## Title

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Publication Date
2010-07-08

# IS ARIZONA'S APPROACH TO EDUCATING ITS ELS SUPERIOR TO OTHER FORMS OF INSTRUCTION? 

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July 2010

"Research on EL instruction indicates there is documented academic support for the view that SEI is significantly more effective than bilingual education."

Horne v. Flores, 557 U.S. 1, 24, 2009


#### Abstract

In the Horne v Flores Supreme Court decision of June 25, 2009, the Court wrote that one basis for finding Arizona in compliance with federal law regarding the education of its English learners was that the state had adopted a "significantly more effective" than bilingual education instructional model for EL students --Structured English Immersion (SEI). This paper reviews the extant research on SEI, its definitions, origins, and its effectiveness, particularly in contrast to other instructional strategies. The paper concludes that there is no research basis for the Court's statement, that at best SEI is no better or no worse than other instructional strategies, particularly bilingual instruction, when they are both well implemented. However, SEI as implemented in Arizona carries serious negative consequences for EL students stemming from the excessive amount of time dedicated to it, the de-emphasis on grade level academic curriculum, the discrete skills approach it employs, and the segregation of EL students from mainstream peers. Moreover, the paper argues that there are, in fact, strategies that can ameliorate these problems as well as provide an additive, rather than a subtractive, educational experience for English learner and mainstream students alike.


In the Horne v. Flores Supreme Court decision issued on June 25, 2009, the Court wrote that Arizona had shown good faith in attempting to remedy the academic deficits of its English Learner (EL) ${ }^{1}$ students by instituting an instructional approach-- Structured English Immersion (SEI)-- that is "significantly more effective" than bilingual education. But does the research bear out the Court's conclusion? What is the evidence that Arizona's program of SEI is really superior to other approaches, including bilingual or dual language education? How are Arizona's EL students faring under this "significantly more effective" instructional program?

The present report begins with a summary of Arizona's recent policies to address the needs of its EL population, which is necessary to understand the context in which the Flores case was brought forth. Next, we review the research on structured English immersion to understand the extent to which the claims of superiority of SEI are supported by empirical data. In the following section, we examine structured English immersion as it has been implemented in Arizona, with an emphasis on the most recent data on student achievement. Finally, we evaluate the contention that structured English immersion is significantly more effective in comparison to bilingual or dual language approaches, given what is known generally about language instruction and what is known specifically about the version of structured English immersion Arizona has adopted.

## ELs in Arizona and the Adoption of the Four-Hour SEI Model

Arizona schools enroll approximately 150,000 ELs, which is approximately one in ten public school students in that state. ${ }^{2}$ Most of these students are Latino and Spanishspeaking. Over the years several policies have informed the ways in which schools and districts approach the instruction of ELs. Nogales parent Miriam Flores brought forth a class action suit against the state of Arizona in 1992 for failing to provide ELs with the effective educational programs required by the Equal Educational Opportunity Act. In 2000, this case, Flores v. State of Arizona, resulted in changes in state laws pertaining to EL identification, service, and assessment requirements. Arizona was ordered to adopt rules for English language instruction, compensatory instruction, and monitoring by the Arizona Department of Education after U.S. District Court Judge Alfredo Marquez ruled the State had provided funding levels for English learners that were "arbitrary and capricious."

Prior to Arizona's passage of Proposition 203, also in 2000, Arizona school districts maintained the discretion to select the type of program to develop English proficiency and academic achievement for its English learners. With the passage of Proposition 203, the state mandated that all public school instruction be conducted in English, and required an intensive one-year English immersion program to teach English

[^0]as quickly as possible. While Proposition 203 permits bilingual instruction under specific conditions, ${ }^{3}$ the state superintendent has interpreted it strictly as an SEI mandate. ${ }^{4}$ Today, Arizona's English-only law is the most restrictive of the three states that have adopted restrictive language policies. ${ }^{5}$

In response to the district court's requirement that Arizona show evidence that it was instituting a credible program of instruction for its English learners, the Arizona legislature passed HB 2064, which provided greater specificity on the parameters for the instruction of Arizona English Learners. This bill created an English Language Learner Task Force that was then charged with developing a research-based program of English language development to instruct the state's EL students. The legislature also mandated that the program would include "a minimum of four hours per day of English language development" and be the most "cost-efficient models that meet all state and federal laws." ${ }^{\prime \prime}$ It did not specify that the model(s) had to be the most effective. The ELL Task Force consisted of three members appointed by the Superintendent of Public Instruction, two members appointed by the governor, two members appointed by the President of the Senate, and two members appointed by the Speaker of the House of Representatives, each to serve four years. The Task Force included one individual with extensive experience in language teaching and bilingual development, an expert on structured English immersion, four individuals with experience as educational administrators (though not necessarily directly related to English learners), two political advisors, and an education lobbyist.

The Task Force met twice monthly beginning in September 2006, and within a year decided to adopt the four-hour SEI model developed by consultant Kevin Clark. Kevin Clark was invited by the EL Task Force Chair Alan Maguire to assist the Task Force in determining how to implement the four-hour SEI requirement.

Reliable information about Clark is hard to come by. His business, Clark Consulting Group, Inc., based in Clovis, California maintains no website. One source indicates he has worked with more than 100 schools and districts in the design and implementation of English immersion programs, and taught in Arizona, California, and Mexico. ${ }^{7}$ However, little more is known about his educational and professional background or credentials.

In his February 23, 2007 presentation to the EL Task Force, Clark indicated he had no ideological agenda, and cited a history of working with school districts with

[^1]bilingual education programs, heritage maintenance programs, and dual immersion programs. ${ }^{8}$ However, Clark previously served on the Board of Academic Advisors for the Research in English Acquisition and Development (READ) Institute, ${ }^{9}$ a conservative think tank advocating for the superiority of English-only programs. ${ }^{10}$ Moreover, Clark served as the lead consultant to the EL Task Force as they endeavored to develop an appropriate SEI model for statewide implementation.

On March 29, 2007, Clark presented the task force with a handout outlining five ELD components; phonology, morphology, syntax, lexicon, and semantics, and presented a sample instructional program built around these elements. ${ }^{11}$ This program has been referred to as the STAR English Language Acquisition program elsewhere. ${ }^{12}$ In the meeting minutes, the STAR program was described as a pentagram with five ELD components, which included phonology, morphology, syntax, lexicon, and semantics. ${ }^{13}$ Task force members posed a number of questions about the research evidence for structured English immersion programs, and in particular several key aspects of the model advanced by Clark.

