Really Great Reading Logic Model

Study Type: ESSA Evidence Level IV

Prepared for:
Really Great Reading

Prepared by LearnPlatform:
Alexandra Lee, Researcher
Avery Wall, Junior Researcher
Meetal Shah, Ph.D., Senior Researcher

March 22, 2023

EXECUTIVE SUMMARY

Really Great Reading engaged LearnPlatform, a third-party edtech research company, to develop a logic model for their product. LearnPlatform 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, program activities, outputs, and outcomes. LearnPlatform collaborated with Really Great Reading to develop and revise the logic model.

Study Design for Really Great Reading Evaluation

Informed by the logic model, the next phase will focus on planning for an ESSA Level II study to examine the extent to which Really Great Reading implementation relates to teacher knowledge and instruction and student literacy outcomes.

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 I, II or 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).

TABLE OF CONTENTS

Introduction

Really Great Reading engaged LearnPlatform, a third-party edtech research company, to develop a logic model for its program. LearnPlatform designed the logic model to satisfy Level IV requirements (*Demonstrates a Rationale*) according to the Every Student Succeeds Act (ESSA).

Recognizing that 65% of students cannot read proficiently by 4th grade (McFarland et al., 2019), which is due in part to the enduring research-practice gap (Schneider, 2018), Really Great Reading provides teachers with the tools to implement research-based science of reading instruction to help students develop word-level literacy skills using phonics, phonemic awareness, orthographic mapping, and deciphering word meaning.

The study had the following objectives:
1. Define the Really Great Reading logic model and foundational research base
2. Draft an ESSA Level I, II, or III study design

Previous Research. The design of this logic model was guided by previous research examining the science of reading, pedagogy, and teacher professional learning. Prior research suggests that the best way to teach reading is to root instruction in an approach called "the science of reading" (Petscher et al., 2020). The science of reading synthesizes knowledge about reading instruction practices and emphasizes multi-strategy instruction that helps students develop the foundational skills most important for reading fluency: phonemic awareness (National Reading Panel, 2000) and graphemic awareness (Ehri, 2020). Systematic phonics instruction provides students with phoneme-grapheme knowledge (i.e., sounds connected to letters) which enables them to develop knowledge of spelling-sound word units (i.e., syllables and morphemes), and in turn, increased vocabulary (Ehri et al., 2001; Ehri, 2020). These foundational skills set the stage for students to permanently store words in their sight word memories through the process of orthographic mapping (Kilpatrick, 2016). When a word is sufficiently mapped, it can be retrieved effortlessly. Instruction rooted in the science of reading lays the foundation of automatic letter-sound associations, strong phonemic awareness, and an efficient process of connecting the phonemes (sounds) and graphemes (spellings of those sounds) (Kilpatrick, 2016). Furthermore, explicit vocabulary instruction and using a variety of texts complement systematic phonics instruction and facilitate the development of reading comprehension skills (National Reading Panel, 2000; Shanahan et al., 2010). In the long-term, teaching these foundational literacy skills helps all students with reading comprehension (Suggate, 2016). It is an approach that is particularly beneficial for English language learners and students with reading disabilities (Kieffer & Lesaux, 2007; National Reading Panel, 2000). Really Great Reading provides a science of reading aligned curriculum that is focused on equipping students with the decoding skills critical for reading fluency.

Effective reading instruction aligns with students' skill level (Foorman & Torgesen, 2001; Morrison et al., 2005). Therefore, it is recommended that teachers regularly assess students' fundamental literacy skills to identify targeted instructional priorities to increase reading abilities (Vernon-Feagans et al., 2010). Identifying students' unique needs allows teachers to then provide one-on-one or small group

targeted instruction, both of which are shown to promote reading skill development (Begeny et al., 2018). Using small groups for teaching students phonemic awareness tends to be more effective than full class instruction (National Reading Panel, 2000). Really Great Reading makes both assessment and small group instruction more manageable for teachers by providing a data management tool to organize both sets of information.

Sound pedagogical practices are also critical for ensuring students learn how to read (National Reading Panel, 2000). Specifically, teachers should model decoding strategies (e.g., using phoneme-grapheme knowledge to sound out a new word) prior to having students practice the strategy on their own (Aldahri et at al., 2013). A research-based approach for explicit modeling is the "I do, we do, you do" instructional routine (Shanahan, 2005). Providing scaffolding, including reminding students of reading strategies and gradually increasing difficulty, positively impacts student engagement and achievement (Clark & Graves, 2005; Lutz et al., 2006; Vadasy & Sanders, 2010). Scaffolding is also important for boosting students' sense of self-efficacy, which is associated with reading achievement (Guthrie et al., 2004; Guthrie & Wigfield, 1999). Finally, for students in early elementary school, it is important for reading instruction to be playful to promote enjoyment and engagement (Malanchini et al., 2017). Really Great Reading infuses these pedagogical best practices into its curriculum resources and teachers' guides.

