WWC Intervention Report U.S. DEPARTMENT OF EDUCATION

What Works Clearinghouse



English Language Learners

Revised October 30, 2006

Vocabulary Improvement Program for English Language Learners and Their Classmates

Program description

The Vocabulary Improvement Program for English Language Learners and Their Classmates (VIP) is a vocabulary development curriculum for English language learners and native English speakers (grades 4–6). The 15-week program includes 30–45

minute whole class and small group activities, which aim to increase students' understanding of target vocabulary words included in a weekly reading assignment.

Research

One study of *VIP* met the What Works Clearinghouse (WWC) evidence standards with reservations. It included 142 English

language learner students in the fifth grade in 16 classrooms in California, Virginia, and Massachusetts.¹

Effectiveness

VIP was found to have potentially positive effects on reading achievement and English language development.

	Reading achievement	Mathematics achievement	English language development
Rating of effectiveness	Potentially positive	Not reported	Potentially positive
Improvement index ²	Average: +19 percentile	Not reported	Average: +17 percentile points
	points		Range: -4 to +35 percentile points

^{1.} The evidence presented in this report is based on available research. Findings and conclusions may change as new research becomes available.

^{2.} These numbers show the average and range of improvement indices for all findings across the study.

Additional program information

Developer and contact

Developed by Diane August, Maria S. Carlo, Barry McLaughlin, and Catherine Snow, and now published by Brookes Publishing. Address: Customer Service Department, Brookes Publishing Co., P.O. Box 10624, Baltimore, MD 21285-0624. Email: custserv@brookespublishing.com. Web: http://www. brookespublishing.com/store/books/lively-6342/index.htm. Telephone: (800) 638-3775.3

Scope of use

Developed between 1997 and 2000, VIP has been implemented in California, Virginia, and Massachusetts. The curriculum is designed for English language learners and native English speakers. Information is not available on the number or demographics of students, schools, or districts using this intervention.

Teaching

VIP is a 15-week program that includes vocabulary activities and related lessons. The program stresses targeted words from a weekly reading assignment. On Mondays English language

learner students are given the weekly reading assignment in their native language to preview before it is introduced in English on the following day. On Tuesdays the teacher leads whole-group lessons to review the text and define the target vocabulary. On Wednesdays teachers divide the students into heterogeneous language groups to complete two cloze⁴ activities. On Thursdays teachers again divide the students into small groups to complete word association, synonym/antonym, and semantic feature analysis activities. Then, each Friday, teachers lead activities that cover a range of topics including analysis of root words and knowledge of multiple meanings of words. The curriculum includes detailed lesson plans, quasi-scripted lesson guides, overhead transparencies, worksheets, homework assignments, and all necessary reading assignment texts.

Cost

The cost of the system is \$39.95 for each of three volumes of the curriculum for students in grades 4, 5, and 6 (one volume for each grade), or \$99 for the full set.

Research

One study (Carlo, August, McLaughlin, Snow, Dressler, Lippman, Lively, & White, 2004)⁵ reviewed by the WWC investigated the effects of VIP. It was a randomized controlled trial that met WWC evidence standards with reservations due to differential attrition.6

In this study, 17 classrooms from three states were randomly assigned, within each state, to the intervention (n=10) or comparison group (n=7), but one comparison group teacher withdrew from the study prior to the start of the intervention. The

16 classrooms included both fluent English speakers and English language learners. The study author reported findings for the full sample, but provided the WWC with data on the English language learner subsample that is the focus of this WWC report. The 16 classrooms included 142 fifth grade English language learner students (94 in the intervention group and 48 in the comparison group). Students in the comparison group received their regular classroom instruction. The study took place over two years.

- 3. VIP was published by Brookes Publishing Company, Inc. in 2003. The published program is an adaptation of the research version of the curriculum, and is structured slightly differently. The authors of the Brookes version of the curriculum are Theresa Lively, Diane August, Maria Carlo, and Catherine Snow.
- 4. Cloze activities use a fill-in-the-blank scheme, where students are presented a sentence/passage with missing words. They are asked to fill in blanks (that is, "cloze") with words that will yield a sensible passage, and thereby demonstrate a grasp of word meaning.
- 5. The study was also published as a research symposium in 2000.
- 6. The study met WWC standards with reservations because one classroom in the control group withdrew from the study. The WWC obtained this information through correspondence with the study author.
- 7. The study authors' analyses did not show an interaction between treatment and language status (English language learner versus fluent English speaker).

