

## Academic vocabulary instruction Pre-K to 12 Education

Literature review updated March 2018.

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:** Academic Vocabulary Instruction is a structured approach to teaching specialized vocabulary words that appear frequently in expository, informational, and academic texts across disciplines (especially in secondary grades) but that are not commonly used in spoken English, such as hypothesis, generate, and domain. The program included in this analysis (Academic Language Instruction for All Students, or ALIAS) was designed for use in classrooms with low performance in English Language Arts and high numbers of English Language Learners. The program provided daily lessons to middle school students over 20 weeks, covered 70 vocabulary words, and provided teachers with materials and monthly implementation support meetings.

### 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	1	971	0.019	0.044	11	0.043	0.326

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

Lesaux, N.K., Kieffer, M.J., Kelley, J.G., & Harris, J.R. (2014). Effects of academic vocabulary instruction for linguistically diverse adolescents: Evidence from a randomized field trial. *American Educational Research Journal*, 51(6), 1159-1194.

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