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The Education of English Language Learners in Arizona:

A Legacy of Persisting Achievement Gaps in a Restrictive Language Policy Climate

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Abstract

This report reviews achievement gaps in both reading and math between ELL and non-ELL students in Arizona over the post-Proposition 203 period 2005-2009 and during the first year of implementation of the 4 hour ELD block, 2008-09. The study finds that Arizona has made little to no progress in closing the achievement gap between ELL and non-ELL students during this period. It also compares achievement gaps in reading and math over the same period between Arizona and Utah and Washington DC, two educational entities with vastly different spending policies. Here, the study argues that, notwithstanding changes in tests and proficiency thresholds in the states over this period of time, the relative position of Arizona vis-à-vis these comparison entities remains very similar, with Arizona continuing to lag behind both in percent of ELL students achieving proficiency in reading and math. The study concludes that Arizona is on the wrong path for closing achievement gaps for its ELL students and that this is due, at least in part, to its highly restrictive language instruction policies.
Introduction

Arizona’s Restrictive Language Instructional Policies

California, Arizona, and Massachusetts have passed state referendums that have mandated very restrictive instructional models for the education of English Learners (ELLs) (Gandara & Hopkins, 2010; Wiley, Lee & Rumberger, 2009). The Arizona referendum and subsequent legislation is the most restrictive of all (Mahoney, MacSwan, Haladyna & Garcia, 2010), and frames the discussion for this paper although similar language policies have been analyzed for California (Wentworth, Pellegrin, Thompson & Hakuta, 2010) and Massachusetts (Uriarte, Tung, Lavan & Diez, 2010).

The Structured English Immersion Model (SEI) was mandated in Arizona after the passage of Proposition 203 in 2000. With this Proposition, the local flexibility that existed regarding the choice of program models for ELLs ended, and SEI was required to be used in school districts and charter schools in the state (Gándara and Hopkins, 2010). These regulations were made even more restrictive after the establishment of the Arizona English Language Learners Task Force, which was responsible for the implementation of what is now called the 4-hour ELD block model (Mahoney, MacSwan, Haladyna & Garcia, 2010). Regulated by Arizona Revised Statutes 15-756.01, the 4-hour block model requires ELLs to receive English language development (ELD) services in an English-only immersion setting for a minimum of four hours per day for the first year in which they are classified as an ELL. This regulation is based on an assumption that ELLs can achieve proficiency in English very quickly (usually within a year) in an English-only instructional environment. Exiting from this mandated 4-hour block can be achieved only through the “mastery” of English at the student’s grade level as measured by the state’s English language proficiency test, the Arizona English Language and Literacy Assessment (AZELLA). The SEI also requires ELLs to be grouped based on their English language proficiency, and a specific number of minutes has been set for each component of language instruction (Wiley, Lee and Rumberger, 2009).

A model featuring prolonged daily segregation and the grouping of students by language proficiency does not align with research in the field of second language acquisition or cognitive infrastructure theories associated with the development of second language learners (August, Goldenberg & Rueda, 2010). According to this research, gaining academic proficiency in a second language typically requires more than one year of instruction (Cummins, 2000), and necessarily involves the negotiation of meaning; contextualized instruction; comprehensible linguistic input; metalinguistic awareness; activation of cultural and background knowledge; communicating beyond one’s level of proficiency in the service of communication and cognitive development and access to academic content and concepts (Ovando, Combs & Collier, 2006; Krashen, Rolstad & MacSwan, 2007; Lesaux, Koda, Siegel & Shanahan, 2006; Lesaux & Geva, 2006). Therefore, in order to progress in language learning, ELLs need ample opportunities to interact with those beyond their own level of proficiency, and to hear and participate in language and cognitive activities that involve academic content.
By denying these opportunities to ELLs, the instructional policies currently in place in Arizona are having a negative effect on the academic achievement and educational experiences of these students. Based on analyses of national comparative data\(^1\), Rumberger and Tran (2010) conclude that states with restrictive language policies usually present “larger achievement gaps than those without such policies” (p. 98), and “state policies and school practices restricting the use of native-language instruction could limit the ability of states and schools to reduce the ELL achievement gap” (p. 100). In another analysis of data from the National Assessment of Educational Progress (NAEP), Losen (2010) also provides evidence that English-only instruction implemented under Proposition 203 has not improved ELLs’ reading and math achievement in Arizona. His data show that math scores for ELLs in grades 4 and 8, during the period from 1998 to 2007, first increased but then declined, whilst the national average consistently improved. As for reading, 4\(^{th}\) grade results in the same period also showed an initial increase followed by a subsequent decline, which in this case brought scores down to their initial 1998 level, whilst in 8\(^{th}\) grade there was an overall decline. These results raise especially critical concerns in that they show that SEI in this state is not meeting Castañeda’s third prong\(^2\), codified in the Equal Educational Opportunity Act of 1974, which establishes that a program’s success must be demonstrable after a trial period.