In response to Task Force member inquiries, Clark developed a 13-page document, "Research Summary and Bibliography for Structured English Immersion Program Models." Clark noted it was not a comprehensive review of the literature, but "merely a search for supporting research." ${ }^{14}$ A subsequent review of this document by Krashen, Rolstad, and MacSwan noted it "neglects to reference significant research on the questions being raised, and frequently draws inappropriate conclusions from the research being presented." ${ }^{15}$ In addition, Krashen and his colleagues observed that teacher qualifications, availability of reading materials and texts, funding, and methods for developing coherent programs were important factors to consider in implementation of any language program, yet they were omitted from Clark's document. In spite of these criticisms, Clark's review of the research served as the Task Force's primary record that the model they adopted was in fact supported by scientific evidence.

The Task Force worked with Clark to develop a highly prescriptive instructional program compliant with HB2064's requirements that districts and schools use Arizona's

[^2]English language proficiency assessment (the AZELLA) as well as the English language proficiency standards and the English Language Arts academic standards. The instructional program Clark presented to the Task Force identified four courses for ELs: Conversational English and Academic Vocabulary, English Reading, English Writing, and English Grammar, all of which are measured on the AZELLA. Each of the courses covers $20-40$ percent of the English language proficiency standards, and there are recommended time allocations for each of the courses. Time allocations were not based on research evidence, but rather the frequency with which the discrete skills were present in the English language Proficiency Standards. ${ }^{16}$ Students are placed into structured English immersion classrooms on the basis of their scores on the AZELLA, which classifies them as Pre-emergent, Emergent, Basic, or Intermediate. These scores are used for ability grouping and determining the time allocated to the learning of discrete English skills. It is notable that the cut off scores on the AZELLA have changed frequently over the last several years so that it is difficult to say with any certainty that students in a particular category one year would be assigned to the same category in another year. There has also been some concern expressed that the AZELLA may set a particularly low bar for proficiency ${ }^{17}$. The following tables show the number of minutes allocated daily to each of the discrete English language areas.

## Elementary ELD Time Allocations by AZELLA Composite

|  | Oral English and <br> Conversation <br> Instruction | Grammar <br> Instruction | Reading <br> Instruction | Vocabulary <br> Instruction | Pre-writing <br> Instruction |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Pre-Emergent <br> and Emergent | 45 | 60 | 60 | 60 | 15 |
| Basic | 30 | 60 | 60 | 60 | 30 |
| Intermediate | 15 | 60 | 60 | 60 | 45 |

Source: Structured English Immersion Models of the Arizona English Language Learners Task Force
Middle and High School ELD Courses by AZELLA Composite Score

|  | Conversational <br> English and <br> Academic <br> Vocabulary | English <br> Reading | English <br> Writing | English <br> Grammar | English <br> Language <br> Arts | Academic <br> English <br> Writing and <br> Grammar |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Level | 60 | 60 | 60 | 60 | --- | --- |
| Pre-Emergent <br> and Emergent | 60 | 60 | 60 | 60 | --- | --- |
| Basic | --- | 60 | -- | --- | 120 | 60 |
| Intermediate | -- |  |  |  |  |  |

Source: Structured English Immersion Models of the Arizona English Language Learners Task Force

[^3]Arizona has embraced a highly prescriptive version of structured English immersion that appears to lack sensitivity to age and grade level differences, but one that is purportedly supported by empirical research. But aside from the broad categories listed above, exactly what is structured English immersion, and where did it originate? In the following sections we review the history and definition of structured English immersion and empirical evidence of its effectiveness.

## Origins of Structured English Immersion

The term "structured English immersion" was first coined by Keith Baker and Adriana de Kanter in 1983, in a report whose recommendation was to teach ELs following what they characterized as the model of successful French immersion programs in Canada. ${ }^{18}$ Structured English immersion programs actively discourage the use of native language, and only support the study of any language other than English once English has been mastered. ${ }^{19}$ Content area instruction may be incorporated into the structured English immersion classroom, but is secondary to the focus on discrete English language skills. ${ }^{20}$ Proponents of structured English immersion approaches to language instruction suggest they "help students gain the English language skills that are crucial for academic success and opportunities beyond high school."21

Structured English immersion programs share several key features. First and foremost, explicit teaching of the English language takes a large portion of the school day, with students grouped by their English language ability. The primary instructional focus in an SEI classroom is the English language: rules, forms, uses, and applications in real life situations. The use of students' home languages is limited in SEI programs; students and teachers are expected to speak, read, and write in English. This is based on the theory that students will improve their English language skills when they are compelled to practice it. Language learning is treated much as learning any other foreign language in a formal setting, with a very strong emphasis on learning discrete grammar skills, such as verb tenses. Finally, among the most salient features of U.S. structured English immersion are rigorous timelines for exiting the program, typically one academic year.

It is important to note that structured English immersion as described above and throughout this report represents a narrow conception of the term, and one that has been extensively criticized as being an improper use of the term. Johnson and Swain argue that immersion programs are a category within bilingual education, and cite the labeling of English-only programs for Spanish-speaking minorities as an inappropriate overextension of the term. ${ }^{22}$ Mora notes that Arizona's definition of structured English immersion differs sharply from the term foreign and second language educators use to

[^4]describe bilingual programs that use the immersion model, and that there is no consensus definition for structured English immersion among experts. ${ }^{23}$ However, many of the structured English immersion programs now being advanced are promoted as an alternative to bilingual education for ELs of all levels, including students with no command of English whatsoever. Today, structured English immersion is closely aligned with the English-only movement, which seeks to advance monolingual English instruction and places English acquisition at the forefront of discussions around the education of EL students. ${ }^{24}$

Within the SEI movement, Canada has been widely cited as the model for structured English immersion programs. ${ }^{25}$ But, an important distinction between the Canadian model and the U.S. model is that the target students for immersion programs in Canada are mainstream majority language speakers who seek to learn the second language with the objective of becoming fully bilingual and biliterate in French and English. In the U.S. SEI programs, the target students are generally children of immigrants and minority language speakers, and the primary goal is rapid English acquisition-not bilingualism. With their diametrically opposed goals of bilingualism versus English monolingualism, and radically different populations served, making comparisons between the U.S. and Canadian language immersion programs is unwarranted and misleading.

