

STUDY

Wordly Wise 3000 Logic Model

ESSA Evidence Level IV

Prepared for EPS Learning

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Executive Summary

EPS Learning (EPS) engaged Instructure, a third-party edtech research company, to develop a logic model for *Wordly Wise 3000*. Instructure designed the logic model to satisfy Level IV requirements (*Demonstrates a Rationale*) according to the Every Student Succeeds Act (ESSA).¹

Logic Model

A logic model provides a program roadmap, detailing program inputs, participants reached, and program activities, outputs, and outcomes. Instructure collaborated with EPS to develop and revise the logic model.

Study Design for Wordly Wise 3000 Evaluation

Informed by the logic model, Instructure developed a research plan for a study to meet ESSA Level IV requirements. The proposed research questions are as follows:

Implementation

- 1. To what extent will students use *Wordly Wise 3000* during the 2024–25 school year?
 - a. How many Wordly Wise 3000 lessons will students complete?
 - b. How many minutes per week will students use Wordly Wise 3000?

Outcomes

2. To what extent will students' engagement (e.g., number of lessons completed or number of assessments completed) with *Wordly Wise 3000* relate to their performance on end-of-year standardized reading assessments?

Conclusions

This study satisfies ESSA evidence requirements for Level IV (Demonstrates a Rationale). Specifically, this study met the following criteria for Level IV:

- Detailed logic model informed by previous, high-quality research
- Study planning and design is currently underway for an ESSA Level III study

¹ Level IV indicates that an intervention should include a "well-specified logic model that is informed by research or an evaluation that suggests how the intervention is likely to improve relevant outcomes; and an effort to study the effects of the intervention, that will happen as part of the intervention or is underway elsewhere . . ." (p. 9, U.S. Department of Education, 2016).

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Introduction

EPS engaged Instructure, a third-party edtech research company, to develop a logic model for *Wordly Wise 3000*. Instructure designed the logic model to satisfy Level IV requirements (Demonstrates a Rationale) according to the Every Student Succeeds Act (ESSA).

The study had the following objectives:

- 1. Define the Wordly Wise 3000 logic model and foundational research base.
- 2. Draft an ESSA Level III study design.

Research

Previous Research

Vocabulary acquisition is a cornerstone of literacy development and academic success. A strong vocabulary facilitates improved reading comprehension, fluency, and overall academic achievement (Beck et al., 2013; National Institute of Child Health and Human Development [NICHHD], 2000). Wordly Wise 3000 is a research-based supplemental vocabulary program designed to address deficits in vocabulary acquisition and enhance literacy outcomes through structured, differentiated instruction aligned with the science of reading. This review synthesizes key domains of research underpinning the design and implementation of Wordly Wise 3000, including vocabulary and literacy development; evidence-based vocabulary instruction; differentiation and accessibility; student engagement and motivation; assessment and data-driven instruction; and a focus on measurable outcomes.

Vocabulary and Literacy Development

Vocabulary serves as a foundational pillar of literacy, strongly associated with reading comprehension and academic performance (NICHHD, 2000). Studies highlight a reciprocal relationship between vocabulary knowledge and comprehension: students with extensive vocabulary can better understand texts, while reading itself expands vocabulary (Ford-Connors & Paratore, 2015). Deficits in vocabulary pose significant barriers to literacy (Hart & Risley, 1995; 2003). By explicitly teaching high-utility vocabulary, programs like *Wordly Wise 3000* aim to bridge these gaps.

The science of reading emphasizes the integration of vocabulary instruction with phonemic awareness, phonics, fluency, and comprehension (Scarborough et al., 2001). Wordly Wise 3000 operationalizes these principles by connecting vocabulary knowledge to comprehension through scaffolded activities and structured lesson plans, fostering both decoding and meaning-making skills.

Evidence-Based Vocabulary Instruction

Effective vocabulary instruction incorporates direct teaching, multiple exposures to words, and meaningful contextual practice (Beck et al., 2013). The National Reading Panel underscores the importance of active learning opportunities, repeated exposure, and integration of new words into varied contexts (NICHHD, 2000). *Wordly Wise 3000* embodies these principles by including peer-sharing activities, differentiated reading passages, and context-based comprehension questions.

