

My Reading Academy: Building the Foundations for Reading Success with Science of Reading-Aligned Solutions

Literacy Development

In literacy development, reading involves two categories of skills: word recognition and language comprehension. Word recognition is the ability to read words effortlessly and accurately. It encompasses several skills such as phonological awareness, decoding, and sight recognition. Language comprehension is the ability to comprehend spoken language. It includes skills in background knowledge, vocabulary, an understanding of how language is structured, verbal reasoning, and literacy knowledge. Gough and Tunmer (1986) have described this idea through The Simple View of Reading, which describes reading as a mathematical equation:

$$\begin{array}{c} \text{Word} \\ \text{Recognition} \\ \times \\ \text{Language} \\ \text{Comprehension} \\ = \\ \text{READING} \\ \text{COMPREHENSION} \end{array}$$

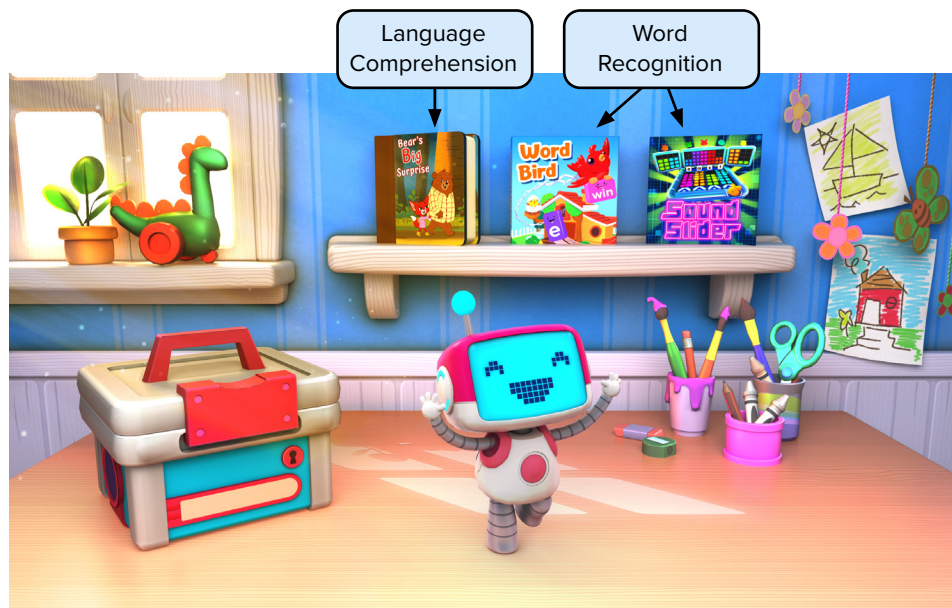
In other words, this well-researched model asserts that reading comprehension—the desired end result—is the product of word recognition and language comprehension. Both aspects of The Simple View of Reading are necessary for proficient reading. A child cannot be a proficient reader without developing both categories. Educators and the resources they use play a key role in a child's literacy development.

My Reading Academy Was Designed to Be the Following:

- **Research-Driven:** Grounded in the science of reading, *My Reading Academy* was designed to deliver comprehensive instruction based on best practices in early literacy and cognitive development research.
- **Adaptive:** *My Reading Academy* fosters multiple learning trajectories through adaptive and formative assessments.
- **Engaging:** Short bursts of instruction and formative feedback are delivered by charming digital “friends”; purposeful practice is presented in fun game formats; and immersive reading experiences cultivate a love of reading.
- **Empowering:** Through our Personalized Mastery Learning Ecosystem™ (PMLE™), we provide real-time actionable data for teachers and administrators as well as instructional resources and at-home activities for families and caregivers.
- Teachers have found *My Reading Academy* to be a resource that allows them to provide individualized, differentiated instruction.

The Simple View of Reading: How My Reading Academy Aligns

My Reading Academy™ is grounded in science of reading research, addressing both word recognition and language comprehension simultaneously.



As students log in to *My Reading Academy*, they have three options for learning activities. Students launch the activity of their choice through each student's "dynamic bookshelf." The three activities address Learning Objectives that have been pre-selected based on the student's instructional needs. Additionally, all three activities align with a skill(s) from both sides of The Simple View of Reading.

To address word recognition skills, students receive explicit, systematic instruction through the program's instructional videos led by the program host. They then have several opportunities for guided practice through interactive Learning Games. All Learning Games include various supports and scaffolds, as well as three layers of immediate and actionable corrective feedback.

To develop language comprehension skills, students work through interactive read aloud experiences with *My Reading Academy's* interdisciplinary text sets. Text sets are organized by relevant science and social studies topics and big ideas. They include diverse genres such as literary, informational, classic, and modern selections.