It is not enough to simply provide teachers with curriculum materials – they must also be knowledgeable about how to implement science of reading instruction focused on systematic phonics development (Hudson et al., 2021; Mosley Wetzel et al., 2020). Furthermore, it is important to dispel common misconceptions about teaching reading and for teachers to understand why science of reading is the best approach (Bos et al., 2001; Washburn et al., 2016). Teacher preparation programs vary in their focus on the science of reading, therefore, teachers often learn about the science of reading once they are on the job (Castles et al., 2018). However, a well-designed curriculum alone is not enough to dispel misconceptions (Cohen et al., 2017). Teacher professional learning is a proven avenue for helping teachers learn how to effectively teach phonics aligned with science of reading best practices (Basma & Savage, 2018; Podhajski et al., 2009). Recognizing the need to provide teacher professional learning in addition to curriculum resources, Really Great Reading also provides readily-accessible online courses for teachers.

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.

LearnPlatform reviewed Really Great Reading resources, artifacts, and program materials to develop a draft logic model. Really Great Reading reviewed the draft and provided revisions during virtual meetings. The final logic model depicted below (Figure 1) reflects these conversations and revisions.

Problem Statement: Sixty-five percent of students are not able to read proficiently by 4th grade, which is due in part to the enduring research-practice gap. Really Great Reading (RGR) provides teachers with the tools to implement research-based science of reading instruction, which helps students develop word-level literacy using phonics, phonemic awareness, orthographic mapping, and deciphering word meaning.

Inputs
What we invest:

Really Great Reading provides:

Reading curriculum based on the science of reading[1]

Lesson-aligned student materials: letter tile kits (digital and print), workbooks (print), Reading Playground games (digital)

Diagnostic assessments

Data management system for monitoring student progress and grouping students

Teacher guides

On-demand professional development (PD) on the science of reading

Schools/Districts provide:

RGR subscriptions

Internet-enabled devices

Set-up student accounts and rosters on RGR platform

Participants
Who we reach:

PreK - Grade 12 Students

PreK - Grade 12 Educators[2]

School and District Administrators[3]

Activities
What we do:

Students:
- Students practice using the Reading Playground games
- Students practice using workbooks and tile kits
- Students use vocabulary resources in the Reading Playgrounds and/or Infercabulary
- Students complete RGR diagnostic assessments
- Students actively pay attention and respond to classroom instruction

Educators:
- Educators complete PD webinars and workshops
- Educators use diagnostic assessments to identify instructional focus areas
- Educators use data management system to group students and personalize instruction according to their strengths and weaknesses
- Educators use deliver lessons and assign practice activities aligned to students' needs

Administrators:
- Schedule time for teacher PD on the science of reading
- Schedule time for examining student data and identifying targeted interventions
- Set expectations for educator implementation of RGR that maintains fidelity
- Monitor educator usage of RGR and provide feedback and support for implementation

Outputs
Products of activities:

Students:
- Number and frequency of Reading Playgrounds online practice sessions (target: > 10 mins/day)
- Time spent on practice activities (i.e., workbooks, tile kits)
- Time spent using vocabulary resources/Infercabulary
- Number of RGR diagnostic assessments completed

Educators:
- Number of PD sessions attended and total time spent on PD
- Time spent reviewing student assessment data
- Usage of data management system for grouping students
- Number and frequency of lessons delivered (target: > 15 mins/day)
- Number of correctly-leveled playbook activities completed

Administrators:
- Number of PD sessions held and total time allocated for PD
- Number of meetings held to examine student data
- Documentation of expectations for RGR implementation
- Documentation of feedback and support for educators' RGR implementation

Outcomes
What changes or benefits result...

