELL students have been in effect for decades, and further enforced by NCLB.

***TX: Bilingual Education***

The simplification of bilingual education reflected in the definition outlined in Proposition 203 neglects the English language acquisition component that is part of the operational definition of bilingual education. In Texas, bilingual education programs are required to:

Introduce the school environment using the child's first language; develop the child's language skills in both the first language and English; teach

subject matter and concepts using both languages; and help the child develop a positive self-image through an appreciation of his or her cultural heritage (State Board of Education [SBE], 1971).

Contrary to the politicized educational reform efforts aimed at the language acquisition of ELLs, the debate concerning the best method to address the language acquisition of ELLs is not dichotomous. Some conceive the issue of language as a deficiency to be rectified; others view language as an attribute that merits anti-discrimination protection; and still others assert language as a cultural tie that commands preservation (Hornberger, 1990). However, the issue of language acquisition for ELLs has never been *whether* ELLs should learn English; rather, the issue at hand is that students' rights to an education be granted by means of the most empirically-supported methods.

The *Interdependence Hypothesis* ([IH]; Cummins, 1979) asserts that for individuals who have not had formal schooling in their native language, academic instruction in the native language fosters academic proficiency (in the native language), which influences the effective transfer of knowledge or proficiency to the second language given sufficient exposure to the second language. The underlying framework for IH is based on the now widely accepted premise that there are two levels of language: *Basic Interpersonal Communicative Skills* (BICS or “conversational language”), and *Cognitive Academic Language Proficiency* (CALP or “academic language”). The evolution of the BICS and CALP distinctions are a reflection of the evolution of psycholinguistics from a behavioral position to one that views language as a cognitive

process best examined at the level of meaning (Huguet, Vila, & Llurda, 2000).

Researchers using the IH framework have found that although it takes only one to two years for individuals to acquire BICS, it takes at least five to seven years for the acquisition of CALP (Cummins, 1981). Bilingual education is based on this body of knowledge.

The Bilingual Education Act of 1968, which provided federal funds to encourage native-language instruction in classrooms, passed during the climate of the civil rights movement. Although it is often believed to be the first time states enacted laws to provide equitable education for their non-English speaking populations, Gonzalez (1979) documented the long history of bilingual education in the United States. Prior to World War I, instruction in English and students' native language was commonplace, and often implemented without state sanctions. Among the languages spoken in classrooms were German in Ohio, French in Louisiana, Spanish in New Mexico, as well as a variety of other languages across the United States. Fears inherent in the war climate of the 1920s generated English-only laws to "Americanize" non-native-speaking individuals and led to the dismantling of bilingual programs nationwide.

In the late 1950s, two historical events set the stage for the reintroduction of bilingual education in the United States. First was the Soviet Union's successful launching of Sputnik in 1957, the world's first artificial satellite, that resulted in curricular reforms in math, science, and foreign language instruction. The second was the Cuban Revolution of 1959, which led to an influx of Spanish-speaking exiles to southern Florida. The success of the bilingual programs that were introduced in Florida to

accommodate the needs of their new residents gained the attention of Texas, New Mexico, and California, which soon implemented similar programs (Gonzalez, 1979). The accomplishments made in the Southwest and Florida gained national attention, influenced court rulings and congressional support, and ultimately resulted in the 1968 Bilingual Education Act.

In *Lau v. Nichols* (1974), the Supreme Court decided that denying students a “meaningful opportunity to participate in the public educational program” is a violation of the Civil Rights Act of 1964. Justice Douglas stated in his delivery of the opinion of the court, “We know that those who do not understand English are certain to find their classroom experiences wholly incomprehensible and in no way meaningful.” The Supreme Court’s decision required schools to take the necessary steps to make education equitable for all students, and led to the Equal Educational Opportunity Act of 1974. However, fluctuations in the interpretations of the Supreme Court decision may have compromised the civil rights of ELLs, and interfered with their educational opportunities. One example is the filing of *Flores v. Arizona* (1992), which reflected the lack of adherence to federal mandates stemming from *Lau v. Nichols* (1974). In *Flores v. Arizona*, the court decided that the legislature must find ways to fund adequately programs that will ensure proper instruction by trained personnel that would help ELLs become proficient in English, providing them with equitable opportunities to learn.

Texas law (Acts of the 67th Texas Legislature, 1981) requires school districts to offer bilingual education programs if there are at least 20 ELLs who speak the same language (usually Spanish) in one grade; English and a second language is offered if the

enrollment of ELLs falls below the requirement. The implementation of bilingual education in TX is a historically noteworthy event because of reliance on laws enacted as early as 1918, when Texas laws reflected an adherence to English-only instruction.

Many researchers have conducted studies in an attempt to find out whether there are program differences in student language acquisition. MacSwan and Pray (2005) asserted that students receiving bilingual education acquire English faster than those receiving English-only instruction. They focused on the rate of English acquisition among Spanish-speaking ELL students receiving bilingual education, resulting in  $M = 3.31$  years. MacSwan and Pray also compared their results to previous studies that explored the rate of language acquisition among students in English-immersion programs, and asserted that students who participated in bilingual programs learned English as fast or faster than students in immersion programs.

In a meta-analysis of experimental studies, Rolstad, Mahoney, and Glass (2005) found that K-3 bilingual programs in Arizona were more successful than all-English programs in raising students' test scores resulting in an overall effect size of .16 for all outcome measures in English. In a separate meta-analysis, Slavin and Cheung (2003) found that in general, research favors bilingual programs over English immersion programs ( $ES = .43$ ). Their analysis included studies that consisted of kindergarten through 9<sup>th</sup> grade bilingual classrooms and control, or immersion groups, matched in terms of student socioeconomic level, language proficiency, and instructional strategies. Control groups had similar instructional strategies in comparison to the bilingual groups, but without regard for the students' native language. Additionally, studies that included a

pre- and post-test were only included if the treatment had not taken place prior to pre-test administration. That is, pre-tests were conducted when the participating students were in kindergarten. Slavin and Cheung reported that out of 17 studies qualifying for inclusion in the meta-analysis, 12 were in favor of bilingual education, 5 found no differences between programs, and none of the studies favored English immersion.

Gersten and Woodward (1995) conducted a longitudinal investigation of immersion and transitional bilingual education programs in a Texas school district in which principals decided whether to implement transitional bilingual programs in consultation with the faculty. Gersten and Woodward's findings revealed that the academic performance of students participating in the bilingual education program increased significantly over four years, with grade 7 performance higher than any other grade. Overall improvement from 4<sup>th</sup> to 7<sup>th</sup> grade was  $d = .47$ . The English immersion group, however, did not have significant improvement in performance in any of the years and resulted in an overall loss of  $d = .14$  from 4<sup>th</sup> to 7<sup>th</sup> grade. This study supports other findings in which learning English in the context of native language instruction may prove to be superior in the long-term. For example, in a re-analysis of a longitudinal study conducted by Thomas and Collier (1997), Salazar (1998) computed the effect size differences between various language acquisition programs across grades 1 through 11. Compared to immersion programs, the NCE scores of early exit bilingual students were higher across grades by an average of  $d = .09$ ; late exit bilingual students had NCE scores that were higher across grades by an average of  $d = .38$ ; and two-way bilingual students had NCE scores that were higher across grades by  $d = .53$  of a standard deviation.

Interestingly, the differences between the immersion group and the various bilingual education programs were negligible across the elementary school years ( $d = -.14$  to  $.29$ ). By 6<sup>th</sup> grade, however, the differences among the different bilingual programs became more pronounced, with late exit and two-way bilingual education reflecting the highest gains ( $d = .28$  to  $.85$ , and  $.47$  to  $1.28$ , respectively).

Instruction that supports the native language of students appears to be important in student success. Additionally, language proficiency among teachers in both the native language and the language that is being learned also has been found to contribute to student outcomes. Cirino, Pollard-Durodola, Foorman, Carlson, and Francis (2007) examined the relationship among teacher characteristics and achievement outcomes (language and literacy) of bilingual kindergarten students and found that teacher oral language proficiency in both Spanish and English predicted language and achievement outcomes. The proportion of the variance explained by teacher oral language proficiency in both Spanish and English ranged from 26% (experimental word reading) to 96% (oral language composite).

### ***ELLs and Assessment***

Standards-based assessments are used as an index of quality assurance (Airasian, 1988). At both the federal and state level, assessments have become the “engine of reform and accountability in education” (Kane, p. 55). Although NCLB has mandated student achievement monitoring at the state-level via standards-based assessment, Sabers and Powers (2005) noted that NCLB might require state participation in NAEP in addition to state assessments in an effort to balance state-reported achievement gains.

In TX, the Texas Assessment of Knowledge and Skills (TAKS) is provided in Spanish or English, depending on the recommendation of the classroom teacher and the school's language acquisition committee; however, in AZ, the Arizona Instrument to Measure Standards (AIMS) is provided only in English. Assessment results of students who have not achieved English fluency are confounded by language, and often may not reflect actual content-knowledge. To prevent public scrutiny of assessment scores, some states exclude scores of ELLs from their accountability. Although it may not be inherently dishonest to eliminate scores that would otherwise affect accountability when those scores are indeed a poor reflection of ELLs' understanding, some states have gone as far as claiming that they have successfully begun to close the achievement gap, and use their rising test scores as evidence. A limitation is that accountability data for at-risk students' scores are missing. That is, although states must account for all students in their reports under NCLB, the claims of student success are often exclusive of state report card data. Additional issues with claims of the reduction in the achievement gap is that of fluctuating passing scores, the narrowing curriculum, and overall student score increases due to practice in test-taking. Yet another issue with test scores used as measures of student knowledge is language. In one study, Abella, Urrutia, and Shneyderman (2005) demonstrated that overall, ELL students score higher on home-language assessments than English assessments, regardless of their home-language fluency. They assert that English-language achievement test results of ELL students are not always valid measures of their content-area knowledge.

Given that language acquisition policies are rooted in educational reform, an examination of the proportion of ELLs who meet state standards on the TAKS and AIMS contributes to the exploration of policy implications for ELLs (e.g., ELL dropout rates) within TX and AZ, respectively. Additionally, the different language acquisition approaches used in TX and AZ present a novel opportunity to explore the English reading proficiency among ELLs receiving bilingual or SEI on NAEP, which was developed to provide information that allows for the comparison of academic achievement across states. Examining the academic proficiency across years would provide valuable information regarding the potential effects of language acquisition policies on the academic outcomes of students across years. However, despite findings suggesting that ELLs are not performing as well in 8<sup>th</sup> grade when compared to 4<sup>th</sup> grade, Fry (2007) found that the widening NAEP ELL achievement gap from 4<sup>th</sup> to 8<sup>th</sup> grade is at least in part attributable to the changing ELL population across grades. Namely, higher-achieving ELL students are excluded from ELL data since they are often reclassified as non-ELL in earlier grades, whereas new immigrants are added to the later grades. Most language acquisition models include expectations of proficiency by the end of elementary school. Students classified as ELL in 8<sup>th</sup> grade are often new immigrants, and are not a comparable group to the 4<sup>th</sup> grade ELL cohort. To limit issues regarding the changes in the ELL population between 4<sup>th</sup> and 8<sup>th</sup> grade (both grades assessed with NAEP), in the present study I include only 4<sup>th</sup> grade students in all analyses.

Abedi, Hofstetter, and Lord (2004) argue that some NAEP accommodations used for ELLs may create issues of differential impact and validity (i.e., does it change the

construct being measured?). For example, NAEP provides ELL accommodations that include a bilingual version of the mathematics booklet for ELL students who receive their primary instruction in Spanish. Additionally, Texas provides Spanish versions of the standards-based assessments in all subjects, whereas Arizona does not. To avoid issues related to the interpretability of scores (e.g., translation and differential impact), in the present study I include only federal and state standards-based reading assessments administered in English.

In a research and development report, NAEP researchers (2007) found a strong negative correlation (-0.88) between the proportion of students who meet proficiency standards on their state's standards-based assessment and their respective mapped NAEP score equivalents. This finding suggests that state-assessments with higher NAEP score equivalents have more stringent proficiency standards than those with lower NAEP score equivalents (NCES, 2007). Using the 2005 NAEP score equivalents for the 2005 8<sup>th</sup> grade Reading state assessments in Arizona, which were higher than the NAEP score equivalents in Texas, it appears that the 8<sup>th</sup> grade Reading AIMS was a more stringent assessment than 8<sup>th</sup> grade TAKS. However, because no information is available regarding the 4<sup>th</sup> grade NAEP score equivalents in AZ, it is not possible to assert that 4<sup>th</sup> grade Reading AIMS appears to be more stringent than the 4<sup>th</sup> grade TAKS.

### *Acculturation*

Those who are interested in exploring the disadvantages faced by minority populations often use acculturation (Born, 1970; Padilla, 1980; Williams & Berry, 1991) and acculturative stress (Birman, 1998; Born, 1970; Mena, Padilla, & Maldonado, 1987; Williams & Berry, 1991) models to better understand the dynamics between the dominant and minority cultures. Acculturation models have evolved from early assimilation or melting-pot perspectives, to the examination of cultural changes that occur in one or both groups that come into contact (Redfield, Linton, & Herskovits, 1936), to more recent incorporations of the psychological perspectives involved (Berry, 1980; Teske & Nelson, 1974; Padilla & Perez, 2003). Some researchers use language and culture to derive level of acculturation (Cuéllar et al., 1995; Cuéllar, Harris, & Jaso, 1980); other researchers assert that level of acculturation is contingent on the amount of exposure to the dominant culture, and thus refer to generational status or place of birth as proxy measures of acculturation (Ryder et al., 2000). However, in consideration of the results from my preliminary study, I assert that generational status, proximity of the homeland, and amount of exposure to the dominant culture may not be accurate proxy measures of acculturation. To assess accurately the acculturation processes experienced by Mexican American students, it is necessary to consider the cultural bonds (i.e., language) that may be altered by the political climate. That is, acculturation measures that use place of birth or generational status (Ryder et al., 2000) to assess an individual's acculturation ignore the impact of educational policies regarding language, which may alter one of the most salient cultural connections. Cabassa (2003) recommended that

acculturation measures move away from proxy measures, given the limitations of relying on isolated dimensions that are only fragments of an individual's acculturation experience. However, it may be that some proxy measures are more valuable than others in assessing acculturation. In a comprehensive civil rights and civil liberties law review, Rodriguez (2001) asserted "...[language] is at once a tool of communication, a lens through which people orient themselves to the world, and a symbol of allegiance to culture" (p. 133). Considering the historical controversy regarding language of instruction, acculturation is a variable that is potentially reflective of the political climate and the resulting educational policies that affect the education of ELL Mexican American students. In this study, I explore whether acculturation is mediated by the political climates affecting TX and AZ ELLS. Additionally, I explore the relationship among acculturation and variables related to academic achievement.

### ***Acculturative Stress***

Born (1970) was the first to refer to acculturative stress as the precursor to the coping mechanisms that take place as individuals manage the conflicts that arise between the dominant and minority cultures when they come into contact. One example of acculturative stress involves children language brokering on behalf of their relatives. Weisskirch and Alva (2002) explained that language brokering shifts the hierarchy of power from adult to child as the latter is obligated to mediate adult interactions in which they would otherwise not take part. Holleran and Jung (2005), who explored the geographical and historical factors contributing to acculturative stress, illustrate another example. Those writers contend that the proximity of the homeland and the history of

border conflicts compound the issues faced by adolescent Mexican immigrants. Cultural conflicts, generational differences, and responsibilities such as translation between the dominant and native language are only a few examples of the many tensions children of Mexican descent may experience, in addition to social stressors including discrimination.

Acculturative stress may also arise when the values of the dominant and minority society conflict. Lareau (2002) examined parenting styles among varying social classes and found that working class parents typically focus on *accomplishment of natural growth*, or adherence to extended-family networks and parent directives, and opportunities for unstructured free time. Middle class parenting, however, generally involves *concerted cultivation*, or childrearing practices that encourage child negotiation, and include structured activities that are meant to foster a child's talents. Lareau's parenting styles are reminiscent of Baumrind's (1966) parenting prototypes that include permissive, authoritarian, and authoritative styles. Baumrind defined the permissive parent as one who "attempts to behave in a nonpunitive, acceptant, and affirmative manner toward the child's impulses, desires, and actions" (p. 889). The authoritarian parent, however, "attempts to shape, control, and evaluate the behavior and attitudes of the child in accordance with a set standard of conduct, usually an absolute standard, theologically motivated and formulated by a higher authority" (p. 890). The characteristics of Lareau's *accomplishment of natural growth* parenting seem to have much in common with Baumrind's permissive and authoritarian parenting styles. In contrast, Baumrind's authoritative parent "encourages verbal give and take, shares with the child the reasoning behind [the parent's] policy, and solicits his objections when he

refuses to conform” (p. 891), which appears very much like Lareau’s parent who focuses on *concerted cultivation*. The similarities of parenting styles in both Lareau’s and Baumrind’s work, although not cross-referenced, is noteworthy. Even though Lareau found socioeconomic status had a larger impact than did race, Baumrind (1972) found that when black families were viewed using white norms, they appeared authoritarian. However, the children of the “authoritarian” black families had qualities that were associated with authoritative parenting—at least in terms of white norms. Conflicting values between the majority and minority culture may increase acculturative stress whether it is rooted in divergent parenting styles or applying parenting standards based on majority norms. For example, the discrepancy between the traditional hierarchical roles within Mexican American families and skills that are associated with success among the dominant culture such as negotiation and reasoning may contribute to the stress of ambiguity regarding appropriate behavior.

Acculturative stress has been linked to problems with self-concept (Weisskirch & Alva, 2002). Because acculturative stress is compounded by the socioeconomic stressors and barriers to success that are typical among low-income Mexican American youth, it is important to understand how different educational policies may contribute to acculturative stress that, in turn, may perpetuate the academic gap among Mexican American students. Eamon (2005) found that the longer Latino families lived in low-income neighborhoods, the less likely they were to provide a cognitively stimulating environment (defined by having access to books, a computer, and/or a musical instrument). Eamon also found that math and reading achievement among Latino students

were predicted by higher levels of parent involvement regarding school and lower levels of parent-youth conflict over household rules. In consideration of Baumrind's (1966) parenting styles, it is possible that the reduced conflict over household rules and involvement with school reflects adherence to authoritative parenting, which has traditionally been associated with student autonomy and success.

### ***Self-Competence***

Self-competence lacks a singular conceptualization (Schunk & Pajares, 2005; Wylie, 1974, 1979, 1989). At the very least, however, it can be argued that self-competence encompasses both self-evaluative ([self-efficacy] Bandura, 1977, 1997) and norm-referenced ([self-concept] Marsh & Shavelson, 1985) views of ability. Self-competence (global self-concept) is relatively stable even though domain-specific competencies may vary (Eccles, Wigfield, Flanagan, Miller, et al., 1989; Harter, 1982, 1983; Marsh, 1989; Marsh & Shavelson, 1985; Wigfield, Eccles, Mac Iver, Reuman, & Midgley, 1991). In their definition of self-concept, Marsh and Shavelson (1985) stated, "perceptions are formed through experience with and interpretations of one's environment" (p. 107). Several models outline the dynamics of the internalized beliefs that result from interactions with and reflections of others' perceptions. These include symbolic interaction (Cooley, 1902), real- and ideal-self congruence (Rogers, 1961), reciprocal determinism (Bandura, 1986), expectancy-value theory (Eccles, 2005), and co-regulation of emerging identity (McCaslin, in press-a). Only a few researchers, however, have applied explicitly models of internalized beliefs in their exploration of self-competence and expectancy socializers (Bouchey, 2004; Eccles, 2005; Eccles et al.,

1989). Although studies that use models of internalized beliefs have contributed to the understanding of the importance of interpersonal relationships and perceived competence, they do not contextualize the influences that social (e.g., political influences) and cultural influences have on identity development. To explore the system of influences that contribute to the beliefs and identity of ELLs in the present study, I use a co-regulation of emergent identity model. A co-regulation model provides a framework wherein the identity formation of students is influenced by the “reciprocal press of personal, cultural, and social sources” (p. 9, McCaslin). The educational context for ELLs is not only rooted in policies that address accountability, but also in policies that attempt to address their educational attainment (i.e., methods of language acquisition). Additionally, cultural and social influences result in dynamics (e.g., acculturative stress) and beliefs (e.g., perceived discrimination) that may potentially influence further the context of ELL academic achievement. Therefore, exploring variables related to ELL academic achievement is best approached with a model that considers the system of influences.