Essential Components of Reading

To understand and summarize existing research on reading, the National Reading Panel (National Institute of Child Health and Human Development [NICHD], 2000) reviewed several hundred empirical studies (out of more than 100,000 articles published since 1966) and conducted regional public hearings to identify "The Big Five" essential components of learning to read: phonemic awareness (identifying sounds and their articulatory features), phonics (identifying letter–sound correspondences), vocabulary (understanding words and meanings), fluency (reading with speed, accuracy, and expression), and comprehension (understanding a text).

Research in cognitive psychology, linguistics, and neuroscience has provided evidence-based strategies and practices for developing each of these five components of reading. Understanding the science behind these components can help educators provide effective instruction that supports students in becoming strong readers. The National Reading Panel (NICHD, 2000) concluded that each component should be incorporated

into instructional practices and suggested several techniques for effective instruction, including using computerized activities to teach reading. Research has also shown that effective instruction must include explicit and clear instructions (Archer & Hughes, 2011; Pearson & Gallagher, 1983) and must be systematic in the scope and sequence of activities (NICHD, 2000). Early reading instruction focuses largely on teaching children to map letters and spellings to the sounds of spoken language that the letters represent (Hanford, 2018; Snow et al., 1998).

Essential Components of Reading: How My Reading Academy Aligns

Phonological Awareness

Phonological awareness is an individual's awareness of the sound structure of language. It is the understanding that the speech flow can be broken into smaller units of sound. Phonological awareness is an umbrella term that includes the awareness of sounds at various levels. The levels can be defined as phonological sensitivity and phonemic awareness. Phonological sensitivity involves the detection and manipulation of sounds at three levels: syllables, onsets and rimes, and phonemes. Phonemic awareness involves the capacity to perceive and alter the auditory elements within words. Phonemic awareness includes the awareness of individual sounds, or phonemes.

Explicit and systematic instruction in phonological sensitivity and phonemic awareness is crucial in helping students learn to read. It lays the foundation for their understanding of the relationships between sounds and letters in written language. *My Reading Academy* prioritizes instruction in this area. The program starts at the sound level and builds up from there. Through *My Reading Academy*'s instructional videos, students receive explicit and systematic instruction in these foundational reading skills. The program host, Miracle, provides the explicit instruction by first explaining the concept and then modeling the skill. *My Reading Academy* addresses high-priority skills that have been strongly linked to reading achievement. Skills such as identifying initial, medial, and final sounds within words as well as phoneme blending, segmenting, and manipulating are introduced early on within the program.



Figure 1. Miracle explicitly teaches blending during an instructional video. The sounds Miracle uses are from the word “moon” /m/ /oo/ /n/.

Additionally, *My Reading Academy* incorporates interactive Learning Games specifically designed to reinforce critical reading skills. Within the games in the program, students are provided with multiple opportunities to practice. The games offer immediate and actionable corrective feedback, allowing students to use this feedback to advance their own learning.

Phonics

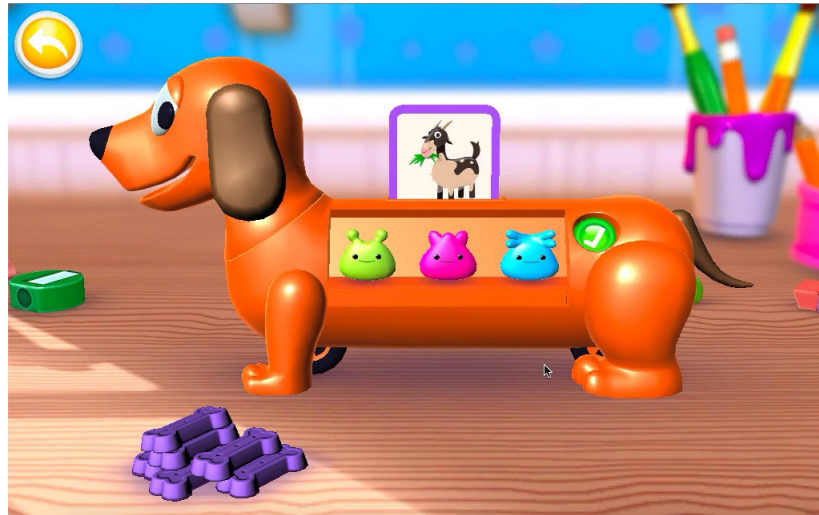


Figure 2. An example of an interactive Learning Game that addresses identifying initial, medial, and final sounds. Students are prompted to click on each “blurt” (or colored shape) to hear the sound. Then students drag each shape to the corresponding position to make the word “goat.” A picture is provided to support students.

