A Study of Arizona's Teachers of English Language Learners

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Abstract

In this study a representative sample of 880 elementary and secondary teachers currently teaching in 33 schools across the state of Arizona were asked about their perceptions of how their ELL students were faring under current instructional policies for ELL students. Teachers were surveyed during the Spring of 2010. Overall findings show that most of these Arizona teachers have a great deal of faith in their ELL students' ability to achieve at grade level but that the 4 hour ELD block to which they are assigned is not helping them to catch up with their English speaking peers academically and there is deep and overwhelming concern about the segregation they are experiencing as a result of this instructional model; 85% believe this separation from English speaking peers is harmful to their learning. Most also believe that the majority of their ELL students are not meeting grade level standards and more than half of teachers also note that their ELL students are stereotyped as slow learners by other students and that the 4 hour block program is harmful to their self-esteem. The study ends with a series of recommendations including that alternative modes of instruction need to be implemented to help ELL students to succeed academically.

Executive Summary

In September 2007, the Arizona State Board of Education adopted the Structured English Immersion (SEI) model proposed by the Arizona English Language Learner (ELL) Task Force. During the 2008-2009 academic year, it required all school districts to implement the SEI model. The SEI program, best known as the 4-hour English Language Development (ELD) block, was designed to accelerate the learning of the English language, and the goal set forth in Arizona law is for ELLs to become fluent or proficient in English in one year.

The SEI model has been implemented in the state of Arizona for two academic years. Unfortunately, little empirical evidence exists regarding the effectiveness of this model, particularly from the perspective of teachers. Thus, the objective of the present study is to determine teachers' perceptions of what is working most effectively to provide Arizona's English learners with a quality education. Of particular interest is to better understand:

(1) Teachers' knowledge, opinions, concerns, and understandings about the curriculum and pedagogy for ELL students,

(2) How well prepared teachers feel they are to deliver the 4-hour ELD block curriculum, and

(3) Teachers' opinions of how well ELLs are advancing toward meeting the goal of English proficiency and the state educational standards that are set for all of Arizona's students.

This report presents the procedures and findings of a study conducted during Spring 2010 with a representative sample of 880 teachers currently teaching in 33 schools across the state of Arizona. In total, 8 school districts participated in the study conducted under the auspices of The College of Education at the University of Arizona to learn about teachers' beliefs, opinions, and knowledge regarding effective pedagogical and curricular strategies to teach ELL students. The sample of schools is representative of the state of Arizona in the distribution of ELL students across grades, but not in terms of students' demographic chracteristics. Furthermore, the sample of teachers in this study is representative of the state of Arizona in terms of gender and level of education, but not in terms of teachers' ethnicity. Schools with high percentages of ELL students were oversampled in order to provide meaningful information from teachers who were indeed teaching ELLs; in these schools there also tend to be more Latino teachers (35%) than there are in the average Arizona school (11%).

The teacher survey was informed by a review of the literature on SEI models, a review of previously conducted studies on pedagogical strategies for ELL students, our own research with ELL students, and by conversations with school administrators who have been implementing SEI in their own schools. The final survey design includes questions around several areas of interest: (1) descriptive characteristics of teachers, (2) teachers' perceptions of their current level of preparation for teaching ELL students in the 4-hour ELD block, (3) teachers' perceptions of effectiveness of the 4-hour ELD block, (4) teachers' perceptions regarding the academic potential of ELL students, and (5) teachers' opinions about the implementation of the 4-hour ELD block.

Several analytic tools were used to analyze the data collected, including descriptive statistics, t-tests, and Analysis of Variance [ANOVA]. Findings of this study are presented around 6 specific areas of interest: (1) teachers' perceptions about their current level of preparation for teaching ELL students, (2) teachers' beliefs about the academic potential of their ELL students (3) teachers' language beliefs, (4) teachers' perceptions of the effectiveness of the 4-hour ELD block, (5) teachers' perceptions about the educational opportunities offered to ELL students, and (6) segregation of ELL students for purposes of instruction and teachers' opinions about segregation of ELL students and its consequences.

With respect to teachers' perception of their level of preparation, the data indicate that two-thirds (68%) of teachers rated their current level of preparation to teach ELL students as *excellent or good*. Only a small percentage (less than 5%) felt that their level of preparation is *low or poor.* The results of this study also show that the majority of teachers strongly believe in the academic potential of ELL students. And that to be academically successful, ELL students need to be proficient in their native language *and* in English. And, most importantly, teachers believed that in order to develop proficiency in a language it takes more than one year, their estimates being closer to three years or more. In terms of effectiveness of the 4-hour ELD block, the data reveal that a little less than half (47%) of teachers believed that the 4-hour ELD block has been *somewhat effective* at their schools. However, when teachers were asked if they thought the 4-hour ELD block accelerated ELL students' English proficiency, the majority of them (60%) answered that the 4-hour ELD block provides *little or no acceleration*. Among those teachers who had previous experience with a different instructional model for ELLs, the majority (55%) stated that the 4-hour ELD block is *less effective* than other curricula in preparing ELL students academically, 37% stated that it is as effective as other curricla, and only 7% reported that it is superior in preparing ELL students for grade-level academic content.

The majority of teachers (59%) reported that less than 50% of their ELL students are meeting grade-level academic standards. Moreover, the data show that teachers are worried about separating ELL students from their English proficient peers. In fact, 55% of teachers reported that they are either *very concerned or extremely concerned* about pulling out ELL students from regular classes. In addition, we found that 85% of teachers *agreed* or *strongly agreed* with the statement that separating ELL students from English speaking peers can be harmful to their learning.

When disaggregating the data, we learned that there are important, although statistically insignificant, differences in the current level of preparation of teachers. Those teachers with bilingual certification seem to believe themselves to be the most prepared to teach ELL students. In fact, a relatively high proportion of teachers who have a full bilingual certification (42%) rated their level of preparation for teaching ELL students as *excellent*. We also found that a higher proportion of Hispanic/Latina(o) teachers felt their level of preparation is *excellent*, compared to White teachers. Finally, the data show that elementary school teachers felt better prepared to teach ELL students, compared to middle and high school teachers.

The analysis of statistical significance reveals that elementary teachers rate the effectiveness of the 4-hour ELD block as less effective compared to teachers in middle and high schools. In relation to teachers' concerns about segregation, we found that Hispanic/Latina(o)

teachers have significantly greater concerns about segregation than White teachers. In addition, we found that elementary school teachers have significantly greater concerns about segregation, compared to teachers in middle and high school. We also found that bilingual teachers are significantly more concerned about segregation than monolingual teachers.

When disaggregating the data for teachers' beliefs, we found that elementary school teachers have significantly more optimistic beliefs about ELL students' academic potential than teachers in middle and high school teachers. Finally, when examining teachers' language beliefs, we found that Hispanic/Latina(o) teachers have significantly stronger beliefs (than White teachers) regarding the importance of developing proficiency in a language other than English for academic success. Also, teachers currently in charge of SEI courses have significantly stronger beliefs regarding the importance of developing proficiency in a language other than English for academic success than teachers who do not teach SEI courses.

Teachers play a central role in ELL students' education and research has shown that both teachers' perceptions of their own skills as well as their perceptions of their students' skills and abilities can influence student outcomes. Thus, paying attention to and understanding teachers' knowledge, perceptions, beliefs, and concerns is critical to ensure that *all* students in Arizona, ELL and non-ELL, succeed academically and are prepared to enroll and to succeed in college. Findings from this study reveal that Arizona's teachers are teaching under very difficult and complex conditions. The teachers included in our sample teach in relatively large schools that are comprised mostly of Hispanic/Latina(o) students who are living in poverty. The complexities of teaching conditions are not only reflected in the level of ethnic, socio-economic and linguistic segregation in their schools, but also in the existing language and school policies. These policies clearly shape teachers' conceptions of effectiveness and opinions about ELL students' educational opportunities. Indeed, teachers thought that the 4-hour ELD block is somewhat effective because their ELL students are acquiring some English skills, but at the same time, teachers felt that the outcomes of the program have not been what they expected because ELL students are not reaching English proficiency within one year. School policies and statewide language policies may also shape teachers' perceptions of ELL students' educational opportunities. Teachers, especially at the elementary level, think students will progress fine, but they also reported that they are currently not meeting grade-level standards. While these findings may seem contradictory, they well reflect what teachers believe are reasonable expectations for students in these conditions.

Findings strongly suggest that lacking peer language models can be damaging for ELL's learning and self-esteem. It is also interesting that elementary teachers and Hispanic/Latina(o) teachers seem to be the most concerned about segregation compared to other groups of teachers. Once again, we think that teachers' opinions vary in these respects because of the way the 4-hour ELD block is implemented and because of current school conditions. It seems that elementary schools face more restrictions in grouping students than high schools, and secondary teachers do not see what students do in other classes or have a holistic view of their schooling expeirence. Finally, the results of this study show that the majority of teachers do believe in the academic potential of ELL students. This truly reflects teachers' hopes for and connection with their ELL students. However, any language arrangement that reduces engagement with academic content and denies students appropriate peer models is likely to be detrimental to their development.

Based on the findings of this study, we offer the following recommendations:

1. Arizona should consider offering alternative modes of instruction that can help ELL students access the course content needed to succeed academically.

2. Arizona should find ways to offer ELL students support from their English proficient peers in acquiring and using language in the classroom, particularly with the complex academic language that leads to successful high school graduation and higher education opportunities.

Introduction

Nationwide, English Language Learner (ELL) students comprise 10% of the total student enrollment from kindergarten through 12th grade. In Arizona—one of five states with the highest concentration of ELL students—approximately 11% of K-12 students are classified as ELL (Arizona Department of Education (ADE), 2010). Although ELL students speak different languages, Spanish is spoken by 80% of all ELL students nationally, and by 81% percent of ELLs in Arizona (Davenport, 2008). This is an important statistic to take into consideration, since Spanish speakers in the U.S. tend to come from lower economic and educational backgrounds than either the general population or other immigrants and language minority populations (Goldenberg, 2008). The distribution of ELL students across grades in Arizona is as follows: 47% in grades K-2, 25% in grades 3 to 5, 15% in grades 6 to 8, and 13% in grades 9 to 12 (ADE, 2010).

In September 2007, the Arizona State Board of Education adopted the 4-hour block Structured English Immersion [SEI] model proposed by the Arizona ELL Task Force. In year 2008-2009, it required all school districts to implement the model. The 4-hour block SEI program is designed to accelerate the learning of the English language, and the goal set forth in Arizona law is for ELLs to become fluent or proficient in English in one year.[1] The structure of the SEI model consists of multiple elements (e.g., content, curriculum, and class size) that can be summarized as follows: Arizona law requires 4 hours of daily English Language Development (ELD) for all ELL students. These 4 daily hours are known by most educators as the 4-hour ELD block. ELL students should be grouped for their 4-hour ELD block according to their English language ability (as determined by their scores on the Arizona English Language Learner Assessment [AZELLA]). The 4-hour ELD block is distinguished from other types of instruction (e.g., math and science), and it focuses on a set of discrete skills: phonology (pronunciation), morphology (the internal structure and forms of words), syntax (English word order rules), lexicon (vocabulary), and semantics (how to use English in different situations and contexts). Thus, the English language is the main content of instruction in the 4-hour block SEI model.

