Word Generation

Intervention Brief │ English Learners Topic Area

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Improving vocabulary and reading comprehension is critical to students' academic success, particularly for English learners who may have less exposure to academic language than native English-speaking students.[1] *Word Generation* is a supplemental program that aims to improve students' reading comprehension by building students' vocabulary, academic language, and perspective-taking skills through classroom discussion and debate. *Word Generation* was designed for all students; however, English learners in particular could benefit from its focus on academic language. *Word Generation* consists of a series of interdisciplinary units with daily lessons focused on a high-interest topic to increase student engagement. Each unit targets a small number of academic vocabulary words that are integrated into texts, activities, writing tasks, debates, and discussions across content areas. Several *Word Generation* programs exist. In the *Word Generation Weekly (WordGen Weekly)* and *Word Generation Elementary (WordGen Elementary)* programs, units

are designed to be used across English language arts, math, science, and social studies in grades 6–8 and grades 4 and 5, respectively. In the *Science Generation (SciGen)* and *Social Studies Generation (SoGen)* programs, units can supplement or be used in place of regular science and social studies curriculum units in grades 6–8. The different *Word Generation* programs can be implemented separately or together.

This What Works Clearinghouse (WWC) report, part of the WWC's English Learners topic area, explores the effects of *Word Generation* on English language proficiency and reading comprehension for English learners. The WWC identified nine studies of *Word Generation* that focused on English learners. One of these studies meets WWC standards. The evidence presented in this report is from one study of the impact of *Word Generation* on English learners in a range of grades—4th through 7th—and in a variety of school settings, including elementary, middle, and K–8 schools in urban, suburban, and small town districts.

What Happens When Students Participate in *Word Generation*?[1]

The evidence indicates that implementing *Word Generation*:

- **May result in little or no change in English language proficiency.**
- **May result in little or no change in reading comprehension.**

Findings on *Word Generation* from the one study that meets WWC standards are shown in Table 1. The table reports an effectiveness rating, the improvement index, and the number of studies and students that contributed to the findings. The improvement index is a measure of the intervention's effect on an outcome. It can be interpreted as the expected change in percentile rank for an average comparison group student if that student had received the intervention.

Table 1. Summary of findings on *Word Generation* from the one study that meets WWC standards

Outcome domain	Effectiveness rating	Study Findings	Evidence meeting WWC standards (version 4.0)	
		Improvement index (percentile points)	Number of studies	Number of students
English language proficiency	No discernible effects	+9	1	241
Reading comprehension	No discernible effects	+1	1	241

Note: The improvement index can be interpreted as the expected change in percentile rank for an average comparison group student if that student had received the intervention. For example, an improvement index of +9 means that the expected percentile rank of the average comparison group student would increase by 9 points if the student received *Word Generation*. The improvement index values are generated based on one finding from the outcome analysis that meets WWC standards conducted within each domain, as reported by Kim et al. (2018). .A positive improvement index does not necessarily mean the estimated effect is statistically significant. The English language proficiency outcome reported in the study is the Core Academic Language Skills Instruments (CALS-I). The reading comprehension outcome reported in the study is the Global Integrated Scenario-based Assessment (GISA). The effects of *Word Generation* are not known for other outcomes within the English Learners topic area, including alphabetics, reading fluency, general literacy achievement, writing conventions, writing productivity, writing quality, mathematics achievement, science achievement, and social studies achievement.

How is *Word Generation* Implemented?

The following section provides details of how *Word Generation* was implemented. This information can help educators identify the requirements for implementing *Word Generation* and determine whether implementing this intervention would be feasible in their district or school. Information on *Word Generation* presented in this section comes from the study that meets WWC standards (Kim et al., 2018) and from correspondence with the developer.

- **Goal:** *Word Generation* aims to improve students' reading comprehension by building students' vocabulary, academic language, and perspective-taking skills through classroom discussion and debate.

- **Target population:** *Word Generation* can be used for students in grades 4 to 8. *WordGen Weekly*, *SciGen*, and *SoGen* are used with students in grades 6–8. *WordGen Elementary is used* with students in grades 4 and 5.

- **Method of delivery:** *WordGen Weekly* and *WordGen Elementary* are supplemental interdisciplinary units that are integrated into English language arts, science, social studies, and mathematics instruction. *SciGen* and *SoGen* units can be used in place of the regular curriculum or as a supplement. Each unit includes additional activities for other content areas to provide cross-disciplinary reinforcement of academic vocabulary.

