



Dual Language Education Can Close Achievement Gap

SUMMARY

Dual language learning has been found to be the only method of second language acquisition to facilitate the full closure of the achievement gap between English learners and English speakers in primary and secondary education. Strictly structured and well-implemented dual language instruction across all subjects of the curriculum provides all students the opportunity to develop a deep academic proficiency in two languages, which will give them the tools to become highly-sought-after bilingual professionals in today's more globalized world.

BACKGROUND

In 2012, Wayne P. Thomas and Virginia P. Collier published the findings and conclusions of their extensive longitudinal studies of dual language education, which they deem to be the most effective method of foreign language instruction in K-12 schooling. Dual language instruction allows students, whether they be heritage speakers of a minority language or native English speakers, to acquire two languages through all the subjects of the curriculum, including math and science. This format encourages students to increase vocabulary across various areas of study and to develop a deeper academic proficiency in the partner language than they could with traditional foreign language instruction, which focuses more on studying the language instead of actively using it. The study groups dual language programs into two categories: one-way and two-way. One-way dual language programs consist of one language group (either English learners or English speakers) being schooled through two languages, and two-way dual language programs consist of both English learners and English speakers schooled through their two languages. Thomas and Collier's research shows that two-way dual language programs are the most effective, since students from both groups can help each other in acquiring their second language.

FINDINGS

According to Thomas and Collier's research, dual language education has a clear positive impact on native English speakers, but the main priority of their research, however, was to put focus on what English learners could gain from this type of language instruction. When English learners get bogged down in ESL or mainstream English classes, where the curriculum is only instructed in English, they typically only close half of the achievement gap with English speakers, and they tend to fall further behind in school. Dual language education, when implemented properly, prevents this from happening; Thomas and Collier argue that dual language education is the only model that

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allows English learners to fully close the achievement gap and even outperform their native English speaking classmates on standardized tests.

Oregon's Woodburn School District is an excellent example, where Thomas and Collier conducted a five-year longitudinal program evaluation (2001-2005) of both elementary and middle school students. The study examined results on the Reading Subtest of the Oregon State Achievement Test (OSAT) taken by English learners, heritage speakers classified as fluent in English, and English speakers throughout the designated five-year period; they discovered that English learners at the third grade level initially experienced a 14.93 point OSAT reading achievement gap with native English speakers in 2001, but were able to close this gap to within 4.94 points by 2005. This equals a gap closure of about 2.5 OSAT scale score points per year, which if maintained, would completely close the gap within two more years. These results demonstrate that English learners in the Woodburn School District made significantly more progress each year than native English speakers of the same age, even though the tests were administered in the English learners' second language.

Thomas and Collier's report emphasizes the importance of structure and design in dual language programs. They outline three non-negotiable factors of dual language instruction: a K-12 commitment, separation of the two languages for instruction, and a minimum of 50% of instruction in the non-English language.

It is essential that students in dual language programs enroll at the earliest possible age for several reasons. It takes an average of six years to reach grade-level curricular mastery in the second language (for both English speakers and learners) within the context of dual language learning, so students must start the program at the appropriate time in order to achieve the optimal level of proficiency (as seen in the study of Oregon's Woodburn School District). Students with no previous proficiency in the partner language who try to enroll in dual language programs at a later age struggle to keep up with the grade level curriculum in the partner language. Schools creating new programs, therefore, tend to develop their dual language programs one grade level at a time, starting in kindergarten or even PK. North Carolina and Oregon are notable exceptions, where districts and schools have been able to exceed the instructional requirement of six years, managing to implement K-12 dual language programs, which are maximally effective for all students involved.

The second non-negotiable factor of successful dual language programs is the separation of the two languages for instruction, which can be achieved in different ways. For example, the curriculum in both languages can be taught by one qualified bilingual teacher who is academically proficient in both languages and certified in the subject areas to be taught. One such teacher must also be knowledgeable about the underlying principles and practices of second language acquisition methodology with dual language education. These teachers are difficult to find, however, so schools interested in offering a dual language program can adopt the method of team teaching. This means that dual language classes are team-taught by an English-speaking teacher (ESL trained) and a



bilingual teacher who is academically proficient in the partner language. In most cases, the two teachers would have their own classrooms and would teach two classes each day, with the students typically alternating between the classrooms daily. The two classrooms allow for a clean separation of the two languages, since one classroom can be "English World" and the other can be "Spanish World", for example. If Spanish is the partner language, the Spanish teacher would use that language for instruction, curricular materials, cultural experiences, classroom decorations, and displays of student work. This method provides students the opportunity to be fully immersed in the language of instruction.