Researchers have found that young children tend to have elevated self-competence beliefs that decrease across age (Dweck, 1989; Eccles, Midgley, & Adler, 1984; Jacobs, Lanza, Osgood, Eccles, & Wigfield, 2002; Marsh, 1989; Stipek, 1984; Stipek & Mac Iver, 1989; Wigfield et al., 1997). This finding most often results when students are asked to report normative perceptions of ability (Wigfield & Wagner, 2005). In general, it is postulated that students’ initial optimism is replaced by a more accurate evaluation that results from an increase in both their cognitive capacity and comparisons with peers. In my preliminary study, I found that there was a moderate mean difference

(d) between student scholastic self-competence beliefs and parent perceptions of student scholastic competence; and a small mean difference between student scholastic self-competence beliefs and teacher perceptions of student scholastic competence. These findings suggest that student self-competence was not inflated, unless parent and teacher ratings were overly negative as well. More research on the potential socialization of students' normative evaluations is needed. In this study, I examine the potential impact of educational policy and its mediation by parents and teachers on student normative self-evaluation. More research is needed to explore the possibility that such mediations might have a role in lower student normative evaluations.

Parent, teacher, and peer influences on perceived ability are central to the research on student achievement and self-concept because students synthesize and internalize information from a social network of individuals. Self-perceptions are often referred to as reflected appraisals (Cooley, 1902; Mead, 1934) in that they are contingent on the cumulative beliefs individuals have regarding how significant others see them.

Marsh (1987) hypothesized the big fish little pond effect (BFLPE), asserting that student self-concept is dependent on the context of both individual ability and the abilities of peers. Specifically, academic self-concept or perceived academic competence is positively correlated with personal academic achievement, but negatively correlated with the abilities of peers. Because perceived competence is related to student achievement (Bandura, 1997; Bandura & Barbaranelli, 1996; Eccles et al., 1989), it is necessary to examine the contributions made by those who inform the reflected appraisals of student competence (i.e., teachers and parents).

**Teachers.** Teachers are crucial in the social and academic development of students because they are the source from which student performance is measured. The self-fulfilling prophesy, introduced by Merton (1948), referred to social situations in which artificially imposed beliefs were realized. Researchers who initially attempted to establish the self-fulfilling prophesy in the context of teacher expectations typically were able to do so only in relation to perceiver (i.e., student) expectations (Rosenthal & Rubin, 1978). However, the influence of *teacher expectancy effects* on student performance has since been established as a real phenomenon (Brophy, 1983; Good, 1981; Good, 1987; Good & Brophy, 2008; Good & Nichols, 2001; Harris, Rosenthal, & Snodgrass, 1986; Weinstein, Marshall, Sharp, & Botkin, 1987).

Good and Brophy (2008) use a conceptual model to outline how the communication process that influences teacher expectancy effects may unfold in classrooms. Good (1981, 1987) presented various kinds of teacher expectations evidenced in classrooms and ways in which teacher expectations might influence differential student treatment (e.g., waiting less time for low achievers to answer a question or praising low achievers less often when they have been successful). Madon, Jussin, and Eccles (1997) also presented a conceptual model that examined the independent patterns of teacher expectations for high and low achievers. They found that teachers' predictions of low achievement were much stronger than teachers' predictions of high achievement, which suggests that low achievers may be more vulnerable than high achievers to teacher expectations. Finally, Good and Brophy (2008) clarified that teacher expectations mostly are based on accurate information, which limits self-fulfilling

expectations to those based on unjustified perceptions. Good and Brophy also note that students are often aware of differential interactions, justified or not, and this recognition can affect their motivation and self-concept.

The relationship between teachers and student achievement also has been investigated using the variable of *teacher quality*. In an analysis of national data, Borman and Rachuba (1999) found no statistically significant differences in teacher qualifications among K-12 schools located in varying socioeconomic levels, resulting in  $d = .11$  or less. However, they also found that teacher efficacy was greater among teachers provided with professional development opportunities, and that teachers in the highest poverty schools had the fewest opportunities for professional development. In another study, Borman and Kimball (2005) found a statistically significant positive relationship between teachers' evaluation ratings and students' socioeconomic status. That is, minority and/or disadvantaged students were more likely to have teachers with low principal or assistant principal evaluation ratings ( $d = .53$ ).

Collinson (1999) emphasized that interpersonal skills including "empathy to understand others, honesty and trust, respect, tolerance of different perspectives, the setting aside of self, good communication skills, and political awareness" are as much a part of quality teaching as are subject matter, curriculum, and pedagogical knowledge. Thus, teacher quality may include variables not evident in degree-attained quality indicators. Hamre and Pianta (2005) also support the claim that the gap between children at risk and their non-at-risk counterparts can be closed using support and instruction. In their study, researchers found that children with high demographic risk indicators

performed at the same level as their non-demographic risk counterparts in classrooms with moderate to high instructional support. This suggests that teachers indeed influence the outcome of at-risk students in non-trivial ways. This in turn also implies that one of the missing links in closing the achievement gap is teachers who are well-trained in instructional and/or emotional support, particularly those who serve at-risk student populations.

*Parents.* Notably, parents have traditionally been stronger predictors of their child's self-competence perceptions than both past performance (Eccles-Parsons et al., 1982) and teacher perceptions (Eccles-Parsons et al., 1982; Wigfield et al., 1997). However, Bouchey (2004) found mothers' and teachers' beliefs were not strongly related to students' beliefs. She suggested that the discrepancy in the perceptions of parents and students might be attributed to the relationship changes that occur during early adolescence (e.g., less attention to parents and an increase in attention to peers). In my preliminary study, teachers—but not parents—predicted student scholastic self-competence among Mexican American students. The study conducted by Eccles-Parsons and colleagues (1982) consisted of middle- to upper-class fifth to eleventh grade students, although further demographic information was not provided. The Wigfield et al. (1997) study consisted of 95% European American students from middle-class backgrounds. Given the different findings in the various studies, it may be that the adult who most closely aligns with the educational expectations of the school may best predict student scholastic competence. To explore the divergent findings on parent and teacher

perceptions of student scholastic competence, particularly among ELLs, it may be useful to focus on the potential contribution of educational policies to these relationships.

Researchers have established that parents' beliefs regarding their child's competence are related to their child's own perceptions regarding her/his competence (Jodl et al., 2001). Hao and Bonstead-Bruns (1998) asserted that high levels of parent-child interactions influence the academic expectations of both parents and children. In their study, the immigrant status of Chinese, Filipino, and Korean students was found to be related to high child and parental educational expectations, but immigrant status of Mexican families was found to be harmful to educational expectations. Additionally, significantly higher educational expectations also were found for all immigrant and native groups when compared to both native Mexican Americans and immigrant Mexican Americans. The retention of native parental language was a promising variable related to academic achievement of minority students in the Hao and Bonstead-Bruns study. This suggests that despite the controversial nature of bilingual education, more research on the relationships among native language support among ELLs, their families, and educational achievement is necessary.

### ***Motivational Disposition and Self-Regulation***

Dweck and Leggett (1988) assert that entity and incremental theories of intelligence predict achievement outcomes. Specifically, individuals who espouse an entity view of intelligence believe that intelligence is inexorable. As a result, entity theorists adopt maladaptive strategies that lead to reduced perseverance when faced with failure. In contrast, individuals who espouse an incremental theory believe that

intelligence is malleable and dependent on effort. Incremental theorists thus adopt adaptive strategies to compensate for difficulties, which lead to achievement outcomes despite obstacles. One of the difficulties in exploring the relationship between entity or incremental theories and academic achievement involves primacy effects. Researchers have found that entity and incremental views are malleable and prone to priming and intervention (Aronson, Fried, & Good, 2002). Thus, exploring students' beliefs in terms of entity or incremental theories may provide only limited information. Other researchers assert that students' expectations for success, as well as the value they attach to accomplishments, are fundamental to achievement outcomes. Expectancies and values contribute to entity and incremental variables such as effort and persistence (Eccles, 2005; Wigfield & Eccles, 1992). Still others maintain that self-regulatory processes (SRL), which include antecedents to achievement such as goal setting, are central to achievement (Zimmerman & Kitsantas, 2005). In sum, there are various student motivational dynamics theories regarding student achievement in classroom settings. However, to understand the relationship among various student motivational dynamics, students' contextual influences must also be taken into consideration.

McCaslin (in press-a) presents a co-regulation model of emergent identity wherein cultural, social, and personal influences are theorized to “challenge, shape, and guide” identity (p. 3). In the model, the development of SRL occurs within the context of opportunities and constraints. Opportunities and constraints are rooted in social and cultural influences, and are further mediated by personal influences. When student efforts are validated, opportunities and constraints are believed to enhance student SRL. Thus,

differential opportunities to promote SRL among students are based on their personal qualities (e.g., robustness to failure), social network (e.g., quality of schools and teachers) and their cultural network (i.e., influences that set norms and values). I applied the co-regulation model to the exploration of students' disposition toward school and students' motivational dynamics and considered the socio-cultural and inter-personal pressures that contribute to student belief systems and academic achievement. Here, I propose that student dispositions and student motivational dynamics are influenced by the social (educational policy regarding language acquisition) and cultural realms, creating differential opportunities for adaptive learning strategies. These disparate social and cultural situations influence student motivation so that students whose culture is supported by the social context (i.e., native language instruction in TX) display adaptive learning strategies. Among the adaptive learning strategies that I expect to emerge, which I assess with *The Thing About My School Is...* (McCaslin, in-press-b), are variables related to SRL (*Good Worker/Engaged Learner* and *Struggling and Persistent*). I also expect students in bilingual education to display adaptive interpersonal and intrapersonal dispositions, which are assessed with *How I Am In My Class* (McCaslin, 2007). The cultural context provided by bilingual education, and the social resources available to ELLs in TX are believed to foster pride in achieving, competence in reading and math, as well as feelings of participation and belonging. In contrast, it is hypothesized that students in SEI will display variables related to maladaptive motivational coping strategies because of the opportunities and constraints that are not supported socially and/or culturally. Students in SEI are expected to lack opportunities for validation of their

efforts. The maladaptive learning strategies that are expected to emerge include anxiety, withdrawal, and distraction in terms of student motivational dynamics. Additionally, I expect students to internalize the social pressures that dictate English only as the method of language acquisition, resulting in maladaptive interpersonal and intrapersonal dispositions including *Rigid and Right* and *Resignation and Futility* based on *How I Am In My Class* scores. If results of the present study provide empirical support for the hypothesized outcomes among students' motivational dynamics investigated in the present study, there will be a better understanding of the systemic variables contributing to poor performance. Thus, the understanding of the impact of social, cultural, and personal influences on the belief systems of ELLs will transcend the classroom and provide much needed information regarding the relationship among variables traditionally explored in isolation.

## CHAPTER 3

### METHODS

#### *Participants*

For the first hypothesis, participants included all 4<sup>th</sup> grade ELLs who took the state Reading assessment in 2007 in TX ( $n = 32,591$ ) and AZ ( $n = 11,255$ ). For the second and third hypotheses, participants included all 4<sup>th</sup> grade ELLs who took the NAEP Reading assessment in 2007 in TX and AZ. Sample sizes for participating states are not disclosed by the National Center for Education Statistics (NCES). However, for the analyses to be statistically significant at the resulting effect size  $h = .51$ , a sample of at least  $N = 124$  would have been necessary.

For the remaining hypotheses, I selected two school districts with similar demographics: one in Tucson, AZ, and the other in El Paso, TX. I present demographics for the entire districts in Table 1. The respective school district's Institutional Review Boards granted permission to conduct the study. I contacted all elementary school principals ( $N = 38$ ) in the school districts selected via telephone, email, and regular mail to request their permission to recruit teachers, parents, and students in their schools for the study. Initially, 11 principals in the El Paso, TX school district and 6 principals in the Tucson, AZ school district agreed to participate; however, one principal in each school district reconsidered and decided not to participate in the study. A total of 37 teachers and 730 Mexican-descent ELL students and their parents were recruited to participate. I obtained informed consent from teachers, parents or legal guardians, and minor assent from students. In El Paso, TX, 51% ( $n = 190$ ) of the recruited students and parents agreed

to participate, and in Tucson, AZ 50% ( $n = 182$ ) of the recruited students and parents agreed to participate. However, 21% of the students ( $N = 77$ ) were not present the day the surveys were proctored resulting in 45% ( $n = 166$ ) of the recruited students participating in El Paso, TX, and 36% ( $n = 129$ ) of the recruited students participating in Tucson, AZ. Additionally, 52% of the parents ( $N = 178$ ) did not return the surveys, resulting in 71% ( $n = 135$ ) of the recruited parents participating in El Paso, TX, and 32% ( $n = 59$ ) of the recruited parents participating in Tucson, AZ.

**Table 1**

**School District Demographics**

<b>El Paso, TX</b>	<b>Percent</b>
African American	2.20
Hispanic	91.20
White	5.90
Native American	.50
Asian/Pacific Islander	.30
Economically Disadvantaged	79.20
English Language Learner (ELL)	24.40
<b>Tucson, AZ</b>	
African American	2.10
Hispanic	87.70
White	5.60
Native American	4.10
Asian/Pacific Islander	.50
Economically Disadvantaged	77.11
English Language Learner (ELL)	20.46

***Measures***

***4<sup>th</sup> Grade NAEP Reading.*** NAEP achievement levels are reported as *Below Basic, At Basic, At Proficient, and At Advanced*. Students are assessed on two contexts:

reading for literary experience, and reading for information. I used available state data for AZ and TX from the NAEP Data Explorer (U.S. Department of Education) and the Nation's Report Card: Reading 2005 (Lee, Grigg, & Donahue, 2007). For the purposes of this study, I collapsed *At Proficient* and *At Advanced* achievement levels into one category, *Proficient*, so that the proficiency levels reflect the lowest number of categories across states (see sections below).

**4<sup>th</sup> Grade Reading TAKS.** TAKS achievement levels are reported as *Did Not Meet the Standard*, *Met the Standard*, and *Commended Performance*. The reading assessment is based on four objectives that students should be able to demonstrate: understanding culturally diverse written texts; application of knowledge of literary elements to understand culturally diverse written texts; using a variety of strategies to analyze culturally diverse written texts; and the application of critical-thinking skills to analyze culturally diverse written texts (TEA, 2007). Although Spanish versions of the assessment were administered to ELL students, for the purposes of the present study, only ELL students who took the 4<sup>th</sup> Grade English Reading TAKS were included. I used data from the Adequate Yearly Progress (AYP) report for 2007 available from the Texas Education Agency. For the purposes of this study, I will report *Did Not Meet the Standard* as *Below Basic*; I will report *Met the Standard* as *At Basic*; and I will report *Commended Performance* as *Proficient*.

**4<sup>th</sup> Grade Reading and Language AIMS.** AIMS results are reported as *Falls Far Below*, *Approaches the Standards*, *Meets the Standard*, and *Exceeds the Standard*. The reading assessment for 4<sup>th</sup> grade consisted of a criterion-referenced and a norm-

referenced component. For the criterion-referenced component, items included TerraNova items that map on to the Arizona content standards and items developed by Arizona teachers (ADE, 2007). I used data from the AYP report for 2007 available from the Arizona Department of Education. For the purposes of this study, I collapsed *Falls Far Below* and *Approaches the Standards* into one category, *Below Basic*, so that the proficiency levels reflect the lowest number of categories across states. Additionally, I report *Meets the Standard* as *At Basic*, and *Exceeds the Standard* as *Proficient*.

***Demographic Information.*** I collected demographic information from parents and guardians using a questionnaire created for the preliminary study available in both English and Spanish (see Appendices C and D). I present demographic information in Tables 8-15.

***The Brief Acculturation Rating Scale for Mexican Americans-II*** (Cuéllar, Arnold, & Maldonado, 1995). Twelve items written in both Spanish and English comprise the Brief ARSMA-II, with six items from the Anglo Oriented Scale (AOS) and six items from the Mexican Oriented Scale (MOS). Items are scored from 1 (not at all) to 5 (almost always/extremely often); the authors provide three scoring algorithms. For the present study, individual students' MOS raw score means were subtracted from their respective AOS raw score means, resulting in a total acculturation score. Resulting scores were then classified according to the acculturation rubric provided by Cuéllar, Arnold, and Maldonado (see Table 2). Cuéllar (2004) reported alpha coefficients as .91 for MOS and .79 for AOS for a sample of Latino adolescents. I present descriptive statistics for the present study in Table 3.

**Table 2****ARSMA-II Cut-Scores**

Level I	Traditional Mexican Orientation	<-1.33
Level II	Mexican-oriented bicultural	$\geq -1.33$ and $\leq -.07$
Level III	Bicultural	$> -.07$ and $< 1.19$
Level IV	Anglo-oriented	$\geq 1.19$ and $\leq 2.45$
Level V	Very Assimilated	$> 2.45$

**Table 3****ARSMA-II Descriptive Statistics**

	<i>Stratified Alpha</i>	<i>Mean</i>	<i>SD</i>	<i>Mexican Orientation Mean</i>	<i>Mexican Orientation SD</i>	<i>Anglo Orientation Mean</i>	<i>Anglo Orientation SD</i>	<i>N</i>
Entire sample	0.73	38.33	8.26	19.91	7.05	18.41	5.65	295
TX	0.74	38.75	8.20	22.18	6.30	16.57	5.83	166
AZ	0.75	37.78	8.33	16.99	6.91	20.78	4.39	129

**Things About Me.** One of the purposes of the present study is to assess students' motivation, and another is to determine whether language policies contribute to student acculturation and acculturative stress. I used three items that attempt to assess children's perspectives of acculturation to determine whether students might give socially influenced responses to the ARSMA-II (i.e., responses that do not reflect student choice in measures designed to assess acculturation; see Appendix B). One item asks students about their music preferences and prompts students to report up to five of their favorite

music artists. The item responses were coded according to music genre (0: Other, 1: American, 2: Latin), which were verified by genre labels specified by recording companies. The other two acculturation items ask students about their choices in food and snacks. The item responses were coded using school menus to eliminate food choices that may be related to the foods served at school rather than personal choices related to culture (0: food served at school); the remaining responses were coded either 1 (American), 2 (Mexican), or 0 (neutral foods that cannot be determined to be either Mexican or American). Two constructed response items that attempt to assess children's affiliation (participation and isolation) and/or achievement goals also were included in the instrument. One question taps into *intrinsic value* in the sense of "the enjoyment one gains from doing the task or the anticipated enjoyment one expects to experience while doing the task" (Eccles, 2005, p. 111) and asks, "After school or on the weekends, I like to spend my time...." Student answers reflect the achievement or affiliation goal that is important to the student because they enjoy it. The second question taps the assumption that individuals seek to confirm characteristics that are central to their self-image (Eccles, p. 111) and asks, "What I really like people to ask me is...." Student answers reflect achievement or affiliation goals that students would like others to know they have. A third question constructed to explore students' socially- and culturally-influenced affiliation asks students to list what they like most about parties. I present descriptive statistics in Table 4.