Short-term

Students:
- Students enjoy literacy activities more
- Students are more engaged in literacy activities
- Students develop skills and knowledge to become orthographic mappers
- Students gain foundational literacy skills, demonstrated by growth on diagnostic assessments[4]
- Students have increased vocabulary and ability to derive meaning from context

Educators:
- Teachers use embedded periodic professional learning to increase knowledge of foundational literacy skills
- Teachers implement literacy instruction aligned to the science of reading
- Teachers use student data to systematically group students and personalize literacy instruction
- Teachers implement targeted literacy interventions aligned to students' needs

Administrators:
- Admins have greater awareness of best practices in the science of reading
- Admins see the value of science of reading instruction
- Admins advocate for use of science of reading

Intermediate

Students:
- Students have increased confidence in reading
- Students have increased interest in reading
- Students are able to understand what they read and learn new information from texts
- Students have increased performance on interim, end-of-grade, and/or state assessments[5]

Educators:
- Teachers observe higher rates of literacy growth among their students
- Teachers have greater self-efficacy for literacy instruction

Administrators:
- Admins better support the use of research-based literacy instruction through PD, curriculum, and assessment
- Admins proactively leverage assessment data to address inequities by identifying targeted literacy interventions

Long-term

Students:
- Students meet grade-level benchmarks for literacy
- Students have increased academic performance in all domains
- Students complete high school and are college and career-ready

Educators:
- Teachers are able to support novice teachers in the implementation of research-based practices for literacy instruction

Administrators:
- Admins sustain a rigorous academic program that delivers literacy gains for all students

[1] The science of reading is a set of research-based practices that support the development of reading by helping students to relate written text to spoken language by focusing on malleable factors that underpin reading ability, including phonics, phonemic awareness, and decoding (Petscher et al., 2020).
[2] Educators may include primary classroom teachers, interventionists, Title I coordinators, paraprofessionals, and special educators.
[3] School and District Administrators may include literacy/ELA instructional coaches, curriculum specialists, special education directors, district-level PD directors, principals.
[4] Foundational literacy skills for students in Pre-K - 2nd grade include phonemic awareness, alphabetic principals, and oral reading fluency; skills for students in 3rd grade or higher include decoding, word reading, and reading fluency.
[5] Examples of interim, end-of-grade, state assessments include DIBELS, iReady, NWEA, and MAP.

LEARN PLATFORM

Figure 1. Really Great Reading logic model

Really Great Reading Logic Model Components. Really Great Reading invests several resources into their program, including a reading curriculum based on the science of reading, lesson-aligned student materials (letter tile kits, workbooks, Reading Playground games), diagnostic assessments, data management system, teacher guides, on-demand professional development on the science of reading. Ultimately, the Really Great Reading program aims to reach PreK - Grade 12 students, educators, and school and district administrators.

Using these program resources, the following participants can engage with the Really Great Reading platform in the following activities:
- PreK-12 grade students:
  - practice using the Reading Playground games;
  - practice using workbooks and tile kits;
  - use vocabulary resources in the Reading Playgrounds and/or Infercabulary;
  - complete diagnostic assessments;
  - actively pay attention and respond to classroom instruction.
- PreK-12 grade educators:
  - complete professional development webinars and workshops;
  - use diagnostic assessments to identify instructional focus areas;
  - use data management system to group students and personalize instruction;
  - deliver lessons and assign practice activities aligned to students' needs.
- School and district administrators:
  - schedule time for teacher professional development on the science of reading;
  - schedule time for examining student data and identifying targeted interventions;
  - set expectations for educator implementation of Really Great Reading that maintains fidelity;
  - monitor educator usage of Really Great Reading and provide feedback and support for implementation.

Really Great Reading can examine the extent to which core activities were delivered and participants were reached by examining the following quantifiable outputs:
- PreK-12 grade students:
  - Number and frequency of:
    - Reading Playgrounds online practice sessions;
    - diagnostic assessments.
  - Time spent on:
    - practice activities;
    - using vocabulary resources/Infercabulary.
- PreK-12 grade educators:
  - number of professional development sessions attended and total time spent on professional development;
  - time spent reviewing student assessment data;
  - usage of data management system of grouping students;
  - number and frequency of lessons delivered;

- number of correctly-leveled playbook activities completed.
  - School and district administrators:
    - Number of:
      - professional development sessions held and total time allocated for professional development;
      - meetings held to examine student data.
    - Documentation of:
      - expectations for Really Great Reading implementation;
      - feedback and support for educators' Really Great Reading implementation.

If implementation is successful, based on a review of program outputs, Really Great Reading can expect the following short-term outcomes among *students*. Students enjoy literacy activities more, are more engaged in literacy activities, gain foundational literacy skills demonstrated by growth on diagnostic assessments, and have increased vocabulary and ability to derive meaning from context. In the intermediate term, students are also able to understand what they read and learn new information from texts, have increased confidence and interest in reading, and improved performance on interim end-of-grade, and/or state assessments. Students develop the skills and knowledge to become orthographic mappers. Orthographic mapping leads to automatic word recognition and thus more fluent reading. In the longer term, students meet grade-level benchmarks for literacy, have increased academic performance in all domains, and complete high school and are college and career-ready.