## What is Known About the Effectiveness of Structured English Immersion?

The research on effective ways of teaching English learners tends to concentrate on the bilingual versus English immersion instructional approaches, and an extensive amount of investigation has sought to measure which approach is superior. As Gándara and Gómez note, the "obsession with the question of English-only versus bilingual education has obscured the more critical social and pedagogical issues that need to be studied. ${ }^{〔 26}$ Others suggest that program implementation, and not the particular type of instructional program, is more determinative of educational outcomes. ${ }^{27}$ Whether appropriate or not, the current discourse on EL instruction has the English-only vs. bilingual debate at its core, requiring a careful examination of the data in this area. Taken together, this body of research indicates that bilingual education is at least as effective as

[^5]immersion approaches, and in some cases, more effective. These positive effects are particularly pronounced in reading outcomes as measured in English.

Two major reviews of the research on educating ELs were published in 2006. The first review by the National Literacy Panel (NLP), convened by the U.S. Department of Education's Institute of Education Sciences, published a synthesis of close to 300 reports, documents, dissertations, and publications in its review, all of which concerned language minority children ages 3-18. ${ }^{28}$ The second review by the Center for Research on Education, Diversity, and Excellence (CREDE) included approximately 200 articles and reports in its report. ${ }^{29}$ Both of these major reviews of the research utilized meta-analyses. "A meta-analysis is a statistical technique that allows researchers to combine data from many studies and calculate the average effect of an instructional procedure." ${ }^{30}$ Goldenberg (2008) characterized these two reviews as representative of the "most concerted efforts to date to identify the best knowledge available and set the stage for renewed efforts to find effective approaches to help ELs succeed in school., ${ }^{, 31}$ Both the NLP and CREDE syntheses found evidence to suggest reading instruction in one's home language facilitates higher levels of reading achievement in English, and that spelling and writing in one's first language relate in important ways to literacy development in English, so that tapping into these skills can place English learners at an advantage in comparison to their peers in English-only settings. This seemingly paradoxical finding is explained by two bodies of research: time on task and language transfer.

While it intuitively makes sense that the more time a student spends studying a language, the more he or she will learn, it turns out that the relationship between time on task and language learning is hardly linear. Up to a point and under certain conditions, time spent learning a language will affect outcomes, but students should be introduced to the new language at a pace that allows them to assimilate new learning and tie it to concepts that they know and understand. ${ }^{32}$ This notion is known as the comprehensible input hypothesis. The evidence that more time in English does not necessarily result in more rapid acquisition of English has been demonstrated many times over in comparison studies of English only and bilingual instruction. The most recent, conducted by Robert Slavin and colleagues of Johns Hopkins University, tested the same Success for All curriculum delivered in Spanish to 67 EL kindergartners at six schools, and only in English to 63 EL kindergartners. At the end of this randomized five-year study, there was no significant difference between students in English reading scores between the two

[^6]groups of students, demonstrating that the extra time in English instruction provided no significant achievement advantage. ${ }^{33}$

There is a substantial body of research on the transfer of skills and knowledge from one language to another and on cognitive load theory that help to explain the phenomenon that ELs who receive native language instruction do just as well or better than their peers in English only instruction. ${ }^{34}$ As defined by August and her colleagues, transfer "means that what a student learns about one thing or in one context contributes to learning about other things and in other contexts." ${ }^{, 35}$ This is what Krashen, Rolstad, and MacSwan term facilitation theory, whereby knowledge acquired in the first language facilitates a student's academic growth in a second language. ${ }^{36}$

In addition to the NLP and CREDE reports, several other meta-analyses have found evidence that curricular and pedagogical activities, when conducted in children's home languages, help to support subject matter learning as English is acquired. Slavin and Cheung reviewed 17 studies comparing structured English immersion to other methods and found that most studies favored Transitional Bilingual Education (TBE) ${ }^{37}$ over SEI. ${ }^{38}$ Specifically, bilingual approaches were associated with significant and positive effects on English reading outcomes. Rolstad, Mahoney, and Glass' metaanalysis compared all-English, transitional bilingual, and developmental bilingual programs, and similarly found bilingual instruction was superior to English-only approaches; the authors conclude English-only laws such as those in California, Arizona, and Massachusetts cannot be justified because they unnecessarily restrict instructional approaches that are equally if not more effective than English only. ${ }^{39}$ Francis, Lesaux, and August similarly noted small to moderate positive effects of bilingual education on reading outcomes in their meta-analysis of 15 studies of students in elementary and secondary schools, providing additional evidence for the importance of teaching ELs to read bilingually.

Among the research in support of alternatives to bilingual education, Baker and de Kanter's 1981 analysis of more than 300 programs for second language learners is often cited. ${ }^{40}$ The authors concluded that the evidence for the effectiveness of transitional

[^7]bilingual education was weak. However, a later evaluation of the studies included in the Baker and de Kanter review found positive effects for bilingual programs when Canadian programs, a synthesis of research on bilingual programs in the Philippines, and a nonclassroom program were excluded from the analyses. ${ }^{41}$ Canadian programs were excluded because of basic differences in program, goals, designs, and contexts, particularly in the enrichment and bilingual orientation, which contrasts sharply with programs that have rapid English acquisition as the primary goal. The Philippines study was omitted because it was a synthesis of research, and meta-analyses are most appropriate for primary studies. Finally, the non-classroom program, which was apparently a very successful bilingual program, was excluded because it was impossible to control for the effect of additional instructional time.

Rossell and Baker later followed up on the 1981 Baker and de Kanter study examining a sub-sample of students judged as methodologically acceptable, and again concluded there was no evidence for the superiority of transitional bilingual education in comparison to English-only instruction. ${ }^{42}$ However, a subsequent meta-analysis of the studies within this sample that controlled for differences between the students assigned to the bilingual and English-only programs and had appropriate control groups found positive effects for the programs using native-language instruction. ${ }^{43}$

Francis, Lesaux, and August make reference to Rossell and argue that, "Opponents of native-language instruction [or Bilingual Education] argue that it interferes with or delays English-language development because children have less opportunity for time on task in English." ${ }^{44}$ In other words, opponents of native language instruction argue that when instruction is in a language other than English the English learner does not have sufficient exposure to the English language and loses time on task in English. The evidence described above demonstrates that time alone is not a good predictor of English language acquisition. Moreover, SEI models often isolate students as a language group, allowing for little language exposure to English speaking peers while at the same time driving instruction towards language acquisition alone (e.g. Arizona's four-hour model) at the expense of content instruction.