The program aligns with Beck et al.'s (2013) three-tier vocabulary framework, emphasizing Tier 2 words that are frequent in texts but less common in oral language. These words are critical for comprehension and are systematically introduced in *Wordly Wise 3000* to ensure retention and application. Additionally, the program utilizes motivational techniques like "Fun & Fascinating Facts" and interactive games to enhance engagement, a practice supported by research on the benefits of word consciousness (Blachowicz & Fisher, 2012).

Differentiation and Accessibility

Differentiated instruction is crucial for addressing diverse learning needs, particularly for English learners and students with disabilities. Effective differentiation involves scaffolding reading passages and providing multimodal activities that cater to varying proficiency levels (Goldenberg, 2008; Kame'enui & Baumann, 2012). Wordly Wise 3000 integrates these strategies by offering grade-appropriate reading materials and secondary passages for struggling readers, providing equitable access to vocabulary learning.

For younger learners, oral language development is prioritized through interactive read-alouds and picture-based activities (Coyne et al., 2012). These practices align with evidence indicating that visual aids and repeated story readings improve vocabulary acquisition in early childhood (Biemiller & Boote, 2006). By tailoring instruction to individual needs, *Wordly Wise 3000* supports a multi-tiered system of support (MTSS), providing interventions at varying levels of intensity (Cuticelli et al., 2015).

Student Engagement and Motivation

Motivation is a key factor in successful vocabulary learning. Active engagement strategies, such as collaborative activities and peer discussions, encourage meaningful interactions with words (Parsons & Taylor, 2011). *Wordly Wise 3000* incorporates techniques like turn-and-talk exercises and writing activities, fostering a sense of ownership over learning and enhancing long-term retention.

Games and word-play activities further promote engagement by making learning enjoyable. Research indicates that students are more likely to participate and persist in vocabulary tasks when they find them fun and relevant (Gallagher & Anderson, 2016). Wordly Wise 3000's integration of these strategies reflects best practices for sustaining student interest and improving outcomes.

Assessment and Data-Driven Instruction

Formative and summative assessments are critical for monitoring vocabulary acquisition and tailoring instruction. Effective programs use data from these assessments to inform teaching practices and provide targeted interventions (Foorman et al., 2017). Wordly Wise 3000 offers tools for tracking student progress, such as self-assessment activities and cumulative tests.

Studies suggest that incorporating self-assessment into vocabulary instruction helps students develop metacognitive awareness and take responsibility for their learning (Diamond & Gutlohn, 2006). *Wordly Wise 3000's* "Rate Your Word Knowledge" activity aligns with this research, enabling students to reflect on their understanding before and after instruction.

Focus on Measurable Outcomes

Robust vocabulary instruction has demonstrated positive impacts on literacy outcomes, particularly for at-risk populations. Research shows that explicit teaching of vocabulary leads to improved comprehension, increased engagement, and higher performance on standardized assessments (Stahl & Fairbanks, 1986; Tang & Bauer, 2022). Wordly Wise 3000's design, which integrates these evidence-based practices, is expected to yield similar benefits.

The program's logic model outlines anticipated outcomes at multiple levels, from immediate gains in vocabulary knowledge to long-term improvements in reading fluency and academic achievement. For educators, the program aims to provide a structured framework for delivering effective vocabulary instruction, fostering professional growth and confidence. Administrators can benefit from data-driven insights that inform literacy initiatives and resource allocation, ensuring sustainable improvements across districts.

Wordly Wise 3000 is grounded in a robust body of research emphasizing the critical role of vocabulary in literacy development. By integrating evidence-based practices, differentiation, active learning strategies, and assessment tools, the program addresses key barriers to vocabulary acquisition and reading comprehension. Through its alignment with the science of reading, Wordly Wise 3000 aims to support students in achieving measurable improvements in literacy outcomes.

Logic Model

A logic model is a program or product roadmap. It identifies how a program aims to impact learners, translating inputs into measurable activities that lead to expected results. A logic model has five core components: inputs, participants, activities, outputs, and outcomes (see Table 1).