Phonics is a method of instruction that teaches students the systematic relationships between letters and sounds and how to use these relationships to read and spell (National Reading Panel, 2000). Most students need explicit and systematic instruction in phonics to learn how to decode words.



Figure 3. Mnemonics are used to support students in remembering corresponding letter sounds, such as d /d/ dinosaur.



Figure 4. Decodable readers include VC and CVC words for students to practice when reading.

Systematic phonics instruction builds new skills on existing skills and arranges tasks from simple to more complex. When phonics instruction is systematic, students already possess the foundational knowledge and understanding to learn each new skill efficiently (Adams, 2001).

Another tenet of effective phonics instruction is explicit instruction. Explicit instruction is instruction delivered by the teacher concisely. The teacher explains the concept and then models the skill. There are several opportunities for guided practice with teacher support.



Figure 5. Explicit instruction is provided in irregular word spellings.

In *My Reading Academy*, a predictable phonics routine is employed within the instructional videos to teach students decoding. The program's host, Miracle, follows the gradual release of responsibility model, starting by introducing a specific letter to the students. She then models the correct articulation of the corresponding sound, ensuring that students understand the phonetic connection between the letter and its sound. To aid memory retention, Miracle provides mnemonics or memory aids, acting as scaffolds to help children remember the sound associated with the letter. This predictable routine creates a structured and supportive environment, allowing students to develop their phonemic awareness and their ability to associate letters with their corresponding sounds.

Once students have acquired a handful of letters and sounds as well as a few high-frequency words, *My Reading Academy* provides opportunities for students to read words in context with the program's Read with Nano books (decodable readers). All decodable readers in *My Reading Academy* align with the program's scope and sequence for phonics. The phonics sequence builds cumulatively so that previously learned regular and irregular words reappear in later levels of the games as well as in the decodable readers. This ensures that students will be able to read connected text with a high level of success because they have been given enough explicit instruction, guided practice, and review of phonics skills.

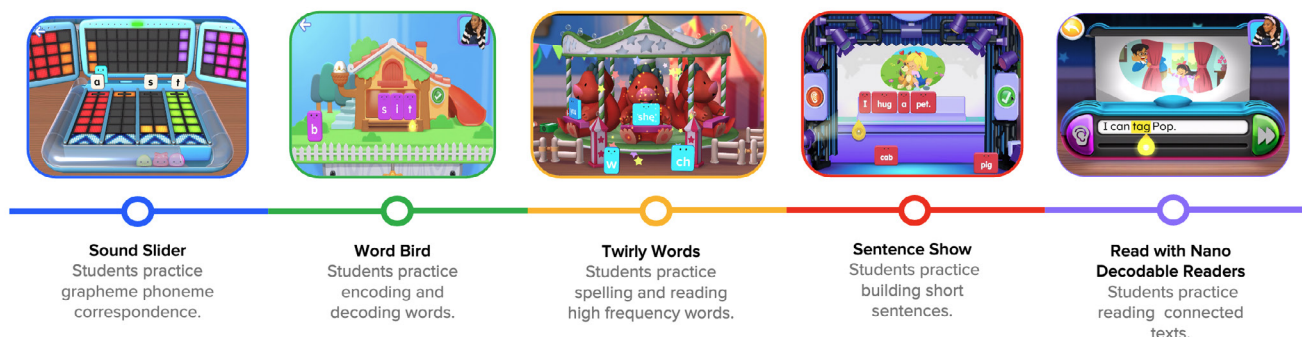


Figure 6. *My Reading Academy's* curriculum is thoughtfully designed to scaffold students' learning, with skills progressing in a sequential manner, beginning with letter and sound recognition, advancing through decoding and encoding words, and culminating in the dictation of sentences before empowering students to read independently in connected texts through the use of decodable readers.

Fluency

Fluency is an essential aspect of reading that describes a set of foundational skills necessary for developing literacy. Fluency is the ability to read accurately, smoothly, and with expression, and it builds a bridge between word recognition and comprehension. Fluent readers recognize words automatically and group words rapidly to help gain meaning from their reading, which then translates into their understanding of the text.

Research supports teaching fluency across a continuum of skills beginning at the letter and sound recognition level, and working up to the passage level (Hudson et. al., 2009). *My Reading Academy* supports fluency instruction at the sound, letter, word, sentence, and paragraph level. One example of this is the program's Read with Nano decodable readers. These controlled texts only include words with known sound-spelling correspondences and high-frequency words. They align to the program's phonics scope and sequence and, therefore, become more complex as students gain more decoding abilities. Texts also include sentence features (e.g., exclamation points, commas, etc.) that students are shown how to read.