In short, the research demonstrates that English learners who initially learn to read in their native language, or learn to read in their native language and a second language simultaneously, demonstrate somewhat higher levels of reading achievement in English than students who do not have the opportunity to learn to read in their native language. But, as Gándara and Contreras note, "the problem of English learners' underachievement, like that of other Latino students, is more likely related to the quality of education that

[^8]these students receive, regardless of the language of instruction." ${ }^{45}$ The bilingual versus English only debate overshadows the examination of other important factors that affect the achievement of EL students. Of much more importance, and much less researched or on the radar of policymakers, is teacher quality. English learners are the least likely to have teachers qualified to instruct them. ${ }^{46}$ Teacher and program quality, and the quality of implementation by states, districts, schools and teachers, are also urgently in need of further policy attention and research.

We were unable to locate any evidence on the effectiveness of the specific fourhour model of SEI that Arizona adopted for implementation in 2008. Kevin Clark, in a 2009 article posted at the ADE website ${ }^{47}$ contends that discrete skill instruction, such as he has recommended for the Arizona program, is effective based on anecdotal accounts of two elementary schools in California. In the same article he refers the reader to a research summary posted at the ADE website that acknowledges that "research [on time on task] related to English learners and the learning of English is relatively thin," and therefore cites none. ${ }^{48}$ With respect to discrete skills instruction the research he refers the reader to is on the teaching of particular linguistic skills but most of this research does not find that teaching these skills in a decontextualized, discrete fashion is an effective methodology. Noted Stanford second language researcher, Claude Goldenberg, argues based on dozens of studies, that" discrete skill instruction should be integrated into larger communicative or meaningful tasks and structures. ${ }^{49}$ That is, it is important to explicitly teach these parts of language, but it should be done in a way that allows students to use and observe the language in naturalistic academic and conversational contexts not simply as exercises that occur for x number of minutes a day, each in isolation.

## What was the evidence cited by the Supreme Court in documenting SEI effectiveness?

The conclusion drawn by the Court in Horne v Flores that Structured English Immersion is "significantly more effective" than other instructional methods references just two major studies found in the American Legal Defense Fund et al. Amici Curiae 1012. The first of these was a study commissioned by the New York City Board of Education that tracked two cohorts of EL students entering the New York City Public Schools in the fall of 1990 and 1991, comparing students in bilingual education with students in English as a Second Language (ESL), a variation of SEI. The 1990 cohort began in kindergarten or first grade, while the 1991 cohort matriculated in second, third, sixth or ninth grade. Students exited the programs as determined by performance on a

[^9]standardized test in math and reading (Stanford Achievement Test- 9). The study determined that students in ESL exited the program much more rapidly than students in the bilingual education programs. The author cautioned that one of the shortcomings of the study was the sole reliance on short-term outcomes and called for more research to investigate the long-term efficacy of programs. The Chancellor of the Board of Education of the City of New York, Ramon C. Cortines, echoed these concerns in his message stating, "...it would be premature to begin drawing conclusions from this data." This is a particularly important point given that a number of studies have shown that early differences in test scores between students in bilingual programs where they are learning in two languages compared to immersion students who are learning in only one, typically disappear or become insignificant once students reach upper elementary grades. ${ }^{50}$ Moreover, the New York study neglected to control for socioeconomic status, a powerful predictor of performance as measured by standardized tests. There was also no indication that the study controlled for students' beginning language levels, which is important since students placed in bilingual education are often the least familiar with English. ${ }^{51}$ Finally, there was no clear definition of program type found in the methodology section of the study. Much research and many reviews of the literature have dismissed the study because of these shortcomings.

The second study highlighted by American Legal Defense Fund and cited by the Court was a report produced by the Lexington Institute, which contained little empirical evidence on which to draw conclusions about program efficacy. ${ }^{52}$ The author limits her cited works to those commissioned by think tanks with known biases (such as the Center for Equal Opportunity, headed by outspoken critic of bilingual education, Linda Chavez) and SEI proponents (including Kevin Clark, and Christine H. Rossell, both English-only activists.) This work provides little in the way of evidence and much in the way of political opinion. The Supreme Court dismissed more valid and rigorous research from the abundant body of literature on program efficacy and grounded the basis of their argument on these two limited and questionable sources.

## How are Arizona's EL Students Faring Under this "Significantly More Effective" Instructional Program?

In this section, we consider the impact of structured English immersion programs on English learners in Arizona thus far, beginning with achievement outcomes. We next examine data on the teacher training policies that have been implemented in tandem with structured English immersion. Finally, we assess the impact of the structured English

[^10]immersion policy and programs and classroom environments, and discuss what is known about effective language learning environments.

## Achievement

On the 2007 National Assessment of Educational Progress (NAEP), also known as "The Nation's Report Card," Arizona ELs underperformed on every measure: 64 percent of fourth grade EL students scored below basic on the math portion of the test, and among eighth graders 76 percent of ELs scored below basic, which was more than double the state average for all students. Outcomes on reading assessments were worse still, with 84 and 80 percent of fourth and eighth graders respectively scoring below basic. Less that half of ELs (48 percent) graduated high school in four years in 2008. ${ }^{53}$

Percent of Arizona Students Scoring Below Basic on the NAEP, 2007

|  | Grade 4 Math | Grade 8 Math | Grade 4 <br> Reading | Grade 8 <br> Reading |
| :--- | :---: | :---: | :---: | :---: |
| Limited English <br> Proficient | 64 | 76 | 84 | 80 |
| Asian/Pacific | 9 | 11 | 20 | 15 |
| Islander |  |  |  |  |
| Black | 41 | 42 | 48 | 42 |
| Hispanic | 39 | 48 | 58 | 50 |
| White | 11 | 19 | 29 | 20 |
| Arizona students | 26 | 34 | 44 | 35 |