The 4-hour block SEI model has been implemented in the state of Arizona for two academic years. Unfortunately, little empirical evidence exists regarding the effectiveness of this model, particularly from the perspective of teachers. Thus, the objective of the present study is to determine what teachers perceive is working most effectively to provide Arizona's English learners with a quality education. Of particular interest is to better understand:

(1) Teachers' knowledge, opinions, concerns, and understandings about the curriculum and pedagogy for ELL students,

(2) How well prepared teachers feel they are to deliver the 4-hour ELD block curriculum, and

[1] For more information about the specific requirements of SEI see https://www.azed.gov/ELLTaskForce/2008/SEIModels05-14-08.pdf

(3) Teachers' opinions of how well ELLs are advancing toward meeting the goal of English proficiency and the state educational standards that are set for all of Arizona's students.

Furthermore, we examine whether and how teachers' knowledge, opinions, concerns, and beliefs vary according to factors such as gender, ethnicity, level of education, years of experience, type of SEI course taught, language(s) spoken, and type of school (i.e., elementary, middle, and high school).

It is expected that the information collected in this study can help school administrators, researchers, decision-makers, and the public in general to learn more about the challenges that teachers face, the complex context in which they teach, and how to better meet their needs, so that *all* students in Arizona can accomplish their educational goals. Addressing the language and educational needs of ELL students is critical for Arizona's future not only because of their increasing numbers, but because the majority of these students are not succeeding in school. Indeed, ELL students have the lowest passing rates in the state's high school exit exam. Only about 20% of ELLs pass the state's math exit exams on the first try, compared to 64% of all other students, including those economically disadvantaged (Center on Education Policy, 2007). Furthermore, the statewide 4-year graduation rate of ELL students (48%) continues to be the lowest among all sub-groups of students (ADE, 2009). If these trends continue, then ELL students will have very limited opportunities to succeed in college or in the workplace.

Literature Review

Current Debates on Effective Pedagogical Strategies for ELL Students

For some decades, there has been a debate about the best way to teach non-English speaking children how to succeed academically (and socially) in an educational system that operates primarily, and often exclusively, in English. As clearly articulated by Goldenberg (2008), many important questions have heated this debate: Should ELL students spend their time in school in classes where only English is spoken? Or should they be taught academic skills and content in their native language? Which pedagogical approach is more effective? These and many other questions have been raised by researchers, educators, and decision-makers.

On the one hand, bilingual education advocates have argued that it is best to begin with considerable use of the child's native language in addition to English as a language of instruction (Cummins, 1992). More recently, proponents of bilingual education have been challenged by promoters of "English immersion"—a model that places ELL students in a classroom that operates entirely in English (Ramírez, 1986), with little or no first-language support—. English immersion proponents claim that: (1) "time on task" is the major variable underlying language learning and hence immersion in English is the most effective means to ensure the learning of English because students spend more time learning it; (b) under the conditions of immersion, language-minority students will quickly (within 1 or 2 years) pick up sufficient English to succeed academically; and (c) English immersion should start as early as possible in the student's school trajectory since younger children are better language learners than older children

(Cummins, 1992). We will not pursue this debate here, rather we refer the reader to recent analyses of the research on this topic.[2] It is, however, critical to understand from the point of view of teachers who are instructing these students what they consider to be effective, and ineffective, in their own practice since they are the primary educational resource for ELL students.

Components of Effective Teaching of ELL Students

Without any doubt, implementing the most effective pedagogical strategies for helping ELL students become proficient in English also requires effective teaching. What teachers choose to do in their classrooms depends on their own skills, experience, education, and beliefs about their students' academic potential and about how their students' learn. But, it also depends of how structural arrangements constrain or enhance what is possible within classrooms. Several studies have examined, from a qualitative perspective, what are some of the most important components of effective teaching. Findings from these studies show that the most successful teachers of ELL students have identifiable pedagogical and cultural skills and knowledge, including the ability to communicate effectively with students and to engage their families (Gándara, Maxwell-Jolly & Driscoll, 2005; Moll, Amanti, Neff & González, 1992). Effective teachers also seek to help ELL students make connections between content and language, and support their communication and social interaction (Facella, Rampino, & Shea, 2005).

The role that teachers play in ELL students' education is crucial. Thus, this study is important and timely. We need to better understand teachers' perspectives regarding the effectiveness of the 4-hour ELD block mandated by the state of Arizona, as well as their assessment of how well prepared they are to implement it. Knowing teachers' opinions and beliefs can help school administrators and policy-makers to improve the conditions in which they teach, and most importantly, can improve the educational attainment and opportunities of all students.

Methodology

Study Sample & Design

In the Spring 2010, 14 school districts were contacted to request their participation in this study. These school districts were selected with two criteria in mind: (1) They represented geographically distinct regions in the state of Arizona, and (2) they had a relatively large proportion of ELL students enrolled in their schools (ranging from 10% to 38%). In total 8 school districts decided to participate in this research study. These 8 school districts are located in 4 different counties throughout the state. These counties represent 3 different geographic regions: Northern, Central, and Southern Arizona.

[2] See, for example, Martinez-Wenzl, Pérez & Gándara, 2010; August, Goldenberg & Rueda, 2006; Goldenberg, 2008; Goldenberg, Rueda & August, 2006.

One school district decided to ask all their regular classroom teachers to complete the survey. For the 7 other school districts, we implemented a sampling design known as stratified proportional and randomized (Scheaffer, Mendenhall & Ott, 1992). This approach was used to ensure that all types of schools—elementary, middle, and high schools—were represented proportionally in the sample, and that only schools with a high proportion of ELLs—20% or higher—were randomly selected. We indeed accomplished these goals. However, there are other types of sampling bias that we were not able to eliminate with the sampling design chosen. In particular, we did not randomly select school districts, so there is the potential that our findings either overestimate or underestimate the true values of teachers' opinions, knowledge, and perceptions.

After both of these strategies were implemented, a total of 880 teachers currently working in 33 schools throughout the state of Arizona participated in this study. The sample of schools is represenative of the state of Arizona in the distribution of ELL students across grades, but not in terms of students' demographic chracteristics , as the over-representation of ELL students was by design (see Table 1).

Table 1. Descriptive Statistics of Collaborating Schools (N = 33) and of Schools in Arizona

	Sample Schools (N=33)	**All Schools in Arizona**
Type of School	**Percent (%)**	**Percent (%)** [1]
Elementary	64%	55%
Middle School	17%	17%
High School	19%	28%
School Size	**Mean (s.d.)**	**Total** [2]
Number of students	899 (534)	1,087,447
Ethnic Composition of Schools	**Percent (%)**	**Percent (%)** [3]
White	10%	45%
Hispanic/Latina(o)	78%	41%
English Language Learners	**Percent (%)**	**Percent (%)** [3]
% of ELL students – All levels	30%	11%
% of ELL students – Elementary	38%	36%
% of ELL students – Middle school	17%	15%
% of ELL students – High school	14%	13%
School Poverty	**Percent (%)**	**Percent (%)** [4]
% of Students Eligible for Free and Reduced Price Lunch	67%	52%

[1] Source of data: Public School Review: Profiles of USA Public Schools.
[2] Source of data: Common Core Data (CCD) 2007-2008.
[3] Source of data: Arizona Department of Education (2010).
[4] Source of data: Davenport (2005). The proportion of students eligible for free and reduced price has increased over the past years from 49% to 52%.

As shown in Table 1, the percentages of ELL students in the elementary, middle, and high schools included in our sample closely parallel the distribution of ELL students across grades in the state of Arizona: 47% in grades K-2, 25% in grades 3 to 5, 15% in grades 6 to 8, and 13% in grades 9 to 12 (ADE, 2010). Furthermore, the descriptive data displayed on Table 1 show that, on average, participating schools serve a relatively high proportion of ELL students (30%), compared to the 11% of ELL students statewide. This fact is due to the sampling design chosen for this study, which purposefully included schools with high concentration of ELL students. Interestingly, the data reveal that the participating schools are characterized by higher levels of poverty, compared to the average school in the state of Arizona; poverty and ethnicity are related in Arizona as in the rest of the country. On average, 67% of students in these schools are eligible for free and reduced price lunch, compared with 52% statewide. With respect to the ethnic composition of the schools, the data show that 78% of students currently enrolled in these schools are Hispanic/Latina(o) and 10% are White. These figures are also not representative of students across the state of Arizona, where 45% of students are White and 41% of students are Hispanic/Latina(o).

It is also important to state that the sample of teachers in this study is representative of the state of Arizona in terms of gender and level of education, but not in terms of teachers' ethnicity (see Table 2). Our sample does include a higher proportion of Hispanic/Latina(o) teachers. To our knowledge, this is the most comprehensive survey of teachers to date on this topic.

Table 2. Descriptive Statistics of Teachers in the Sample (N=880) and in the State of Arizona

	Percent (%) of Teachers in Sample	**Percent (%) of Teachers in Arizona[1]**
Gender		
Female	80%	75%
Male	20%	25%
Ethnicity		
White	57%	83%
Hispanic/Latina(o)	35%	11%
Native American	2%	2%
Other	6%	4%
Level of Education		
Bachelor's degree	54%	55%
Master's degree	44%	43%
Doctoral	1%	1%
Years of Experience Teaching		
Fewer than 3 years	13%	25%
3 to 5 years	21%	16%

6 to 10 years	21%	15%
More than 10 years	45%	44%
Years of Experience Teaching at this School		
Fewer than 3 years	26%	n.a.
3 to 5 years	30%	n.a.
6 to 10 years	19%	n.a.
More than 10 years	25%	n.a.
Speak any Language other than English		
Yes	55%	n.a.
Speaks Spanish	85%	n.a
Speaks Another Language	15%	n.a
Ability to Speak Other Language		
Not well	8%	n.a.
Basic	34%	n.a.
Well (non-native)	28%	n.a.
Very well (native)	30%	n.a.
Type of SEI endorsement training you currently have		
Full SEI	62%	n.a.
Provisional SEI	14%	n.a.
Full ESL	0%	n.a.
Provisional ESL	14%	n.a.
Full Bilingual	2%	n.a.
Provisional Bilingual	14%	n.a.
I am currently working on my SEI certification	4%	n.a.
I don't have any endorsement	2%	n.a.

n.a. = not available

[1] Source of data: Doyle and Romano (2008).