Moreover, increasing numbers of ELs are being placed in special education programs since the passage of the English-only instructional policy in the state (Artiles, Klingner, Sullivan & Fierros, 2010), possibly as a compensating measure for the lack of appropriate language services directed at these students. Artiles and his colleagues call attention to the danger of such an increase, given that most special education teachers are not adequately prepared to work with ELs, thus placing both the students and the teachers in an unfair and counter-productive situation.

An instructional model that mandates the isolation of ELLs from mainstream students and classrooms for at least 80% of the school day also negatively impacts the social and cultural well-being of these students and their families. ELLs are silenced and marginalized in the greater school context, which diminishes their sense of belonging to the educational environment (Nguyen & Stritikus, 2009), consequently limiting their chances of academic success (Bernhard et al, 2006; Morrison, Cosden, O’Farrell & Campos, 2003; Curran, 2003; Osterman, 2000). Also, these students are given no opportunity to develop their native and/or heritage languages and cultural knowledge, both of which are strongly associated with the development of self-esteem, confidence, social skills, identity, and linguistic and academic achievement (Lee & Suarez, 2009; Francis, Lesaux & August, 2006; Schecter & Bayley, 2002; Rong & Preissle, 2009, Ovando, Combs & Collier, 2006).

\(^1\) The authors conducted several comparative studies of states and school districts with and without specialized programs and restrictive language instructional policies for ELLs using data from the National Assessment of Educational Progress (NAEP), *The Nation’s Report Card*.

\(^2\) This claim is also made by Mahoney, MacSwan, Haladya & Garcia (2010).
The mandated 4-hour ELD block is especially problematic for older students who are required to pass standardized writing and content-based exams in order to graduate high school. While ELLs are in ELD classes for four hours per day learning “about” English, they are being excluded from the core academic areas of math, science, and social studies (Mahoney, MacSwan, Haladyna & Garcia, 2010; Gandara et al, 2010). Knowing that they are not receiving the same education as their English-speaking peers, these practices directly affect ELLs’ motivation and interest in academics, consequently reducing their chances of graduating high school and moving into higher education (Callahan, 2005; Cortina, 2009). In addition, these practices negate well-established theory and empirically based findings that an English learner’s language development is interdependent with cognitive growth (Garcia, 2005). Language is not learned in isolation of cognitive development and content learning experiences. There, in fact, exists no body of scientifically based research that recommends the isolation of ELLs for four hours a day into English language classes, where they are kept from participating in and benefiting from core content and cognitively rich instruction (August, Goldenberg & Rueda, 2010; Krashen, Rolstad & MacSwan, 2007).

The most restrictive curricular component in the Arizona law defines English Language Development (ELD) and dictates the organization of English as a second language instruction. In Arizona law, ELD (as practiced in the 4 hour block) consists of teaching phonology, morphology, syntax, lexicon and semantics as separate subjects. By focusing only on “linguistic” features, this approach completely disregards the cognitive underpinnings of second language development. There is no existing research supporting teaching young children English by having them practice isolated language parts for fixed periods of time, as suggested by the Arizona SEI policy (e.g., 60 minutes of grammar instruction per day; 60 minutes of vocabulary instruction per day; Krashen, Rolstad & MacSwan, 2007). Indeed, August and Shanahan (2006), in a review of the extant research on teaching reading to English language learners, concluded that basic skills such as phonics and grammar are most meaningfully taught in the context of cognitively rich content instruction.

The challenge of ensuring access to high quality instruction for ELLs in Arizona becomes even greater when the preparation of teachers for this task is considered. To be effective, teachers of ELLs need to know what to teach, how to teach it, and how it will be assessed and monitored. However, since the establishment of restrictive language policies and the mandating of SEI, the quality of teacher preparation with regard to ELL instruction has been reduced significantly. According to de Jong, Arias, & Sanchez (2010), in the wake of Proposition 203, the state required a new SEI endorsement for all Arizona teachers. This endorsement qualified all teachers to be teachers of English language learners. However, whereas formerly ESL and Bilingual (BLE) teachers had been required to take from 24-27 units, the new endorsement only required 6, effectively dropping the number of preparation hours for teachers of ELLs from between 360 and 405 hours to 90. This has ensured that most teachers of ELLs in the state are only receiving approximately 10% of the preparation time previously considered necessary to serve these students effectively. De Jong and Arias (2010) note that a recent survey of 5300 educators of ELL students in California found that overwhelmingly teachers with a
similar (or higher) level of preparation felt unprepared to teach these students; bilingual certified teachers expressed the strongest belief that they knew how to teach ELLs effectively. Unfortunately, data from 2006 to 2009 show a decrease of 16% in the number of credentialed and certified bilingual instructors in Arizona (Arias, 2009).

