

English Learner Academic Achievement:

A Synthesis of Research Comparing Transitional Bilingual and Dual Language Programs

Introduction

The education of students who are Emergent Bilinguals (EBs)/English Learners (ELs) has long been a subject of debate and research in the United States. Among the most consequential questions for school districts, policymakers, and families is which instructional program model best supports EBs/ELs in developing both English language proficiency and strong academic achievement. Two of the most widely used models are transitional bilingual education (TBE), sometimes called early-exit bilingual education, and dual language (DL) programs, also known as two-way immersion or developmental bilingual education. This synthesis reviews the major body of research comparing EB/EL outcomes across these two program types, with a particular focus on English academic achievement.

Transitional bilingual programs typically provide initial instruction in a student's home language while progressively shifting to English instruction, with the goal of transitioning students into English-only classrooms, usually by the end of second or third grade. Dual language programs, by contrast, provide sustained instruction in both English and a partner language (most commonly Spanish) throughout a student's schooling, serving both native English speakers and EBs/ELs in the same classroom. The research record strongly and consistently favors dual language programs for EBs/ELs' long-term academic outcomes, including English proficiency and achievement.

Program Models: Key Distinctions

Early-exit or transitional bilingual education uses the student's native language as a bridge to English. The native language is employed for initial literacy and content instruction but is gradually phased out, typically within two to three years. The underlying assumption is that native-language support facilitates the transition to English-medium instruction, but that long-term maintenance of the home language is not needed nor is it a program goal.

Dual language programs, by contrast, aim for bilingualism and biliteracy as explicit outcomes, along with high levels of academic achievement in both languages as well as the development of socio-cultural competence. They typically begin with a heavy balance of instruction in the partner language (often 80% in kindergarten) and shift toward a more even split (50/50) by the upper elementary grades. Two-way immersion models integrate native English speakers with EBs/ELs, while one-way developmental bilingual programs serve primarily EBs/ELs. Both are considered "additive" bilingual environments, meaning that the home language is maintained and developed alongside English, rather than replaced by it.

Short-Term vs. Long-Term Achievement

One of the most consistent and important findings in the research is that comparisons between TBE and dual language programs must account for the time horizon. In the early elementary years, EBs/ELs in TBE programs sometimes demonstrate comparable or even slightly stronger English test scores than those in

DL programs. This is not surprising: TBE programs offer more English-medium instruction earlier. However, the research is clear that this early lead is short-lived.

The landmark longitudinal research of Virginia Collier and Wayne Thomas, conducted over several decades and drawing on data from multiple large school districts, is the most expansive study of this question. Tracking hundreds of thousands of EBs/ELs across program types, Collier and Thomas found that EBs/ELs in dual language programs began to outperform their peers in TBE and English-only programs by the upper elementary grades, typically by fourth or fifth grade, and that this advantage continued to grow through middle and high school. By the time students reached the upper grades, dual language graduates were being reclassified as former ELs and performing at or above grade-level norms on English standardized tests — an outcome rarely achieved by EBs/ELs in transitional programs. Their 2004 article, "The Astounding Effectiveness of Dual Language Education for All," summarized this pattern across many districts, reporting that dual language students outscored peers in transitional programs by seven or more Normal Curve Equivalent (NCE) points — a statistically and practically significant difference, and their latest publication of this data in 2017 continues to show the same patterns.

The explanation offered by Collier, Thomas, and other researchers is rooted in cognitive and linguistic theory. Dual language programs develop what researchers call "cognitive academic language proficiency" (CALP) — the deep, abstract, and academic language needed to succeed in school — in both languages simultaneously. Because academic concepts learned in the home language transfer readily to English, students who maintain and develop their first language are building a stronger academic foundation than those who are transitioned out of it before that foundation is fully established.

Methodological Advances: Addressing Selection Bias

A recurring concern in this research literature is selection bias: families who choose dual language programs may differ in important ways — in socioeconomic status, educational attainment, or motivation — from families in transitional or English-only programs. If so, observed achievement advantages might reflect family characteristics rather than the programs themselves. Collier and Thomas's large-scale studies, while methodologically powerful, do not fully resolve this concern.