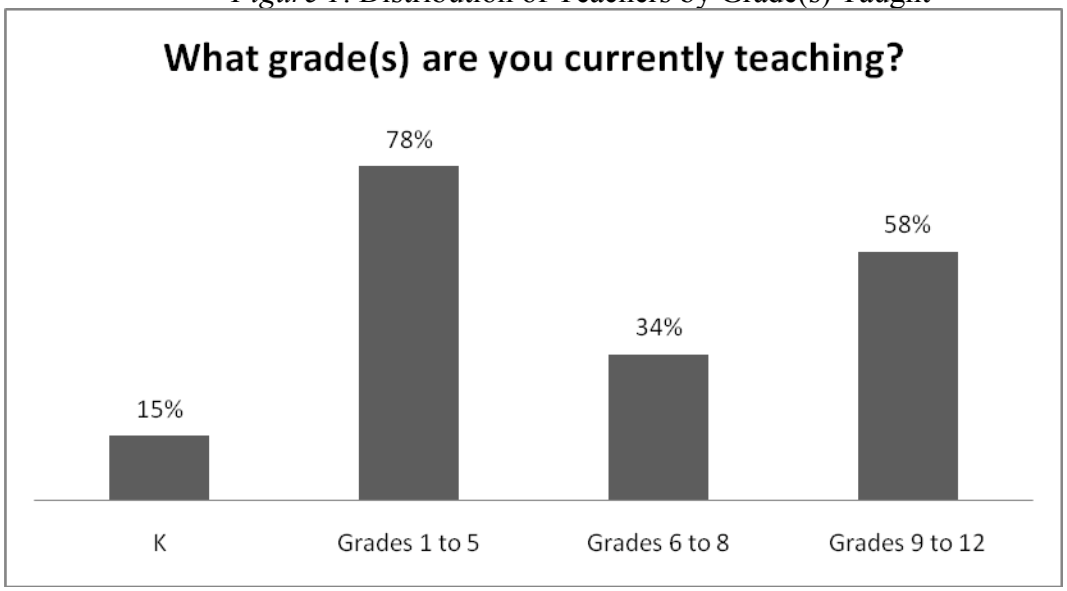
With respect to the characteristics of teachers that participated in this study, the data show that the majority are female (80%), White (57%), and have a Bachelor's degree (54%), similar to all teachers in the state. In relation to the years of experience, the data revealed that 45% of teachers have been teaching for more than 10 years. This figure is very similar for teachers across the state of Arizona. However, sample teachers do not have many years of experience teaching at their current schools, 56% reporting 5 years or less. Also, 55% of teachers responded that they speak a language other than English, although 42% rated their ability to speak the other language as *not well* or *basic*. Among all those teachers who reported that they speak a language other than English, 85% of them stated that they speak Spanish, and the rest (15%) speak another language.

With respect to the qualifications of teachers, the data show that 62% of teachers have a full SEI endorsement. This percentage seems realistic because the state of Arizona requires teachers of ELL students to have an SEI certification. Thirty percent of teachers also reported

that they have training in other pedagogical strategies, including English as a Second Language (14%) and bilingual certification (14%). Unfortunately, there are no comparable data available at the state level.

Finally, with respect to the distribution of teachers across grades, we found that the majority of teachers (78%) teach in elementary grades. When looking at this particular figure, it is important to keep in mind that teachers were asked to report all the grade(s) level(s) that they currently teach at their schools. So, the percentages shown in Figure 1 do not add to 100%. Data also show that 52% of the teachers reported that they teach all subjects. This percentage is as expected, given that the majority of teachers included in our sample work in elementary schools. Twenty two percent of teachers reported that they teach English & Language Arts, 17% are math teachers, 12% of teachers teach social science and 11% teach science.

Figure 1. Distribution of Teachers by Grade(s) Taught



Survey Instrument

The research team designed the survey instrument that was given to teachers. The survey was informed by a review of the literature on SEI models, a review of previously conducted studies on pedagogical strategies for ELL students, our own research with ELL students, and by conversations with school administrators who have been implementing SEI in their own schools. Once the survey was designed, we asked several experts in the field to provide us with their feedback, and we edited the survey accordingly. After the expert review phase was concluded, we piloted the survey in the Spring of 2010 with approximately 60 pre-service and regular classroom teachers. The feeedback gathered in the pilot testing process helped us refine the survey, and to arrive at a final design. The final survey design includes questions around several areas of interest: (1) descriptive characteristics of teachers, (2) teachers' perceptions of their current level of preparation for teaching ELL students, (3) teachers' perceptions of effectiveness

of the 4-hour ELD block, (4) teachers' perceptions regarding the academic potential of ELL students, and (5) teachers' opinions about the implementation of the 4-hour ELD block (see Appendix B for examples of specific survey questions). The survey was completely anonymous, meaning that no personally identifiable data from the teachers were collected. It took teachers approximately 10 minutes to fill out the survey.

Data Collection

We used both a paper-and-pencil and an online version of the survey. The online version of the survey was used for the school district that asked us to administer the survey instrument to all their core-area regular classroom teachers. The response rate for the online version of the survey was 80%. This response rate is very high for on-line surveys.[3] For the rest of the participating school districts, once the permission to collect data was granted, the researchers asked permission to attend faculty meetings. Alternatively, in some school districts, school administrators helped with the administration of the survey in faculty meetings. These strategies were successful in maximizing the response rate (only teachers who did not attend the faculty meeting on the day of the data collection did not participate in the study).[4] During those meetings, the purpose of the project was explained verbally and, once the explanation was provided, teachers were asked to fill out the survey. The research team used survey software to scan all the paper-and-pencil surveys.[5] The purpose of using this software was to avoid, as much as possible, human errors during the process of feeding the database.

In addition to collecting data with the survey instrument, we also retrieved official information (e.g., total enrollment, percentage of students eligible for free and reduced price lunch, and percentage of White and Hispanic/Latina(o) students) about the participating school districts and schools from both the Arizona Department of Education [ADE] and the National Center for Education Statistics [NCES]. This information was added to the dataset gathered from the teachers. This strategy allowed us to provide a more comprehensive context to analyze and to interpret the findings of this study.

Analytical approaches

Once the database was complete with the survey and official school data, we analyzed the data in two ways. The first approach involved the use of descriptive statistics to get a general picture about teachers' perceptions, beliefs, and opinions. It is important to mention that we highlight specific survey questions that, we believe, capture the most important topics addressed in the survey: (1) teachers' perceptions about their current level of preparation for teaching ELL students, (2) teachers' beliefs about the academic potential of their ELL students (3) teachers' language beliefs, (4) teachers' perceptions of the effectiveness of the 4-hour ELD block, (5) teachers' perceptions about the educational opportunities of ELL students, and (6) teachers'

[3] Given the decline in response rates over time in the United States, a 40% response rate is considered to be "acceptable" for most on-line surveys (for more details on survey response rates see Groves et al., 2004).
[4] While it is not possible to provide a specific response rate by school, we estimate that, on average, 90% of the teachers were present in the faculty meetings.
[5] Remark software was used to process all the paper-pencil surveys.

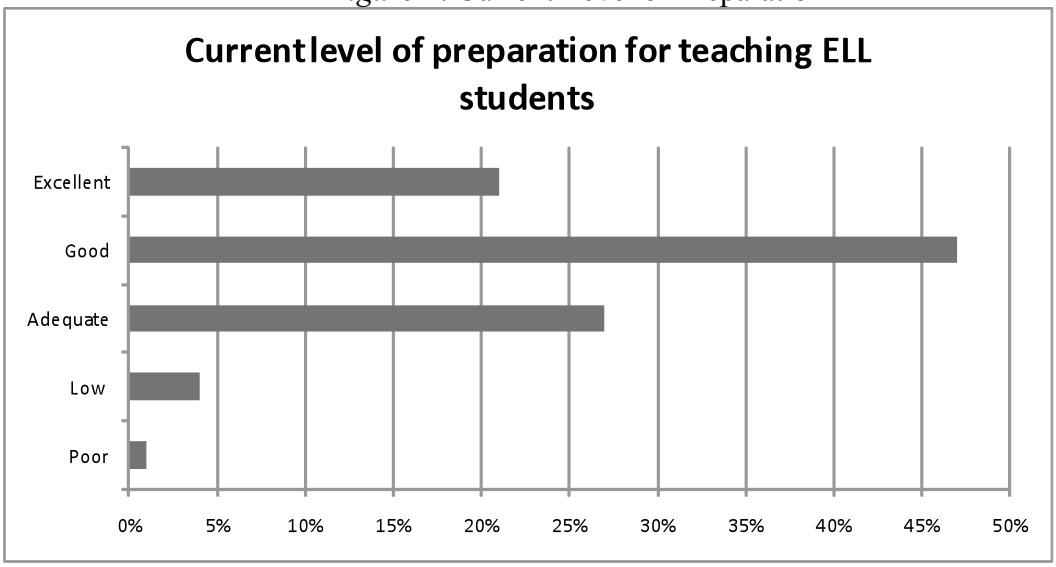
observations about segregation of ELL students and their beliefs about its consequences. The second approach consisted on examining how teachers' perceptions, beliefs, and opinions vary according to teacher characteristics, including gender, ethnicity, years of experience, type of certification, language(s) spoken, currently teaching an SEI course, and type of school (i.e., elementary, middle and high school). For the analyses of differences in perceptions and opinions across different sub-groups of teachers, we use several statistical techniques (i.e., t-tests, and ANOVAs) to test for statistical significance.

Findings

Teachers' Perceptions of their Current Level of Preparation

We asked teachers to report their level of preparation to teach ELL students. As shown in Figure 2, 21% of teachers rated their current level of preparation to teach ELL students as *excellent,* 47% of teachers rated their current level of preparation as *good*. Only a small percentage (less than 5%) felt that their level of preparation is *low or poor* (see Figure 2). Overall, teachers expressed a high degree of confidence in their ability to teach ELL students. We found this interesting given that another recent survey of 5,300 teachers of ELL students in California found that most teachers there appeared to lack this confidence and desired much more preparation (Gándara, Maxwell-Jolly & Driscoll, 2006). It may be that this sample of Arizona teachers had, indeed, received extremely high level professional development. Alternatively, teachers may perceive the 4-hour ELD block to be very transparent—even simple--in its pedagogical requirements, allowing teachers of varying skills and ability to feel confident instructing it. Most research on the instruction of ELL students finds that it is challenging even for very experienced teachers, given that ELL students must learn both language and academic content while their English speaking peers need only learn the content (see, for example, Tellez & Waxman, 2006; Valdés, 2001). It is not possible for us to know why teachers are so confident, but it does suggest that the 4-hour ELD block is probably being implemented in the way that it was designed, as teachers do not express a great deal of confusion about what they are required to do.

Figure 2. Current Level of Preparation



How Do Teachers' Perceptions of their Current Level of Preparation Vary According to Distinct Teachers' Characteristics?

We also examined whether the current level of preparation of teachers varied according to several teacher characteristics. Results are presented in Table 3. From the disaggregated data, we learned that there are important, although statistically insignificant, differences in the current level of preparation of teachers. Those teachers with bilingual certification seem to be the most prepared to teach ELL students. In fact, a relatively high proportion of teachers who have a full bilingual certification (42%) rated their level of preparation for teaching ELL students as *excellent*. On the other hand, only 20% of teachers with full SEI endorsement rated their level of preparation as *excellent*. Furthermore the data indicate that 37% of SEI teachers reported their current level of preparation as *excellent*. It is also important to highlight that a higher proportion of Hispanic/Latina(o) teachers felt their level of preparation is *excellent*, compared to White teachers. Finally, the data show that elementary school teachers felt better prepared to teach ELL students, compared to middle and high school teachers.

