## Did Immersion Triumph in Arizona?

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Proposition 203 passed in Arizona in 2000, an initiative that dismantled most bilingual education programs in that state. Prop 203 substituted "structured immersion," (henceforth SI) a program that instructs language minority children entirely in English. SI is supposed to help children acquire enough English in one year to allow them to do classroom work in the mainstream in English.

The State of Arizona (Arizona Department of Education, 2004) recently released data which, they claim, demonstrates that SI has been a success, that test scores show that those in SI outperform the few children left in bilingual programs at all grade levels on a standardized test of reading, the SAT9.

At first glance, it appears that scores for LEP students in structured immersion are indeed higher than those for students in bilingual education. In second grade, for example, SI students scored 563 in reading, those in bilingual education scored 551, a difference equivalent to two months. In fifth grade, the score was immersion 637, bilingual education 626, a difference of six months. In grade ten, immersion students scored 628, bilingual education, 610, a difference of one year and three months.

As Arizona State University Professor Jeff MacSwan has attempted to inform the pubic in Arizona, everything is wrong with the conclusion that SI has succeeded. Here are the problems.

## No control for initial proficiency in English

We have no idea how much English the children knew before starting the program (MacSwan, 2004a, 2004b). In general, students starting school with less English proficiency are placed in bilingual programs, and those with more English proficiency tend to be placed in all-English programs. (1) Those with less English to begin with will obviously not do as well as those with more, given an equal amount of time in school.

## No control for length of time in the US

The Arizona data contains no information on how long these students have been in the US (MacSwan, 2004b). It only looks at scores of those currently considered to be English learners. It is possible that those in SI have been in the US significantly longer - we have no idea.

If, for example, one English learner scores 85 on a test and another only 40, but the first has been in the US two years and the second only two months, we would not consider the first to be more successful.

## No control for poverty

The Arizona report did not consider the effect of poverty, as well as other related factors, such as parental education (MacSwan, 2004a).

Poverty has a huge impact on standardized test scores; students who come from lowincome families score lower on tests and do less well in school in general (White, 1982). The reasons for this include the obvious material benefits of higher income, i.e. nutritional, shelter, etc., as well as the cognitive: Children from higher income families have far more access to reading material, in school, at home, and in their communities (Neuman and Celano, 2001), which translates into higher attainment in reading. They also have better educated parents who are more able to help them with schoolwork.

English learners from higher income families have additional advantages over English learners who do not come from high income families. Economically advantaged children who enter school in the US after first grade have typically had quality education in their primary language in the country of origin. This means they have had two of the three elements of effective bilingual programs, subject matter instruction in the first language, which helps make instruction in English more comprehensible, and literacy in the first language, which accelerates the development of literacy in English.

Research confirms this advantage: Language minority children in the US who come from higher income families are reclassified as fluent English proficient more rapidly than those from lower income families. Grissom (2004) reported that for English learners in California who were in grade 2 in 1998, $27 \%$ of those who came from lowincome families (received free or reduced lunch) were reclassified as fluent English proficient by grade 5, but $46 \%$ of those from higher income families achieved this level. I found the same relationship in Krashen (1996) for reclassification rates for schools in the Los Angeles Unified School District.

The National Center for Education Statistics (1997) reported that in the US in general, English learners in schools serving more economically disadvantaged children were more likely to be in bilingual education programs than those in schools serving fewer. In schools with $20 \%$ or more receiving free or reduced lunch, $45 \%$ of English learners had some kind of bilingual education, but in schools with less than $20 \%$, only $18 \%$ of English learners had bilingual education.

Nevertheless, Arizona State Superintendent of Public Instruction Horne (Horne, 2004) claimed there was no reason to believe that differences in poverty existed between the
groups.

## No description of instruction

We don't know what really went on in the bilingual education and immersion classes. This is an important question to ask. Parrish, Linquanti, Merickel, Quick, Laird and Esra (2002) reported that for 75 districts in California that said they used "structured English immersion," $68 \%$ reported that teachers used the child's first language "occasionally or frequently" for academic content instruction, $88 \%$ used it occasionally or frequently for "preview-review," that is, presenting information first in the primary language as a preview, and $48 \%$ reported that they used instructional aides who spoke the first language occasionally or frequently. Thus, SI could really be bilingual education in some cases, as teachers have a tendency to try to do what they think will help.

## Are immersion children "pulling ahead"?

The Arizona Department of Education (2004) interprets the wider gap between SI and bilingual education in the upper grades as showing that the SI students are "pulling ahead" (page 8). But as Jill Kerper Mora has pointed out (personal communication) students in special programs in the upper grades are not the same students as those in the lower grades - they are newcomers, those who entered school in the US in the upper grades. The wider gap does not represent the results of cumulative progress over the years.

This must be the case, otherwise Arizona would have to explain why children are still in SI programs in grade 8, especially since Prop 203 says that SI "Children who are English learners shall be educated through sheltered English immersion during a temporary transition period not normally intended to exceed one year. . . ."

## Let's be scientific

We now live in an era in which there is considerable pressure to base teaching practice on "scientific" studies," that is, studies in which the possible influence of factors such as poverty and differences in starting proficiency are "controlled." These are studies in which experimental and comparison groups have similar levels of proficiency at the start of the treatment as well as similar backgrounds, or in which such differences are adjusted statistically.

It is very odd that the scientific method is consistently ignored in the debate on bilingual education.

Scientific studies comparing children in bilingual education and all-English options, including SI, show that bilingual education is a consistent winner: Children in bilingual programs do at least as well as those in all-English, and usually do better on tests of English reading (for reviews and meta-analyses of this research, see Willig, 1985, Greene, 1997; Slavin and Cheung, 2004).

There is, thus, an amazing consensus in the research community that bilingual education is worthwhile. (2)

There are good reasons why bilingual education works: It does a lot more than merely keeping children "falling behind." It supplies background information that helps children understand what they hear and read in English. Also, learning to read in the first language is an efficient and rapid short cut to learning to read in English. Bilingual education can, in fact, be defined as a method of using the first language to accelerate second language acquisition.

## Notes

(1) Supporters of SI deny that those in bilingual education in Arizona had less English proficiency to begin with. According to Proposition 203, students under ten can be put in bilingual education programs if they have "good English language skills." Students can also be put in bilingual education if the principal and staff agree to it, but the State (Arizona Department of Education, 2004) claims that the vast majority of waivers are not granted on this basis. If so, children under ten who are in bilingual education should all be "good" in English. Their low scores, according to the State, are more evidence of the failure of bilingual education.
If, however, these children were indeed already proficient in English, one would have to argue that bilingual education converted "good" English speakers into English learners, which is preposterous. Most likely, those entering the bilingual program had lower proficiency in English and the second criterion, approval by the principal and staff, was the basis for most waivers. The issue of course can be easily settled by examining the basis on which waivers were granted and by examining initial English proficiency.
(2) To my knowledge, only one scholar at the university level has concluded that SI is a better option, Christine Rossell (see eg. Rossell and Baker, 1996), but even Rossell points out that there are some effective bilingual programs and differences between bilingual education and SI are often small. Rossell and Baker (1996), in fact, concluded that we don't have enough data to make a policy decision. Moreover, her analyses have been criticized; her conclusion, for example, that "immersion" is better than bilingual education is based a set of studies that include only two actual bilingual-immersion comparisons in the US, and in both cases the "immersion" program included a substantial amount of instruction in the first language (Krashen, 1996).

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