The most rigorous response to this challenge comes from a RAND Corporation study by Steele and colleagues (2017), which used a lottery-based randomized design in Portland Public Schools. Because students were randomly assigned to dual language or comparison programs when slots were oversubscribed, this design closely approximates the gold standard of experimental research. The findings were striking: students randomly assigned to dual language immersion programs significantly outperformed comparison-group peers on state English reading tests — by 13 percentile points at fifth grade and 22 percentile points at eighth grade — with no disadvantages in math or science. Critically, this advantage was found even as students received substantial instruction in a second language, demonstrating that time devoted to the partner language does not come at the expense of English achievement.

Similarly, Umansky and Reardon (2014, 2015), using a large quasi-experimental California dataset, found that EBs/ELs in immersion programs outperformed EBs/ELs in English-only instruction and transitional bilingual programs on English language arts assessments over time, with advantages emerging most clearly in the later elementary years. Their work also raised nuanced findings about initial English development, noting that EBs/ELs in immersion programs may develop English literacy at a slightly slower pace in the earliest grades but subsequently surpass peers who began in English-only settings.

Equity: Does Dual Language Work for Low-Income ELs?

A related concern is whether the academic advantages of dual language programs apply equally to all EBs/ELs, including those from low-income families and those attending under-resourced schools. Lindholm-Leary and Howard (2008) and Lindholm-Leary and Block (2010) specifically examined predominantly low-income and Hispanic dual language schools, documenting strong academic achievement outcomes in both English and Spanish. These studies found that EBs/ELs in well-implemented dual language programs in high-poverty settings showed significant academic gains over time, challenging the assumption that such programs work only for advantaged populations.

Additional peer-reviewed research published in PMC/NIH-indexed journals comparing third through fifth grade test scores in one district found that minority-language students in two-way immersion programs outperformed their peers in transitional bilingual programs in both English reading and mathematics. The CARLA (Center for Advanced Research on Language Acquisition) literature synthesis compiled by Tara Fortune at the University of Minnesota corroborates these findings, noting evidence that Latino EBs/ELs in Spanish/English two-way immersion programs also demonstrated higher grade point averages and increased post-secondary enrollment compared to peers in transitional and English-medium programs.

Comparative Program Studies

A study compiled and indexed through ERIC and IES (ED566267) compared the trajectories of EBs/ELs across four distinct instructional models — transitional bilingual, developmental bilingual, dual immersion, and English immersion — tracking outcomes through middle school on both English language arts and mathematics. While methodological limitations inherent in observational studies are acknowledged, the study's findings are consistent with the broader literature: dual and developmental bilingual models are associated with stronger long-term outcomes in English literacy compared to early-exit transitional models, and the differences become more pronounced as students progress through school.

Important Caveats and Limitations

Despite the overall strength and consistency of evidence favoring dual language programs, the research literature identifies several important caveats that practitioners and policymakers should keep in mind.

First, program quality and implementation matter enormously. Studies repeatedly note that poorly implemented dual language programs do not consistently produce the advantages described above. The benefits depend on having well-trained bilingual teachers, coherent curriculum, consistent language and content allocation, and adequate resources — conditions that are not equally available across all schools and districts.

Second, although the RAND lottery study addresses selection bias directly, most other studies do not. The families who enroll children in dual language programs may differ in ways that are difficult to fully control, even with sophisticated statistical techniques. The lottery study findings are the most credible for causal inference, but they come from a single urban district and may not generalize universally.

Third, the advantages of dual language programs are strongest for students who remain enrolled long-term. Students who enter late, move between programs, or exit early may not accrue the same benefits. This raises equity concerns, as higher-mobility students — often among the most economically disadvantaged — may be the least likely to benefit fully.

Fourth, very few rigorous studies directly compare TBE and DL programs using matched samples with strong controls. Much of the Collier-Thomas research compares across large administrative datasets; while the sample sizes are substantial, unmeasured confounders remain a concern. The research base, while consistent in direction, would benefit from more randomized or quasi-experimental studies specifically designed to isolate the program effect.