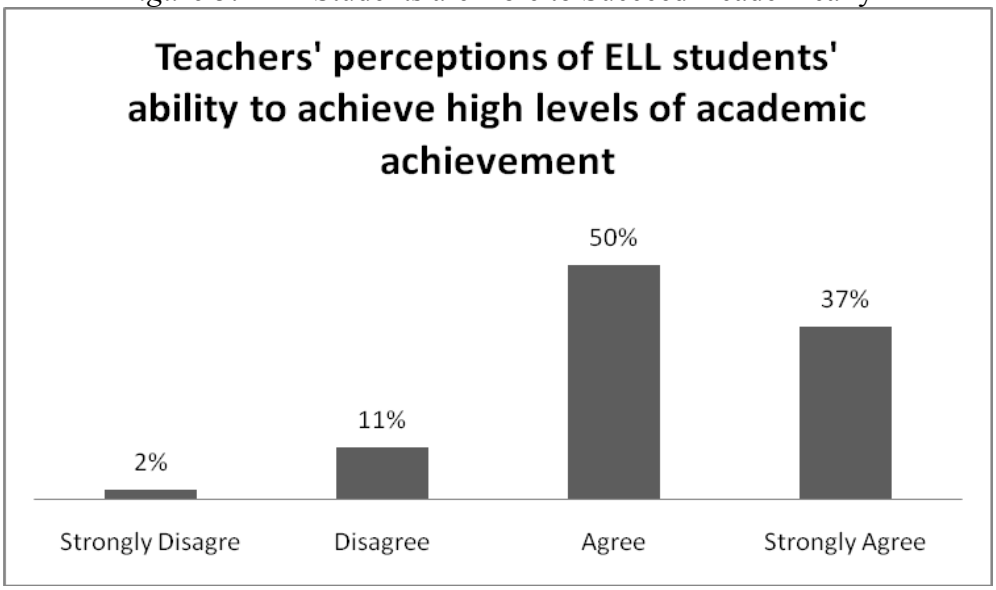
Table 3. Current Level of Preparation by Teacher Sub-Groups

	Poor	Low	Adequate	Good	Excellent
Teacher Ethnicity					
White	0.2%	6%	30%	46%	18%
Hispanic/Latina(o)	0.3%	4%	21%	47%	27%
Speak any language other than English					
Yes	0.4%	3%	22%	45%	28%
No	0%	7%	32%	48%	12%
Full SEI Endorsement					
Yes	0%	4%	26%	49%	20%
Full Bilingual Certification					
Yes	1%	2%	5%	46%	46%
Currently have ELL students in your class(es)					
Yes	0.3%	5%	25%	47%	22%
No	0%	8%	36%	46%	10%
Currently teach in and SEI class					
Yes	0%	3%	14%	46%	37%
No	0.3%	7%	32%	47%	14%
Currently teach 4-hour ELD block					
Yes	0%	3%	12%	47%	38%
Type of School					
Elementary	0%	5%	23%	50%	21%
Middle school	0%	6%	30%	43%	21%
High School	1%	8%	35%	37%	19%

Teachers' Beliefs

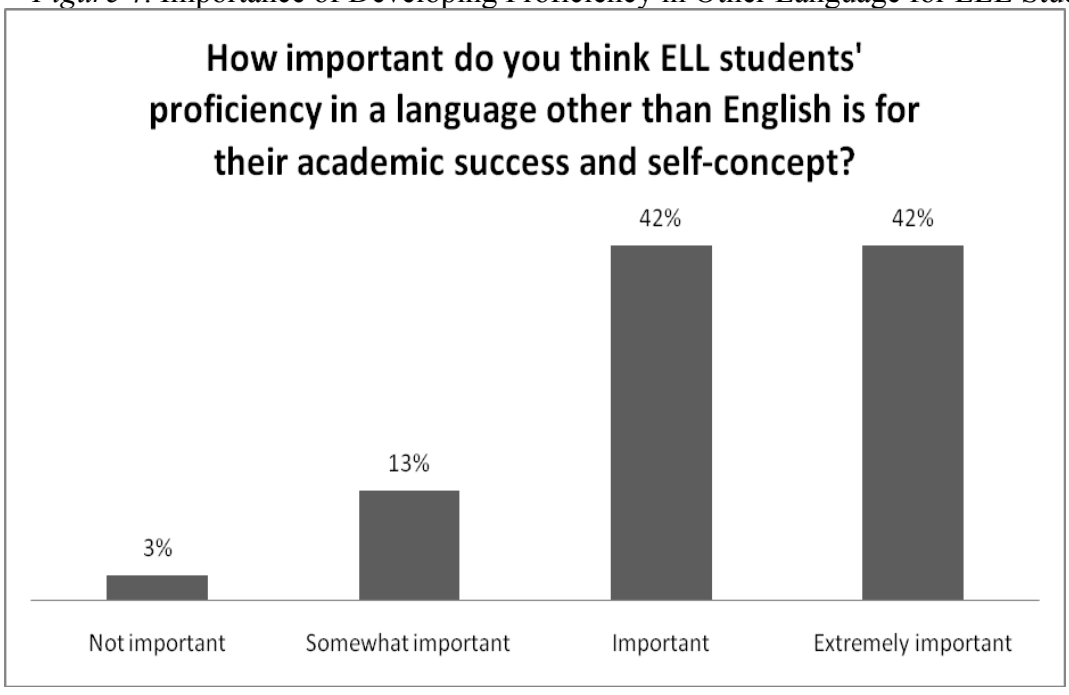
Teachers were asked about two different types of beliefs: (1) about ELL students' academic potential, and (2) about how proficiency in English can best be attained. With respect to ELL students' academic potential, we found that 87% of teachers either *agreed or strongly agreed* that ELL students are capable of succeeding academically (see Figure3).

Figure 3. ELL Students are Able to Succeed Academically



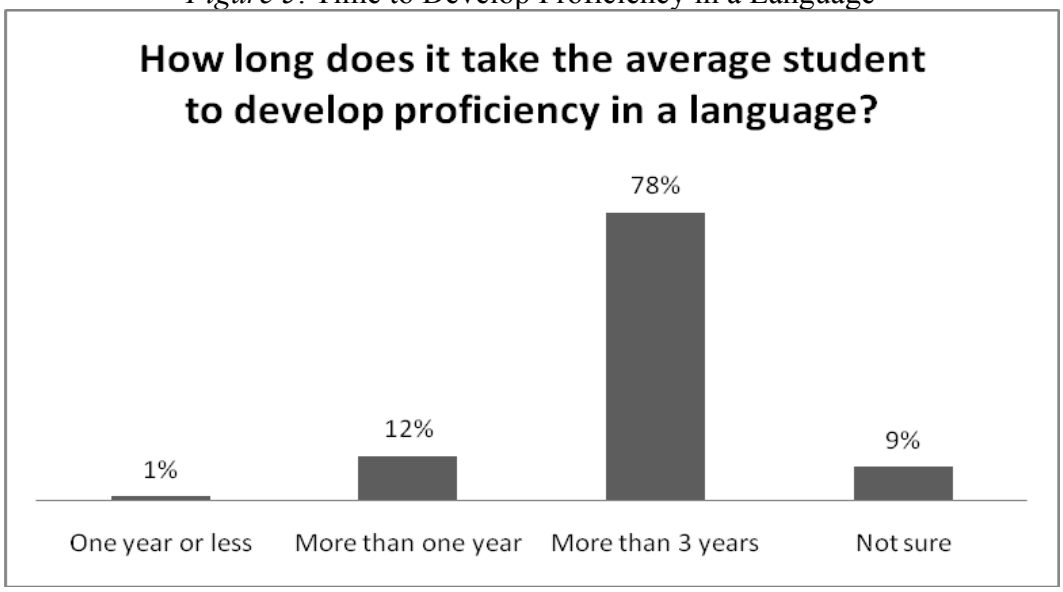
The sample teachers expressed a high level of confidence in the ability of their ELL students. Overwhelmingly, teachers appear to agree that their ELL students are intellectually capable of mastering the material at grade level. Still, a little more than one in ten did not believe this was the case. When teachers were asked about their language beliefs, the overwhelming majority, 84%, stated that proficiency in another language is either *important* or *extremely important* for ELL students' academic success and self-concept (see Figure 4).

Figure 4. Importance of Developing Proficiency in Other Language for ELL Students



It is important to recall that most teachers of ELL students do not speak another language well, and only a small minority, 14% are credentialed bilingual teachers. As such, it is unlikely that most teachers brought a strong bias in favor of bilingualism to their answers. We can only conclude that teachers' experience teaching students with strong first language skills versus those that do not have these skills, has led them to the conclusion that these skills are important for second language learning.

Figure 5. Time to Develop Proficiency in a Language



The vast majority of teachers (78%) indicated that they believe it takes more than 3 years, for an average student, to develop proficiency in a language, a finding consistent with the research literature on the matter. We assume that this finding comes from teachers' experience teaching ELL students as well. No major study has found that students, on average, can acquire academic English in less than three years.

How Do Teachers' Beliefs Vary According to Distinct Teachers' Characteristics?

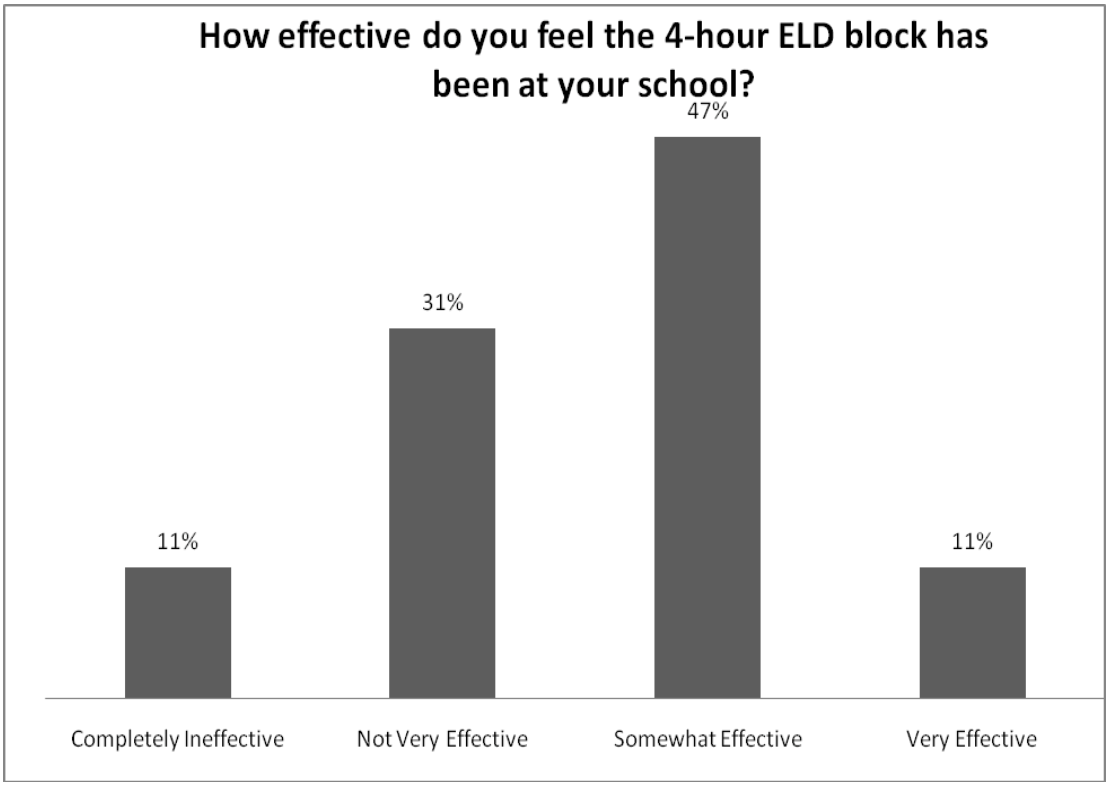
When disaggregating the data for teachers' beliefs, we found that elementary school teachers have significantly stronger beliefs on ELL students' academic potential than teachers in middle and high school teachers (see Appendix A for details on t-tests and ANOVA). Also, the analyses reveal that female teachers have significantly stronger perceptions about the academic potential of ELL students than male teachers. Finally, when examining teachers' language beliefs, Hispanic/Latina(o) teachers have significantly stronger beliefs (than White teachers) regarding the importance of developing proficiency in a language other than English for academic success. Also, teachers currently in charge of SEI courses have significantly stronger

beliefs regarding the importance of developing proficiency in a language other than English for academic success than teachers who do not teach SEI courses.