The team-teaching model has also been seen to be more cost-effective, since the hard-to-find qualified bilingual teacher can teach two groups of dual language students. Schools would not need to hire extra teachers, which is not the case for transitional or ESL only programs, and they may be only required to purchase additional curricular materials, which will not come at great cost. According to Thomas and Collier, personnel costs are about 2/3 to 3/4 of the total budget in a typical school district, so dual language programs prove to be very cost-effective.

It is worth noting that while students are in the early stages of dual language education, it is vital for them to receive instructional time in both languages fairly often, so splitting the instructional time in both languages by half-days has proven to be most effective. It is possible to split instructional time in both languages for the upper grades by day, two-days, or even by week or thematic unit, but constant exposure to both languages is key during the initial stages of second language acquisition.

Along with the separation of the two languages for instruction, Thomas and Collier also state that there must be at least 50% of instruction in the partner language. According to their report, the most effective method in the early years of dual language education is to have 90% of instructional time in the partner language and 10% in English (90:10). Within this structure, both English learners and English speakers first learn how to read in the partner language, which helps both groups develop English reading skills later on. This method may alarm English-speaking parents who worry that the lack of instructional time in English will have a negative impact on their child's English skills, but the research shows that the exact opposite occurs: acquiring a second language provides students with intellectual and cognitive advantages and enhances their cross-cultural awareness. As the dual language students progress through school and their academic proficiencies in both languages deepen, the instructional time in both languages should become more balanced, but the instructional time in the partner language should never dip below 50%.

Due to the high success rate and popularity of dual language instruction, schools often are forced to adopt a lottery system for selecting English speakers who desire to enroll in dual language classes. The limited space for English speakers is a necessary sacrifice for reserving 50% of enrollment space for English learners, who have the greatest needs and largest achievement gap. If we take a Russian-English dual language program as an example, the group of first priority for



enrollment would be Russian-speaking students who are not yet proficient in English. Next would be the heritage Russian speakers who are classified as dominant or fluent in English. These students are not served by any other program, and dual language education would help connect them to their native culture, close the achievement gap in English, and develop a deeper academic proficiency in English than they would in a monolingual English class.

The choice of a partner language is based on the total number of students of a heritage language at one school or in a school district. Since 75% of English learners in the U.S. are of a Spanish-speaking background, Spanish-English dual language programs are the most popular, but programs have also been offered in Arabic, Armenian, Cantonese, French, German, Japanese, Korean, Mandarin Chinese, Navajo, Portuguese, Russian, and Vietnamese in various states, including California, New Mexico, Texas, Arizona, Oregon, North Carolina, Michigan, and Alaska.

CLOSING THE GAP

As a result of dual language learning, the achievement gap can be closed not only by English learners but also by other historically low-performing groups, such as African-Americans and students of low socioeconomic status (as measured by percentage of students receiving free and reduced lunch). These findings are confirmed by Thomas and Collier's five-year long longitudinal research of two-way dual language schools across seven school districts in North Carolina. The second year of the study (2008-2009) alone includes test results from the North Carolina 2009 End-of-Grade (EOG) Reading and Math Achievement tests of 85,662 students from various socioeconomic and language backgrounds. Findings from this study, both statistically and practically significant, demonstrate that dual language programs strongly counteract the negative impact of low socioeconomic status on school performance, as English learners and African-American students of low socioeconomic status participating in dual language programs score much higher (in terms of practical significance) in EOG Reading in all grades, than their comparison groups not enrolled in dual language classes. Practical significance suggests that the observed differences between dual language and non-dual language students are large enough to represent a significant fraction of a standard deviation (effect size) and therefore have both practical and operational importance for "real world" decision-making. In fact, Thomas and Collier's research shows that students from each group engaged in dual language instruction observed in this study outperforms its comparison group not in dual language classes.



RECOMMENDATIONS

Taking results from Thomas and Collier's research into account, dual language education is the most effective method for elementary and secondary school students to develop a high level of academic proficiency in two languages. Well-implemented two-way dual language programs have almost twice the effect size of traditional bilingual/ESL classes for English learners. Also, dual language learning has a simple, well-defined theory, with measurable variables and outcomes that respond to inputs, and it is politically attractive; dual language programs are integrative and inclusive, being designed for all students rather than for a select few. Lastly, dual language instruction facilitates school reform, as it serves students, educators, and the whole community. For these reasons, the United States government would only benefit from devoting more attention and funding to the further development of dual language programs across the country.