As mentioned previously, Proposition 203 mandates structured English immersion instruction, and since 2007 the state of Arizona also prescribes a four-hour block of instruction during which teachers are expected to adhere to a standardized curriculum for EL students. Even with these changes in EL instruction, research in recent years has concluded that the achievement gap between ELs and English Only (EO) students continues to be of great concern in Arizona. Mahoney and her colleagues assessed the achievement gap Post-203 using results on Arizona's Instrument to Measure Standards (AIMS) from 2002-2006. ${ }^{54}$ In their comparison of English proficient (EP) and fluent English proficient (FEP) students in grades 3, 5, and 8, the authors determined that although the third grade EL students demonstrated large gains after the passage of 203, there was a decline in achievement for fifth and eighth grade ELs. These scores were somewhat problematic because the test had been changed pre and post 203, making it impossible to accurately equate pre and post scores. Nonetheless, this discrepancy between the lower and upper grades might also be explained by what is already known about the challenges of learning academic language. The focus on decoding and discrete

[^11]elements of language may accelerate achievement scores in the early years when instruction is keyed to emergent reading skills; however, this focus does not facilitate learning for students in the upper grades, when the academic and language content are more complex, and the demands placed on students are greater. ${ }^{55}$

Rumberger and Tran conducted an analysis of NAEP data across 50 states to assess the achievement gap between EL and EO students using the state level data from the 2005 NAEP. ${ }^{56}$ They found that the state and its policies towards ELs had a significant effect on the achievement gap. Results from their study showed that states with bilingual instruction (New Mexico and Texas) tended to have smaller achievement gaps than those states that had implemented English-only instruction (Arizona, California, and Massachusetts) and that "...states have more control over the size of the EL achievement gap than over their overall achievement level and that state policies-such as whether to provide EL students with specialized instruction and, if so, what type-could help reduce the gap." ${ }^{57}$

Another analysis of NAEP data conducted by Dan Losen (see Figure 1), ${ }^{58}$ looked at the average math scores for EL students in those states that had adopted English only policies and for ELs in the nation as a whole, as well as all other states except the English-only states (since those states combined accounted for about $40 \%$ of all EL students nationally). Losen found that English learners in the English only, or SEI states, on average performed worse than ELs across the nation, and that Arizona ELs performed significantly worse than both all states and even the other English only states on the single national metric (NAEP) available for comparison. Such data clearly call into question the assertion that Arizona's program has been "significantly more effective" in educating these students.

[^12]Figure 1. Average Scores for ELs on the NAEP Math Scale, Grade 4


In addition to these findings, a recent ethnographic study of four-hour SEI classrooms in Arizona illuminated aspects of the implementation of SEI in that may serve to further widen the achievement gap. ${ }^{59}$ The study included classroom observations, interviews with teachers, and an overview of district documents relevant to the implementation of the four-hour block version of SEI in Arizona (e.g., teacher training materials and observation protocols). A total of 18 classrooms were observed across five districts in Arizona for three consecutive cycles. A purposeful sampling method was used to be representative of the different types of schools in the state (e.g. large EL populations, small EL populations, and rural versus urban school settings). Researchers observed the implementation of the four-hour block, and, in the case of elementary schools and middle schools, observations were extended beyond the four-hour block. From the data collected the research team compiled findings about the actual impact of SEI and the four-hour block on students, teachers, and school environments. Researchers found that students were not exiting the programs in one year, as the law requires, except in the case of kindergarten. At the secondary level, the study illustrated that even if students could exit in one year, the SEI model and the schedule restrictions resulting from the four-hour instructional block made it impossible for students to take the courses they needed to graduate on time. Moreover, academic rigor appeared to suffer. At the primary level, schools had plenty of resources for English language development, but few dedicated to academic content. In other words, students received little instruction in subject matter apart from English, and what they received did not meet grade level

[^13]standards. At the secondary level, the materials used in the four-hour block SEI classrooms did not represent age-appropriate learning resources.

## Implementation and Teacher Training

Arizona's structured English immersion model is highly prescriptive in some respects, yet there is not sufficient specificity to ensure consistency in other key areas. A recent study examining the implementation of SEI from the perspective of principals found that, although administrators were aware of the legal requirements of the law, they interpreted and implemented it in accordance with what they viewed as the needs of their student populations. Many were confused by the ambiguity of the policy and varied in their interpretations of scheduling the four-hour block and training teachers. ${ }^{60}$ They described the SEI model as being in conflict with schedules, instruction, and staff development.

In response to Proposition 203, Arizona adopted a statewide requirement that all teachers complete 60 hours of training in SEI instructional methods. In the survey of materials for training teachers at the district level, nothing spoke to one of the most critical areas of teacher training for EL students: academic language acquisition. While there is a great deal of variability among students depending on a host of factors, oral proficiency in a second language can be acquired in three to five years. Best estimates of the time required to achieve proficiency in academic language are four to seven years; more recently a group of noted researchers has proposed, based on empirical data from a number of states, that a good "target" goal is five years. ${ }^{61}$ Academic language includes knowledge of specialized vocabulary, comprehension of complex written text, writing well-organized, cogent essays, presenting academic material, and succeeding on English language content-area assessments. ${ }^{62}$ Students do not "naturally" acquire academic language, but instead must be exposed to it in formal instruction. Thus, training teachers to explicitly teach academic language and competencies is also an essential aspect of an effective program, ${ }^{63}$ but is absent from the Arizona districts' teacher training. Academic language is necessarily taught in concert with actual content knowledge so that students learn how to use language in academic context. ${ }^{64}$ To the extent that the Arizona fourhour program focuses almost exclusively on teaching English, rather than academic content, it is unlikely that these students can catch up to the instruction level of their peers who are English speaking. Possibly due to the lack of attention to key areas of language instruction in the teacher training, teachers at the primary level expressed a generalized sense of confusion about the model and its implementation. Moreover,

[^14]teachers with foundational knowledge for teaching language ${ }^{65}$ and/or many years of experience as EL teachers often resorted to their own expertise, instead of the four-hour SEI model, to instruct ELs.