Effectiveness of the 4-hour ELD Block

When teachers were asked about the *overall* effectiveness of the 4-hour ELD block, 42% indicated that the program has been either completely ineffective or not very effective (see Figure 6). Forty seven percent of teachers responded that the program has been *somewhat effective*. And, only 11% of teachers felt that the program has been *very effective*.

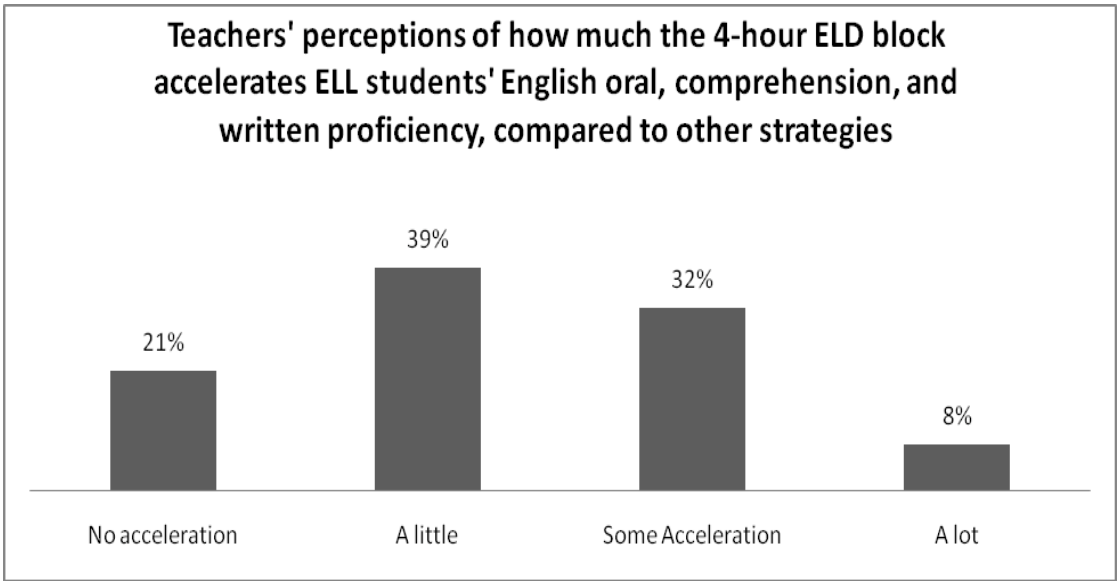
Figure 6. Overall Effectiveness of 4-hour ELD block



Responses shown in Figure 6 reflect a global assessment of teachers' opinions about the strength of the 4-hour ELD block curriculum, but another important dimension of the effectiveness of the 4-hour ELD block is related to ELL's English language development. As stated earlier, one of the most important goals of the 4-hour ELD block is to accelerate the English language development of ELLs. We asked teachers to say how much they thought the 4-hour ELD block accelerated students' English proficiency (oral, written, and comprehension), compared to other strategies with which they were familiar. The responses show (see Figure 7) that the majority of teachers (60%) considered that the 4-hour ELD block provided *little or no acceleration* of students' English language proficiency. Thirty two percent responded that there

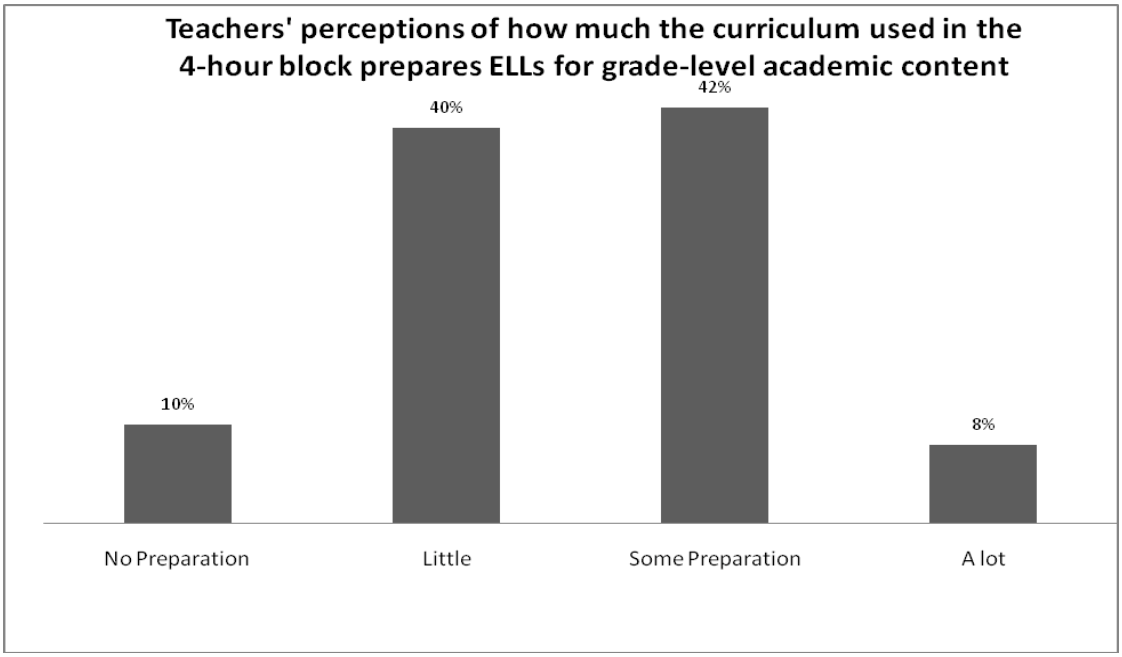
is some acceleration, and only 8% felt that the 4-hour block accelerated students' English language proficiency a lot.

Figure 7. Effectiveness of 4-hour ELD Block: English Proficiency



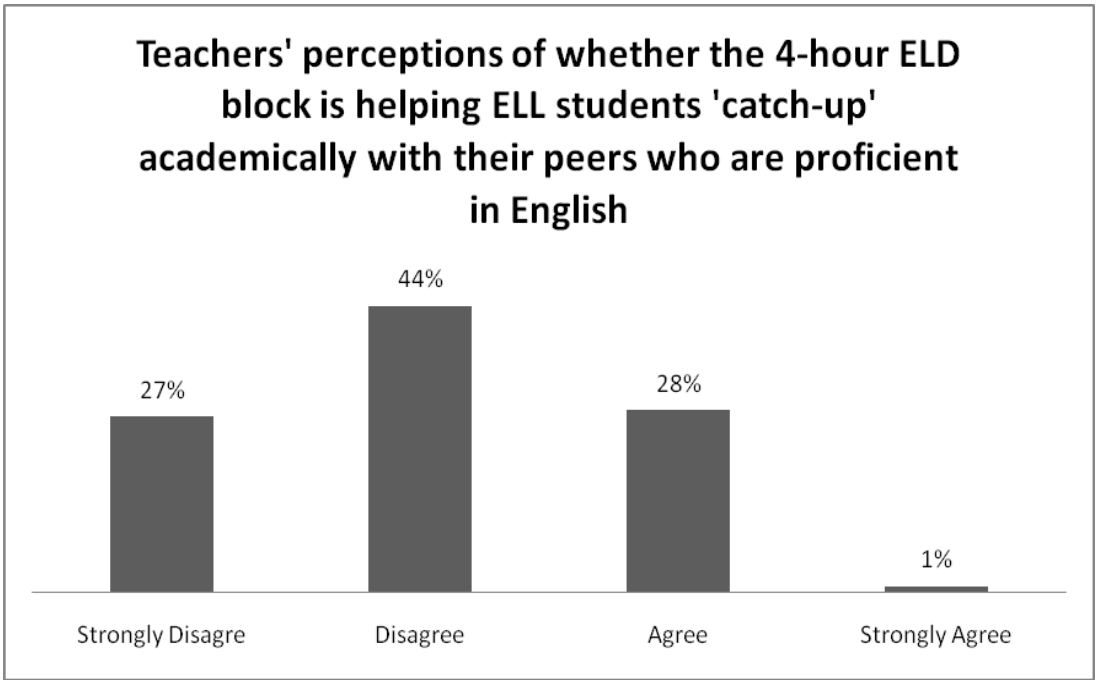
Preparing ELL students to master grade-level academic content is another important goal of instruction. We asked teachers for their assessment of the effectiveness of the 4-hour ELD block in this regard. As shown in Figure 8, 42% of teachers reported that the curriculum used in the 4-hour ELD block provides ELL students with *some preparation* for grade-level academic content. Forty percent of teachers felt that the curriculum prepares students a little, and 10% said that the curriculum does *not* prepare ELL students for grade-level academic content. This is an especially troubling finding, as it suggests that teachers believe very few of their ELL students are being prepared to meet the academic goals of instruction, and are therefore likely to be falling behind their non-ELL peers while they are in this program.

Figure 8. Effectiveness of 4-hour ELD Block: Preparation for Academic Content



We also asked teachers how much they agreed (or not) with the following statement expressed in the affirmative: *The 4-hour ELD block helps ELL students to 'catch-up' academically with their peers who are English proficient.* Seventy one percent of teachers either *disagreed or strongly disagreed* with the statement, providing further evidence that most teachers believe their ELL students are losing ground academically while they are in the 4-hour ELD program. Nonetheless, a little more than one in four does think that their ELL students are able to catch up with their non-ELL peers in the ELD block.

Figure 9. Effectiveness of 4-hour ELD Block: Preparation for Academic Content



Finally, we asked teachers if they had experience using other types of curricula (e.g., use of students' primary language). Thirty three percent of teachers in the sample (N = 265) reported affirmatively. Among these teachers, the majority (55%) stated that the 4-hour ELD block is *less effective* than other curricula in preparing ELL students academically, 37% stated that it is as effective as other curricula they have used, and only 7% reported that it is superior in preparing ELL students for grade-level academic content. We do not know what other curricula these teachers were using, so we cannot draw conclusions from these responses about what program teachers believe is more effective, but it is clear that overwhelmingly, teachers do not believe that the 4-hour ELD block is an improvement over whatever else they had used in the past.