Effectiveness

Findings

The WWC review of English language learners addresses student outcomes in three domains: reading achievement, math achievement, and English language development.

Reading achievement. Carlo et al. (2004) did not present the actual means for English language learners in the article. They appeared in a graph but could not be easily accessed with precision. The lead author provided the WWC with these students' pretest and posttest means and standard deviations on each outcome measure. The WWC analysis of the English language learner subsample found no statistically significant differences on reading achievement (performance on cloze passages), but the effect was large enough to be considered substantively important by WWC standards.

English language development. Carlo et al. (2004) did not present the actual means for English language learners in the article. They appeared in a graph but could not be easily accessed with precision. The lead author provided the WWC with these students' pretest and posttest means and standard deviations on each outcome measure. The WWC analysis of the

English language learner subsample found no statistically significant and no substantively important impacts on the Peabody Picture Vocabulary Test-Revised (PPVT-R) and the Morphology measure. The Word Mastery impact was statistically significant; the multiple word meanings and word association impacts were substantively positive. The average effect across the five measures of the domain indicated potentially positive effects on English language development.

Rating of effectiveness

The WWC rates the effects of an intervention in a given outcome domain as: positive, potentially positive, mixed, no discernible effects, potentially negative, or negative. The rating of effectiveness takes into account four factors: the quality of the research design, the statistical significance of the findings (as calculated by the WWC⁸), the size of the difference between participants in the intervention condition and the comparison condition, and the consistency in findings across studies (see the WWC Intervention Rating Scheme).

The WWC found VIP to have potentially positive effects for reading achievement and English language development.

Improvement index

The WWC computes an improvement index for each individual finding. In addition, within each outcome domain, the WWC computes an average improvement index for each study and an average improvement index across studies (see Technical Details of WWC-Conducted Computations). The improvement index represents the difference between the percentile rank of the average student in the intervention condition versus the percentile rank of the average student in the comparison condition. Unlike the rating of effectiveness, the improvement index is entirely based on the size of the effect, regardless of the statistical significance of the effect, the study design, or the

analysis. The improvement index can take on values between -50 and +50, with positive numbers denoting favorable results. The improvement index for the single measure of reading achievement is +19 percentile points. The average improvement index for the English language development measures is +17 percentile points, with a range of -4 to +35 percentile points.

Summary

The WWC reviewed one study on VIP. This study met WWC standards with reservations due to differential sample attrition between the intervention and comparison groups. No classrooms left the intervention group, but one of seven teachers

^{8.} The level of statistical significance was reported by the study authors, or where necessary, calculated by the WWC to correct for clustering within classrooms or schools and for multiple comparisons. For an explanation, see the WWC Tutorial on Mismatch. See the Technical Details of WWC-Conducted Computations for the formulas the WWC used to calculate the statistical significance. In the case of VIP, a correction for clustering was needed.

The WWC found VIP to have potentially positive effects for reading achievement and English language development.

in the comparison group withdrew from the study prior to the implementation of the intervention.⁹ The intervention had potentially positive effects in reading achievement and English language development. The evidence presented in this report is limited and may change as new research emerges.

References

Met WWC standards with reservations

Carlo, M. S., August, D., McLaughlin, B., Snow, C. E., Dressler, C., Lippman, D. N., Lively, T., & White, C. E. (2004). Closing the gap: Addressing the vocabulary needs of English-language learners in bilingual and mainstream classrooms. *Reading Research Quarterly*, 39, 188–215.

Additional sources:

McLaughlin, B., August, D., Snow, C., Carlo, M., Dressler, C., White, C., Lively, T., & Lippman, D. (2000, April). *Vocabulary Improvement in English language learners: An Intervention Study*. Symposium presented at the National Clearinghouse for English Language Acquisition, Washington, DC.

For more information about specific studies and WWC calculations, please see the <u>WWC VIP Technical</u> <u>Appendices</u>.

^{9.} The WWC obtained this information from the study authors.