Table 1. Logic model core components

Component	Description	More information
Inputs	What the provider invests	What resources are invested and/or required for the learning solution to function effectively in real schools?
Participants	Who the provider reaches	Who receives the learning solution or intervention? Who are the key users?
Activities	What participants do	What do participants do with the resources identified in Inputs? What are the core/essential components of the learning solution? What is being delivered to help students/teachers achieve the program outcomes identified?
Outputs	Products of activities	What are numeric indicators of activities? (e.g., key performance indicators; allows for examining program implementation)
Outcomes	Short-term, intermediate, long-term	Short-term outcomes are changes in awareness, knowledge, skills, attitudes, and aspirations. Intermediate outcomes are changes in behaviors or actions. Long-term outcomes are ultimate impacts or changes in social, economic, civil or environmental conditions.

Instructure reviewed *Wordly Wise 3000* resources, artifacts, and program materials to develop a draft logic model. EPS reviewed the draft and provided revisions during virtual meetings. The final logic model depicted below (Figure 1) reflects these conversations and revisions.

WORDLY WISE

Problem Statement: Approximately one-third of 4th grade students are not proficient in reading (National Center for Education Statistics, 2023). While vocabulary is foundational to literacy development, deficits in vocabulary acquisition are a significant barrier to reading comprehension and students' ability to understand grade-level content. Wordly Wise 3000 is a research-based supplemental reading program that provides explicit vocabulary instruction that bridges the critical connection between vocabulary knowledge and reading comprehension, helping students achieve grade-level reading mastery.

Wordly Wise 3000 **Logic Model**

Inputs What does Wordly Wise 3000 provide?: Wordly Wise 3000 PROVIDES · A research-based vocabulary curriculum¹ aligned with the science of reading² STUDENTS Teacher Resources, incl. structured lesson plans, read-aloud stories, assessments, and differentiated activities for English learners Student books with engaging, developmentally and grade-level appropriate exercises, featuring differentiated reading passages for Grades 2-12 and picture-based oral language activities for Grades K-1 Repeated vocabulary practice with high utility words aligned to state and national standards **EDUCATORS** Professional development (PD) Implement structured vocabulary lessons that resources and training for educators3 include direct instruction, interactive activities, and opportunities for independent practice · Administer formative and summative assessments · Analyze student assessment data to determine individualized intervention adjustments **DISTRICT PROVIDES** Access and utilize teacher resources · Internet-enabled devices for students and educators · Access to Wordly Wise 3000 through educator and student subscriptions Dedicated time for reading intervention sessions **ADMINISTRATORS**

Activities Outputs What are the measurable results of implementing Wordly How are participants using Wordly Wise 3000? Wise 3000?

STUDENTS

- Complete structured vocabulary lessons Engage in structured, interactive activities, e.g., turn-and-talk and peer sharing
- Complete formative and summative assessments

- Number and nature of lessons completed
- Number and nature of structured, interactive activities engaged with
- Number and nature of formative and summative assessments completed

EDUCATORS

- Number and nature of lessons implemented
- Number and nature of activities facilitated
- Time spent on direct instruction versus independent practice
- Number and nature of formative and summative assessments administered
- Frequency of intervention adjustments made based on student data
- Number of resources accessed and utilized

ADMINISTRATORS

- · Monitor program to ensure fidelity of Number of classroom observations conducted implementation Number of reports generated and reviewed for
- Conduct classroom observations to ensure decision-making instructional fidelity

Outcomes

What are the expected changes or impacts of using Wordly Wise 3000?