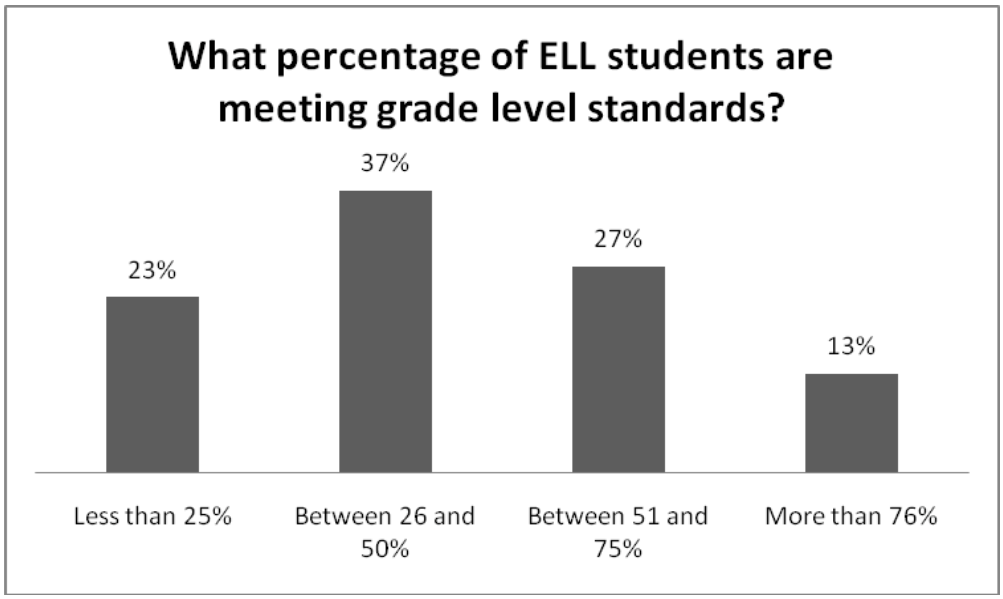
How Do Teachers' Perceptions of Effectiveness Vary According to Distinct Teachers' Characteristics?

When disaggregating the data to analyze if statistically significant differences existed among different sub-groups of teachers, we found that teachers with 3 to 5 years of experience teaching at their current school have significantly lower perceptions of effectiveness of the 4-hour ELD block than the other groups of teachers (fewer than 3 years, 6-10 years, and more than 10 years). Furthermore, teachers in elementary schools have significantly lower perceptions of effectiveness of the 4-hour ELD block, compared to teachers in middle and high-schools (see Appendix A for details on t-tests and ANOVA results).

Educational Opportunities of English Language Learners

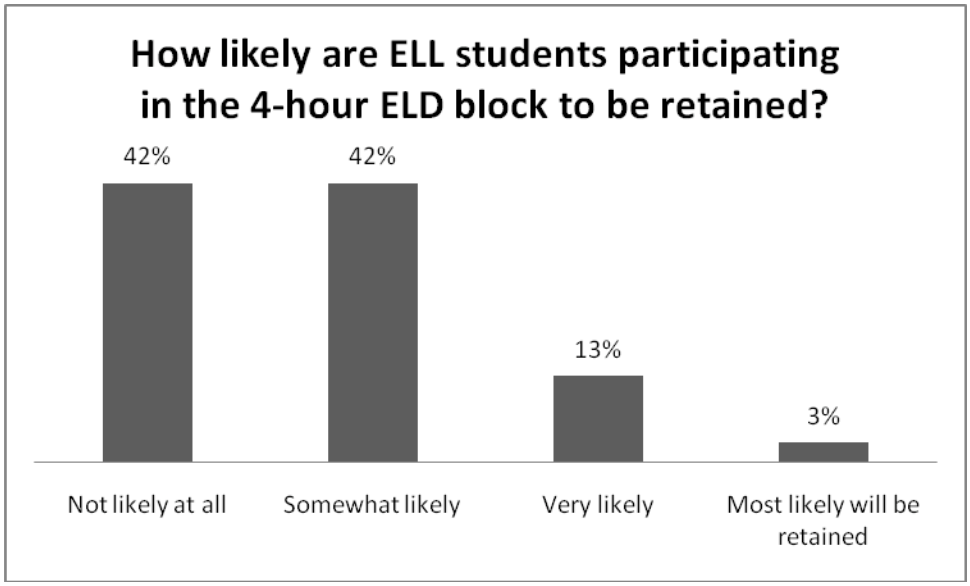
We asked teachers the percentage of their ELL students that are meeting grade-level standards. The data show that 60% of teachers thought that less than 50% of their ELL students meet grade-level standards (see Figure 10).

Figure 10. Percentage of ELL Students Meeting Grade Level Standards



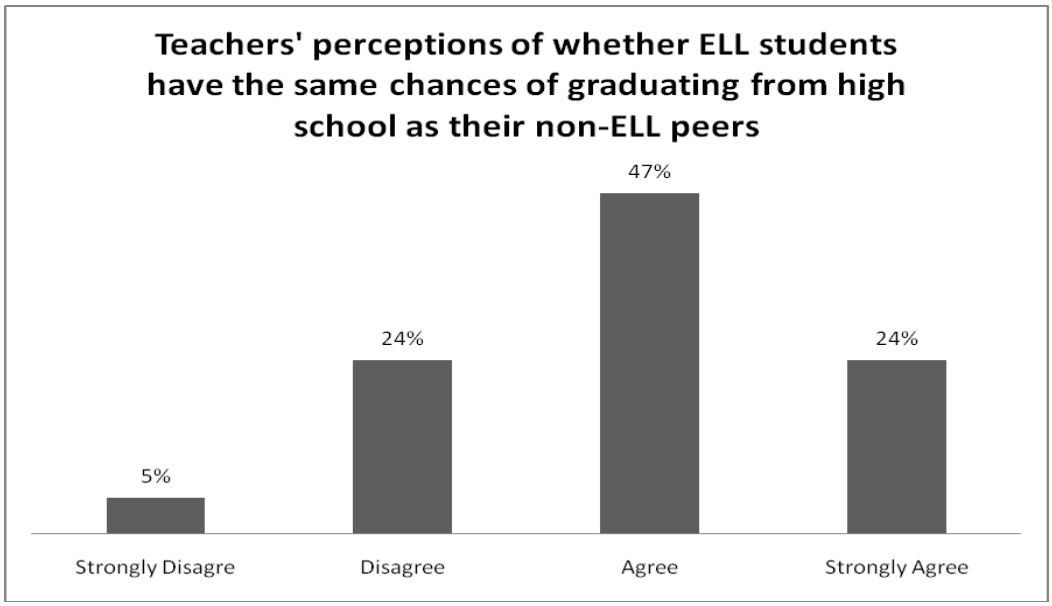
Forty two percent of the teachers reported that ELL students participating in the 4-hour ELD block were *not* likely to be retained (see Figure 11). Given that most teachers did not believe that their ELL students were meeting grade level academic standards, this raises important questions. If these students are passed on to the next grade without having attained grade level skills, how and when will they be given the opportunity to 'catch-up' with their non-ELL peers? How will they keep from falling further and further behind?

Figure 11. Likelihood of Being Retained



Teachers were also asked for their perceptions about their ELL students' chances of graduating from high school. Indeed, 47% of teachers said they agreed with the following statement: *ELL students have the same chances of graduating from high school as their non-ELL peers* (see Figure 12). Twenty nine percent of teachers either *disagreed* or *strongly disagreed* with the statement.

Figure 12. Chances of Graduating from High School



How Do Teachers' Perceptions of the Educational Opportunities of ELL Students Vary According to Distinct Teachers' Characteristics?

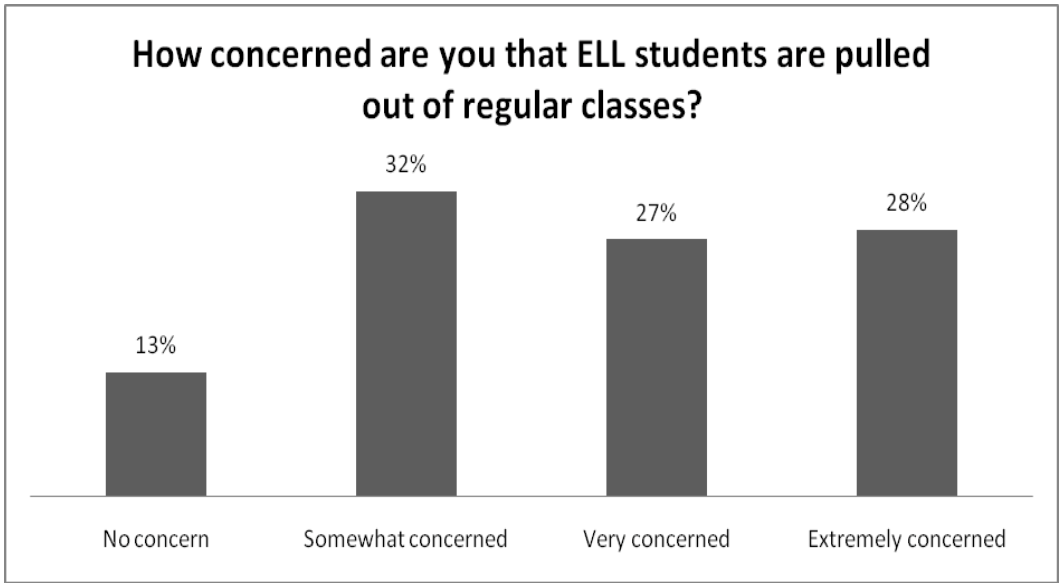
When the data was disaggregated, we found important, although statistically insignificant, differences on teachers' perceptions about their ELL students' chances of graduating from high school. Indeed, the proportion of high school teachers who *disagreed* or *strongly disagreed* with the statement: *ELL students have the same chances of graduating from high school as their non-ELL peers* is much higher (39%) than that of elementary (27%) and of middle (25%) school teachers. This finding suggests that elementary and middle school teachers seem more optimistic about the future educational opportunities of ELL students, compared to high school teachers.

Segregation of Students and Its Consequences

To assess concerns about separating ELL students' from their non-ELL peers, teachers were asked how much they agreed (or disagreed) with the following statements: (1) How concerned are you that ELL students are pulled out of regular classes? (2) Separating ELL students from English speaking peers can be harmful to their learning, (3) ELL students are stereotyped as "slow learners" by their peers, and (4) ELL students' self-esteem is being damaged by pulling them out of regular classes. Findings reveal that teachers are very concerned about separating ELL students from their non-ELL peers. Indeed, 55% of teachers reported that they are either *very concerned or extremely concerned* about pulling out ELL students from regular classes, with only 13% of teachers not being concerned (see Figure 13). This concern is very consistent as well with what is known about good pedagogical practice. A large literature has now accumulated on the deleterious effects of pulling students out of regular classes for specialized instruction. "Push in" instruction is generally conceded to be more effective than "pull out." [6]

[6] See, for example, a classic study by G. Glass & M.L. Smith, 1977, "Pull out" in Compensatory Education. Boulder: Laboratory of Educational Research, University of Colorado.

Figure 13. Concerns about Pulling Out ELL Students from Regular Classes



Furthermore, teachers seemed to be very worried about the consequences of separating ELL students from their non-ELL peers. As a matter of fact, 85% of teachers *agreed* or *strongly agreed* with the following statement: Separating ELL students from English speaking peers can be harmful to their learning (see Figure 14). Moreover, 57% of teachers *agreed* or *strongly agreed* with the statement that ELL students' self-esteem is being damaged by pulling them out of regular classes. Finally, 54% of teachers *agreed* or *strongly agreed* that ELL students are stereotyped as slow learners by their peers. In sum, these findings clearly indicate that teachers are very concerned about the negative experiences that ELL students have as a result of being separated form their English speaking peers. A recent study by Lillie and her colleagues (2010), examining the experiences of ELL students in Arizona 4-hour block classrooms found exactly this, that ELL students were being labeled and denigrated by non-ELL peers.