## Classroom and School Environment

As cited by the Court, under Title III (the English Language Acquisition, Language Enhancement, and Academic Achievement Act), the State must ensure that ELs "attain English proficiency, develop high levels of academic attainment in English, and meet the same challenging state academic content and student academic achievement standards as all children are expected to meet." ${ }^{66}$ The four-hour SEI model, as proposed by the EL Task Force, does not explicitly address the development of academic language and competencies, even when the implementation of the model in Arizona school constitutes at least two-thirds of the school day for EL students. ${ }^{67}$ While it appears to assume that academic content will be taught within the four-hour block, the examination of district training materials and the observations conducted in Arizona classrooms do not support this assumption. We were unable to find any evidence of a detailed plan for catching students up after they had been denied access to core curriculum; this would appear to be a violation of Office for Civil Rights standards under the EEOA.

As SEI plays out in schools, one outstanding negative consequence is almost certainly the physical segregation of EL students from the mainstream population. At face value, ELs are separated from their English dominant peers for at least two-thirds of the school day in a four-hour block. This physical isolation produces a social isolation that leads to further marginalization of EL students within schools, missed learning opportunities for the general population, and at times hostile learning environments.

In a comprehensive survey of teachers in Arizona, teachers expressed deep concern over this issue of segregation. ${ }^{68}$ In the survey of 960 teachers, 85 percent of the teachers viewed segregation of EL students from the mainstream population as harmful to learning. Moreover, the ethnography of SEI classrooms in Arizona captured these effects in the language of teachers and students who recognized that there existed a divide between "those" students and "these" students in schools, or between the EL and non-EL populations. Many experts in the field agree that the separation of EL students from their non-EL peers results not just in a weaker curriculum for EL students, but also in an ineffective language-learning environment. Guadalupe Valdés, Stanford professor and expert in second language acquisition, suggests that contact with English speaking peers is an essential component of English language development. ${ }^{69}$ Separating students by language ability may reduce their overall interaction with speakers of English, thus

[^15]reducing the opportunities they have to use language in an authentic and meaningful way with their English-speaking peers, and delaying their acquisition of academic English. ${ }^{70}$

## Model Alternatives Neglected in the Arizona Case

In an optimal language learning setting, language should be meaningful and comprehensible to students, ${ }^{71}$ and language learning should happen in low anxiety environments where students do not feel embarrassed to use the new language. ${ }^{72}$ Optimal language learning settings also give students many opportunities to interact with speakers of the target language. ${ }^{73}$ One of the great challenges for EL students is learning a language alongside academic content. In education it is known that culturally responsive methods raise students' achievement and engagement. ${ }^{74}$ Such methods include building on home and community knowledge and customs, incorporating reading material and cultural artifacts from students' backgrounds into classroom lessons, and acknowledging and incorporating local language patterns and usage. ${ }^{75}$ Thus, culturally responsive methods that raise achievement and keep students engaged are important in a language learning environment. This is especially critical for English learners at the secondary level, who comprise between 20 and 30 percent of all English learners. In a comprehensive review of the literature on teaching literacy to secondary EL students, Meltzer and Hamann ${ }^{76}$ found that motivation and engagement were the most important factors in academic achievement for students in this age group and recommended that this be the key concern of educators at the secondary level.

One key limitation of monolingual language learning environments is that they limit opportunities for parents of ELs to become involved in their children's education. In English-only settings bilingualism is devalued, lessening the likelihood that bilingual teachers and staff will be present to communicate with the parents of ELs. Researchers stress that Latino parents and family are the most powerful protective force for many Latino students, that their involvement has the effect of raising their children's academic achievement, and that there is a need to develop partnerships with schools to enhance parent involvement. ${ }^{77}$ Parents, regardless of their level of education or language ability,

[^16]can be involved in their children's educations by emphasizing the importance of education, by reading to their children at home in their first language, and by reinforcing what is learned at school. Schools lacking the linguistic and cultural resources to communicate with parents shortchange their students of a critically important asset.

As implemented in Arizona the four-hour SEI model appears to fall short of fostering an effective language-learning environment with academic rigor comparable to that of non-ELL students. Further, it is not evident from the state and district materials on the four-hour SEI classroom that the challenges presented by a monolingual model in engaging parents are being adequately addressed. The research cited in the Supreme Court decision neglected other alternatives. The following section provides a glimpse of some of these alternatives.

## Research based ELD

In a forthcoming chapter by Saunders and Goldenberg, ${ }^{78}$ as well as in a recently released book by Goldenberg and Coleman, ${ }^{79}$ the authors summarize the latest and most rigorous research on teaching English language learners. In addition to noting that the research concludes that teaching reading in the primary language of the student is the preferred method (at least for Spanish speakers, for whom most of this research is undertaken) and that it is critical to build on the linguistic knowledge that students already possess, such as the use of cognates in instruction (e.g., árbol/arboreal; plato/plate), they offer 14 guidelines for the instruction of English to English learners. Included in those guidelines are specific reference to the teaching of vocabulary, syntax, grammar, and conventions, but they also point out the critical importance of teaching language in context - in conversation, and for communication, and conversational as well as academic language. Additionally, they recommend that students not be segregated into separate classrooms away from their English-speaking peers. Moreover, English Language Development (ELD) is seen as only one part of the specialized instruction that students need. Instruction in academic content, whether supported by Sheltered English mehtods or SDAIE (Specially Designed Academic Instruction in English) or other methods, needs to be part of the instructional program as well.

## Research based SEI

The Court in Horne $v$ Flores specifically stated that SEI instruction was "significantly more effective" than bilingual instruction and thus we have restricted most of our analyses to the comparison between these two instructional methods. This is not to say that there isn't an important literature on research-based SEI instruction. Perhaps the most important point to be made about this research is that effective SEI instruction does not depend solely on an extensive block of ELD that does not also incorporate academic content in all core areas and strategies for teaching it., Apart from the points that we

[^17]have already made, that well-implemented SEI respects students' first language and culture and incorporates these into instruction, many studies have found that use of the primary language to support English instruction is beneficial to student outcomes. ${ }^{80}$ Widely used, and research-based SEI programs such as Quality Teaching for English Learners (QTEL) ${ }^{81}$ and Sheltered Immersion, Observation Protocol (SIOP) ${ }^{82}$ explicitly incorporate culturally responsive instructional methods along with strategic use of the first language as possible to support both English acquisition and academic content learning. They also incorporate specific sheltered and Specially Designed Academic Instruction in English (SDAIE) to simultaneously link ELD with core academic instruction. Unfortunately, in an environment that virtually eliminates bilingual instruction, bilingual teachers with the training and expertise in use of native language and culture begin to disappear, ${ }^{83}$ making it increasingly difficult to incorporate these best practices within sheltered or SEI classrooms.

