

## Pre-K and elementary bilingual instruction for English language learners

### Pre-K to 12 Education

Literature review updated June 2014.

As part of WSIPP's research approach to identifying evidence-based programs and policies, WSIPP determines "what works" (and what does not work) to improve outcomes using an approach called meta-analysis. For detail on our methods, see our [Technical Documentation](#). At this time, WSIPP has not yet calculated benefits and costs for this topic.

**Program Description:** Bilingual instructional programs provide English language learner (ELL) students with classroom instruction partially in their native language and partially in English. The evaluations included in this analysis compare programs that use bilingual instruction to those in which instruction is conducted entirely in English, such as English as a Second Language (ESL) teaching strategies.

### Meta-Analysis of Program Effects

Outcomes measured	No. of effect sizes	Treatment N	Adjusted effect size and standard error			Unadjusted effect size (random effects model)	
			ES	SE	Age	ES	p-value
Test scores	21	58227	0.014	0.006	9	0.014	0.016

Meta-analysis is a statistical method to combine the results from separate studies on a program, policy, or topic in order to estimate its effect on an outcome. WSIPP systematically evaluates all credible evaluations we can locate on each topic. The outcomes measured are the types of program impacts that were measured in the research literature (for example, crime or educational attainment). Treatment N represents the total number of individuals or units in the treatment group across the included studies.

An effect size (ES) is a standard metric that summarizes the degree to which a program or policy affects a measured outcome. If the effect size is positive, the outcome increases. If the effect size is negative, the outcome decreases.

Adjusted effect sizes are used to calculate the benefits from our benefit cost model. WSIPP may adjust effect sizes based on methodological characteristics of the study. For example, we may adjust effect sizes when a study has a weak research design or when the program developer is involved in the research. The magnitude of these adjustments varies depending on the topic area.

WSIPP may also adjust the second ES measurement. Research shows the magnitude of some effect sizes decrease over time. For those effect sizes, we estimate outcome-based adjustments which we apply between the first time ES is estimated and the second time ES is estimated. We also report the unadjusted effect size to show the effect sizes before any adjustments have been made. More details about these adjustments can be found in our [Technical Documentation](#).

## Citations Used in the Meta-Analysis

- Alvarez, J.M. (1975). Comparison of academic aspirations and achievement in bilingual versus monolingual classrooms. *Dissertation Abstracts International*, 36(02), 693A.
- Bacon, H.L., Kidd, G.D., & Seaberg, J.J. (1982). The effectiveness of bilingual instruction with Cherokee Indian students. *Journal of American Indian Education*, 21(2), 34-43.
- 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.
- Caldero'n, M., Hertz-Lazarowitz, R., & Slavin, R. (1998). Effects of bilingual cooperative integrated reading and composition on students making the transition from Spanish to English reading. *The Elementary School Journal*, 99(2), 153-165.
- Carlisle, J.F., & Beeman, M.M. (2000). The effects of language of instruction on the reading and writing achievement of first-grade Hispanic children. *Scientific Studies of Reading*, 4(4), 331-353.
- Covey, D.D. (1973). An analytical study of secondary freshmen bilingual education and its effect on academic achievement and attitude of Mexican American students. *Dissertation Abstracts International*, 33(09), 4789A.

- Danoff, M.N., Coles, G.J., McLaughlin, D.H., & Reynolds, D.J. (1978). *Evaluation of the impact of ESEA Title VII Spanish/English Bilingual Education Program. Volume III: Year two impact data, educational process, and in-depth analysis*. Palo Alto, CA: American Institutes for Research. (ERIC Document Reproduction Service No. ED 154635)
- Duran, L.K., Roseth, C.J., & Hoffman, P. (2010). An experimental study comparing English-only and Transitional Bilingual Education on Spanish-speaking preschoolers' early literacy development. *Early Childhood Research Quarterly*, 25(2), 207-217.
- Elizondo de Weffer, R.C. (1973). Effects of first language instruction in academic and psychological development of bilingual children. *Dissertation Abstracts International*, 33(11), 5991A.
- Farver, J.A.M., Lonigan, C.J., & Eppe, S. (2009). Effective early literacy skill development for young Spanish-speaking English language learners: An experimental study of two methods. *Child Development*, 80(3), 703-719.
- Huzar, H. (1973). *The effects of an English-Spanish primary-grade reading program on second- and third-grade students* (Master's thesis, Rutgers University). (ERIC Document Reproduction Service No. ED 085683)
- Jepsen, C. (2010). Bilingual education and English proficiency. *Education Finance and Policy*, 5(2), 200-227.
- Kaufman, M. (1968). Will instruction in reading Spanish affect ability in reading English? *Journal of Reading*, 11(7), 521-527. Lampman, H. P. (1973). *Southeastern New Mexico bilingual program: Final report*. Artesia, NM: Artesia Public Schools. (ERIC Document Reproduction Service No. ED 081529)
- Layden, R.G. (1973). The relationship between the language of instruction and the development of self-concept, classroom climate, and achievement of Spanish speaking Puerto Rican children. *Dissertation Abstracts International*, 33(12), 6733A.
- Lopez, M.G., & Tashakkori, A. (2006). Differential outcomes of two bilingual education programs on English language learners. *Bilingual Research Journal*, 30(1), 123-145.
- Matsudaira, J.D. (2005). *Sinking or swimming? Evaluating the impact of English immersion versus bilingual education*. Berkeley: University of California, Berkeley; Robert Wood Johnson Scholars in Health Policy Program.
- Plante, A.J. (1976). *A study of the effectiveness of the Connecticut "Pairing" model of bilingual-bicultural education*. Hamden, CT: Connecticut Staff Development Cooperative. (ERIC Document Reproduction Service No. ED 125260)
- Ryan, A.M. (2007). Two tests of the effectiveness of bilingual education in preschool. *Journal of Research in Childhood Education*, 21(4), 352-363.
- Slavin, R.E., Madden, N., Calderon, M., Chamberlain, A., & Hennessy, M. (2010). *Reading and language outcomes of a five-year randomized evaluation of transitional bilingual education*. Unpublished manuscript. Retrieved June 16, 2011 from [http://www.edweek.org/media/bilingual\\_pdf.pdf](http://www.edweek.org/media/bilingual_pdf.pdf)
- Tong, F., Irby, B., Lara-Alecio, R., & Mathes, P. (2008). English and Spanish acquisition by Hispanic second graders in developmental bilingual programs. *Hispanic Journal of Behavioral Sciences*, 30(4), 500-529.

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