Figure 14. Separating ELL Students from Peers can be Harmful to their Learning

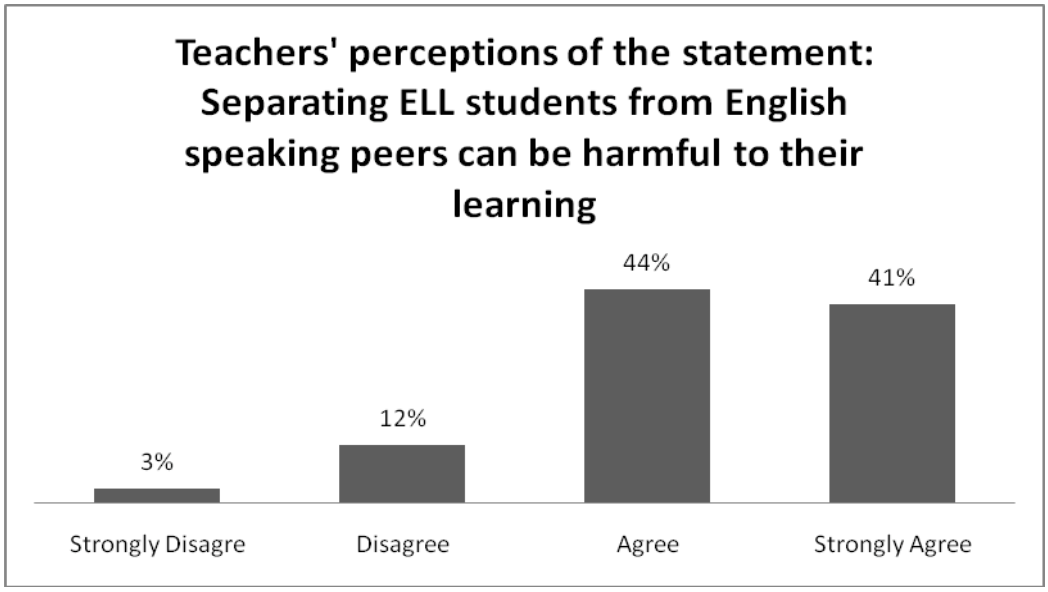


Figure 15. ELL Students' Self-esteem is Being Damaged

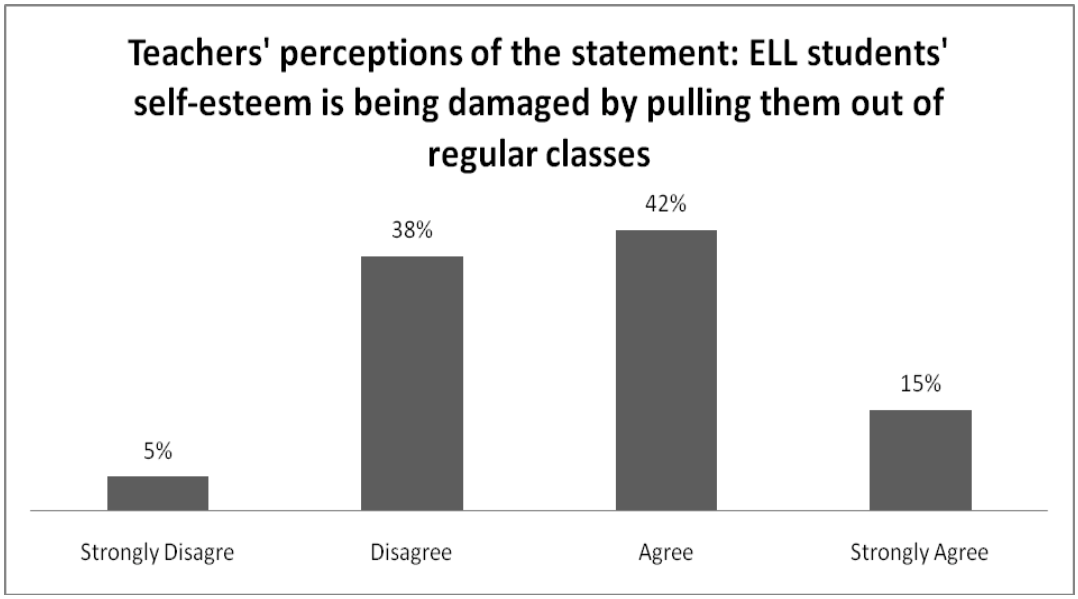
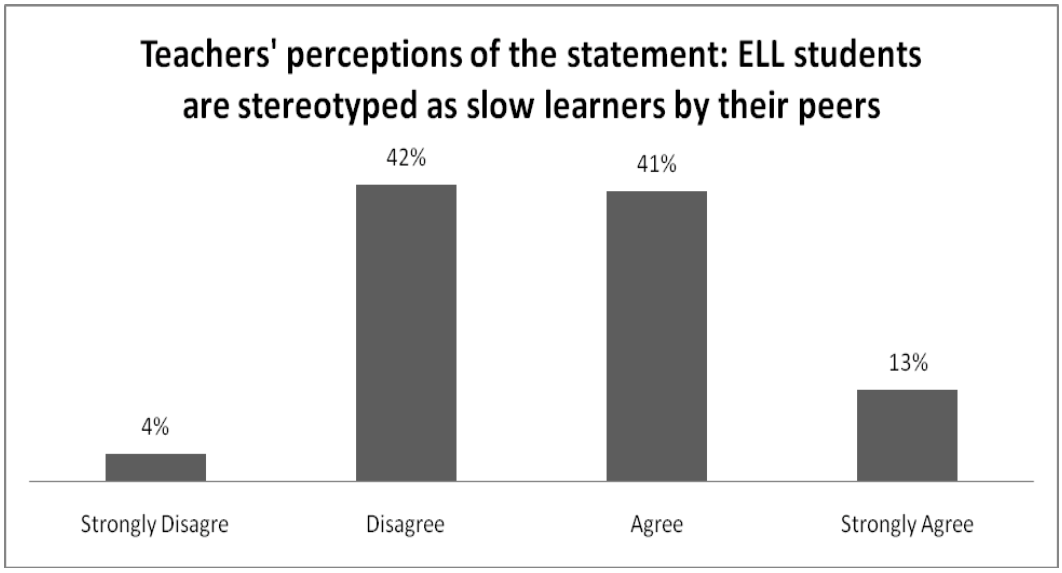


Figure 16. ELL Students are Stereotyped as Slow Learners



How Do Teachers' Concerns about Segregation Vary According to Distinct Teachers' Characteristics?

In relation to teachers' concerns about segregation, Hispanic/Latina(o) teachers have significantly stronger concerns about segregation than White teachers. In addition, elementary school teachers have significantly stronger concerns about segregation, compared to teachers in middle and high school. Finally, bilingual teachers have significantly stronger concerns about segregation than monolingual teachers (see Appendix A for details on t-tests and ANOVA).

From the descriptive analysis presented here, we learned that, *overall*, teachers felt adequately prepared to teach ELL students in their current settings. In addition, we learned that teachers strongly believed in ELL students' abilities to succeed academically. With respect to teachers' language beliefs, we learned that the vast majority of teachers believed that it takes AT LEAST 3 years to develop proficiency in any language. Furthermore, the overwhelming majority of teachers also believed that proficiency in the primary language is crucial for ELL students' academic success and self-concept. In relation to the effectiveness of the 4-hour ELD block, only 11% of teachers indicated that they believed the program has been very effective. Indeed, the majority of teachers (60%) considered that the program provided little or no acceleration of students' English language proficiency. Finally, teachers expressed strong concerns about separating ELL students from their English proficient peers. The majority of teachers indicated that such strategy can have negative consequences for ELL students' learning and self-esteem.

Conclusion

Teachers play a central role in ELL students' education. Thus, paying attention to and understanding teachers' knowledge, perceptions, beliefs, and concerns is critical to ensure that *all* students in Arizona, ELL and non-ELL, succeed academically and are prepared with the option of enrolling in college or joining the workforce. Findings from this study reveal that Arizona's teachers face very difficult and complex conditions. The teachers included in our sample teach in relatively large schools that are comprised mostly of Hispanic/Latina(o) students who are living in poverty. In addition, these schools serve a relatively high proportion of ELL students. The data suggests existence of three different layers of segregation operating simultaneously: segregation by students' ethnicity, segregation by students' poverty level, and segregation by students' first language. In conversations with teachers, they mentioned that they chose to teach in these schools (in spite of the *triple segregation)* because they felt connected with their students, either because they grew up in these communities or identified with their experiences. Other teachers shared that they also experienced difficulties learning English. These comments may explain why a high proportion of Hispanic/Latina(o) teachers are currently teaching in these already highly segregated schools.

The complexities of teachers' conditions are not only reflected in the level of segregation of their schools, but also in the existing language and school policies. These policies clearly shape teachers' conceptions of effectiveness and opinions about ELL students' educational opportunities. As stated earlier, most teachers indicated that the 4-hour ELD block has been only *somewhat effective* at their schools. At the same time, the majority of teachers do *not* think that the goals of the 4-hour ELD block are being met, adding that there is little to no acceleration of ELL students' English proficiency. These findings suggest that teachers feel that students are acquiring some learning as a result of their instruction, but that the outcomes of the program have not been what were expected. Most teachers clearly believe that their ELL students will not gain sufficient English proficiency in just one year, as mandated by AB2064. Moreover, most teachers think that the 4-hour block is not effective in providing access to the academic content needed to succeed in school. It is likely that other types of support (e.g., tutoring, academic content instruction and peer role models) are needed to help ELL students reach grade level academic achievement. Furthermore, other factors known to be critical to learning (e.g., student motivation) should be investigated to understand the likely effectiveness of the 4-hour ELD block.

School policies and statewide language policies may also shape teachers' perceptions of ELL students' educational opportunities. This study found, on the one hand, that a high proportion of teachers (47%) thought that ELL students are *not* likely to be retained. On the other hand, the majority of teachers (59%) reported that less than 50% of their ELL students are meeting grade-level standards. This raises serious concerns about these students' future academic trajectories. How and when will they be provided with the opportunity to catch up with their non-ELL peers? We can assume that these peers are continuing to move ahead with their learning while the ELL students continue to lose academic ground. In talking with teachers, we found that in some schools, policies are such that retaining students requires a long process that

actually discourages teachers to do so. Other schools may have "informal" policies regarding retention that strongly discourage it. Thus, while some teachers may actually think that retaining students can be beneficial, they are not allowed to do so. Similarly, a high proportion of teachers (48%) thought that ELL students have the same chances of graduating from high school as non-ELL students. This finding can be explained by the fact that the majority of the sample is comprised by elementary school teachers so they see high school graduation, still some years away, as real possibility for ELL students, while middle and high school teachers do not.