SHORT-TERM Students

- · Have access to differentiated vocabulary instruction tailored to individual unique learning needs, particularly academic and high utility words
- · Build foundational knowledge of the relationship between vocabulary and reading comprehension, increasing initial engagement with reading activities

Educators

• Increase understanding of the role of vocabulary in reading fluency within the science of reading Address individual student needs in vocabulary and reading comprehension with data-driven practices and structured instruction

• Increase awareness of literacy needs across classrooms and schools

INTERMEDIATE Students

- Increase proficiency in understanding vocabulary in context
- · Demonstrate sustained engagement and motivation in reading comprehension activities due to increased vocabulary knowledge, building a foundation for academic success

Educators

- Refine data-driven decision-making skills in vocabulary instruction and align practices closely with science of reading principles
- Consistently apply best practices in teaching vocabulary as a critical literacy skill
- · Administer an effective balance between direct instruction and opportunities for independent practice to ensure optimal student engagement and learning outcomes

Deepen understanding of vocabulary's role in literacy to guide instruction and resources, using data to drive targeted interventions and improve outcomes district-wide

LONG-TERM

Students

· Achieve fluency in vocabulary comprehension, significantly closing reading gaps and supporting academic success across content areas

Educators

- · Demonstrate mastery in delivering vocabulary instruction that enhances student reading outcomes and overall literacy success
- Experience increased professional satisfaction and retention due to effective literacy interventions and improved student outcomes
- · Maintain a strong, continued commitment to data-driven literacy practices, fostering ongoing student improvement
- · Improve vocabulary comprehension to close reading achievement gaps and support overall academic success

Administrators

· Effectively reduce educational disparities across the district or school through a strategic, data-driven approach to literacy and vocabulary instruction, ensuring inclusive support and resources for all

1 Wordly Wise offers an oral language only curriculum for grades K-1 and a reading and writing curriculum for grades 2-12. Districts have the option to choose either the print (Wordly Wise 3000) or digital (Wordly Wise i3000) version of the Grade 2-12 program. ²The science of reading refers to a body of research on how people learn to read. This research investigates the processes involved in decoding text, building fluency, understanding meaning, and retaining information. It identifies five core pillars to effective reading instruction: Phonemic Awareness, Phonics, Fluency, Vocabulary, and Comprehension. The science of reading emphasizes structured, explicit, and systematic instruction and prioritizes evidence-based practices that align with how the brain processes language and builds literacy skills (National Reading Panel, 2000). ³ Professional development (PD) is optional and provided at an additional cost



• National Center for Education Statistics, (2023), Reading Performance, Condition of Education, U.S. Department of Education, Institute of Education Sciences, Retrieved November 26, 2024, from https://nces.ed.gov/programs/coe/indicator/cnb

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Participants

Who uses Wordly Wise 3000?

literacy specialists, tutors, and coaches · School and district administrators

Educators incl. general ed. teachers,

· Grades K-12 students

Logic Model Components

EPS invests several resources into their program, including:

- A research-based vocabulary curriculum² aligned with the science of reading;³
- Teacher resources, including structured lesson plans, read-aloud stories, assessments, and differentiated activities for English learners;
- Student books with engaging, developmentally and grade-level appropriate
 exercises featuring differentiated reading passages for 2nd-12th grade and
 picture-based oral language activities for kindergarten-1st grade;
- Repeated vocabulary practice with high-utility words aligned to state and national standards; and
- Professional development (PD) resources and training for educators.⁴

School districts would be expected to provide:

- Internet-enabled devices for students and educators;
- · Access to Wordly Wise 3000 through educator and student subscriptions; and
- Dedicated time for reading intervention sessions.

Ultimately, *Wordly Wise 3000* aims to reach students in kindergarten–12th grade, educators (including general education teachers, literacy specialists, tutors, and coaches), as well as school and district administrators.

Using these program resources, the participants can engage with *Wordly Wise 3000* in the following activities:

Students:

- Complete structured vocabulary lessons;
- Engage in structured, interactive activities, e.g., turn-and-talk and peer sharing; and
- Complete formative and summative assessments.

Educators:

- Implement structured vocabulary lessons that include direct instruction, interactive activities, and opportunities for independent practice;
- Administer formative and summative assessments;
- Analyze student assessment data to determine individualized intervention adjustments; and
- Access and utilize teacher resources.

² Wordly Wise 3000 offers an oral language–only curriculum for grades K–1 and a reading and writing curriculum for grades 2–12. Districts have the option to choose either the print (Wordly Wise 3000) or digital (Wordly Wise i3000) version of the grade 2–12 program.