**Table 4****TAM: What I Like Most About Parties**

<b>El Paso, TX</b>		<b>Tucson, AZ</b>	
candy	59.8	candy	62.6
cake	51.2	piñata	43.5
piñata	48.8	cake	35.7
jumping balloon	40.9	food	33.9
food	27.4	dancing/music	33.1
playing	18.3	jumping balloon	22.6
presents	12.8	playing	20.9
dancing/music	12.2	presents	10.4

To determine the reliability of the scoring for students' constructed responses for the items that attempt to assess children's affiliation and/or achievement goals, the principal investigator and two graduate students in a doctorate-level educational psychology program coded a total of 25% of student responses for each item. After the principal investigator explained the rules for scoring, scorers coded one measure independently. Coders discussed discrepancies in codes, and continued to code independently five sample items until attaining exact agreement. Scorers then independently coded 25% ( $n = 37$ ) of the student responses to assess interscorer reliability with the principal investigator. This resulted in 98.0% and 96.9% exact agreement between the principal investigator and each coder.

*The Societal, Attitudinal, Familial, and Environmental Acculturative Stress Scale for Children* (SAFE-C; Chavez, Moran, Reid, & López, 1997). The SAFE-C is a developmentally appropriate modification of the short version of the Societal, Attitudinal, Familial, and Environmental Acculturative Stress Scale (Mena et al., 1987) for use with children between the ages of 8 and 12 years. Chavez provided a Spanish version;

however, the back-translation to English was not determined to be an equivalent version of the original instrument. I edited the Spanish-version of the instrument, and the revised instrument was back-translated to English. The resulting English back-translation was determined to be an equivalent version of the original instrument. The SAFE-C has thirty-six 6-point (0-5) Likert items that are scored in three domains: general social stress (16 items), acculturation process-oriented stress (13 items), and perception of discrimination (7 items). I present descriptive statistics in Table 5.

**Table 5**  
**SAFE-C Descriptive Statistics**

	<i>Stratified Alpha</i>	<i>Mean</i>	<i>SD</i>	<i>Perception of Discrimination Mean</i>	<i>Perception of Discrimination SD</i>	<i>General Stress Mean</i>	<i>General Stress SD</i>	<i>Acculturative Stress Mean</i>	<i>Acculturative Stress SD</i>	<i>N</i>
Entire sample	0.83	77.60	26.45	36.85	13.29	12.81	7.13	28.04	10.63	295
TX	0.83	73.82	27.47	36.12	13.55	11.43	7.07	26.34	10.93	166
AZ	0.84	82.37	24.40	37.76	12.95	14.56	6.85	30.20	9.87	129

*The Self-Perception Profile for Children* (Harter, 1985). Six items scored from 1 to 4 comprise the scholastic competence subtest of The Self-Perception Profile for Children. Harter (1982) constructed the format of the questions to address issues with socially desirable responses. Each question includes two statements (e.g., some kids often *forget* what they learn, and other kids can remember things easily). Students are asked to decide which kind of student is most like him or her, and then asked whether the sentence is really true (1 or 4 on the scale) or sort of true (2 or 3 on the scale) for him or her. A

score of 1 indicates low perceived competence, and a score of 4 indicates high perceived competence. Harter (1985) reports the psychometric properties of the subscale from two separate explorative samples which included 3<sup>rd</sup> through 5<sup>th</sup> grade students. The scholastic competence subscale internal consistency reliabilities based on coefficient alpha ranged from .80 to .82, and resulted in  $M = 15.78$  to  $17.70$ , and  $SD = 3.48$  to  $4.80$  in Harter's study. Harter granted permission to translate the instrument into Spanish. The translated instrument was back-translated in English and compared to the original instrument to assess equivalence. The Spanish instrument was determined to be an equivalent version of the original instrument. In the present study, internal consistency reliabilities resulted in a coefficient alpha of .63,  $M = 17.26$ , and  $SD = 3.51$  for the sample in El Paso, TX and a coefficient alpha of .71,  $M = 15.34$ , and  $SD = 3.89$  for the sample in Tucson, AZ. One of the items related to how quickly a student completes work was determined to increase coefficient alpha if removed for the El Paso, TX sample; I subsequently removed the item from the analyses for both samples. Internal consistency reliabilities based on the five remaining items resulted in coefficient alpha of .66,  $M = 14.76$ , and  $SD = 3.14$  for the El Paso, TX sample; coefficient alpha of .70,  $M = 12.97$ , and  $SD = 3.43$  for the Tucson, AZ; and coefficient alpha of .70,  $M = 13.98$ , and  $SD = 3.38$  for both samples combined.

*Teacher's Rating Scale of Child's Actual Behavior* (Harter, 1985). The instrument contains three items pertaining to scholastic competence. Like the student self-report instrument, the teacher ratings are scored from 1 to 4. A score of 1 indicates low perceived competence, and a score of 4 indicates high perceived competence. Harter

granted permission to translate the teacher rating scale to Spanish. The translated instrument was back-translated in English and compared to the original instrument to assess equivalence. The Spanish instrument was determined to be an equivalent version of the original instrument. In the present study, internal consistency reliabilities for the teacher rating scale resulted in a coefficient alpha of .96,  $M = 9.51$ , and  $SD = 2.79$  for both samples combined; coefficient alpha of .97,  $M = 9.75$ ,  $SD = 2.88$  for the El Paso, TX sample; and coefficient alpha of .91,  $M = 8.87$ ,  $SD = 2.43$  for the Tucson, AZ sample.

*Parent's Rating Scale of Child's Actual Behavior* (Harter, 1985). Harter granted permission to use the Teachers Rating Scale of Child's Actual Behavior to use with parents, and to translate the parent rating scale to Spanish. The translated instrument was back-translated in English and compared to the original instrument to assess equivalence. The Spanish instrument was determined to be an equivalent version of the original instrument. In the present study, internal consistency reliabilities for the parent rating scale resulted in a coefficient alpha of .77,  $M = 9.71$ , and  $SD = 1.84$  for both samples combined; a coefficient alpha of .74,  $M = 9.76$ , and  $SD = 1.82$  for the El Paso, TX sample; and coefficient alpha of .82,  $M = 9.61$ ,  $SD = 1.90$  for the Tucson, AZ sample.

*The Thing About My School Is...* (McCaslin, in press-b). The instrument was designed to assess students' perceptions of their educational opportunity. Five domains (school, teacher, classmates, math, and reading) are addressed with six items each that represent expectancy, value, positive and negative emotional contingencies, and positive and negative students' beliefs (McCaslin, in press-b). To determine whether item patterns informed student dispositions toward school, data were subjected to an exploratory factor

analysis resulting in five factors: *Pride in Achieving*, *Rigid and Right*, *Participation and Belonging*, *Resignation and Social Futility*, and *Reading and Literacy*. In the present study, five factors define the instrument (see Table 19): *Pride in Achieving* (9 items), *Participation and Belonging* (5 items), *Literacy* (2 items), *Rigid and Right* (8 items), and *Math* (3 items). Items are scored from 1 to 4, with higher scores indicating increased concordance with each factor. McCaslin granted permission to translate the instrument to Spanish. The translated instrument was back-translated in English and compared to the original instrument to assess equivalence. The Spanish instrument was determined to be an equivalent version of the original instrument. In the present sample, the stratified alpha coefficient for both samples combined is .79,  $M = 82.76$ , and  $SD = 13.99$ ; the stratified alpha coefficient for the El Paso, TX sample is .69,  $M = 86.23$ , and  $SD = 10.37$ ; and the stratified alpha coefficient for the Tucson, AZ sample is .81;  $M = 78.29$ , and  $SD = 16.62$ . I present descriptive statistics in Table 6.

**Table 6**

**Descriptive Statistics for *The Thing About My School Is...***

	<i>Pride In Achieving Mean</i>	<i>Pride In Achieving SD</i>	<i>Participation and Belonging Mean</i>	<i>Participation and Belonging SD</i>	<i>Rigid and Right Mean</i>	<i>Rigid and Right SD</i>	<i>Literacy Mean</i>	<i>Literacy SD</i>	<i>Math Mean</i>	<i>Math SD</i>	<i>N</i>
Entire sample	30.64	5.55	13.51	4.20	16.31	5.93	5.40	2.58	6.32	2.24	295
TX	31.79	4.48	14.36	4.05	16.84	4.99	5.70	2.71	6.71	2.13	166
AZ	29.16	6.40	12.4	17.26	15.62	6.93	5.00	2.24	5.82	2.29	129

*How I Am In My Class* (McCaslin, 2007). The instrument was designed to assess student group engagement, and includes three subscales (enhancing, interfering, and neutral levels of engagement). Factor analyses for an administration that occurred during the beginning of the second semester of the school year in which data were collected resulted in five factors: *Anxious and Withdrawn*, *Good Worker*, *Engaged Learner*, *Disengaged and Distracting*, and *Struggling and Persistent* (McCaslin, 2007). In the present study, four factors define the instrument (see Table 23): *Anxious and Withdrawn* (5 items), *Good Worker/Engaged Learner* (7 items), *Disengaged and Distracted* (5 items), and *Struggling and Persistent* (3 items). The instrument consists of 20 self-description sentences; students underline the sentences that describe how they were in class the day of the administration. Items are scored 0 or 1, with higher scores indicating increased concordance with each factor. McCaslin granted permission to translate the instrument to Spanish. The translated instrument was back-translated in English and compared to the original instrument to assess equivalence. The Spanish instrument was determined to be an equivalent version of the original instrument. In the present sample, the stratified alpha coefficient for both samples combined is .72,  $M = 11.20$ , and  $SD = 3.50$ ; the stratified alpha coefficient for the El Paso, TX sample is .71,  $M = 10.72$ , and  $SD = 3.56$ ; and the stratified alpha coefficient for the Tucson, AZ sample is .74;  $M = 11.80$ , and  $SD = 3.35$ . I present descriptive statistics in Table 7.

**Table 7****Descriptive Statistics for How I Am In My Class**

	<i>Good Worker Mean</i>	<i>Good Worker SD</i>	<i>Anxious and Withdrawn Mean</i>	<i>Anxious and Withdrawn SD</i>	<i>Disengaged and Distracted Mean</i>	<i>Disengaged and Distracted SD</i>	<i>Struggling and Persistent Mean</i>	<i>Struggling and Persistent SD</i>	<i>N</i>
Entire sample	4.44	4.24	0.83	1.21	1.91	1.5	0.81	0.91	295
TX	4.20	2.17	0.73	1.20	1.61	1.45	0.66	0.81	166
AZ	4.74	3.47	0.96	1.22	2.29	1.5	1.00	0.99	129

***Procedure***

I requested permission to conduct research in school districts in Tucson, AZ and El Paso, TX, following the procedures of the university IRB. Once the district and university IRB's granted permission, I recruited teachers, students, and parents to participate in the study. I asked parents who decided to participate in the study to complete the rating scale and demographic questionnaires at home, and return the instrument and questionnaire with their child to school. I administered student and parent instruments and questionnaires in English and Spanish. I read directions to the students, and answered questions before students began to fill out the instruments. Teachers and students completed the instruments during regularly scheduled classes.

***Statistical Analyses******Effect Size and Sample Size***

I present effect size calculations for the various instruments from selected studies and the rationale used for their inclusion in Appendix A. As a primary focus of the study,

I anticipated a small effect size for scholastic competence. Detecting a small effect for scholastic competence is of practical significance in the present study in consideration of the age of the participants, and the hierarchical nature of scholastic competence. That is, although the anticipated effect is small, participants have many years of formal schooling ahead of them that may result in a large effect size over time. For the motivational dispositions, I anticipated a small effect size given the age and academic experiences of the population of interest.

For the a priori sample size determination ( $N = 432$ ), I used an alpha of .05,  $1 - \beta = .80$ , and a small effect size ( $d = .24$ ) for a one-tailed t test of two independent means in G\*Power (Faul, Erdfelder, Lang, & Buchner, 2007). I used the anticipated small effect size for scholastic competence (see Appendix A) in the a priori sample size calculation given that a larger sample size is required to detect smaller effect sizes. The sample size will thus be sufficient to detect the anticipated small effect sizes for the motivational variables and the large effect sizes for acculturation and acculturative stress.

### ***The Thing About My School Is... and How I Am In My Class***

The 30 items of *The Thing About My School Is...* and the 20 items of *How I Am In My Class* were each subjected to principal components analysis (PCA) using the Pearson product-moment bivariate correlation matrix. I used SPSS Version 14 for all analyses. I used SPSS syntax provided by Thompson and Daniel (1996) for the parallel analysis (Horn, 1965; Thompson & Daniel, 1996; Thompson, 2004) to confirm the number of factors to retain. Parallel analysis “involves taking the actual scores on the measured variables and creating a random score matrix of exactly the same rank of the actual data

with scores of the same type represented in the data set” (p. 34, Thompson, 2004). The resulting eigenvalues are compared to the eigenvalues from the original score matrix; factors are retained only if the eigenvalue for the actual data exceeds the eigenvalue for the randomly ordered data.

### ***Alternative Measures of Acculturation: Things About Me***

To provide evidence for the socially influenced responses to the items in the ARSMA-II (i.e., responses that do not reflect student choice in measures designed to assess acculturation), I correlated the acculturation score consisting of three items that attempt to assess children’s acculturation from *Things About Me* with the ARSMA-II). I also conducted a t test to examine whether there are differences in the acculturation scores from the exploratory measure between students in SEI and bilingual education. I determined effect size using Cohen’s *d*.

To examine the relationship between students’ intrinsic value and the characteristics that are central to their self-image (how they would like others to see them), I determined the Pearson’s correlation between the two items that attempt to assess children’s affiliation (participation and isolation) and/or achievement goals.

### ***Educational Policy Context***

Data for the first hypothesis (p. 19) were subjected to a z test for proportions to examine whether there are differences in the percentage of ELL students in TX and AZ who meet state-mandated assessment academic expectations. The effect size of the differences in the proportion of ELLs mastering TAKS and AIMS was determined by

using the arcsin transformation, then calculating the directional  $h$  value by finding the difference of the two arcsin transformation values (Cohen, 1988).

Data for the second hypothesis (p.19) were subjected to a t test to examine whether there are differences in the National Assessment of Educational Progress (NAEP) scores in Reading. For the effect size, Cohen's  $d$  was determined.

Data for the third hypothesis (p. 19) were subjected to a z test for proportions to examine whether there are differences in the proportion of ELLs in TX and AZ who score *Below Basic* on NAEP. The directional  $h$  value was determined as the effect size measure.

Data for the fourth hypothesis (p. 19) were subjected to two separate t tests to examine whether AZ ELLs' scores on the National Assessment of Educational Progress (NAEP) scores in Reading increased from 1998 to 2005 and from 1998 to 2007. Cohen's  $d$  was determined for the effect size measures.

***Acculturation, Scholastic Competence, Disposition Toward School, and Motivation***

Data for H<sub>5A</sub> (p. 19) were subjected to a z test for proportions to examine whether there are differences in the proportion of ELLs in SEI and bilingual education meeting the criteria for assimilation. The directional  $h$  value was determined as the effect size measure.

Data for H<sub>5B</sub> (p. 19) were subjected to three separate t tests to examine whether there are differences in the means for acculturative stress, perceived discrimination, and

general stress means between ELLs in SEI and bilingual education. Cohen's *d* was determined for the effect size measures.

Data for H<sub>5C</sub> (p. 20) were subjected to t tests to examine whether there are differences in the perceived scholastic competence means of students, parents, and teachers between ELLs in SEI and bilingual education. Cohen's *d* was determined for the effect size measures.

Data for H<sub>5D</sub> (p. 20) were subjected to four separate t tests to examine whether there are differences in the means of student disposition toward school between ELLs in SEI and bilingual education. Cohen's *d* was determined for the effect size measures.

Data for H<sub>5E</sub> (p. 20) were subjected to five separate t tests to examine whether there are differences in the means for motivation between ELLs in SEI and bilingual education. Cohen's *d* was determined for the effect size measures.

For the sixth hypothesis (p. 20), the correlations among acculturation, acculturative stress, student scholastic competence, student disposition toward school, and student motivational dynamics on SEI and bilingual program membership were examined using discriminant function analysis. For the effect size,  $R^2$  was determined.

Data for the seventh hypothesis (pp. 20-21) were subjected to two separate multiple regressions to determine whether parents' and teachers' perceptions of scholastic competence predict SEI students' scholastic competence, and whether parents' and teachers' perceptions of scholastic competence predict bilingual education students' scholastic competence. A test of homogeneity of variance, parallel slopes, and equal intercepts was conducted to assess differential predictability.

Data for the eighth hypothesis (p. 21) were subjected to two separate multiple regressions to determine whether variables related to student disposition toward school predict SEI students' scholastic competence, and whether variables related to student disposition toward school predict bilingual students' scholastic competence. A test of homogeneity of variance, parallel slopes, and equal intercepts was conducted to assess differential predictability.

Data for the ninth hypothesis (p. 21) were subjected to two separate multiple regressions to determine whether variables related to motivation predict SEI students' scholastic competence, and whether variables related to motivation predict bilingual education students' scholastic competence. A test of homogeneity of variance, parallel slopes, and equal intercepts was conducted to assess differential predictability.

Data for the tenth hypothesis (p. 21) were subjected to ten separate one-way between-groups analysis of variance to explore the impact of reading proficiency on scholastic competence, acculturation, student disposition toward school, and motivation. *Etas* were determined for the measure of effect size.

The hypothesized model used in the present study is comprised of individual variables explored and supported by other researchers. Thus, I address research questions individually. However, I interpret the various analyses presented in this chapter not only in reference to the individual research questions they address, but also as a system that informs the viability of the hypothesized model.

## CHAPTER 4

### RESULTS

I divided this chapter into two major sections. In the first, I present results of PCA on *How I Am In My Class* and *The Thing About My School Is...*, and results from preliminary analyses for the exploratory acculturation measure (*Things About Me*) developed for the present study. In the second section, I present results of the analyses that address the research questions for the present study.

#### *Principal Components Analysis for The Thing About My School Is...*

The 30 items of *The Thing About My School Is...* were subjected to PCA using SPSS Version 14. Prior to performing PCA, I assessed the suitability of data for factor analysis. Inspection of the correlation matrix revealed the presence of many coefficients of at least .3. The Kaiser-Mayer-Okin value was at the recommended value of .62 (Kaiser, 1970, 1974), indicating that the data meet the sampling adequacy requirements for PCA. The Barlett's Test of Sphericity (Bartlett, 1954) was statistically significant ( $p < .01$ ), supporting the factorability of the correlation matrix. PCA resulted in ten components with eigenvalues exceeding 1 (Guttman, 1954), explaining 55.75% of the variance. An inspection of the scree plot revealed a break after the seventh component (Cattell, 1966); however, a parallel analysis (Horn, 1965; Thompson & Daniel, 1996; Thompson, 2004) showed five eigenvalues exceeding the corresponding criterion values for a randomly generated data matrix of the same size (see Table 17). Therefore, five factors were retained. Varimax rotation and a .30 loading criterion was used (see Table 18). The first five factors explained a total of 34.71% of the variance. The factors in rank

order are *Pride in Achieving*, *Participation and Belonging*, *Literacy*, *Rigid and Right*, and *Math*. I present descriptive statistics in Tables 16-19.