Really Great Reading can also expect the following short-term outcomes among *educators* with successful implementation. Teachers use embedded periodic professional learning to increase knowledge about foundational literacy skills and implement literacy instruction aligned to the science of reading and targeted interventions aligned to students' needs. Teachers also use student data to systematically group students and personalize literacy instruction. In the intermediate term, teachers observe higher rates of literacy growth among their students, which leads them to have greater self-efficacy for literacy instruction. In the longer term, teachers are able to support novice educators in the implementation of research-based practices for literacy instruction.

There are also several expected short-term outcomes among *administrators*. Administrators have greater awareness and see the value of science of reading aligned instruction, which leads them to advocate for the use of the science of reading. In the intermediate term, administrators support the use of research-based literacy instruction through professional development, curriculum, and assessment. They also proactively leverage assessment data to address inequities by identifying targeted literacy interventions. In the longer term, administrators sustain a rigorous academic program that delivers literacy gains for all students.

Study Design for Really Great Reading Evaluation

To continue building evidence of effectiveness and to examine the proposed relationships in the logic model, Really Great Reading has plans to conduct an evaluation to determine the extent to which its literacy programs produce the desired outcomes. Specifically, Really Great Reading has plans to begin an ESSA Level II study to answer the following research questions:

Implementation Questions

1. Among teachers, what were the usage patterns of Really Great Reading resources?
    a. Did teachers recently log in to online teacher tools?
    b. What was the average number of subscriptions and/or licenses used for teacher tools?
    c. Did teachers complete professional development on implementation of RGR programs?
2. Among students, what were usage patterns of Really Great Reading resources?
    a. What was the average number of active licenses?
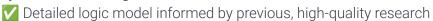   b. What was the average level of usage of print and online resources?

Outcome Questions

3. After controlling for students' prior literacy levels, how was the use of Really Great Reading related to student performance on:
    a. Standardized literacy assessments?
4. After controlling for students' prior literacy levels , what is the magnitude of observed differences of students who used Really Great Reading compared to students who did not use the program for:
    a. Standardized literacy assessments?

Really Great Reading plans to begin an ESSA-aligned study in spring 2023.

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 I, II, or III study

References

Aldahri, M., McLaughlin, T. F., Derby, K. M., Belcher, J., & Weber, K. P. (2013). An evaluation of the direct instruction model-lead-test procedure and rewards on rote counting, number recognition and rational counting with a preschool student with developmental delays. *International Journal of Basic and Applied Science, 2*(1), 98-109.

Basma, B., & Savage, R. (2018). Teacher professional development and student literacy growth: A systematic review and meta-analysis. *Educational Psychology Review, 30,* 457-481.

Begeny, J. C., Levy, R. A., & Field, S. A. (2018). Using small-group instruction to improve students' reading fluency: An evaluation of the existing research. *Journal of Applied School Psychology, 34*(1), 36-64.

Bos, C., Mather, N., Dickson, S., Podhajski, B., & Chard, D. (2001). Perceptions and knowledge of preservice and inservice educators about early reading instruction. *Annals of Dyslexia, 51*, 97–120

Castles, A., Rastle, K., & Nation, K. (2018). Ending the reading wars: Reading acquisition from novice to expert. *Psychological Science in the Public Interest, 19*(1), 5-51.

Clark, K. F., & Graves, M. F. (2005). Scaffolding students' comprehension of text. *The Reading Teacher, 58*(6), 570-580.

Cohen, R. A., Mather, N., Schneider, D. A., & White, J. M. (2017). A comparison of schools: Teacher knowledge of explicit code-based reading instruction. *Reading and Writing, 30,* 653-690.

Galuschka, K., Ise, E., Krick, K., & Schulte-Körne, G. (2014). Effectiveness of treatment approaches for children and adolescents with reading disabilities: a meta-analysis of randomized controlled trials. *PLoS One, 9*(2), e89900.

Ehri, L. C., Nunes, S. R., Stahl, S. A., & Willows, D. M. (2001). Systematic phonics instruction helps students learn to read: evidence from the National Reading Panel's meta-analysis. *Review of Educational Research, 71*(3), 393–447.

Ehri, L. C. (2020). The science of learning to read words: A case for systematic phonics instruction. *Reading Research Quarterly, 55,* S45-S60.

Foorman, B. R., & Torgesen, J. K. (2001). Critical elements of classroom and small-group instruction promote reading success in all children. *Learning Disabilities Research & Practice, 16,* 202–211.