Conclusion

The weight of research evidence is clear and consistent: Emergent Bilinguals/English Learners in well-implemented dual language programs achieve higher levels of English academic proficiency over the long term than their peers in early-exit transitional bilingual programs. While TBE programs may produce faster initial English gains, this early advantage does not persist. By the upper elementary and middle school years, dual language students — including those from low-income backgrounds — regularly demonstrate stronger performance on English literacy assessments. The best available evidence, including the RAND lottery study, suggests that this advantage is causal, not merely a reflection of family selection.

These findings carry important implications for school districts deciding how to serve their EB/EL populations. Early-exit transitional programs, while perhaps administratively simpler, appear to sacrifice long-term academic outcomes for short-term English exposure. Dual language programs, which require greater investment in bilingual teacher preparation, materials, and program design, consistently produce stronger outcomes for EBs/ELs in both English and in the partner language. For districts committed to educational equity and to closing achievement gaps, the research case for expanding access to high-quality dual language programs is strong.

Studies and Sources Cited

1. Collier, V. P., & Thomas, W. P. (2004). The astounding effectiveness of dual language education for all. *NABE Journal of Research and Practice*, 2(1), 1–20. [Available at: https://www.berkeleyschools.net/wp-content/uploads/2011/10/TWIAstounding_Effectiveness_Dual_Language_Ed.pdf]
2. Collier, V. P., & Thomas, W. P. (2017). Validating the power of bilingual schooling: Thirty-two years of large-scale, longitudinal research. *Annual review of applied linguistics*, 37, 203-217.
3. Steele, J. L., Slater, R. O., Zamarro, G., Miller, T., Li, J., Burkhauser, S., & Bacon, M. (2017). Effects of dual-language immersion programs on student achievement: Evidence from lottery-based admissions. *American Educational Research Journal*, 54(1S), 282S–306S. [RAND Research Brief: https://www.rand.org/pubs/research_briefs/RB9903.html]
4. Umansky, I. M., & Reardon, S. F. (2014). Reclassification patterns among Latino English learner students in bilingual, dual immersion, and English immersion classrooms. *American Educational Research Journal*, 51(5), 879–912.
5. Umansky, I. M. (2015). To be or not to be EL: An examination of the impact of classifying students as English learners. *Educational Evaluation and Policy Analysis*, 38(4), 714–737.
6. Lindholm-Leary, K., & Howard, E. R. (2008). Language development and academic achievement in two-way immersion programs. In T. Fortune & D. Tedick (Eds.), *Pathways to Multilingualism: Evolving Perspectives on Immersion Education*. Multilingual Matters.

7. Lindholm-Leary, K., & Block, N. (2010). Achievement in predominantly low SES/Hispanic dual language schools. *International Journal of Bilingual Education and Bilingualism*, 13(1), 43–60.
8. Fortune, T. W. (n.d.). What the research says about immersion. University of Minnesota, Center for Advanced Research on Language Acquisition (CARLA). Retrieved from https://archive.carla.umn.edu/immersion/documents/ImmersionResearch_TaraFortune.html
9. Barnett, W. S., Yarosz, D. J., Thomas, J., Jung, K., & Blanco, D. (2007). Two-way and monolingual English immersion in preschool education: An experimental comparison. *Early Childhood Research Quarterly*, 22(3), 277–293.
10. Luo, R., Tamis-LeMonda, C. S., & Song, L. (2013). Chinese parents' goals and practices in early childhood. *Early Childhood Research Quarterly*, 28(4), 843–857. [Referenced in PMC/NIH study on two-way immersion academic benefits. See: <https://pmc.ncbi.nlm.nih.gov/articles/PMC3838203/>]
11. U.S. Department of Education, Institute of Education Sciences (2014). Effectiveness of four instructional programs designed to serve English learners: Findings from a five-year longitudinal study (NCEE 2014–4011). [Available through ERIC: <https://files.eric.ed.gov/fulltext/ED566267.pdf>]