### ***Principal Components Analysis for How I Am In My Class***

The 20 items of *How I Am In My Class* were subjected to PCA using SPSS Version 14. Prior to performing PCA, the suitability of data for factor analysis was assessed. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above. The Kaiser-Mayer-Okin value of .72 exceeded the recommended value of .60 (Kaiser, 1970, 1974) for sampling adequacy. The Barlett's Test of Sphericity (Barlett, 1954) was statistically significant ( $p < .01$ ), supporting the factorability of the correlation matrix. PCA resulted in six components with eigenvalues exceeding 1 (Guttman, 1954), explaining 53.92% of the variance. An inspection of the scree plot revealed a break after the fourth component (see Figure 3), and the results of the parallel analysis showed four components with eigenvalues exceeding the corresponding eigenvalues for a randomly generated data matrix of the same size (see Table 21). Therefore, four factors were retained. Varimax rotation and a .30 loading criterion was used (see Table 20). The first four factors explained a total of 42.71% of the variance. The factors in rank order are *Good Worker/Engaged Learner*, *Anxious and Withdrawn*, *Disengaged and Distracted*, and *Struggling and Persistent*. I present descriptive statistics in Tables 20-23.

### ***Alternative Measures of Acculturation: Things About Me***

I included an exploratory measure for acculturation (*Things About Me*) and a demographic information questionnaire in the present study in consideration of Cabassa's

(2003) recommendation that acculturation measures move away from proxy measures because of the limitations of relying on isolated facets of an individual's acculturation experience. The median length of time parents reported that they have lived in the United States was 13 years for TX parents, and 12 years for AZ parents. The correlations between the length of time parents reported having been in the United States and their cultural orientation according the ARSMA-II were moderate for the AZ sample ( $r = -.451$ ) and small for the TX sample ( $r = -.242$ ); however, the correlations were not different from one another, resulting in a  $z = 1.356$ ,  $p = .09$ . These findings support some acculturation theories that assert the longer individuals are in a new setting, the more oriented they become toward the majority culture (Ryder et al., 2000). The correlations for student and parent place of birth with the ARSMA-II were small for the TX sample ( $r = .008$ ,  $r = .109$ , respectively), and moderate for the AZ sample ( $r = .233$ ,  $r = .299$ , respectively). However, a test of the difference between two independent correlation coefficients resulted in no difference with a  $z = 1.441$ ,  $p = .07$  for students; and a  $z = 1.431$ ,  $p = .08$  for parents.

The ARSMA-II (see Table 27) addresses only a limited set of behaviors based primarily on language to assess acculturation (e.g., reading, television, film, speaking), with the exception of the two items that ask the extent to which an individual associates with Anglos. I included a set of exploratory items in *Things About Me* that would contribute to the understanding of acculturation at the individual student level because SEI and bilingual education students are not in a position to choose their preferred language. That is, students' language and peers are dependent on the social and cultural

context of the school setting (e.g., homogenous versus heterogeneous demographics). The scores for the acculturation subset of *Things About Me* were weakly correlated with parent place of birth ( $r = .201$ ) and ARSMA-II scores ( $r = .236$ ); and weakly correlated with student place of birth ( $r = .037$ ) and length of time in the United States ( $r = -.180$ ). I performed a t test to examine whether there were differences in the acculturation scores from the exploratory measure between students in SEI ( $M = .80$ ,  $SD = .28$ ) and bilingual education ( $M = .70$ ,  $SD = .28$ ), resulting in a  $d = .34$ .

***Motivation: Things About Me***

An exploration of the relationship between students' intrinsic value of affiliation and/or achievement (what they value) and the characteristics that are central to their self-image (how they would like others to see them) resulted in a Phi coefficient of .217 ( $p = .245$ ). This suggests that there may be a discordant belief in terms of what students value, and what student would like others to believe that they value. The discordance may be a reflection of what students aspire to be, and who they actually are (at least at present), or an artifact of answering only two constructed-response items. I intended for the items used in the present study to be exploratory. At best, the results suggest that the development of an instrument designed to explore the relationship between students' intrinsic value of affiliation and/or achievement and the characteristics that are central to their self-image may provide identity development information for young children. I present descriptive statistics in Tables 24 and 25.

To explore the differences between students in TX and AZ regarding the things they most like about parties, I performed a z test for proportions and determined the

directional  $h$  value as the effect size measure. Students listed cake, candy, dancing/music, food, jumping balloon, piñata, playing, and presents as their favorite things about parties, but there were no differences in the proportion of the reported variables between SEI and bilingual education students with the exception of jumping balloons, cake, and dancing/music. More students in TX listed “jumping balloons” and “cake” as their favorite things about parties, and more students in AZ listed “dancing/music.” This suggests that students in TX may hold on to child-like preferences for a longer period than students in AZ. It is possible that parents and those who organize parties are the source of the differences; however, it seems likely that children inform the organization of parties by their preferences (at least those where they are the guest of honor). Although I did not anticipate these findings in the framework of the study, it appears that certain qualities among children may be related to their social and cultural network and merit further exploration. For detailed information, see Table 26.

### ***ELL Performance on State Assessments and NAEP***

As anticipated in the first hypothesis, more ELLs in TX (66%;  $\phi = 1.90$ ) met academic expectations on the 2007 English state assessment in Reading in 2007 than in AZ (20%;  $\phi = .93$ ), resulting in  $h = .97$ .

In support of the second hypothesis, the mean Reading NAEP among ELLs was higher in TX ( $M = 196$ ,  $SD = 33$ ) than AZ ( $M = 166$ ,  $SD = 43$ ), resulting in  $d = .78$ .

In support of the third hypothesis, more students in AZ scored *Below Basic* (84%;  $\phi = 2.32$ ) than in TX (62%;  $\phi = 1.81$ ), resulting in  $h = .51$ .

In support of the fourth hypothesis, AZ ELLs' scores did not increase from 1998 ( $M = 166$ ,  $SD = 36$ ) to 2005 ( $M = 175$ ,  $SD = 37$ ), resulting in  $d = .25$ . AZ ELLs scores on the National Assessment of Educational Progress (NAEP) in Reading did not increase from 1998 to 2007 ( $M = 166$ ,  $SD = 43$ ), resulting in  $d < .01$ .

The preceding analyses suggest that AZ policymakers who claimed SEI would address the poor performance among ELLs were gravely mistaken. To date, policymakers have failed to provide evidence to support their claim. With only 20% of ELLs in AZ meeting the state standards in 2007 and the lack of improvement among ELLs in AZ since SEI replaced bilingual education, the reform efforts that were implemented on a platform that claimed the method of language acquisition was to blame are in need of reevaluation. ELL performance on Reading NAEP and AIMS in AZ provides evidence against AZ policymakers' claims, and contributes to the understanding of results for the exploration of identity and motivation among a group of students who are a major focus of educational reform efforts. I consider the remaining analyses in the context of these results, as they provide the contextual framework for ELLs in AZ and TX.

#### ***H<sub>5A and B</sub>: Assimilation and Acculturative Stress***

As anticipated, more ELLs in SEI (39%;  $\phi = 1.35$ ) met the criteria for assimilation than ELLs in bilingual education (9%;  $\phi = .61$ ), resulting in  $h = .74$ .

As anticipated, the mean scores for acculturative stress and perceived discrimination for ELLs in SEI are higher than for ELLs in bilingual education. There was no difference in the mean scores for general stress between ELLs in SEI and

bilingual education. The results of the preceding analyses are partially informed by the analyses for *Things About Me* and the demographic information form. Therefore, I present the elaboration of the results in Chapter 5 in the context of the analyses exploring acculturation and acculturative stress. I present the descriptive statistics and the standardized differences between the means in Table 28.

### ***H<sub>5C</sub>: Scholastic Competence***

In support of the hypothesis, scholastic competence perceptions are moderately higher for ELLs in bilingual education than for ELLs in SEI ( $d = .54$ ); and teachers' beliefs are somewhat higher for ELLs in bilingual education ( $d = .34$ ). However, parents' beliefs of their child's scholastic competence were not different for the two samples ( $d = .09$ ). The evidence in favor of bilingual education, the context of ELL performance across the two states (i.e., higher passing rates on state assessments and NAEP for ELLs in TX), and the findings regarding student disposition toward school contribute to the expectation that bilingual education ELLs have higher perceptions of their academic abilities than their SEI counterparts. Although the analyses conducted in the present study are not longitudinal, the medium standardized difference between the means for perceived scholastic competence is a concern. I anticipated only a small difference given the age and educational experience of the students, and the medium effect size is not expected to reduce across years. This finding may provide evidence for the drastically different dropout rates across states—particularly when considered in light of the extant research regarding perceived scholastic competence and academic achievement. I present the descriptive statistics and the standardized differences between the means in Table 31.

***H<sub>5D</sub>: Student Disposition Toward School***

As anticipated, the mean scores for *Pride in Achieving*, *Participation and Belonging*, *Literacy*, and *Math* were higher for ELLs in bilingual education than for ELLs in SEI. Contrary to the hypothesized results, however, there were no differences in the means for *Rigid and Right* between ELLs in SEI and bilingual education. I present the descriptive statistics and the standardized differences between the means in Table 29.

***H<sub>5E</sub>: Motivation***

In support of the hypothesis, the mean scores for *Disengaged and Distracting* were higher for ELLs in SEI than for ELLs in bilingual programs. However, contrary to the hypotheses, *Good Worker/Engaged Learner*, and *Struggling and Persistent* were higher for ELLs in SEI than for ELLs in bilingual programs. There were no differences in the means for *Anxious and Withdrawn* between ELLs in SEI and bilingual education. I present the descriptive statistics and the standardized differences between the means in Table 30.

***H<sub>6</sub>: SEI and Bilingual Education Group Prediction***

I conducted a two-group linear discriminant analysis using motivation, student disposition toward school, acculturation, acculturative stress, and student scholastic competence variables as predictors of group membership in SEI and bilingual education. I entered all variables simultaneously. The test of the null hypothesis of equal population covariance matrices was not significant ( $p = .81$ ), suggesting that the necessary assumption of non-different covariance matrices is not violated. I present intercorrelations for the predictor variables included in the discriminant analysis in Table

32. The first function (Wilks'  $\lambda$  of .635 with  $\chi^2_{13} = 127.32$ ,  $p < .001$ ) accounted for 38.8% of the variance ( $R = .62$ ) associated with group membership in SEI and bilingual education. Based on univariate  $F$  tests and Fisher's least significant difference post hoc tests, ELLs in SEI had significantly more acculturative stress, had higher levels of both disengagement and persistence; bilingual education students had higher levels of acculturation, scholastic competence, pride in achieving, participation and belonging, as well as higher dispositions toward math and literacy (see Table 33). The group centroids for the first function were .67 (bilingual education), and  $-.85$  (SEI). I present the standardized canonical discriminant function coefficients in Table 34. Standardized canonical discriminant function coefficients are used to compare the relative importance of the independent variables much like beta weights are interpreted in a regression. They reflect the unique, semi-partial contribution of each variable to the discriminant function. I also present the structure coefficients (pooled within-groups correlations between discriminating variables and the standardized canonical discriminant function) in Table 35. I examined classification rates to determine how well the predictors discriminated between SEI and bilingual education groups (see Table 36). Overall, 77.5% of the participants were correctly classified (the expected classification was 56.0% based on the expected hit ratio). To determine whether the variables improved group membership prediction over chance alone, I applied a procedure described by Wiedemann and Fenster (1978). Wiedemann and Fenster used kappa ( $\kappa$ ; Cohen, 1968) to compute the chance corrected percentage of agreement between actual and predicted group membership. Thereafter, they calculated the standard error of  $\kappa$  to test the null hypothesis that the

discriminant function yields zero improvement in classification ability. In the present study,  $\kappa$  is equal to .489, meaning that the variables improved group membership prediction by 49% over and above chance prediction. The standard error of  $\kappa$  in the present study is .066, which results in a  $z = 6.06$ ,  $p < .001$ . Thus, the discriminant function significantly improves group classification over chance alone.

### ***H<sub>7</sub>: Differential Predictability of Scholastic Competence: Parents and Teachers***

#### ***Bilingual Education Sample***

Using a multiple regression design with teacher and parent ratings as predictor variables and student scholastic competence ratings as the outcome variable, the model is significant,  $F(2, 163) = 3.67$ ,  $p = .03$ , accounting for 3% of the variance (Adjusted R-square). However, when examined separately, only the teacher rating variable was a significant predictor of student scholastic competence. I present the summary of the multiple regression statistics for bilingual education students in Table 37.

#### ***SEI Sample***

Using a multiple regression design with teacher and parent ratings as predictor variables and student scholastic competence ratings as the outcome variable, the model is significant,  $F(2, 126) = 3.67$ ,  $p = .02$ , accounting for 5% of the variance (Adjusted R-square). However, when examined separately, the teacher and parent rating variables are not significant predictors of student scholastic competence. I present a summary of the multiple regression statistics for SEI students in Table 38.

#### ***Differential Predictability***

The Snedecor and Cochran (1967) test for homogeneity of variance, parallel slopes, and equal intercepts was conducted to assess differential predictability. The test is contained in four separate regression models: bilingual education sample, SEI sample, a combined data set with both the bilingual and SEI sample, and an overall model with a dummy variable for the moderator (see Tables 39 and 40).

The test of homogeneity of variance is a two-tailed  $F$  test of the ratio of the bilingual education sample residual mean square to the SEI sample residual mean square:

$$F = \text{MSE}_{\text{Bilingual}} / \text{MSE}_{\text{SEI}}$$

$$F_{163, 126} = .381 / .449$$

$$= .849$$

The obtained  $F = .849$  does not exceed the critical value of 1.33. The null hypothesis of equal variances is not rejected at the .05 level, and it is concluded that the residual variances of the regressions were not significantly different.

An estimate of the pooled residual variance accounted for by differences in the slopes of the two regression lines is found by:

$$\text{SSE}_{\text{difference (slope)}} = \text{SSE}_{\text{DV}} - (\text{SSE}_{\text{Bilingual}} + \text{SSE}_{\text{SEI}})$$

$$= 121.09 - (62.17 + 56.58)$$

$$= 121.09 - 118.75$$

$$= 2.34$$

$$\text{MSE}_{\text{difference (slope)}} = 2.34 / (df_{\text{DV}} - df_{\text{Bilingual}} - df_{\text{SEI}})$$

$$= 2.34 / (291 - 163 - 126)$$

$$= 2.34 / 2$$

$$= 1.17$$

$$\text{MSE}_{pooled} = (\text{SSE}_{Bilingual} + \text{SSE}_{SEI}) / (df_{Bilingual} + df_{SEI})$$

$$= (62.17 + 56.58) / (163 + 126)$$

$$= .411$$

$$F_{3, 289} = \text{MSE}_{\text{difference (slope)}} / \text{MSE}_{pooled}$$

$$= 2.847$$

The resulting  $F = 2.847$  exceeds the critical value of 2.65; the null hypothesis of no differences in the slopes is rejected, and it is concluded that the slopes are not the same. In support of the substantive hypothesis of differential predictability, it is concluded that the intercept is not the same and that different regression models for each group be used.

As previously mentioned, the overall model using parent and teacher beliefs of students' scholastic competence as predictors of student perceptions of scholastic competence was significant. However, when examined separately, only teachers were significant predictors of student scholastic competence perceptions for the bilingual education sample—although this was not the case for the SEI sample, contrary to the findings in the preliminary study. However, regression models tend to be unstable and are thus best examined with larger samples and with as few predictors as necessary. The results of the regression models suggest that scholastic competence perceptions among students are perhaps not inferred using the same criteria as that used by teachers or parents with the exception of teachers for the bilingual education sample. It may be that teachers and students for the bilingual sample are using similar criteria in reporting perceptions of scholastic competence, whereas parents are not. If that is indeed the case,

students and teachers in TX may be more familiar with the state standards and the assessments that measure those standards. This may be due to the focus of a high stakes testing curriculum and as such, teachers may use student performance on state standards as part of their reporting criteria whereas parents may use a more globalized view of their child's abilities. In the present case, the method of language acquisition moderates the relationship between perceptions held by expectancy socializers and perceptions held by students. Here, bilingual education contributes to the relationship between teacher perceptions of student scholastic competence and students' own perceptions of their scholastic competence. The finding that bilingual education contributes to the accuracy of scholastic competence perceptions shared by teachers and students supports the extant literature on bilingual education (e.g., ELLs in bilingual education acquire academic content and English language more effectively and efficiently than their SEI counterparts). The finding also supports research on the influence of teacher expectancy effects (e.g., teacher expectations are based mostly on accurate information [Good & Brophy, 2008]). However, it is unclear why parents are not significant predictors of student perceived scholastic competence. Considering the findings in the present study and those in the preliminary study (i.e., that parents are not significant predictors of student perceived scholastic competence), it seems that for Mexican-descent students, the findings from prior research are not generalizable.

***H<sub>8</sub>: Differential Predictability of Scholastic Competence: Student Disposition Toward School***

***Bilingual Sample***

Using a multiple regression design with variables related to student disposition toward school as predictor variables and students' scholastic competence beliefs as the outcome variable, the model is not significant,  $F(5, 160) = 1.46, p = .21$ , accounting for 4% of the variance (Adjusted R-square). I present summary of the multiple regression scholastic competence statistics for bilingual education students in Table 41.

### ***SEI Sample***

Using a multiple regression design with motivation predictor variables and students' scholastic competence beliefs as the outcome variable, the model is significant,  $F(5, 123) = 5.31, p < .01$ , accounting for 14% of the variance (Adjusted R-square). However, when examined separately, only the Math and Literacy variables were significant predictors of student scholastic competence. I present a summary of the multiple regression scholastic competence statistics for SEI students in Table 42. The Snedecor and Cochran (1967) test for homogeneity of variance, parallel slopes, and equal intercepts was conducted to assess differential predictability. The test is contained in four separate regression models: bilingual education sample, SEI sample, a combined data set with both the bilingual and SEI sample, and an overall model with a dummy variable for the moderator (see Tables 43 and 44). The test of homogeneity of variance is a two-tailed  $F$  test of the ratio of the bilingual education sample residual mean square to the SEI sample residual mean square:

$$F = \text{MSE}_{\text{Bilingual}} / \text{MSE}_{\text{SEI}}$$

$$F_{160, 123} = .387 / .390$$

$$= .992$$

The obtained  $F = .992$  does not exceed the critical value of 1.33. The null hypothesis of equal variances would not be rejected at the .05 level, and it is concluded that the residual variances of the regressions were not significantly different.

An estimate of the pooled residual variance accounted for by differences in the slopes of the two regression lines is found by:

$$\begin{aligned} \text{SSE}_{\text{difference (slope)}} &= \text{SSE}_{DV} - (\text{SSE}_{\text{Bilingual}} + \text{SSE}_{\text{SEI}}) \\ &= 115.06 - (61.96 + 48.01) \\ &= 5.09 \end{aligned}$$

$$\begin{aligned} \text{MSE}_{\text{difference (slope)}} &= 5.09 / (df_{DV} - df_{\text{Bilingual}} - df_{\text{SEI}}) \\ &= .85 \end{aligned}$$

$$\begin{aligned} \text{MSE}_{\text{pooled}} &= (\text{SSE}_{\text{Bilingual}} + \text{SSE}_{\text{SEI}}) / (df_{\text{Bilingual}} + df_{\text{SEI}}) \\ &= (61.96 + 48.01) / (160 + 123) \\ &= .389 \end{aligned}$$

$$\begin{aligned} F_{6, 283} &= \text{MSE}_{\text{difference (slope)}} / \text{MSE}_{\text{pooled}} \\ &= 2.19 \end{aligned}$$

The resulting  $F = 2.19$  exceeds the critical value of 2.12. The null hypothesis of no differences in the slopes is rejected, and it is concluded that the slopes are different. In support of the substantive hypothesis of differential predictability, different regression models for each group should be used.

With the method of language acquisition as the moderator variable for the two regression models in the differential predictability outcome, it may be that SEI creates a situation wherein competence in academic content is directly related to a general

perception of scholastic competence. The overall performance of ELLs in AZ, when compared to the performance and higher perceived scholastic competence of bilingual education ELLs in TX, suggest that competence in academic content becomes a necessary condition for overcoming detrimental influences on student scholastic competence perceptions for ELLs in AZ.