- **Frequency and duration of service:** *WordGen Weekly* consists of three series of 24 weekly units, with each series designed to be used over one academic year. Series and units within series can be used in any order. Each unit within the series includes five target vocabulary words and

Comparison group: In the study that contributes to this intervention report, students in the comparison group were taught using a wide range of instructional practices and standard programs that sought to improve vocabulary. These programs were highly variable across schools in the comparison group.

five connected activities that typically last from 15 to 20 minutes and take place during regular English language arts, science, social studies, and math instruction.

WordGen Elementary consists of an introductory unit (one week) and 12 additional units (two weeks each) for each grade level (4 and 5). Each two-week unit includes daily 40- to 50-minute lessons. Schools can choose to implement some or all of the units across the school year.

SciGen and *SoGen* each offer six discipline-specific units for each grade level (6–8). Each unit is one week in length and includes daily 40- to 50-minute lessons in science or social studies plus 15- to 20-minute supplementary activities that can be integrated into English language arts, mathematics and science (for *SoGen*) or social studies (for *SciGen*) instruction. Schools can choose to implement some or all of the units across the school year.

- **Intervention components:** *Word Generation* includes several key components and features, as described in Table 2. The four different *Word Generation* programs can be implemented separately or together.

Table 2. Components of *Word Generation*

Core component	Description
Word Generation units	Each *Word Generation* unit is organized around a high-interest topic that aims to engage students' interest—for example, "Should the school day be lengthened?" or "Should the government impose a mandatory year of service after high school?" Students read or listen to multiple points of view on a topic at the beginning of the week, learn target vocabulary words relevant to that topic, prepare and debate the topic, and finally write an argumentative piece on the topic, all using the target vocabulary words. Instruction prioritizes student participation and teamwork to improve other important skills such as academic language and perspective-taking.
Cross-discipline activities	Each *Word Generation* unit includes complementary activities across disciplines (English language arts, math, science, and social studies) to provide students with multiple opportunities to reinforce vocabulary learning and to use academic language in a variety of academic contexts.

What Does *Word Generation* Cost?

This preliminary list of costs is not designed to be exhaustive; rather, it provides educators an overview of the major resources needed to implement *Word Generation*. The program costs described below are based on the information available as of April 2019.

- **Equipment and materials costs:** The student materials and teacher resources for implementing *Word Generation* can be downloaded for free and then printed and distributed for noncommercial purposes from the program's website (wordgen.serpmedia.org). As an option, students can access digital materials for *Word Generation* on tablets. There is no cost to download these materials or to access videos and other resources for teachers on vocabulary development and classroom discourse. School districts can purchase printed copies from a print-on-demand company linked to the program's website.

- **Personnel costs:** *Word Generation* can be adopted without professional learning support from the developer, Strategic Education Research Partnership (SERP). However, SERP does offer professional development upon request to improve implementation fidelity. Trainings range from one to three days in duration. Costs range from $3,000 to $12,000 (excluding travel and materials).

- **Facilities costs:** The program is delivered in a classroom setting during regular class time.

- **Costs paid by students or parents:** None.

- **In-kind supports:** No information is available.

- **Sources of funding:** School districts or schools usually purchase materials and/or professional development for *Word Generation*.

In What Context Was *Word Generation* Studied?

The following section provides information on the setting of the one study of *Word Generation* that meets WWC standards, and a description of the participants in the research. This information can help educators understand the context in which the study of *Word Generation* was conducted, and determine whether the program might be suitable for their setting.

WHERE THE STUDY WAS CONDUCTED

1 study, 241 students in 3 districts the northeastern United States.

In urban, suburban, and small town districts

English Learners: 100%

Grades PK K 1 2 3 4 5 6 7 8 9 10 11 12 PS

Grades 4–7

LEARN MORE

Read more about the *Word Generation* intervention and the studies that are summarized here in the Intervention Report. Contact Strategic Education Research Partnership for additional information on implementing *Word Generation*.

Endnotes

[1] Snow, C. E., & Uccelli, P. (2009). The challenge of academic language. In D. R. Olson & N. Torrance (Eds.), The Cambridge handbook of literacy (pp. 112–133). Cambridge: Cambridge University Press. https://ebooks.cambridge.org/ref/id/CBO9780511609664A016