De Jong, Arias, and Sanchez (2010) also explain that most teacher preparation currently in place in Arizona focuses on increasing teacher knowledge of state policies related to SEI, not on providing them with a deep knowledge of second language acquisition. Consequently, many novice as well as experienced teachers demonstrate little knowledge of effective practices in second language education such as the integration of students’ primary language in the classroom and an understanding of how language proficiency interacts with learning.

Denying ELLs access to core academic content within a rich, cognitively demanding educational setting discriminates against these students by blocking them from receiving the same educational experiences as students who are fully proficient in English (Gandara & Orfield, 2010; Losen, 2010), thus violating their civil rights (Valdes, 2009). Moreover, current instructional and teacher training policies restrict in-service and pre-service teachers, as well as schools and districts, from being able to implement best practices to enhance the linguistic and academic achievement of their ELL students (de Jong, Arias & Sanchez, 2010).

A Legacy of Achievement Gaps for ELLS

The following is an analysis of AIMS performance of Arizona’s third to fifth grade ELL population to that of non-ELL students. To interpret gaps in performance, two types of comparisons were made: 1) within-grade, across-year comparisons (e.g., 3rd grade cohort in 2007 to 3rd grade cohort in 2008) to gain information about the stability of the achievement gap across time, and 2) across-grade, within-year comparisons (e.g., 3rd grade cohort in 2007 to 4th grade cohort in 2007) to determine whether the achievement gap varies depending on grade level. The graphs included in Figures 1 and 2 plot mean scale scores on Arizona’s Instrument to Measure Standards (AIMS) for LEP and non-LEP students and demonstrate a large achievement gap between the two populations. As shown, this gap is present in both mathematics and reading, and is found in each targeted grade.

Reading Achievement

According to Figure 1, on average, third grade LEP students scored between 49 to 53 points lower than non-LEP students. Fourth grade LEP students scored 53 to 59 points lower than non-LEP students. Fourth grade LEP students scored 53 to 59 points lower than non-LEP students.

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3 Various terms are used across the U.S. and in legal and regulatory documents to describe students who are not native English speakers and who may be learning English in school. EL (English learners), ELL (English language learners), LEP (Limited English proficient) all refer to the same students and are used interchangeably, using according to the way the data sources described their data; linguistic minority (LM) is also used to describe students from non-English backgrounds who may or may not be English learners themselves.
lower. Fifth graders, 50 to 57 points lower. Distinct patterns describing the magnitude of the achievement gap were observed over time. For example, the difference in performance between LEP and non-LEP third graders in 2005 was 49 points. This difference increased to 53 in 2006 and then remained stable, fluctuating less than two mean scale points in each subsequent year. This trend (i.e., an initial increase in the achievement gap followed by stability in the difference) repeated in the fifth grade cohorts, although fifth graders did demonstrate a higher initial increase than third graders.

Figure 1. Comparison of AIMS Reading Mean Scale Scores for LEP and Non-LEP population

### Math Achievement

From 2005 to 2009, the gap in math achievement between LEP and non-LEP third graders ranged from a minimum of 37 mean scale points, to a maximum of 41. Fourth grade LEP students scored, on average, 46 to 55 points below non-LEP students and fifth grade LEP students scored anywhere from 45 to 55 points lower than non-LEP peers.

Across-grade, within-year comparisons indicate a performance gap that is higher for fourth graders than it is for third graders. For example, in 2009, the gap between LEP and non-LEP students was 40 mean scale points for third graders compared to 51 for fourth graders. This pattern was consistent across years, the highest discrepancy being 15 points in 2007. Differences between fourth graders and fifth graders were negligible. As
with reading, it appears that the achievement gap increased slightly between 2005 and 2006, though this must be interpreted with caution since the composition of the groups is not identical. After this initial increase, the gap in scores between LEP and non-LEP students remained largely stable for both third grade and fifth grade cohorts.

Figure 2. Comparison of AIMS Math Mean Scale Scores for LEP and Non-LEP population

This study also examined the progress of Arizona’s LEP population towards academic proficiency relative to LEP students in two cities and-states that do not place as restrictive legislation on ELL instruction: Utah and Washington, DC. The choice of these two particular places was based on the fact that the District of Columbia is one of the highest funding entities per pupil in the United States, whereas Utah is amongst the lowest funding states per pupil in the nation (National Center for Education Statistics), thus to some extent controlling for issues of school finance. It should be noted, however, that the profiles of the ELL (or LEP) students in these different entities may differ, as may the level of linguistic and ethnic segregation, from Arizona.