***H<sub>9</sub>: Differential Predictability of Scholastic Competence: Motivation***

***Bilingual Sample***

Using a multiple regression design with variables related to motivation as predictor variables and students' scholastic competence beliefs as the outcome variable, the model is not significant,  $F(4, 161) = .59, p = .67$ , accounting for 1% of the variance (Adjusted R-square). I present a summary of the multiple regression statistics for bilingual education students in Table 45.

***SEI Sample***

Using a multiple regression design with variables related to motivation as predictor variables and students' perceived scholastic competence as the outcome variable, the model is significant,  $F(4, 124) = 4.70, p < .01$ , accounting for 10% of the variance (Adjusted R-square). However, when examined separately, only the variables *Anxious and Withdrawn*, *Disengaged and Distracted*, and *Struggling and Persistent* were significant predictors of students' perceived scholastic competence; *Good Worker/Engaged* was not a predictor of students' perceived scholastic competence. I present a summary of the multiple regression statistics for bilingual education students in Table 46.

### *Differential Predictability*

The Snedecor and Cochran (1967) test for homogeneity of variance, parallel slopes, and equal intercepts was conducted to assess differential predictability. The test is contained in four separate regression models: bilingual education sample, SEI sample, a combined data set with both the bilingual and SEI sample, and an overall model with a dummy variable for the moderator (see Tables 47 and 48).

The test of homogeneity of variance is a two-tailed  $F$  test of the ratio of the bilingual education sample residual mean square to the SEI sample residual mean square:

$$F = \text{MSE}_{\text{Bilingual}} / \text{MSE}_{\text{SEI}}$$

$$F_{161, 124} = .398 / .421$$

$$= .945$$

The obtained  $F = .945$  does not exceed the critical value of 1.33. The null hypothesis of equal variances is not rejected at the .05 level, and it is concluded that the residual variances of the regressions were not significantly different.

An estimate of the pooled residual variance accounted for by differences in the slopes of the two regression lines is found by:

$$\text{SSE}_{\text{difference (slope)}} = \text{SSE}_{\text{DV}} - (\text{SSE}_{\text{Bilingual}} + \text{SSE}_{\text{SEI}})$$

$$= 119.12 - (64.03 + 52.23)$$

$$= 2.86$$

$$\text{MSE}_{\text{difference (slope)}} = 2.86 / (df_{\text{DV}} - df_{\text{Bilingual}} - df_{\text{SEI}})$$

$$= 2.86 / (290 - 161 - 124)$$

$$= .572$$

$$\begin{aligned}
MSE_{pooled} &= (SSE_{Bilingual} + SSE_{SEI}) / (df_{Bilingual} + df_{SEI}) \\
&= (64.03 + 52.23) / (161+124) \\
&= .408 \\
F_{5, 285} &= MSE_{difference (slope)} / MSE_{pooled} \\
&= 1.402
\end{aligned}$$

The resulting  $F = 1.402$  does not exceed the critical value of 2.25; the null hypothesis of no differences in the slopes is not rejected, and it is concluded that the slopes are not different. The null hypothesis of equal intercepts is tested as follows:

$$\begin{aligned}
SSE_{difference (intercept)} &= SSE_{Overall} - SSE_{DV} \\
&= 127.30 - 119.12 \\
&= 8.18 \\
MSE_{difference (intercept)} &= 8.18 / .849 \\
&= 9.51 / .945 \\
&= 10.06 \\
F_{1, 290} &= MSE_{difference (intercept)} / MSE_{DV} \\
&= 10.06 / .41 \\
&= 24.55
\end{aligned}$$

The resulting  $F = 23.76$  exceeds the critical value of 3.88. The null hypothesis of no difference in the intercept is rejected, and it is concluded that the intercept is not the same. In support of the substantive hypothesis of differential predictability, different regression models should be used for each group.

The results of the differential predictability tests suggest that the method of language acquisition creates a differential influence for the motivation variables on perceived scholastic competence. It appears that SEI instruction influences the direct relationship between higher scores on *Anxious and Withdrawn* and *Disengaged and Distracted* and lower perceived scholastic competence. The results of the differential predictability tests suggest the possibility that the method of language acquisition influences the kind of anxiety among SEI students that is related to their perceptions of lower ability. Additionally, SEI instruction appears to influence the ways in which students relate to learning (i.e., withdrawing, disengaging, and being distracted) when perceptions of lower ability are present. However, for SEI students, higher scores on *Struggling and Persistent* were related to higher perceptions of scholastic competence. Thus, SEI appears to moderate the relationship between the motivation variable of *Struggling and Persistent* and higher feelings of perceived scholastic competence for ELLs in AZ. When considered in the educational context provided by the initial analyses, the variable *Struggling and Persistent* seems to be associated with a group of students who despite poor performance, appear to have the desire to overcome obstacles. These findings provide additional evidence for the resilience that is present among SEI students. Therefore, although no differences were found on the *Anxious and Withdrawn* emerging disposition toward school for ELLs in TX and AZ ( $d = .17$ ) in the present study, the other results discussed contribute evidence in favor of the assertion that the sources of anxiety that contribute to the emerging disposition toward school for ELLs in AZ and TX is distinct.

***H<sub>10</sub>: Impact of Reading Proficiency on Scholastic Competence, Acculturation, Disposition Toward School, and Motivation***

Separate one-way between-groups analysis of variance for each sample were conducted to explore the impact of reading proficiency as measured by state assessments (i.e., TAKS and AIMS) on levels of perceived scholastic competence, acculturation, student disposition toward school, and motivation (see Tables 49 and 51). Participants were divided into three groups according to their level of proficiency (Group 1: Did not meet the standard [TX  $n = 8$ ; AZ  $n = 7$ ]; Group 2: met the standard [TX  $n = 88$ ; AZ  $n = 11$ ]; Group 3: Exceeded the standard [TX  $n = 35$ ; AZ  $n = 1$ ]). Based on TAKS reading proficiency results, there were overall differences among levels of perceived scholastic competence and one of the student dispositions toward school variables (*Struggling and Persistent*) for the TX sample. In the post hoc Scheffé tests, there was a large mean difference ( $d = .88$ ) in scholastic competence perceptions between bilingual students who met the standard in comparison to bilingual students who did not meet the standard (see Tables 51 and 53). For SEI students, there were no differences in scholastic competence perceptions based on the different proficiency levels on Reading AIMS; however, the lack of significant findings are due to insufficient power. There was a negligible mean difference ( $d = .09$ ) in scholastic competence perceptions for SEI students who did not meet the standard in comparison with those who did meet the standard. The mean differences in scholastic competence perceptions between the different proficiency levels support the assertion that the educational context influences the belief systems of students. In TX, ELLs are expected to meet at least the minimum expectations on the

state assessment, and failure to do so appears to be related to lower perceived scholastic competence. In AZ, however, academic performance does not appear to impact scholastic competence perceptions when the mean difference is examined.

## CHAPTER 5

### DISCUSSION

I present this chapter in three main sections. In the first, I present empirical support for the framework of the study and discuss the potential impact of differing educational policies and reform efforts on the belief systems of ELLs, their parents, and teachers. I then present limitations that may potentially influence the substantive hypotheses and conclude with suggestions for future research. Throughout, I argue that the individual variables that inform student achievement are best understood in the context of the system.

#### *Co-Regulation of Emerging Identity for ELLs in AZ and TX*

In support of the realized model of the co-regulation of emerging identity framework applied to the present study (see Figure 5), acculturation, acculturative stress, students' perceived scholastic competence, student disposition toward school, and student motivational dynamics variables contributed to the accurate prediction of 77.5% of the participants' group membership in either SEI or bilingual education. Higher acculturation, perceived scholastic competence, and student disposition toward school (*Pride in Achieving, Participation and Belonging, and Math*) were associated with membership in bilingual education, whereas higher levels of acculturative stress and certain student motivational dynamics (*Disengaged and Distracted, Good Learner, and Struggling and Persistent*) were related to SEI membership. Based on the results of the discriminant analysis, I explore the individual contribution of the different variables (acculturation, student disposition toward school, motivation, and perceived scholastic

competence) to the framework. The results for the analyses are presented separately for each variable in the sections that follow; however, the underlying assumption is that the analyses contribute to the understanding of the overall model when considered together, and in context of the academic achievement of ELLs in AZ and TX.

### ***Acculturation***

One of the reasons proxy measures of acculturation are problematic is that they ignore the multiple factors that contribute to an individual's acculturation experience. To illustrate, the proportion of students born in Mexico is the same across samples (see Table 10;  $h < .01$ ). Students in the TX sample, however, are more traditional in terms of cultural affiliations than the students in the AZ sample. According to the distribution of the ARSMA-II scores (Table 52), the difference in the proportion of traditional students between samples results in  $h = .98$ . This finding contributes evidence against birthplace as a proxy measure because other factors such as the proximity of Mexico (66 miles from Tucson, AZ and 4.5 miles from El Paso, TX), and method of language acquisition (the use of Spanish in TX and English only in AZ) are not taken into account—yet could potentially influence acculturation. Accordingly, the ARSMA-II uses language as the primary proxy for acculturation, and while it provides information regarding language preferences, it fails to provide information regarding an individual's multidimensional acculturation level. As another example, although more ELLs in SEI met the criteria for assimilation than ELLs in bilingual education ( $h = .74$ ) on the ARSMA-II, only a small difference between AZ and TX students was found using the exploratory (*Things About Me*) measure ( $d = .34$ ). That is, students in the TX sample enjoy culturally-related foods

and music “a little more” than do students in the AZ sample—but the students in the AZ sample appear to be assimilated to a much higher degree than the students in TX sample according to the ARSMA-II scores. The validity of the scores on the ARSMA-II could be suspect when a measure that includes student-choice (music and food) results in a different picture of student affiliation toward culture. However, if the underlying assumption of the ARSMA-II is that language provides an accurate proxy for acculturation, then the assumption that some policies influence acculturation must also be accepted given that certain states mandate English instruction for ELLs. For the samples in the present study, language is not a personal choice but one that is influenced by the language acquisition policies of their respective states. Hence, it is important to make the distinction between “acculturation” based exclusively on a language-based measure and the impact of language policies on language preferences that influence variables related to acculturation.

The focus of the present study is not that different acculturation measures will yield only partial information, but that the ways in which cultural attributes are mediated by laws (i.e., English-only) might influence the acculturative trajectory in terms of identity and cultural pride. The moderately higher acculturative stress ( $d = .47$ ) and perceived discrimination ( $d = .53$ ) among ELLs in SEI and the lack of difference in general stress ( $d = .12$ ) between ELLs in SEI and bilingual education suggest that laws may potentially influence the variables related to the development of ethnic identity. Thus, the ARSMA-II may not provide scores that are valid for interpreting acculturation per se. However, the scores do provide information about different pressures on culture

and identity through students' language preferences (i.e., the internalization of contextual pressures) in states with different language acquisition policies. In TX, native language is fostered and valued: native language is the conduit through which learning occurs. In AZ, native language is treated as a hindrance that must be remedied.

### ***Student Disposition Toward School***

Based on the co-regulation of emerging identity model (McCaslin, in press-a), certain dispositions toward school (i.e., *Participation and Belonging*, *Pride in Achieving*, and *Math*) are at least in part moderately higher (see Table 29) for the TX sample because of the educational context in which they participate. Bilingual education for the participating students involves the use of native language for the acquisition of academic knowledge, and all of the principals and teachers of the participating El Paso, TX schools are native Spanish speakers. Additionally, the mission statement for the participating district in El Paso, TX includes fluency in two or more languages. Bilingualism is an explicit expectation in the mission statement and program philosophy, and is modeled by teachers and principals—and this is reflected in the higher mean for TX ELLs on *Participation and Belonging* ( $d = .42$ ). Consistent with the *Interdependence Hypothesis* (Cummins, 1979), students are provided the opportunity to engage in higher-level cognitive skills by means of their native language, which results in the effective transfer of academic knowledge to a new language. It is possible that the program that influences higher scores on *Participation and Belonging* is related to higher scores on *Pride in Achieving* and *Math*. However, the TAKS has arguably been considered a less stringent state assessment than others because of the content, which is selected on the criteria of

minimum skills. The expectation is that students who pass the TAKS have mastered at least the minimum required skills at a given grade level, resulting in traditionally high passing rates. Thus, the higher mean for the TX sample in *Pride in Achieving* ( $d = .47$ ) and *Math* ( $d = .41$ ) may be attributed to the expectation of high passing rates for students in TX.

The variable *Rigid and Right* is theorized to reflect a student disposition that results from instruction based on a premise of “right or wrong,” with little to no room for improvisation or deviation. The small mean difference ( $d = .20$ ) between students in AZ and TX on the *Rigid and Right* disposition suggests that the high stakes curricula across states (i.e., NCLB) have influenced the ways in which teachers approach instruction. It would be worthwhile to reexamine whether *Rigid and Right* may indeed be slightly higher for TX ELLs, despite the insufficient sample size required to detect significance for a small mean difference between samples. These findings would contribute to the understanding of student approach to school variables that result from the different high stakes testing curricula used in different states (e.g., teaching to the test).

### ***Motivation Dynamics***

It is theorized that *Disengaged and Distracted* is a motivational dynamic that results from repeated attempts to engage in learning that lack validation. In contrast, *Good Workers/Engaged Learners* or *Struggling and Persistent* students are theorized to have experienced affirmation for their efforts, making continued efforts worthwhile. The key difference between students who are *Good Workers/Engaged Learners* and those who are *Struggling and Persistent*, however, is achievement. The motivational dynamic

among students who are engaged in their learning and work well is rooted in sustaining achievements whereas motivation for those who struggle and persist in their efforts is rooted in effort and perseverance that is believed to lead to achievement. The higher mean scores for AZ ELLs on *Disengaged and Distracted* ( $d = .42$ ) would suggest that the educational context is void of validation if not for the other results that contradict the substantive hypothesis. Namely, not all student motivation dynamics are negative for the SEI group: means for *Good Worker/Engaged Learner* ( $d = .28$ ), and *Struggling and Persistent* ( $d = .36$ ) were higher for ELLs in SEI than for ELLs in bilingual education. The simultaneous presence of positive student motivational dynamics suggest that the higher scores for *Disengaged and Distracted* may be evidence of a lack of validation, but only in certain contexts (e.g., language-based difficulties). For the present sample, the method of instruction for ELLs in SEI may present a situation wherein students do not have the opportunity to engage in higher-level thinking (CALP) despite their efforts, which may have contributed to their higher scores on *Disengaged and Distracted*. However, SEI ELLs also scored higher on *Good Worker/Engaged Learner* and *Struggling and Persistent* suggesting that although SEI ELLs may have limited opportunities to engage in CALP, they may also have been provided with situations that increase effort. McClelland (1985) explained that situational manipulations—namely, feedback on failure—could result in increased motive strength. There is no reason to believe that individual differences in terms of the need for achievement would differ across samples in the present study. Thus, the higher means on *Struggling and Persistent* and *Good Worker/Engaged Learner* for AZ ELLs suggest that experiences of lower

academic achievement may actually increase motivation. It is important to note, however, that the prolonged effort without validation may eventually result in *Disengaged and Distracted* (i.e., dropping out of school) among students who have had their motives manipulated via failure.

Although there were no differences in the means for *Anxious and Withdrawn* ( $d = .17$ ) between ELLs in SEI and bilingual education, the finding is not counterintuitive. It was hypothesized that SEI students would be higher in *Anxious and Withdrawn* because of the educational context in which they are situated. That is, given that SEI ELLs were hypothesized to be *Rigid and Right* due to the method of language acquisition, it was also expected that the student disposition toward school would influence students' motivation resulting in higher scores on *Anxious and Withdrawn*. Despite the lack of support for the substantive hypothesis, what is of interest is that sources of influence for *Anxious and Withdrawn* across the two samples appear to be quite distinct.

For TX ELLs, scores for the *Struggling and Persistent* variable were higher for students who did not meet the standard than for students who did meet the standard ( $d = .83$ ). Scores for the *Anxious and Withdrawn* variable may also have been higher for students who did not meet the standard than for students who met the standard ( $d = .34$ ); however, the sample size was insufficient to detect significance. These findings suggest that for TX ELLs, there may be sources that contribute to higher anxiety among ELLs who have not met the standards on the TAKS, but there are also underlying sources of optimism. The potential presence of both *Anxious and Withdrawn* and *Struggling and Persistent* variables among TX ELLs may be attributed to the traditionally high passing

rates for TAKS and the consequences for failing the TAKS (e.g., grade retention and poor school and district performance labels). That is, the high passing rates may influence optimism (e.g., “Almost everyone passes. I can do this.”) and anxiety (e.g., “What if I do not pass when almost everyone does pass?”) among students who have not met the standards. These findings suggest that there may be beliefs that a concerted effort will help students who have not met the standard persist to meet their achievement goals. In contrast to TX ELLs, there was no difference in *Anxious and Withdrawn* based on SEI ELL’s AIMS results ( $d = .10$ ). Also, *Struggling and Persistent* may have been higher for students who met the standard than for those who did not meet the standard ( $d = .53$ ), however the sample size was insufficient to detect significance. For AZ students, anxiety may be present regardless of whether students meet the state standards whereas optimism may be present only for those who meet standards. These findings suggest that the lack of empirically supported instructional methods (i.e., bilingual education) make educational attainment a constant struggle—and any achievement goals met do not ensure continued success.

### ***Conclusion***

One of the reasons the focus of the present study was on elementary school students was because I wanted to explore acculturation, acculturative stress, scholastic competence beliefs, student disposition toward school, and student motivation among younger students. Research is limited on variables associated with ELL academic achievement prior to the age in which dropping out is an option. Additionally, exploring variables associated with academic achievement in late childhood and early adolescence

may result in findings that may be difficult to interpret because of selection threat (i.e., ELLs may have already dropped out of school). I also wanted to explore perceived scholastic competence during the years associated with inflated perceived scholastic competence (even though that does not appear to be the case for the present samples) because it has not been pursued recently to the extent that it was pre-NCLB.

The development of adaptive learning for SEI students potentially involves “taking charge of the frustration of difficult learning” (McCaslin, in press-a, p. 5). For SEI students in the present study, the *Struggling and Persistent* variable is evidence of resilience that with the appropriate support can “teach students how to reach for the not-yet-attainable, risk failure, and develop self-confidence” (McCaslin, in press-a, p. 5). However, two of the sources of influence in the co-regulation of emergent identity model for the present study include state and federal assessments—which inform the identity of AZ ELLs differentially than they do for TX ELLs.

The persistent failure on state assessments and denigration of cultural artifacts (i.e., language) for SEI students in AZ exert pressures that inform their identity differently than if they were in a culturally responsive setting. Such pressures may compound the personal and social conflict regarding student identity in terms of their cultural background. The conflict for AZ ELLs is evidenced by the higher scores on acculturative stress and perceived discrimination, as well as their lower scores on perceived scholastic competence. However, as already mentioned, the higher means on *Struggling and Persistent* for AZ ELLs suggests the presence of resilience that could be a venue to foster higher perceived scholastic competence. In the absence of culturally-

supportive influences, however, the resilience found in the SEI sample may possibly fade or be replaced with a less optimal solution (i.e., something other than academic achievement).