## Bilingual Programs

Bilingual education is an umbrella term that incorporates many different models, but the one characteristic they have in common is that they incorporate the first language of the student to some degree. Morales and Aldana recognize the variation within the application of the bilingual education and summarize the differences in the following manner: "...they differ in their use of the target language, the length of time students stay in the program, the instructional pedagogy utilized, and their specific goals. ${ }^{84}$ The type of variations found in Morales and Aldana resulted in three categorizations of bilingual programs according to these variations. ${ }^{85}$ Transitional Bilingual Education (Early Exit) is defined as a program with the intended goal to assimilate ELs into the general population without letting them fall behind in content instruction. The home language in these programs is used initially anywhere from $50-90 \%$ of the time, increasing the use of English over time. The goals of this program type are to exit students as quickly as possible (1-3 years) as they reach a marker of English proficiency, usually measured by an English proficiency exam and sometimes by standardized tests of subject matter, such as English language arts. Developmental Bilingual Education (Late Exit) programs, on the other hand, take an approach that emphasizes bilingualism and bilingual literacy and more gradually increase the use of English until reaching a $50: 50$ balance of language use between home language and English language. Lastly, a more current trend, Two-way Bilingual Education (Dual Language) sets out to produce bilingual and biliterate students with a unique feature of integrating the student body so that English speakers and ELs together are learning two languages. This program type begins with a $90 /: 10$ or $80 / 20$

[^18]ratio of home language, moving towards parity language use or a 50:50 ratio. All of the program types described by Morales and Aldana ultimately measure learning gains by means of English proficiency and academic achievement in English, notwithstanding the goal of developing second language skills.

## Dual Language Programs

Dual language programs limit segregation by attracting more diverse student populations (e.g. Latino, White, Asian) with different levels of English competence. ${ }^{86}$ Rumberger and Tran, in their analysis of NAEP data for all 50 states and several large districts, concluded that integration is likely the most effective strategy for improving the achievement of English learners. From their findings, student composition (degree of segregation) of the schools explained most of the variability in student achievement. ${ }^{87}$ This is a consistent finding with major studies of student achievement dating back to Coleman and his colleagues. ${ }^{88}$ Dual language programs present one possible avenue towards creating more integrated school environments while at the same time building the nation's language capacities.

## Discussion of Findings

In suggesting that SEI was "significantly more effective" than bilingual approaches, the Court drew a conclusion on thin evidence and disregarded several decades worth of research on this topic, which has largely concluded that students in high quality bilingual programs that stress development of biliteracy have superior outcomes in English reading. Nonetheless, the research bears out that program quality is more important than particular method if the goal is simply proficiency in English. ${ }^{89}$ Research also finds, however, that there are additional benefits to being instructed in more than one language, above and beyond just proficiency in English. Proficiency in a second language carries specific cognitive advantages, including metalinguistic awareness, which has been associated with improved comprehension outcomes, and cognitive flexibility, which is associated with more creative or innovative ways of approaching learning. ${ }^{90}$ Newer research has also shown that bilingualism can even forestall the onset of dementia in older individuals. ${ }^{91}$

Family cohesion and better social adaptation are other outcomes that have been found in students who maintain contact with parental language and culture. One study of

[^19]$6^{\text {th }}, 7^{\text {th }}$, and $8^{\text {th }}$ graders found that Mexican American students who had maintained their native language competence and continued to speak Spanish to their parents showed a significant increase in family cohesion at mid-adolescence compared to Mexican American students who were more acculturated and spoke English to their parents. ${ }^{92}$ Suárez-Orozco \& Suárez-Orozco, in a study of native born and foreign born Mexican American and white adolescents, concluded that the foreign born students who still maintained language and cultural links to family were more motivated to do well in school and exhibited fewer behavior problems. ${ }^{93}$ Bilingual development has also been linked to improved family cohesion and self-esteem; when the home language is valued and utilized in instruction, students' self-esteem and confidence are positively affected. ${ }^{94}$

Clearly, however, the advantage of speaking more than one language, especially a language that is in wide use in the society, has economic as well as social advantages. Multilingual people are sought after in many public service as well as corporate jobs, and being bilingual can provide the edge to secure a job in a competitive environment. Moreover, multilingualism affords the opportunity to interact in culturally and linguistically appropriate ways in the business world. Berlitz International cites income of hundreds of millions of dollars teaching individuals to speak international languages to further their careers. ${ }^{95}$

On the surface, structured English immersion appears to serve the interests of ELs by endeavoring to capacitate them with English as rapidly as possible so that they can have equal access to the mainstream curriculum. Rapid English proficiency is the goal. However, the research is consistent in finding that it takes students significantly longer than a year or two to become proficient in academic language. As a result, students who are in mainstream classes before they have developed the requisite language skills to fully participate are not in fact being afforded equal access to the curriculum. Nor are students being provided with an adequate education if they are denied grade level instruction in academic content while they learn English. Moreover, the research is now clear and overwhelming that trading off the instruction of academic content by focusing on instruction about English does not result in superior outcomes even for English acquisition.

In Arizona, the addition of the four-hour block of English instruction to the previously mandated SEI instruction adds a further compromising factor to existing practice. The four-hour ELD block prevents students from accessing academic content, is implemented unevenly and amid much confusion, and results in social and emotional costs wrought by institutionalized segregation, which in turn have been shown to

[^20]negatively affect learning. ${ }^{96}$ In an SEI model where at least two-thirds of the school day is devoted to learning language, as in Arizona, there remains little room for content instruction. In an effort to teach English, this model, as implemented in the U.S., neglects the academic growth of the student, as this appears evident from the achievement data cited earlier.