With regard to teachers' concerns about segregating students, the majority of teachers (55%) indicated that they are either *very concerned* or *extremely concerned* about pulling out ELL students from regular classrooms. Findings from this study and others (see, for example, Lillie et al, 2010) strongly suggest that teachers believe it is very important for ELL students to have native English speaking peer models in order to develop strong academic English skills. It is also interesting that elementary teachers and Hispanic/Latina(o) teachers seem to be more concerned about segregation compared to other groups of teachers. Elementary schools face more restrictions in grouping students than do high schools, resulting in even greater segregation throughout the day, and Hispanic/Latino teachers may simply be more sensitive to the impact of segregation than non-Hispanic teachers who have not experienced this in their own lives.

Finally, the results of this study show that the majority of teachers do believe in the academic potential of ELL students. This truly reflects teachers' hope and connection with their ELL students. However, most teachers did not find the 4-hour ELD block to be effective in helping students to either accelerate their English proficiency or catch up with their non-ELL peers academically. Elementary teachers are more critical of the 4-hour ELD block than middle and high school teachers. Our discussions with teachers have lead us to believe that part of the reason is that the 4-hour ELD block is relatively easier to implement in high school than in elementary school, even though its effect on denying students the possibility of taking the required courses they need to graduate are even more pernicious. We also gained the impression that the secondary teachers do not see their students holistically, throughout the day, as do elementary teachers, and so they have a much narrower view of how these students are faring across the curriculum and with respect to social relations.

Recommendations

The State of Arizona, like many other states in the nation, has entered an era of unprecedented change. These changes represent numerous challenges to teachers and educators at all levels of the state's education system. Two of the key challenges facing teachers in Arizona are the rapid growth of the state's population and the increasing diversity of that population. The state would benefit from recognition of these transformations and a forward-thinking approach that carefully anticipates and contemplates effective future directions for education and teaching (Deil-Amen, Rios-Aguilar & Milem, 2008).

Based on the findings of this study, we offer the following recommendations:

1. Alternative modes of instruction need to be implemented to help ELL students to access needed content to succeed academically. These alternative modes of instruction need to be based on existing research. Indeed, many different studies have investigated SEI and bilingual models, as well as variations of them. We do not provide an extensive review of this literature here. However, we rely on Goldenberg's (2008) review of the literature and Goldenberg, Rueda, and August's (2006) research to summarize the current state of the knowledge regarding pedagogical strategies for ELL students. The most important research findings are as follows:

    a. In order for ELL students to develop English proficiency, it is critical for them to have contact with English speaking peers and not be linguistically isolated.

    b. Children should be taught reading in their native language. Primary language reading instruction: (a) develops first language skills, (b) promotes reading in English, and (c) can be carried out as children are also learning to read, and learning other academic content, in English.

    c. As needed, ELL students should be helped to transfer what they know in their first language to learning tasks presented in English.

    d. Teaching in the first and second languages can be approached similarly. However, adjustments or modifications will be necessary, probably for several years and at least for some students, until they reach sufficient familiarity with academic English to permit them to be successful in mainstream instruction; more complex learning might require more instructional adjustments.

    e. ELLs need intensive oral ELD, especially vocabulary and academic English instruction. However, we have much to learn about what type of ELD instruction is most beneficial. Effective ELD provides both explicit teaching of features of English (such as syntax, grammar, vocabulary, pronunciation, and norms of social usage) and ample, meaningful opportunities to use English.

    f. ELLs also need academic content instruction, just as all students do; although ELD is crucial, it must be in addition to--not instead of--instruction designed to promote content knowledge.

It is critical to note that the current SEI instructional arrangement in Arizona neglects and/or contradicts most if not all of the points above. For instance, in the SEI model there is no mention of ELL students' first language. To the contrary, the law requires all instruction in the 4-hour ELD block should be in English. Furthermore, the instruction of the 4-hour ELD block focuses on teaching ELLs features of English (e.g., vocabulary, grammar and pronunciation), not on teaching content knowledge that is needed for academic success. Finally, the 4-hour ELD block does not seem to provide ELL students with opportunities to use English in a meaningful way with their English proficient peers.

2. ELL students need support and modeling from their English proficient peers in acquiring and using language in the classroom, particularly with the complex academic language that leads to successful high school graduation and higher education opportunities. We learned from this report's findings that academic and social segregation of ELL students from their peers are *not* perceived to be effective pedagogical strategies by these students' teachers.

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Appendix A. **T-tests and ANOVA Results**

Scale	Ethnicity [T]			Educational level [T]			Teaching experience at school [A]		
	Group	N	Mean (SD)	Group	N	Mean (SD)	Group	N	Mean (SD)
Effectiveness SEI - English Proficiency	White	434	2.23 (.86)	Bachelor's	418	2.22 (.78)	3 years or fewer	200	2.29 (.79)
	Hispanic/Latino	287	2.30 (.77)	Masters	348	2.31 (.88)	3-5 years	238	2.15 (.81)
							6-10 years	145	2.34 (.83)
							More 10 years	198	2.32 (.85)
Effectiveness SEI – Academic content	White	420	2.23 (.66)	Bachelor's	407	2.24 (.66)	3 years or fewer	194	2.27 (.66)*
	Hispanic/Latino	286	2.25 (.67)	Masters	335	2.25 (.67)	3-5 years	233	2.14 (.67)
							6-10 years	143	2.29 (.61)
							More 10 years	188	2.34 (.67)
Meeting Grade-level Standards	White	429	2.39 (.88)	Bachelor's	413	2.42 (.86)	3 years or fewer	198	2.37 (.87)
	Hispanic/Latino	276	2.43 (.84)	Masters	331	2.36 (.88)	3-5 years	233	2.39 (.90)
							6-10 years	145	2.37 (.84)
							More 10 years	187	2.46 (.87)
Teachers' beliefs - ELL students' academic abilities	White	456	2.99 (.50)	Bachelor's	435	2.30 (.50)	3 years or fewer	211	3.08 (.49)*
	Hispanic/Latino	298	3.02 (.55)	Masters	361	3.01 (.54)	3-5 years	244	2.95 (.55)
							6-10 years	156	2.96 (.52)
							More 10 years	202	3.05 (.50)
Teachers' language beliefs	White	451	3.14 (.76)	Bachelor's	429	3.22 (.74)	3 years or fewer	210	3.26 (.75)
	Hispanic/Latino	295	3.37 (.68)**	Masters	363	3.25 (.73)	3-5 years	249	3.26 (.74)
							6-10 years	150	3.24 (.75)
							More 10 years	197	3.18 (.70)
Segregation	White	411	2.83 (.55)	Bachelor's	402	2.86 (.55)	3 years or fewer	196	2.83 (.55)
	Hispanic/Latino	276	2.93 (.56)*	Masters	323	2.87 (.58)	3-5 years	224	2.92 (.58)
							6-10 years	143	2.88 (.58)
							More 10 years	174	2.82 (.54)

* Statistically significant at .05 α level

** Statistically significant at .001 α level

[T] = T-Test

[A] = ANOVA

Appendix A. Continued

Scale	School type [A]			Gender [T]			Speak any language other than English [T]			Currently teaching in a SEI class [T]		
	Group	N	Mean (SD)	Group	N	Mean (SD)	Group	N	Mean (SD)	Group	N	Mean (SD)
Effectiveness SEI - English Proficiency	Elementary	520	2.16 (.81) **	Male	152	2.28 (.75)	No	351	2.24 (.82)	No	530	2.26 (.82)
	Middle	135	2.40 (.81)	Female	618	2.26 (.85)	Yes	437	2.28 (.83)	Yes	250	2.26 (.83)
	High school	138	2.50 (.83)									
Effectiveness SEI – Academic content	Elementary	510	2.17 (.64) **	Male	148	2.30 (.63)	No	337	2.29 (.63)	No	506	2.24 (.68)
	Middle	129	2.35 (.71)	Female	600	2.24 (.67)	Yes	427	2.21 (.69)	Yes	249	2.27 (.65)
	High school	130	2.47 (.67)									
Meeting Grade-level Standards	Elementary	491	2.51 (.89) **	Male	154	2.26 (.77) *	No	343	2.36 (.86)	No	515	2.36 (.89)
	Middle	130	2.19 (.77)	Female	596	2.44 (.90)	Yes	423	2.44 (.88)	Yes	245	2.48 (.84)
	High school	149	2.23 (.84)									
Teachers' beliefs - ELL students' academic abilities	Elementary	540	3.06 (.52) **	Male	164	2.92 (.53)*	No	365	2.98 (.46)	No	559	3.00 (.50)
	Middle	138	2.94 (.50)	Female	638	3.03 (.51)	Yes	458	3.04 (.55)	Yes	251	3.04 (.55)
	High school	150	2.88 (.47)									
Teachers' language beliefs	Elementary	531	3.25 (.70)	Male	159	3.22 (.75)	No	359	3.09 (.77)**	No	556	3.19 (.75)*
	Middle	141	3.22 (.78)	Female	638	3.25 (.74)	Yes	457	3.36 (.67)	Yes	250	3.34 (.68)
	High school	150	3.23 (.80)									
Segregation	Elementary	489	2.92 (.56) **	Male	143	2.79 (.54)	No	330	2.75 (.54)	No	505	2.84 (.54)
	Middle	129	2.77 (.54)	Female	586	2.88 (.57)	Yes	416	**	Yes	232	2.92 (.60)
	High school	133	2.73 (.57)						2.95 (.56)			

* Statistically significant at .05 α level

** Statistically significant at .001 α level

[T] = T-Test

[A] = ANOVA

Appendix B – **Examples of Questions Asked in the Teacher Survey**

1. Gender
2. Ethnicity
3. Highest level of education completed
4. Do you speak any language other than English?
5. What other language you speak?
6. If you speak another language, how would you rate your ability to speak that other language?
7. Years of experience teaching
8. Years of experience teaching at this school
9. What grade(s) level(s) are you currently teaching
10. What type of SEI endorsement/training do you currently have?
11. How would you rate your current level of preparation for teaching ELL students?
12. Are you currently teaching and SEI class?
13. What type of SEI class do you teach?
14. How effective do you feel the 4-hour ELD block of instruction has been at your school?
15. What percentage of ELL students in your class do you think are meeting grade level standards?
16. What percentage of ELL students in your class do you think know the content?
17. How much do you think the 4-hour ELD block accelerates students' English oral proficiency, compared to other strategies you are familiar with?
18. How concerned are you that ELL students are pulled out of regular classrooms?
19. How much do you think the curriculum used in the 4-hour ELD block prepares ELL students for grade-level academic content?
20. Do you have experience using other types of curricula?
21. How important do you think ELL students proficiency in a language OTHER THAN ENGLISH is for their academic success?
22. Do you think the 4-hour ELD block is MORE effective than other strategies at getting ELL students to ACADEMIC proficiency in English?

Please say how much do you agree or disagree with the following statements:

a. ELL students are motivated to learn
b. Ell students are able to achieve high levels of academic achievement
c. Ell students are exposed to the content area knowledge and skills as often as their peers
d. Grouping ELL students according to their English language ability is an effective pedagogical strategy
e. The 4-hour ELD block helps ELL students 'catch-up' academically with their peers who are proficient in English
f. Separating ELL students from their English speaking peers can be harmful to their learning

g. Separating students from English speaking peers during the 4-hour ELD block is a good educational strategy.