As previously mentioned, success on state assessments for bilingual education students in TX is part of the academic culture expectation as evidenced by students' higher scores on perceived scholastic competence and *Pride in Achieving*. In terms of co-regulation, the press of the academic culture is evident in the fact that teachers are significant predictors of student perceived scholastic competence, whereas parents are not. However, the lower means on *Struggling and Persistent* for TX ELLs in comparison to their SEI counterparts (despite the substantive hypothesis asserting otherwise), raises a concern. It is possible that TX ELLs (or TX students in general) may have diminished opportunities for adaptive learning in terms of risk and the not-yet-attainable because the high stakes assessments are based on minimum skills and held as "the" standard for student learning. It is also possible that TX ELLs may not have higher scores on *Struggling and Persistent* because their learning opportunities are readily accessible, thus relieving them of the necessity to compensate for a lack of CALP opportunities. However, ELLs in TX also had lower scores on *Good Worker/Engaged Learner*, and may potentially have higher scores on *Rigid and Right*. These findings suggest, in addition to the potential of differential influences on *Anxious and Withdrawn*, that relatively easily attained success (if that is indeed the case) may promote sheer volition. Volition, as opposed to engaged learning, may be promoted by a curriculum comprised of "teaching to the test." The present study focused on samples of students who are

traditionally associated with high dropout rates; therefore, more information on the potential influence of “too-readily earned success“ (McCaslin, in press-a, p. 5) is necessary.

### ***Limitations***

There are threats to internal validity, as well as threats to statistical conclusion validity, that affect the interpretation and results of the present study. Because I was not able to assign randomly students to treatment and control groups, there is the potential for a selection threat. Attempts were made to ensure all variables that could be controlled (e.g., similarity of districts from which students, parents, and teachers were recruited) were controlled; however, the different political climates across jurisdictions may have influenced participation (or lack thereof). Mortality is another threat to internal validity that must be considered in the present study. In addition to the difficulties encountered in recruiting and retaining the AZ sample, there was more attrition in the AZ sample than in the TX sample. The Legal Arizona Workers Act (2008), which potentially affected many of the families in the AZ sample, went into effect *after* parents and students had agreed to participate, but *before* data were collected. This selection artifact may have contributed to the reduced sample size in AZ when compared to the sample in TX. *Interaction of Selection and Treatment* is a threat that becomes more likely as difficulty in getting a sample to participate increases. In the case of the present study, the control group (AZ) has been much more difficult to recruit than the treatment group (TX), possibly because of factors relating to political climate regarding students of Mexican descent. This is a threat that needs to be considered carefully in the interpretation of the substantive

hypotheses, since any effects that might appear to be attributable to bilingual education might be a result of the differential participation of ELLs in AZ. That is, characteristics may contribute to the differentiation between ELLs in AZ who participate, and those who do not, and this must be taken into account in the interpretation.

### ***Future Directions***

In consideration of potentially higher *Rigid and Right* scores for bilingual ELLs, although they were not significantly higher in the present study due to sample size, it may be that the educational context in TX (high stakes testing curricula) contributes to *Anxious and Withdrawn*. However, for SEI ELLs, the sources influencing perceived discrimination and acculturative stress may be the relevant factors for anxiety. An examination of the influence of different educational contexts on students' approach to school and motivation is necessary to determine whether the sources that contribute to *Anxious and Withdrawn* are indeed distinct between ELLs in different educational contexts. Additionally, future studies examining the replicability of expectancy socializers' perceptions of scholastic competence as predictors of students' perceived scholastic competence are necessary. It would be useful to determine if the lack of generalizability of prior findings to the present study is due to the influence of NCLB (i.e., teachers focus on high stakes assessments), cultural influences, or other potential factors.

The teachers of the TX ELLs who participated in the study are native Spanish speakers, and many of the principals ( $n = 8$ ) were selected to participate in a federally funded graduate program specializing in bilingual education. Exploring teacher quality in

terms of program philosophy, training, and administrator knowledge and assistance may provide valuable information contributing to the understanding of variables that are related to at-risk student success.

Finally, to establish whether the co-regulation model is indeed robust for the populations of interest, future studies examining the differential impact of two-way dual language immersion are necessary.

**Table 8**

**Relationship of Respondent to Student as Reported in the Demographic  
Information Questionnaire**

<b>El Paso, TX</b>	Frequency	Percent
Biological mother	124	74.7
Biological father	6	3.6
Step-mother	2	1.2
Guardian	2	1.2
Friend living in home	3	1.8
Total	137	82.5
Missing	29	17.5
<b>Tucson, AZ</b>		
Biological mother	62	48.1
Biological father	3	2.3
Adoptive-mother	1	.8
Total	66	51.2
Missing	63	48.8

**Table 9**  
**Parent or Guardian of Student Place of Birth as**  
**Reported in the Demographic Information Questionnaire**

<b>El Paso, TX</b>	Frequency	Percent
US	15	9.0
Mexico	121	72.9
Total	136	81.9
Missing	30	18.1
<b>Tucson, AZ</b>		
US	20	15.5
Mexico	46	35.7
Total	66	51.2
Missing	63	48.8

**Table 10**  
**Student Place of Birth as Reported**  
**in the Demographic Information Questionnaire**

<b>El Paso, TX</b>	Frequency	Percent
US	97	71.3
Mexico	39	28.7
Missing	30	
<b>Tucson, AZ</b>		
US	47	71.2
Mexico	19	28.8
Missing	63	

**Table 11**  
**Marriage Status of Parent or Guardian of Student**  
**as Reported in the Demographic Information Questionnaire**

<b>El Paso, TX</b>	Frequency	Percent
Never married	17	10.2
Separated	15	9.0
Divorced	11	6.6
Married	82	49.4
Living with partner	6	3.6
Widow	4	2.4
Total	135	81.3
Missing	31	18.7
<b>Tucson, AZ</b>		
Never married	7	5.40
Separated	7	5.40
Divorced	6	4.70
Married	39	30.20
Living with partner	3	2.30
Widow	1	.80
Total	63	48.80
Missing	66	51.20

**Table 12**  
**Primary Language Spoken at Home**  
**as Reported in the Demographic Information Questionnaire**

<b>El Paso, TX</b>	Frequency	Percent
English	1	.6
Spanish	136	81.9
Total	138	83.1
Missing	28	16.9
<b>Tucson, AZ</b>		
English	15	11.9
Spanish	51	39.5
Total	66	51.2
Missing	63	48.8

**Table 13**

**Highest Education Completed by Parent or Guardian**  
**as Reported in the Demographic Information Questionnaire**

<b>El Paso, TX</b>	Frequencies	Percent
Elementary K-8	18	10.8
High school 9-11	42	25.3
High school diploma	19	11.4
GED	20	12.0
Some college	18	10.8
Undergraduate degree	6	3.6
Graduate degree	2	1.2
Vocational	5	3.0
Total	130	78.9
Missing	36	21.7
<b>Tucson, AZ</b>		
Elementary K-8	9	7.0
High school 9-11	14	10.9
High school diploma	15	11.6
GED	5	3.9
Some college	12	9.3
Undergraduate degree	5	3.9
Graduate degree	1	.8
Vocational	1	.8
Total	62	48.1
Missing	67	51.9

**Table 14**  
**Parental/Guardian-Reported Aspirations for their Child**  
**as Reported in the Demographic Information Questionnaire**

<b>El Paso, TX</b>	Frequency	Percent
Finding work as soon as it is possible	2	1.2
Graduate from high school	10	6.0
Finish GED	3	1.8
Some college	3	1.8
Graduate from college or university	115	69.3
Other	2	1.2
Total	135	81.3
Missing	31	18.7
<b>Tucson, AZ</b>		
Finding work as soon as it is possible	2	1.6
Graduate from high school	8	6.2
Some college	5	3.9
Graduate from college or university	47	36.4
Other	1	.8
Total	63	48.8
Missing	66	51.2

**Table 15**

**Parental/Guardian-Reported Beliefs of their Child's Aspirations from  
the Demographic Information Questionnaire**

<b>El Paso, TX</b>	Frequency	Percent
Graduate from high school	11	6.6
Finish GED	2	1.2
Some college	4	2.4
Graduate from college or university	115	69.3
Other	2	1.2
Total	134	80.7
Missing	32	19.3
<b>Tucson, AZ</b>		
Finding work as soon as it is possible	2	1.6
Graduate from high school	9	7.0
Some college	5	3.9
Graduate from college or university	45	34.9
Other	1	.8
Total	62	48.1
Missing	67	51.9

**Table 16****Total Variance Explained for *The Thing About My School Is...***

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cum %	Total	% of Variance	Cum %
1	3.501	11.670	11.670	3.501	11.670	11.670
2	1.903	6.345	18.015	1.903	6.345	18.015
3	1.840	6.133	24.148	1.840	6.133	24.148
4	1.681	5.603	29.751	1.681	5.603	29.751
5	1.512	5.040	34.791	1.512	5.040	34.791
6	1.465	4.884	39.675	1.465	4.884	39.675
7	1.390	4.632	44.307	1.390	4.632	44.307
8	1.225	4.085	48.392	1.225	4.085	48.392
9	1.171	3.904	52.297	1.171	3.904	52.297
10	1.036	3.452	55.749	1.036	3.452	55.749
11	.995	3.316	59.065			
12	.975	3.250	62.315			
13	.947	3.157	65.473			
14	.926	3.088	68.561			
15	.865	2.883	71.444			
16	.857	2.856	74.299			
17	.797	2.656	76.956			
18	.773	2.577	79.533			
19	.749	2.495	82.028			
20	.681	2.269	84.298			
21	.622	2.073	86.371			
22	.601	2.004	88.375			
23	.591	1.971	90.346			
24	.543	1.809	92.155			
25	.497	1.658	93.813			
26	.474	1.581	95.394			
27	.441	1.471	96.865			
28	.362	1.208	98.074			
29	.339	1.129	99.202			
30	.239	.798	100.00			

**Table 17****Comparison of Initial Eigenvalues with Parallel Analysis Eigenvalues for *The Thing******About My School Is...***

Component	Initial Eigenvalues			Parallel Analysis Eigenvalues		
	Total	Cumulative %	Cumulative %	Total	% of Variance	Cumulative %
1	3.501	11.670	11.670	1.898	6.327	6.327
2	1.903	6.345	18.015	1.803	6.011	12.339
3	1.840	6.133	24.148	1.767	5.890	18.228
4	1.681	5.603	29.751	1.641	5.469	23.697
5	1.512	5.040	34.791	1.509	5.028	28.725
6	1.465	4.884	39.675	1.488	4.960	33.685
7	1.390	4.632	44.307	1.415	4.716	38.401
8	1.225	4.085	48.392	1.284	4.281	42.681
9	1.171	3.904	52.297	1.271	4.236	46.917
10	1.036	3.452	55.749	1.208	4.028	50.945
11	.995	3.316	59.065	1.164	3.881	54.826
12	.975	3.250	62.315	1.067	3.555	58.381
13	.947	3.157	65.473	1.037	3.458	61.839
14	.926	3.088	68.561	1.029	3.430	65.269
15	.865	2.883	71.444	.927	3.089	68.357
16	.857	2.856	74.299	.893	2.977	71.334
17	.797	2.656	76.956	.862	2.874	74.208
18	.773	2.577	79.533	.833	2.777	76.986
19	.749	2.495	82.028	.823	2.744	79.730
20	.681	2.269	84.298	.732	2.439	82.169
21	.622	2.073	86.371	.707	2.357	84.526
22	.601	2.004	88.375	.695	2.316	86.841
23	.591	1.971	90.346	.627	2.090	88.931
24	.543	1.809	92.155	.584	1.947	90.878
25	.497	1.658	93.813	.536	1.786	92.664
26	.474	1.581	95.394	.507	1.690	94.354
27	.441	1.471	96.865	.493	1.644	95.998
28	.362	1.208	98.074	.417	1.389	97.387
29	.339	1.129	99.202	.410	1.365	98.752
30	.239	.798	100.00	.374	1.248	100.000

**Table 18****Loadings for All Variables for *The Thing About My School Is...***

Item	Component				
	1	2	3	4	5
When my teacher is proud of me, I feel even better about me	.619	.178	-.011	.028	.005
Teachers want students to do their best	.569	.034	-.038	-.092	-.067
Understanding the story helps you read the words right	.512	.340	.116	.067	-.071
I like my teacher	.487	-.182	.102	.116	.088
I feel better about myself when I understand how to do the math problems	.455	.225	-.090	-.075	.212
If you study when you are in school now, you will get a good job later	.434	-.020	.232	-.025	.113
I feel better about myself when I have a good day at school	.402	.395	-.231	.027	-.031
I look forward to school each day	.400	-.013	.218	.139	.255
I learn even better when my teacher helps me	.383	.048	.008	.299	.059
Going to a good school is important for success in life	.271	.119	-.207	.142	-.235
I learn more when I work with a partner	-.007	.774	.058	-.023	-.127
I mostly like learning in small groups	.113	.569	.103	.070	-.035
Two heads are better than one	.044	.456	-.041	.095	-.013
In math, there is only one right way to get the answer	-.111	.420	-.002	.076	.374
When my group gets along I feel better about myself.	.338	.343	.129	.210	.171
There is only one right way to read a book	.117	.139	.053	.079	.086
I like reading and talking about books	.146	.147	.823	.016	-.091
I am a good reader	.075	.103	.823	-.032	.019
I think this school is a good school	-.035	-.219	.283	.259	.134
When it is my turn to read out loud and I make no mistakes, I like reading even better	.155	.006	.272	.528	-.087
If my group argues, I don't feel like doing the work anymore	-.043	.002	.015	.483	-.039
If your group doesn't get along, there is nothing you can do about it.	.078	.001	.065	.478	-.106
I don't like math as much if I am not the first one finished	.119	.049	-.125	.459	.110
I don't like to read if I don't know all the words	-.019	.153	-.197	.443	.085
When I miss school, I feel bad if the others didn't notice	.343	-.136	.234	.425	-.139
Teachers like smart students best	-.347	.197	.003	.396	.176
If my teacher is in a bad mood, I get in a bad mood	-.028	.118	-.010	.311	.053
I am good at math	.219	.018	-.029	.112	.761
I enjoy doing work in math	.221	-.118	-.126	.018	.754
In math the fastest student is not always the best student	.218	.011	-.183	.168	-.343

**Table 19****Varimax Rotation of Five Factor Solution for *The Thing About My School Is...***

Item	Component				
	1	2	3	4	5
When my teacher is proud of me, I feel even better about me.	.619				
Teachers want students to do their best.	.569				
Understanding the story helps you read the words right.	.512	.340			
I like my teacher.	.487				
I feel better about myself when I understand how to do the math problems.	.455				
If you study when you are in school now, you will get a good job later.	.434				
I feel better about myself when I have a good day at school.	.402	.395			
I look forward to school each day.	.400				
I learn even better when my teacher helps me.	.383				
Going to a good school is important for success in life.					
I learn more when I work with a partner.		.774			
I mostly like learning in small groups.		.569			
Two heads are better than one.		.456			
In math, there is only one right way to get the answer.		.420			.374
When my group gets along I feel better about myself.	.338	.343			
There is only one right way to read a book					
I like reading and talking about books.			.823		
I am a good reader.			.823		
When it is my turn to read out loud and I make no mistakes, I like reading even better.				.528	
If my group argues, I don't feel like doing the work anymore.				.483	
If your group doesn't get along, there is nothing you can do about it.				.478	
I don't like math as much if I am not the first one finished.				.459	
I don't like to read if I don't know all the words.				.443	
When I miss school, I feel bad if the others didn't notice.	.343			.425	
Teachers like smart students best.	-.347			.396	
If my teacher is in a bad mood, I get in a bad mood.				.311	
I am good at math.					.761
I enjoy doing work in math.					.754
In math the fastest student is not always the best student.					-.343

**Table 20****Total Variance Explained for *How I Am In My Class***

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cum %	Total	% of Variance	Cum %
1	2.995	14.976	14.976	2.995	14.976	14.976
2	2.649	13.244	28.220	2.649	13.244	28.220
3	1.599	7.997	36.217	1.599	7.997	36.217
4	1.299	6.494	42.711	1.299	6.494	42.711
5	1.175	5.874	48.586	1.175	5.874	48.586
6	1.067	5.335	53.920	1.067	5.335	53.920
7	.983	4.916	58.836			
8	.943	4.713	63.549			
9	.821	4.103	67.652			
10	.749	3.745	71.397			
11	.729	3.643	75.039			
12	.696	3.479	78.518			
13	.678	3.389	81.907			
14	.614	3.072	84.979			
15	.594	2.970	87.949			
16	.533	2.665	90.614			
17	.526	2.629	93.243			
18	.506	2.529	95.772			
19	.430	2.152	97.924			
20	.415	2.076	100.000			

**Table 21****Comparison of Initial Eigenvalues with Parallel Analysis Eigenvalues for *How I Am******In My Class***

Component	Parallel Analysis Eigenvalues			Parallel Analysis Eigenvalues		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.995	14.976	14.976	1.545	7.723	7.723
2	2.649	13.244	28.220	1.371	6.855	14.578
3	1.599	7.997	36.217	1.328	6.640	21.217
4	1.299	6.494	42.711	1.245	6.224	27.441
5	1.175	5.874	48.586	1.221	6.105	33.546
6	1.067	5.335	53.920	1.185	5.925	39.471
7	.983	4.916	58.836	1.129	5.647	45.118
8	.943	4.713	63.549	1.082	5.410	50.528
9	.821	4.103	67.652	1.038	5.190	55.718
10	.749	3.745	71.397	1.006	5.028	60.745
11	.729	3.643	75.039	.970	4.848	65.594
12	.696	3.479	78.518	.942	4.710	70.303
13	.678	3.389	81.907	.903	4.513	74.816
14	.614	3.072	84.979	.853	4.266	79.082
15	.594	2.970	87.949	.797	3.984	83.066
16	.533	2.665	90.614	.749	3.747	86.813
17	.526	2.629	93.243	.725	3.627	90.440
18	.506	2.529	95.772	.693	3.463	93.903
19	.430	2.152	97.924	.652	3.262	97.164
20	.415	2.076	100.000	.567	2.836	100.000

**Table 22****Loadings for All Variables for *How I Am In My Class***

	Component			
	1	2	3	4
I was into it	.683	.046	-.124	.060
Listening	.674	-.029	-5.51E-006	.154
Ready	.646	-.180	-.008	-.119
Doing my part	.644	.019	-.083	-.012
Smiling	.492	.127	.094	.111
Sitting with group	.488	.078	.160	-.166
Working	.320	-.065	-.094	.205
My hands were shaking	-.112	.686	-.102	.187
Headache	.098	.658	.066	.008
My stomach felt funny	-.020	.640	.029	.191
Face hot	-.018	.638	.164	.018
Dry mouth	.086	.609	.238	-.308
I was talking	-.011	-.073	.741	-.016
Looking around1	-.181	.055	.695	-.013
Tired	-.060	.283	.600	.035
Watching	.170	-.055	.481	.312
Hungry	.079	.261	.405	.051
I was getting help	.021	.164	.118	.700
I was helping	.378	-.059	-.072	.557
Stuck	-.188	.288	.273	.514

**Table 23****Varimax Rotation of Four Factor Solution for *How I Am In My Class***

	Component			
	1	2	3	4
I was into it	.683			
Listening	.674			
Ready	.646			
Doing my part	.644			
Smiling	.492			
Sitting with group	.488			
Working	.320			
My hands were shaking		.686		
Headache		.658		
My stomach felt funny		.640		
Face hot		.638		
Dry mouth		.609		-.308
I was talking			.741	
Looking around			.695	
Tired			.600	
Watching			.481	.312
Hungry			.405	
I was getting help				.700
I was helping	.378			.557
Stuck				.514

**Table 24****Student Responses for *Things About Me* Item:****“After school or on the weekends, I like to spend my time...”**

El Paso, TX		Frequency	Percent
	Affiliation Participation	68	51.9
	Affiliation Isolation	55	42.0
	Achievement	8	6.1
Tucson, AZ			
	Affiliation Participation	47	48.5
	Affiliation Isolation	43	44.3
	Achievement	7	7.2