The Court's decision in Flores underscores the importance of allowing some flexibility in each state's implementation of NCLB in accordance to what works best at the local level for its students. However, the "latitude of design" given to the state must also be in compliance with "appropriate action" as defined under the Equal Education Opportunity Act (EEOA). While the court did not determine "appropriate action" to mean the "equalization of results between native and non-native speakers on tests administered in English--a worthwhile goal, to be sure, but one that may be exceedingly too difficult to achieve, especially for older ELs, ${ }^{, 97}$ this does not preclude the state from having to show evidence of effectiveness in bringing students to grade level academically. It is not enough that students be proficient in English without also gaining academic proficiency, as required by NCLB, and established in Lau v Nichols. ${ }^{98}$ Nor is it sufficient that students gain English proficiency at the expense of failing to complete high school, the widely acknowledged minimum education necessary to acquire a secure job. Lack of access to the grade level courses required for high school graduation, due to having to complete four hours daily of ELD, jeopardizes students' ability to graduate high school with their peers, a well-established key predictor of high school drop out. ${ }^{99}$

In conclusion, we find that the answer to the question we posed at the outset of this paper, Is Arizona's approach to educating its ELs superior to other forms of instruction? is "No." A careful reading of the research shows that there is no evidence from Arizona's schools, and no research support at all for the four-hour model chosen by Arizona. At best, there is no difference in overall English proficiency outcomes for students in other types of SEI and bilingual programs, but a significant difference in English reading outcomes for bilingual instruction. Moreover, there is substantial evidence that additional benefits accrue to those students who attain full bilingualism and biliteracy, benefits that are not considered by the Court. In addition to the lack of evidence for the superiority of the type of four-hour structured English immersion model Arizona has chosen to adopt, it carries with it additional risks of segregation, isolation, and high school drop out. While the EEOA requires that whatever method is adopted be based on sound theory, we could find no evidence that the four-hour SEI model, as implemented, meets this criterion. ${ }^{100}$

[^21]
[^0]:    ${ }^{1}$ In the research literature as well as in legal documents and regulations the terms EL - English Learner, ELL-English Language Learner, and LEP-Limited English Proficient student are used interchangeably. ${ }^{2}$ U.S. Department of Education. Common Core of Data 2007-08: Arizona Data Profile. http://nces.ed.gov/programs/stateprofiles/sresult.asp?mode=full\&displaycat=1\&s1=04 Arizona State Profile (accessed May 13, 2010).

[^1]:    ${ }^{3}$ Districts and charter schools may also propose an alternate program, subject to review and approval by the Arizona EL Task Force.The law allows parents to seek waivers from a structured English immersion program, and in schools where 20 or more students have been granted waivers, children may be transferred to bilingual classrooms.
    ${ }^{4}$ Mahoney, Kate, Jeff Mac Swan, Tom Haladayna, and David García. 2010. "Castañeda's third prong: Evaluating the achievement of Arizona's ELs under restrictive language policy." In Forbidden Language, ed. Patricia Gándara and Megan Hopkins, 50-64. New York: Teachers College Press.
    ${ }^{5}$ California and Massachussetts have also adopted English-only laws, albeit not as restrictive as Arizona's.
    ${ }^{66}$ Arizona Revised Statute §§ 15-756.01.
    ${ }^{7}$ Center for Equal Opportunity. 2000. The ABC's of English immersion: A teacher's guide. http://www.ceousa.org/content/view/176/92/.

[^2]:    ${ }^{8}$ Arizona English Language Learners Task Force. Minutes of 23 February 2007. http://www.ade.state.az.us/ELTaskForce/
    ${ }^{9}$ The Institute for Research in English Acquisition and Development. List of Board of Academic Advisors. http://www.users.interport.net/r/e/readinst/clark.html (accessed May 13, 2010).
    ${ }^{10}$ Mass English Plus Coalition. Anti-Bilingual Education Who's Who. http://www.massenglishplus.org/ (accessed May 13, 2010).
    ${ }^{11}$ Arizona English Language Learners Task Force. Minutes of 29 March 2007. http://www.ade.state.az.us/ELTaskForce/
    ${ }^{12}$ Sonoma County Office of Education. September 2009. Aiming high resource: Structuring language instruction to advance stalled ELs. http://www.scoe.org/pub/htdocs/aiming-high.html
    ${ }^{13}$ Arizona English Language Learners Task Force. Minutes of 29 March 2007.
    ${ }^{14}$ Arizona English Language Learners Task Force. Minutes of 14 June 2007. http://www.ade.state.az.us/ELTaskForce/
    ${ }^{15}$ Krashen, S., K. Rolstad, and J. MacSwan. Review of "Research Summary and Bibliography for Structured English Immersion Programs" of the Arizona English Language Learners Task Force (p.1).

[^3]:    ${ }^{16}$ Arizona English Language Learners Task Force. Minutes of 26 April 2007. http://www.ade.state.az.us/ELLTaskForce/
    ${ }^{17}$ These concerns have resulted in part from the tendency for some students to be returned to the SEI classroom after being reclassified as proficient when teachers find that they are not really ready to join mainstream classes without any support.

[^4]:    ${ }^{18}$ Baker, K., and de Kanter, A. (eds.). 1983. Bilingual education: A reappraisal of federal policy. Lexington Books.
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    ${ }^{21}$ Clark, K. 2009. The Case for Structured English Immersion. Educational Leadership. April: 42-46.
    ${ }^{22}$ Johnson, R. K, and M. Swain. 1997. Immersion education: International perspectives. Cambridge University Press.

[^5]:    ${ }^{23}$ Mora, J.K. (2010, May). Overstated optimism: Arizona’s Structured English Immersion program under Horne v. Flores. Paper presented at the annual meeting of the American Educational Research Association, Denver, CO.
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[^7]:    ${ }^{33}$ Slavin, R. E, N. Madden, M. Calderón, A. Chamberlain, and M. Hennessy. 2010. Reading and Language Outcomes of a Five-Year Randomized Evaluation Of Transitional Bilingual Education. Presented at annual meeting of the American Educational Research Association. Denver, CO.
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    ${ }^{35}$ August, D., C. Goldenberg, and R. Rueda. 2010. Restrictive state language policies: Are they scientifically based? In Forbidden Language, 139-158. New York: Teachers College Press.
    ${ }^{36}$ Krashen, S., K. Rolstad, and J. MacSwan. Review of "Research Summary and Bibliography for Structured English Immersion Programs" of the Arizona English Language Learners Task Force;
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