Guthrie, J. T., & Wigfield, A. (1999). How motivation fits into a science of reading. *Scientific Studies of Reading, 3*(3), 199-205.

Guthrie, J. T., Wigfield, A., & Perencevich, K. C. (2004). Scaffolding for motivation and engagement in reading. In *Motivating Reading Comprehension* (pp. 55-86). Routledge.

Hudson, A. K., Moore, K. A., Han, B., Wee Koh, P., Binks-Cantrell, E., & Malatesha Joshi, R. (2021). Elementary teachers' knowledge of foundational literacy skills: A critical piece of the puzzle in the science of reading. *Reading Research Quarterly, 56,* S287-S315.

Kieffer, M. J., & Lesaux, N. K. (2007). Breaking down words to build meaning: Morphology, vocabulary, and reading comprehension in the urban classroom. *The Reading Teacher, 61*(2), 134-144.

Kilpatrick, D. (2016). *Equipped for reading success: A comprehensive step-by-step program for developing phonemic awareness and fluent word recognition.* Syracuse, NY: Casey & Kirsch.

Lutz, S. L., Guthrie, J. T., & Davis, M. H. (2006). Scaffolding for engagement in elementary school reading instruction. *The Journal of Educational Research, 100*(1), 3-20.

Malanchini, M., Wang, Z., Voronin, I., Schenker, V. J., Plomin, R., Petrill, S. A., & Kovas, Y. (2017). Reading self-perceived ability, enjoyment and achievement: A genetically informative study of their reciprocal links over time. *Developmental Psychology, 53*(4), 698.

McFarland, J., Hussar, B., Zhang, J., Wang, X., Wang, K., Hein, S., ... & Barmer, A. (2019). *The Condition of Education 2019.* NCES 2019-144. National Center for Education Statistics.

Morrison, F. J., Bachman, H. J., & Connor, C.M. (2005). *Improving literacy in America: Guidelines from research.* New Haven, CT: Yale University Press.

Mosley Wetzel, M., Skerrett, A., Maloch, B., Flores, T. T., Infante-Sheridan, M., Murdter-Atkinson, J., ... & Duffy, A. (2020). Resisting positionings of struggle in "science of teaching reading" discourse: Counterstories of teachers and teacher educators in Texas. *Reading Research Quarterly, 55,* S319-S330.

National Reading Panel. (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction,* NIH Publication No. 00-4754. Alexandria, VA: National Institutes of Health.

Petscher, Y., Cabell, S. Q., Catts, H. W., Compton, D. L., Foorman, B. R., Hart, S. A., ... & Wagner, R. K. (2020). How the science of reading informs 21st-century education. *Reading Research Quarterly, 55,* S267-S282.

Podhajski, B., Mather, N., Nathan, J., & Sammons, J. (2009). Professional development in scientifically based reading instruction: Teacher knowledge and reading outcomes. *Journal of Learning Disabilities, 42*(5), 403-417.

Schneider, M. (2018). *Message from IES Director: How to make education research relevant to teachers.* Institute of Educational Sciences.

Shanahan, T. (2005). Comprehension strategies. In *The national reading panel report: Practice advice for teachers,* 28-33. https://files.eric.ed.gov/fulltext/ED489535.pdf

Shanahan, T., Callison, K., Carriere, C., Duke, N. K., Pearson, P. D., Schatschneider, C., & Torgesen, J. (2010). Recommendation 4: Select texts purposefully to support comprehension development. In *Improving reading comprehension in kindergarten through 3rd grade: A practice guide* (NCEE 2010-4038), 30-33. https://ies.ed.gov/ncee/wwc/practiceguide/14

Suggate, S. P. (2016). A meta-analysis of the long-term effects of phonemic awareness, phonics, fluency, and reading comprehension interventions. *Journal of Learning Disabilities, 49(1),* 77–96.

Vadasy, P. F., & Sanders, E. A. (2010). Efficacy of supplemental phonics-based instruction for low-skilled kindergarteners in the context of language minority status and classroom phonics instruction. *Journal of Educational Psychology, 102(4),* 786.

Vernon-Feagans, L., Gallagher, K., Ginsberg, M. C., Amendum, S., Kainz, K., Rose, J., & Burchinal, M. (2010). A Diagnostic Teaching Intervention for Classroom Teachers: Helping Struggling Readers in Early Elementary School. *Learning Disabilities Research & Practice, 4(25),* 183-193.

Washburn, E.K., Binks-Cantrell, E.S., Joshi, R.M. et al. Preservice teacher knowledge of basic language constructs in Canada, England, New Zealand, and the USA. *Annals of Dyslexia, 66,* 7–26 (2016).