³ The science of reading refers to a body of research on how people learn to read. This research investigates the processes involved in decoding text, building fluency, understanding meaning, and retaining information. It identifies five core pillars to effective reading instruction: Phonemic Awareness, Phonics, Fluency, Vocabulary, and Comprehension. The science of reading emphasizes structured, explicit, and systematic instruction and prioritizes evidence-based practices that align with how the brain processes language and builds literacy skills (National Reading Panel, 2000).

⁴ PD is optional and provided at an additional cost.

Administrators:

- · Monitor the program to ensure fidelity of implementation; and
- Conduct classroom observations to ensure instructional fidelity.

EPS can examine the extent to which core activities were delivered and participants were reached by examining the following quantifiable outputs:

Students:

- Number and nature of lessons completed
- Number and nature of structured, interactive activities engaged with
- Number and nature of formative and summative assessments completed

Educators:

- · Number and nature of lessons implemented
- Number and nature of activities facilitated
- Time spent on direct instruction versus independent practice
- Number and nature of formative and summative assessments administered
- Frequency of intervention adjustments made based on student data
- Number of resources accessed and utilized

Administrators:

- Number of classroom observations conducted
- Number of reports generated and reviewed for decision-making

If implementation is successful, based on a review of program outputs, EPS can expect the following outcomes:

In the short term, students will have access to differentiated vocabulary instruction tailored to individual, unique learning needs, particularly academic and high-utility words. They will build foundational knowledge of the relationship between vocabulary and reading comprehension, increasing initial engagement with reading activities. Educators will increase their understanding of the role of vocabulary in reading fluency within the science of reading. They will also address individual student needs in vocabulary and reading comprehension with data-driven practices and structured instruction. Administrators will increase their awareness of literacy needs across classrooms and schools.

In the intermediate term, students will increase proficiency in understanding vocabulary in context. They will demonstrate sustained engagement and motivation in reading comprehension activities due to increased vocabulary knowledge, building a foundation for academic success. Educators will refine data-driven decision-making skills in vocabulary instruction and align practices closely with science of reading principles. They will also consistently apply best practices in teaching vocabulary as a critical literacy skill. Lastly, they will administer an effective balance between direct instruction and opportunities for independent practice to ensure optimal student engagement and learning outcomes. Administrators will deepen their understanding of vocabulary's role in literacy to guide instruction and resources, using data to drive targeted interventions and improve outcomes district-wide.

In the long term, students will achieve fluency in vocabulary comprehension, significantly closing reading gaps and supporting academic success across content areas. Educators will demonstrate mastery in delivering vocabulary instruction that enhances student reading outcomes and overall literacy success. They will also experience increased professional satisfaction and retention due to effective literacy interventions and improved student outcomes. Furthermore, they will maintain a strong, continued commitment to data-driven literacy practices, fostering ongoing student improvement. Lastly, they will improve vocabulary comprehension to close reading achievement gaps and support overall academic success. Administrators will effectively reduce educational disparities across the district or school through a strategic, data-driven approach to literacy and vocabulary instruction, ensuring inclusive support and resources for all students.

Study Design for Wordly Wise 3000 Evaluation

To continue building evidence of effectiveness and to examine the proposed relationships in the logic model, EPS has plans to conduct an evaluation to determine the extent to which its program produces the desired outcomes. Specifically, EPS has plans to begin an ESSA Level III study to answer the following research questions:

Implementation

1. To what extent will students use Wordly Wise 3000 during the 2024–25 school year?
a. How many Wordly Wise 3000 lessons will students complete?
b. How many minutes per week will students use Wordly Wise 3000?

Outcomes

2. To what extent will students' engagement (e.g., number of lessons completed or number of assessments completed) with *Wordly Wise 3000* relate to their performance on end-of-year standardized reading assessments?

Conclusions

This study satisfies ESSA evidence requirements for Level IV (*Demonstrates a Rationale*). Specifically, this study met the following criteria for Level IV:

- Detailed logic model informed by previous, high-quality research
- Study planning and design is currently underway for an ESSA Level III study

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