Data were collected from two sources. Applications for Race to the Top, an incentive program offered as part of the American Recovery and Reinvestment Act of 2009, provided information for Utah and Washington, DC. Data from Arizona were gathered using publically available state report cards released annually by the Arizona Department of Education.
The percentages of LEP students meeting proficiency standards in each state/city are included in Table 1 and depicted in Figures 3 and 4. These percentages include students at all grade levels. For each state/city, efforts were made to create data comparable across years. Data occurring before, or as a result of, significant changes to state proficiency standards or testing practices were omitted and/or noted.

Table 1 Percentage of LEP students meeting state/district proficiency standards, 2003-2009

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<td>29.1</td>
<td>30.6</td>
<td>33.2</td>
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<td>52.6</td>
<td>51.6</td>
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<td>33.9</td>
<td>43.1</td>
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<td>38.8</td>
<td>44.7</td>
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</tbody>
</table>

¹ Significant changes to Arizona’s proficiency standards were made after the 2003-2004 AIMS administration.
² During the 2005-2006 school year, the District of Columbia began testing with the DC-CAS.
³ Significant changes were made to Utah’s math proficiency standards in 2009

Reading Achievement

In 2009, nearly three-quarters (74.5%) of Arizona’s LEP students did not meet state proficiency standards in reading in English. Additionally, when examined across time, progress towards improving this percentage has been slow. Between 2005 and 2009, Arizona reported an overall increase of 2.6% with an average percentage growth of 0.7%. The largest gain (3.5%) occurred in 2007 and the largest decrease (4.4%) was reported in 2006. However, if this initial decrease is removed from the analysis, Arizona’s progress improves considerably, with proficiency increasing each of the last three years at an average rate of 2.3%.
Arizona’s rate of growth in reading lags behind Washington, DC. In four years, Washington, DC increased its proficiency rate 13.3%, from 31.4 in 2006 to 44.7 in 2009. Arizona’s progress does, however, compare favorably to that of Utah. Since 2003, the percentage of LEP students meeting proficiency in Utah has decreased by 0.2 percent, 2.8% below Arizona.

Figure 6. Percentage of LEP Children Meeting Proficiency Standards in Reading by State, 2003-2009

Math Achievement

In 2009, two-thirds (33.1%) of Arizona’s LEP students did not meet state proficiency standards in math and progress is not being made. Although small gains were achieved in 2007 and 2008, the total of these gains equaled 4.1% and occurred immediately following a 4.1% drop in 2006. In addition, the growth achieved in these two years was not built upon or sustained, as evidenced by the 0.1% decrease from 2008 to 2009.

As with reading, Arizona’s growth in math proficiency has not been as large as that demonstrated by Washington, DC. The percentage of LEP students achieving proficiency in Washington, DC doubled, from 26.8% to 53.0% within four years. Although stagnant, the average growth of Arizona (0.0%) outranks Utah (-0.7), the only state/city in our data reporting an overall decrease.
For both reading and math, it is difficult to know to what extent differing proficiency standards in each of the entities and changes in the states’/city tests and standards influenced the growth or decline in scores over time. Certainly, noticeable fluctuation occurs after each of these changes. However, the relative position of Arizona vis-à-vis these other entities, whether high spending, or very low spending (as is Arizona), remain intact, with Arizona consistently underperforming. This echoes the findings of the Rumberger and Tran (2010) analyses described earlier, in which Arizona ELLs were shown to perform below both New Mexico and Texas ELLs, also relatively low-spending states, on NAEP tests of reading and math.

**Conclusion**

Arizona’s approach to the equal education of ELL students has been highly restrictive, mandating very direct implementation of a “one-size fits all” policy that has produced a significant legacy of achievement gaps for these students. Comparisons of these gaps over the period of time these restrictive policies have been implemented has been a goal of the present analyses. The results are clear: these policies have generated no substantive decrease in achievement gaps and, in comparison to other states without such restrictive policies, Arizona’s achievement gaps are clearly significantly greater. Moreover, when NAEP reports are considered, there is a growing gap between ELLs in Arizona and the national average, favoring the latter. This may be again interpreted as support to the argument that restrictive language instructional practices are detrimental to
ELL achievement. At best, they do not appear to be improving the situation for Arizona’s ELLs on average. These results are not in the best interest of the ELL students the state serves.
References


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