**Table 25****Student Responses for *Things About Me* Item:****“What I Really Like People To Ask Me Is...”**

El Paso, TX		Frequency	Percent
	Affiliation self	122	80.8
	Affiliation others	15	9.9
	Achievement academic	14	9.3
Tucson, AZ			
	Affiliation self	67	70.6
	Affiliation others	14	14.7
	Achievement academic	14	14.7

**Table 26****Student Responses for *Things About Me* Item:****“The things I like most about parties...”**

El Paso, TX ( <i>n</i> = 164)	Percent	Tucson, AZ ( <i>n</i> = 115)	Percent	<i>h</i>
cake	51.2	cake	35.7	0.33
candy	59.8	candy	62.6	0.06
dancing/music	12.2	dancing/music	33.1	0.52
food	27.4	food	33.9	0.25
jumping balloon	40.9	jumping balloon	22.6	0.39
piñata	48.8	piñata	43.5	0.10
playing	18.3	playing	20.9	0.08
presents	12.8	presents	10.4	0.09

**Table 27****ARSMA-II Frequencies**

<b>El Paso, TX</b>	<b>N</b>
Very Assimilated	1
Strongly Anglo Oriented	8
Bicultural	46
Strongly Mexican Oriented	40
Traditional Mexican Oriented	71
<b>Tucson, AZ</b>	
Very Assimilated	17
Strongly Anglo Oriented	22
Bicultural	54
Strongly Mexican Oriented	29
Traditional Mexican Oriented	7

**Table 28****SAFE-C Descriptive Statistics**

		<i>Mean</i>	<i>SD</i>	<i>t</i>	<i>p</i>	<i>d</i>
General Stress	TX	36.12	TX 13.55	-1.04	.30	.12
	AZ	37.76	AZ 12.95			
Acculturative Stress	TX	26.34	TX 10.93	-3.82	<.01	.47
	AZ	30.20	AZ 9.87			
Perceived Discrimination	TX	11.43	TX 7.07	-4.44	<.01	.53
	AZ	14.56	AZ 6.85			

**Table 29****The Thing About My School Is... Descriptive Statistics**

	<i>Mean</i>		<i>SD</i>		<i>t</i>	<i>p</i>	<i>Mean Difference</i>	<i>Std. Error Difference</i>	<i>d</i>
Pride in Achieving	TX	3.53	TX	.50	4.15	<.01	.29	.07	.47
	AZ	3.24	AZ	.71					
Participation and Belonging	TX	3.01	TX	.90	3.69	<.01	.39	.11	.42
	AZ	2.63	AZ	.91					
Literacy	TX	2.85	TX	1.36	2.34	.02	.35	.15	.26
	AZ	2.50	AZ	1.17					
Rigid and Right	TX	2.10	TX	.62	1.75	.08	.15	.09	.20
	AZ	1.95	AZ	.87					
Math	TX	3.36	TX	1.07	3.4	<.01	.44	.13	.41
	AZ	2.91	AZ	1.14					

**Table 30****How I Am In My Class Descriptive Statistics**

		<i>Mean</i>	<i>SD</i>	<i>t</i>	<i>p</i>	<i>Mean Difference</i>	<i>Std. Error Difference</i>	<i>d</i>
Good Worker/Engaged Learner	AZ	.68	AZ .27	2.25	.03	.08	.03	.28
	TX	.60	TX .31					
Anxious and Withdrawn	AZ	.19	TX .24	1.63	.10	.05	.03	.17
	TX	.15	AZ .24					
Disengaged and Distracted	AZ	.46	TX .29	3.95	>.01	.14	.03	.47
	TX	.32	AZ .30					
Struggling and Persistent	AZ	.33	TX .27	3.22	>.01	.11	.03	.36
	TX	.22	AZ .33					

**Table 31****Descriptive Statistics for Scholastic Competence Perceptions**

	<i>Mean</i>		<i>SD</i>		<i>t</i>	<i>p</i>	<i>Mean Difference</i>	<i>Std. Error Difference</i>	<i>d</i>
Student Scholastic Competence Perceptions	TX	2.95	TX	.63	4.67	<.01	.36	.08	.54
	AZ	2.59	AZ	.69					
Parent Ratings	TX	3.25	TX	.61	.27	.79	.03	.10	.04
	AZ	3.22	AZ	.65					
Teacher Ratings	TX	3.25	TX	.96	1.97	.05	.29	.15	.34
	AZ	2.95	AZ	.81					

**Table 32****Discriminant Analysis:****Intercorrelations for Predictor Variables**

	Acculturation	Struggling and Persistent	Disengaged and Distracted	Anxious and Withdrawn	Good Worker	Math	Rigid and Right	Literacy	Participation and Belonging	Pride in Achieving	Acculturative Stress
Student Scholastic Competence	<b>.169</b>	<b>-.186</b>	-.043	<b>-.136</b>	.063	<b>.252</b>	-.021	<b>.185</b>	.036	.106	<b>-.173</b>
Acculturation		<b>-.165</b>	<b>-.199</b>	-.074	-.082	.095	<b>.116</b>	.098	<b>.167</b>	<b>.124</b>	-.100
Struggling and Persistent			<b>.190</b>	<b>.200</b>	<b>.149</b>	<b>-.127</b>	.034	-.062	.024	-.096	<b>.142</b>
Disengaged and Distracted				<b>.266</b>	-.020	-.079	-.037	<b>-.259</b>	<b>-.119</b>	<b>-.157</b>	.189
Anxious and Withdrawn					.004	<b>-.137</b>	.094	-.038	-.049	-.100	<b>.201</b>
Good Worker						<b>.222</b>	.062	<b>.180</b>	<b>.127</b>	<b>.205</b>	.070
Math							.095	-.024	.043	<b>.219</b>	-.046
Rigid and Right								.105	<b>.180</b>	<b>.183</b>	<b>.157</b>
Literacy									<b>.138</b>	<b>.177</b>	-.102
Participation and Belonging										<b>.306</b>	-.020
Pride in Achieving											-.033

*Note: Correlations in bold are significant at .05*

**Table 33****Tests of Equality of Group Means****Bilingual Education Sample in Discriminant Analysis**

	Wilks' Lambda	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>	R
Student Scholastic Competence Perceptions	.928	22.250	1	287	<.001	.27
Acculturative Stress	.949	15.365	1	287	<.001	.26
Pride in Achieving Participation and Belonging	.944	16.924	1	287	<.001	.24
Literacy	.960	11.897	1	287	.001	.20
Rigid and Right	.982	5.226	1	287	.023	.13
Math	.991	2.500	1	287	.115	.09
Good Worker Anxious and Withdrawn	.957	12.792	1	287	<.001	.21
Disengaged and Distracted	.981	5.573	1	287	.019	.14
Struggling and Persistent	.990	2.999	1	287	.084	.10
Acculturation	.955	13.441	1	287	<.001	.21
	.968	9.369	1	287	.002	.18
	.774	83.824	1	287	<.001	.48

**Table 34****Standardized Canonical Discriminant Function Coefficients**

	Function
	1
Student Scholastic Competence Perceptions	.252
Acculturative Stress	-.463
Pride in Achieving	.276
Participation and Belonging	.186
Literacy	.081
Rigid and Right	.055
Math	.292
Good Worker/Engaged Learner	-.382
Anxious and Withdrawn	.077
Disengaged and Distracted	-.129
Struggling and Persistent	-.023
Acculturation	.659

**Table 35****Structure Matrix for Discriminant Analysis**

	Function
	1
Acculturation	.713
Student Scholastic Competence Perceptions	.367
Pride in Achieving	.320
Acculturative Stress	-.305
Disengaged and Distracted	-.286
Math	.279
Participation and Belonging	.269
Struggling and Persistent	-.238
Good Worker/Engaged Learner	-.184
Literacy	.178
Anxious and Withdrawn	-.135
Rigid and Right	.123

**Table 36****Classification Results for Discriminant Analysis**

		Predicted Group Membership		Total
		Bilingual	SEI	
Count	Bilingual	137	25	162
	SEI	40	87	127
%	Bilingual	84.6	15.4	100.0
	SEI	31.5	68.5	100.0

**Table 37**

**Summary of Parent and Teacher Ratings of Scholastic Competence as Predictors of  
Student Scholastic Competence Perceptions for Bilingual Education Students**

	<i>B<sub>1</sub></i>	SE	$\beta$	<i>t</i>	<i>Zero Order</i>	<i>Part Correlations</i>	<i>Partial Correlations</i>	<i>p</i>
Teacher	.16	.06	.23	2.69	.20	.21	.21	.01*
Parent	-.08	.10	-.07	-.84	.03	-.07	-.06	.40

**Table 38**

**Summary of Parent and Teacher Ratings of Scholastic Competence as Predictors of  
Student Scholastic Competence Perceptions for SEI Students**

	<i>B<sub>1</sub></i>	SE	$\beta$	<i>t</i>	<i>Zero Order</i>	<i>Part Correlations</i>	<i>Partial Correlations</i>	<i>p</i>
Teacher	.19	.11	.15	1.64	.19	.15	.14	.10
Parent	.25	.14	.16	1.80	.20	.16	.16	.07

**Table 39****Regression Formulae for Bilingual Education, SEI, Overall, and the DV Model for****Parent and Teacher Ratings of Scholastic Competence as Predictors of Student****Scholastic Competence Perceptions**

<b>BE</b>	2.69	-	0.082	*	Parent	+	0.161	*	Teacher				
	Beta Values												
	R = .208												
<b>SEI</b>	1.209	-	0.251	*	Parent	+	0.194	*	Teacher				
	Beta Values												
	R = .244												
<b>Overall</b>	2.15	+	0.038	*	Parent	+	0.167	*	Teacher				
	Beta Values												
	R = .198												
<b>DV</b>	2.68	-	0.046	*	Parent	+	0.142	*	Teacher	-	0.335	*	DV
	Beta Values												
	R = .315												

**Table 40****Analysis of Variance of the Models for Predicting Scholastic Competence****Perceptions with Parent and Teacher Ratings**

	<i>Source</i>	<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>p</i>
<b>Bilingual Model</b>	Regression	2.80	2	1.4	3.67	0.028
	Residual	62.17	163	0.4		
<b>SEI Model</b>	Regression	3.58	2	1.8	3.98	0.021
	Residual	56.58	126	0.4		
<b>Overall Model</b>	Regression	5.27	2	2.6	5.96	0.002
	Residual	129.16	292	0.4		
<b>DV Model</b>	Regression	13.34	3	4.4	10.69	<.001
	Residual	121.09	291	0.4		

**Table 41****Summary of Student Disposition Toward School as Predictors of Scholastic****Competence Perceptions: Bilingual Education Students**

Student Disposition to School	$B_1$	SE	$\beta$	$t$	$p$
Pride in Achieving	.16	.10	.13	1.63	.11
Participation Belonging	.03	.06	.04	.49	.62
Rigid and Right	-.09	.06	-.01	-.11	.13
Literacy	.06	.04	.12	1.51	.91
Math	.06	.06	.08	1.00	.32

**Table 42****Summary of Student Disposition Toward School as Predictors of****Scholastic Competence Perceptions: SEI Students**

Student Disposition to School	$B_1$	SE	$\beta$	$t$	$p$
Pride in Achieving	-.12	.09	-.13	-1.32	.19
Participation Belonging	-.06	.07	-.09	-.93	.35
Rigid and Right	-.12	.07	-.15	-1.77	.08
Literacy	.13	.05	.22	2.67	.01
Math	.25	.06	.35	3.95	<.01

**Table 43**

**Regression Formulae for Bilingual Education, SEI, Overall, and the DV Model for Scholastic Competence**

	<b>Scholastic Competence</b>						
<b>Bilingual Education</b>	1.98 + 0.16 * PA + 0.03 * FB + 0.05 * LIT - 0.00 * RR + 0.06 * M						
	Beta Values	0.12	0.04	0.12	0	0.09	
	R=.215						
<b>SEI</b>	2.32 - 0.11 * PA - 0.05 * FB + 0.13 * LIT - 0.11 * RR + 0.22 * M						
	Beta Values	-0.12	-0.06	0.23	-0.14	0.38	
	R=.449						
<b>Overall</b>	2.05 + 0.03 * PA + 0 * FB + 0.1 * LIT - 0.06 * RR + 0.15 * M						
	Beta Values	0.03	0	0.19	-0.07	0.25	
	R=.230						
<b>DV</b>	2.73 - 0.00 * PA - 0.02 * FB + 0.09 * LIT - 0.07 * RR + 0.13 * M - 0.28 * DV						
	Beta Values	0.00	-0.02	0.17	-0.08	0.22	-0.21
	R=.380						

**Table 44****Analysis of Variance of the Models for Predicting Scholastic Competence****Perceptions with Student Disposition Toward School**

	<i>Source</i>	<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>p</i>
<b>Bilingual Model</b>						
	Regression	3	5	0.60	1.56	.175
	Residual	62	160	0.39		
<b>SEI Model</b>						
	Regression	12	5	2.43	6.23	<.001
	Residual	48	123	0.39		
<b>Overall Model</b>						
	Regression	7.1	4	1.78	4.08	.003
	Residual	127	291	0.44		
<b>DV Model</b>						
	Regression	19	6	3.23	8.11	<.001
	Residual	115	289	0.40		

**Table 45****Summary of Motivation Variables as Predictors of Scholastic Competence****Perceptions: Bilingual Education Students**

Motivation	$B_i$	SE	$\beta$	$t$	$p$
Good Worker / Engaged	.23	.16	.12	1.45	.14
Anxious and Withdrawn	-.08	.21	-.03	-.36	.72
Disengaged and Distracted	.04	.17	.02	.22	.82
Struggling and Persistent	-.09	.19	-.04	-.46	.64

**Table 46****Summary of Motivation Variables as Predictors of Scholastic Competence****Perceptions: SEI Students**

Motivation	$B_1$	SE	$\beta$	$t$	$p$
Good Worker / Engaged	.34	.22	.13	1.52	.13
Anxious and Withdrawn	-.61	.26	-.22	-2.36	.02
Disengaged and Distracted	.42	.22	.18	1.93	.05
Struggling and Persistent	-.53	.18	-.26	-2.94	<.01

**Table 47**

**Regression Formulae for Bilingual Education, SEI, Overall, and the DV Model for Motivation Variables as Predictors of Scholastic Competence Perceptions**

<b>Bilingual Education</b>	2.83	+	0.23	*	GW	-	0.07	*	AW	+	0.04	*	DD	-	0.09	*	SP				
Beta Values					0.12				-0.03				0.02				-0.04				
	R=.12																				
<b>SEI</b>	2.47	+	0.34	*	GW	-	0.61	*	AW	+	0.42	*	DD	-	0.53	*	SP				
Beta Values					0.07				0.043				0.03				0.05				
	R=.36																				
<b>Overall</b>	2.80	+	0.21	*	GW	-	0.30	*	AW	+	0.05	*	DD	-	0.408	*	SP				
Beta Values					0.09				-0.11				0.02				-0.18				
	R=.23																				
<b>DV</b>	3.2	+	0.28	*	GW	-	0.28	*	AW	+	0.16	*	DD	-	0.33	*	SP	-	0.35	*	DV
Beta Values					0.12				-		0.10		0.07				-				0.26
	R=.338																				

**Table 48****Analysis of Variance of the Models for Predicting Scholastic Competence****Perceptions with Motivation Variables**

	<i>Source</i>	<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>P</i>
<b>Bilingual Model</b>						
	Regression	0.94	4	0.23	0.59	0.670
	Residual	64	161	0.4		
<b>SEI Model</b>						
	Regression	7.92	4	1.98	4.7	0.001
	Residual	52.2	124	0.42		
<b>Overall Model</b>						
	Regression	7.13	4	1.78	4.08	0.003
	Residual	127	291	0.44		
<b>DV Model</b>						
	Regression	15.3	5	3.06	7.46	<.001
	Residual	119	290	0.41		

**Table 49**  
**ANOVAs for TX Sample**

El Paso, TX		Sum of Squares	Df	Mean Square	F	Sig.	<i>eta</i>
Scholastic Competence Perceptions	Between Groups	3.334	2	1.667	4.543	.012	.257
	Within Groups	46.975	128	.367			
	Total	50.310	130				
Acculturation	Between Groups	.053	2	.026	.029	.972	.021
	Within Groups	117.459	128	.918			
	Total	117.511	130				
Pride in Achieving	Between Groups	.055	2	.028	.119	.888	.043
	Within Groups	29.673	128	.232			
	Total	29.729	130				
Good Worker	Between Groups	.215	2	.107	1.041	.356	.126
	Within Groups	13.214	128	.103			
	Total	13.429	130				
Anxious and Withdrawn	Between Groups	.053	2	.027	.444	.643	.083
	Within Groups	7.693	128	.060			
	Total	7.746	130				
Disengaged and Distracted	Between Groups	.100	2	.050	.579	.562	.095
	Within Groups	11.066	128	.086			
	Total	11.166	130				
Struggling and Persistent	Between Groups	.509	2	.255	3.464	.034	.227
	Within Groups	9.404	128	.073			
	Total	9.913	130				
Participation and Belonging	Between Groups	1.269	2	.634	.763	.468	.109
	Within Groups	106.388	128	.831			
	Total	107.656	130				
Literacy	Between Groups	6.218	2	3.109	1.695	.188	.161
	Within Groups	234.729	128	1.834			
	Total	240.947	130				
Rigid and Right	Between Groups	1.130	2	.565	1.472	.233	.150
	Within Groups	49.142	128	.384			
	Total	50.272	130				
Math	Between Groups	2.311	2	1.155	1.126	.328	.131
	Within Groups	131.361	128	1.026			
	Total	133.672	130				

**Table 50****Post Hoc Scheffé Comparisons for TX Sample**

Dependent Variable	HST	HST	Mean Difference	SE	<i>p</i>	<i>d</i>
Scholastic Competence Perceptions	Met standard	Did not meet standard	.466	.224	.118	.89
	Exceeded the standard	Did not meet standard	.166	.237	.783	.32
	Exceeded the standard	Met standard	.299	.121	.050	.49
Struggling and Persistent	Did not meet standard	Met Standard	.242	.100	.057	.83
	Did not meet standard	Exceeded the standard	.277	.106	.036	.98
	Met Standard	Exceeded the standard	.035	.054	.812	.15

**Table 51**  
**ANOVAs for AZ Sample**

Tucson, AZ		Sum of Squares	df	Mean Square	F	Sig.	<i>eta</i>
Scholastic Competence Perceptions	Between Groups	1.208	2	.604	1.511	.250	.399
	Within Groups	6.396	16	.400			
	Total	7.604	18				
Acculturation	Between Groups	4.391	2	2.195	2.999	.078	.522
	Within Groups	11.714	16	.732			
	Total	16.105	18				
Pride in Achieving	Between Groups	.139	2	.069	.314	.735	.194
	Within Groups	3.536	16	.221			
	Total	3.675	18				
Good Worker	Between Groups	.018	2	.009	.163	.851	.141
	Within Groups	.891	16	.056			
	Total	.909	18				
Anxious Withdrawn	Between Groups	.025	2	.012	.260	.774	.177
	Within Groups	.763	16	.048			
	Total	.787	18				
Disengaged Distracted	Between Groups	.122	2	.061	.899	.427	.318
	Within Groups	1.083	16	.068			
	Total	1.204	18				
Struggling and Persistent	Between Groups	.161	2	.081	1.393	.277	.385
	Within Groups	.926	16	.058			
	Total	1.088	18				
Participation and Belonging	Between Groups	1.396	2	.698	1.605	.232	.409
	Within Groups	6.959	16	.435			
	Total	8.355	18				
Literacy	Between Groups	.597	2	.298	.267	.769	.180
	Within Groups	17.851	16	1.116			
	Total	18.447	18				
Rigid and Right	Between Groups	.257	2	.129	.171	.844	.145
	Within Groups	12.008	16	.750			
	Total	12.265	18				
Math	Between Groups	.273	2	.136	.213	.810	.161
	Within Groups	10.227	16	.639			
	Total	10.500	18				

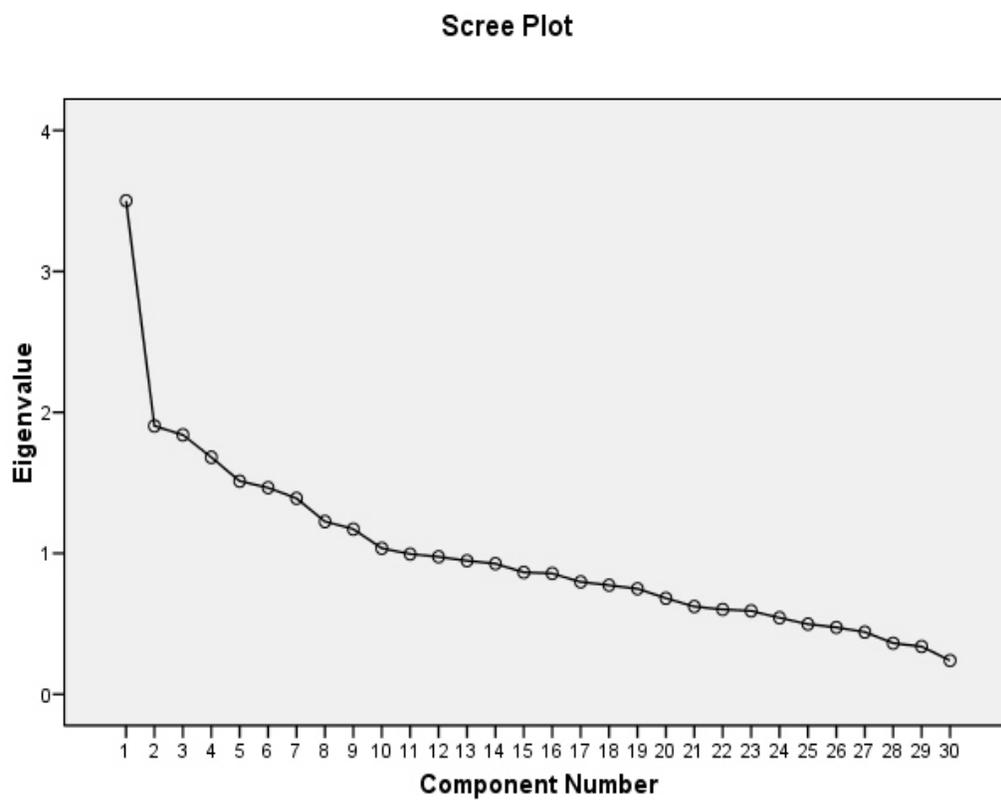
**Table 52****ARSMA-II Score Distribution**

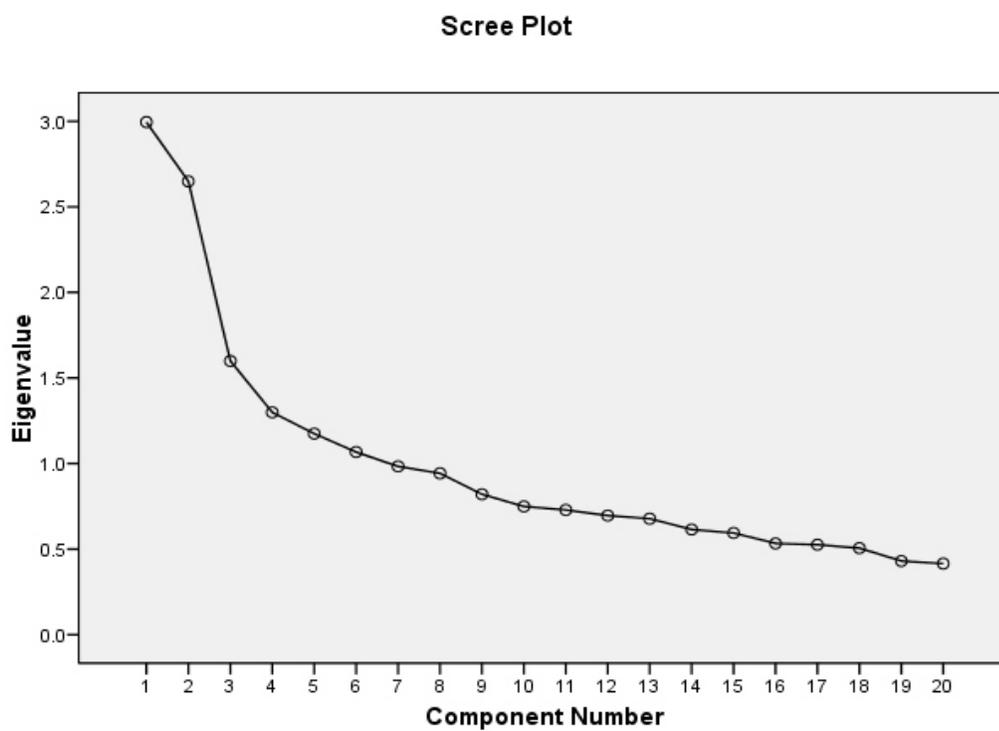
		Frequency	Percent
<b>El Paso, TX</b>	Very assimilated	1	.6
	Strongly Anglo oriented	8	4.8
	Bicultural	46	27.7
	Strongly Mexican oriented	40	24.1
	Traditional Mexican oriented	71	42.8
	Total	166	100.0
<b>Tucson, AZ</b>	Very assimilated	17	13.2
	Strongly Anglo oriented	22	17.1
	Bicultural	54	41.9
	Strongly Mexican oriented	29	22.5
	Traditional Mexican oriented	7	5.4
	Total	129	100.0

**Table 53**  
**Mean Differences for Scholastic Competence Perceptions**  
**Based on High Stakes Test Proficiency Levels**

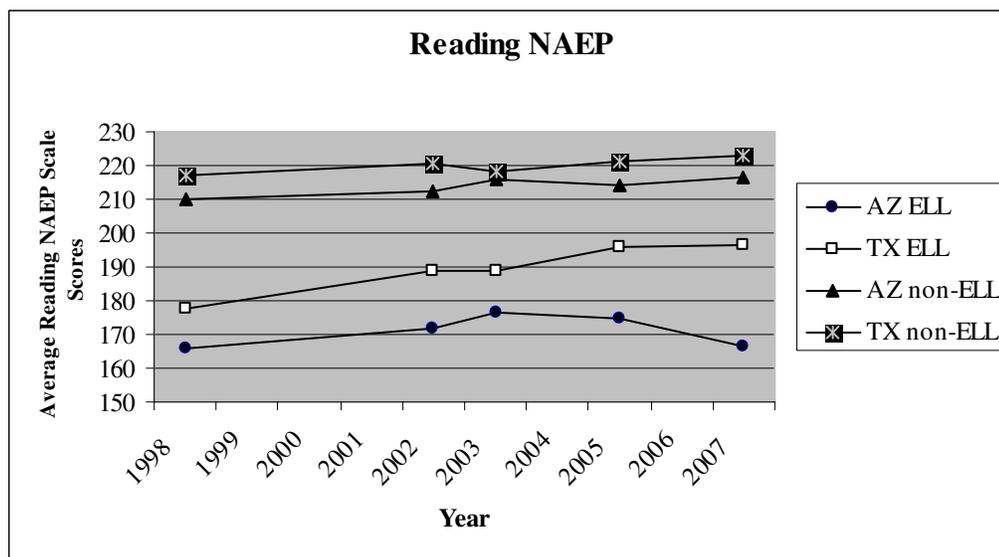
		N	Mean	SD	<i>d</i>	
El Paso, TX	Did not meet standard	8	3.28	.43	.88	
	Met Standard	88	2.81	.61		
	Did not meet standard	8	3.28	.43	.31	
	Exceeded the standard	35	3.11	.62		
	Met Standard	88	2.81	.61	.49	
	Exceeded the standard	35	3.11	.62		
	Tucson, AZ	Did not meet standard	7	2.71	.76	.09
		Met Standard	11	2.65	.54	
Did not meet standard		7	2.71	.76	1.44*	
Exceeded the standard		1	3.80			
Met Standard		11	2.65	.54	2.10*	
Exceeded the standard		1	3.80			

\*Due to the sample size, the SD of only one group was used in the computation (Cohen, 1988).

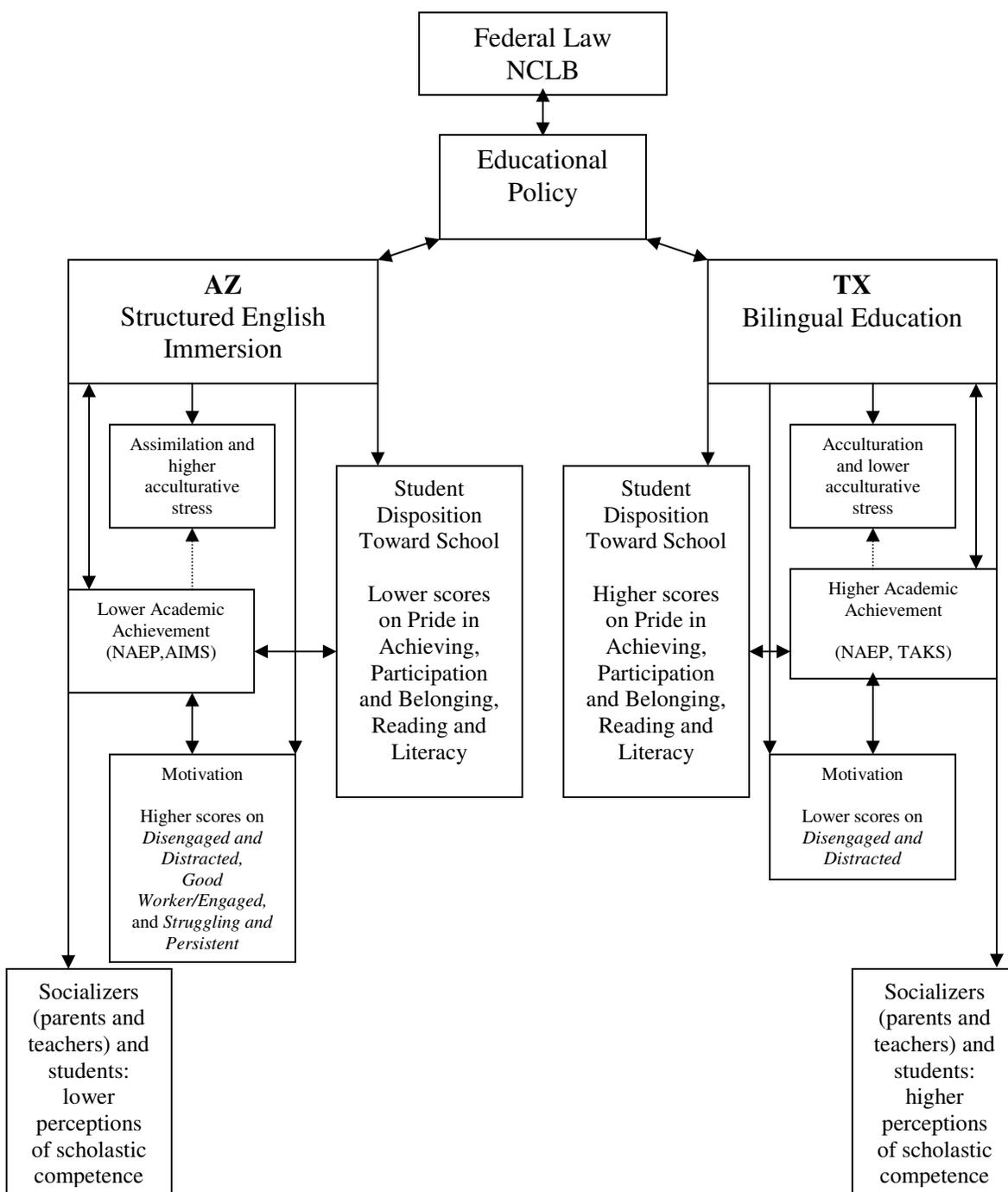
**Figure 2****Scree Plot for *The Thing About My School...***

**Figure 3****Scree Plot for *How I Am In My Class***

**Figure 4**  
**Average Reading NAEP Scores**



**Figure 5**  
Revised Conceptual Framework for  
Educational Policy and ELL Academic Achievement



## APPENDIX A

**OBSERVED EFFECT SIZE FROM PRIOR STUDIES FOR SUBSTANTIVE  
HYPOTHESIS RATIONALE AND A PRIORI SAMPLE SIZE  
DETERMINATION**

<b>Measures</b>	<b>Effect size <i>d</i></b>	<b>Rationale</b>	<b>Anticipated Effect Size</b>
ARSMA-II	1.65	First and fifth generation <i>M</i> and <i>SD</i> (Cuéllar et al., 1995) were used to find <i>d</i> . However, because the present study is not exploring disparate generational ranks, it is anticipated that the ES will not be as large as it was in Cuéllar et al.	$\geq .80$
SAFE-C	1.32	The <i>Ms</i> and <i>SDs</i> for Euramericans and Latinos from Chavez et al. (1997) were used; the sample comprised of children ages 8-10. However, because the present study is not exploring differences between Euramericans and Latinos, it is anticipated that the ES will not be as large as it was in Chavez et al.'s sample.	$\geq .80$
The Self-Perception Profile for Children	.26	The <i>Ms</i> and <i>SDs</i> from the preliminary study (López, 2008) and the 4 <sup>th</sup> grade sample from Harter's (1982) study were used to determine $d = .26$ .	$\geq .24$

## APPENDIX B

### THINGS ABOUT ME

This set of sentences is called “**THINGS ABOUT ME.**” Finish the sentences so that they describe you and the things you like.

- 
1. After school or on the weekends, I like to \_\_\_\_\_.
  2. My favorite snacks and candy are \_\_\_\_\_, \_\_\_\_\_,  
\_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
  3. What I really like people to ask me is \_\_\_\_\_.
  4. My favorite things about parties are \_\_\_\_\_, \_\_\_\_\_,  
\_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
  5. My favorite singers are \_\_\_\_\_, \_\_\_\_\_,  
\_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
  6. My favorite things to have for dinner are \_\_\_\_\_, \_\_\_\_\_,  
\_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.

Estas oraciones se llaman “**COSAS DE MI.**” Terminal as oraciones para que te describan a ti y las cosas que te gustan a ti.

- 
1. Después de escuela o los fines de semana me gusta \_\_\_\_\_.
  2. Mis dulces y golosinas preferidas son \_\_\_\_\_, \_\_\_\_\_,  
\_\_\_\_\_, \_\_\_\_\_, y \_\_\_\_\_.
  3. Lo que más me gusta que me pregunten es \_\_\_\_\_.
  4. Las cosas que mas me gustan de las fiestas son \_\_\_\_\_, \_\_\_\_\_,  
\_\_\_\_\_, \_\_\_\_\_, y \_\_\_\_\_.
  5. Mis cantantes preferidos(as) son \_\_\_\_\_, \_\_\_\_\_,  
\_\_\_\_\_, \_\_\_\_\_, y \_\_\_\_\_.
  6. Mis platillos o comida preferida para la cena son \_\_\_\_\_, \_\_\_\_\_,  
\_\_\_\_\_, \_\_\_\_\_, y \_\_\_\_\_.

## APPENDIX C

### DEMOGRAPHIC INFORMATION FORM ENGLISH VERSION

1. What is your relationship to \_\_\_\_\_?

*Child's Name*

*Check one below:*

1	Biological Mother
2	Biological Father
3	Step Mother
4	Step Father
5	Adoptive Mother
6	Adoptive Father
7	Foster Mother
8	Foster Father
9	Parent's Partner (living in household)
10	Grandmother
11	Grandfather
12	Aunt
13	Uncle
14	Other (please describe):

2. Marital status (*Select one of the options below*):

1	Single, never married
2	Separated
3	Divorced
4	Married
5	Living with partner
6	Widow
7	Other

3. What is the highest level of education you have completed?

*Check one below:*

1	Grades 0-8
2	Grades 9-11
3	High School
4	GED
5	Some college
6	College graduate
7	Post-College degree
8	Other

4. Where were you born? \_\_\_\_\_

5. How long have you lived in the United States? \_\_\_\_\_

*Years, months*

**APPENDIX C - Continued**

**DEMOGRAPHIC INFORMATION FORM ENGLISH VERSION**

6. What is your child's birthdate? \_\_\_\_\_  
*Month/Day/Year*

7. Where was your child born? \_\_\_\_\_

8. Is your child Spanish, Hispanic, or Latino(a)?

*Check one below:*

Yes	No

9. What is the primary language spoken at home? \_\_\_\_\_

10. In reference to the following choices, what do you consider to be most important for your child?

*Check one below:*

1	Finding employment as soon as he/she is able to do so
2	Graduating from high school
3	Completing his/her GED
4	Some college
5	Graduating from college
6	Other

11. In reference to the following choices, what do you believe your child to consider as most important?

*Check one below:*

1	Finding employment as soon as he/she is able to do so
2	Graduating from high school
3	Completing his/her GED
4	Some college
5	Graduating from college
6	Other

## APPENDIX D

## DEMOGRAPHIC INFORMATION FORM SPANISH VERSION

1. ¿Cuál es la relación entre usted y el estudiante \_\_\_\_\_?

*Nombre del estudiante*

*Elija una de las opciones:*

1	Madre biológica
2	Padre biológico
3	Madrastra
4	Padrastro
5	Madre adoptiva
6	Padre adoptivo
7	Guardián (madre)
8	Guardián (padre)
9	Compañero de madre o padre (viviendo en hogar)
10	Abuela
11	Abuelo
12	Tía
13	Tío
14	Otro (por favor describa):

2. Estado civil (*Elija una de las opciones*):

1	Soltero(a), nunca casado
2	Separado(a)
3	Divorciado(a)
4	Casado(a)
5	Viviendo con compañero(a)
6	Viudo(a)
7	Otro

3. ¿Cuál es el nivel escolar más alto logrado?

*Elija una de las opciones:*

1	Primaria 0-8
2	Secundaria 9-11
3	Secundaria (bachiller)
4	GED
5	Unos semestres o años de la universidad
6	Graduado de la universidad
7	Graduado de universidad postgrado
8	Otro

4. ¿Dónde nació usted? \_\_\_\_\_

5. ¿Cuánto tiempo lleva usted en los Estado Unidos? \_\_\_\_\_

*Años, meses*

6. ¿Cuál es la fecha de nacimiento de su hijo(a)? \_\_\_\_\_

**APPENDIX D- Continued**

**DEMOGRAPHIC INFORMATION FORM SPANISH VERSION**

*Mes/Día/Año*

7. ¿Dónde nació su hijo(a)? \_\_\_\_\_

8. ¿Es su hijo(a) Español(a), Hispano(a), o Latino(a)?

*Elija una de las opciones:*

Sí	No

9. ¿Cuál es el idioma que más se habla en el hogar? \_\_\_\_\_

10. De las opciones que siguen, ¿qué considera usted lo más importante para su hijo(a)?

*Elija una de las opciones:*

1	Encontrar empleo en cuanto sea posible
2	Graduarse de la escuela secundaria
3	Completar su GED
4	Algún colegio
5	Graduarse de colegio
6	Otro

11. De las siguientes opciones, ¿cuál mejor describe lo que piensa usted que desea su hijo(a)?

*Elija una de las opciones:*

1	Encontrando empleo en cuanto sea posible
2	Graduarse de la escuela secundaria
3	Completar su GED
4	Algún colegio
5	Graduarse de colegio
6	Otro

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