Because of the high percentage of decodable words in the *Read with Nano* texts, students can read and re-read the text successfully. This allows the student to attend to fluency. Furthermore, fluency instruction is embedded throughout in the form of choral and echo reading to ensure that students not only develop accuracy, but also read at an appropriate rate and can begin to develop prosody. Additionally, explicit instruction and modeling on skills that address attention to conventions (e.g., questions, exclamations, pausing at commas, and stressing key words and phrases) are also provided.

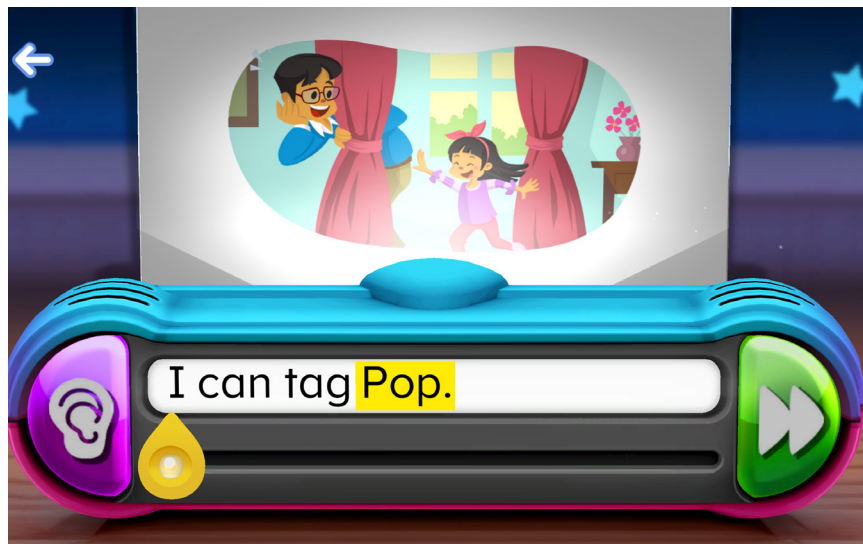


Figure 7. *My Reading Academy* decodable texts contain frequent instances of words with target letter-sound correspondence and provide practice with a variety of sentence features.

Vocabulary

Students acquire vocabulary through a variety of ways: conversation, observation, multimedia, and reading. According to the National Reading Panel, explicit instruction in vocabulary can measurably improve reading outcomes. Effective vocabulary instruction should emphasize the use of rich meanings (rather than dictionary definitions), highlight the connections among words, and promote understanding of how words work (morphology). Additionally, students should engage in a wide range of reading with complex texts (Shanahan, 2019).

My Reading Academy aims to teach vocabulary in a way that honors the flexible thinking required for understanding the meaning of words in various contexts. To this end, instructional videos introduce multiple-meaning words and homophones. Students practice what they have learned in a game where they are presented with a sentence and must use context clues to determine the correct meaning of the word. For example, students are given the sentence, “I need help to **stick** the picture to my paper” and must determine if the meaning of *stick* is glue, twig, or tree.

When introducing new vocabulary words to students, explicit instruction on the word is provided in the program’s introductory videos led by the program host, Miracle. The delivery of this information follows an instructional routine that has been found to be efficient and effective with students on language acquisition. This routine starts with an introduction of the word’s pronunciation to ensure that students can hear the word pronounced correctly. The next step of the routine introduces the word’s meaning in a way that is appropriate for the student’s age and level of understanding. Finally, Miracle provides examples of how the word can be used in context. Non-examples are also provided as appropriate.

During the interactive read-aloud experiences in *My Reading Academy*, key vocabulary words are accompanied by a student-friendly definition and an associated image. These multimodal definitions include words, images, and audio to support all learners’ needs; and the definitions may be selected through a link at any time during the reading experience. After reading, students have the opportunity to practice identifying the word among multiple examples and non-examples.



Figure 8. In this example, our reading host teaches the concept that words can have multiple meanings. Then students demonstrate understanding through an activity where they must read a sentence and determine the correct meaning of the word.

Students are taught to pay attention to the language in a text, rereading to extract and expound upon key ideas and vocabulary words. Students learn vocabulary words through a gradual release model, first with explicit instruction and then with guided practice and repetition by encountering vocabulary words in a variety of texts and learning activities. Each time a vocabulary word appears in a digital book, a student can tap on the word to hear the same student-friendly definition and image that was previously introduced.

Vocabulary activities support students in understanding both academic and disciplinary words in a variety of contexts. One vocabulary activity requires students to use context clues to determine the meaning of multiple-meaning words. In another activity, students add a prefix or a suffix to a word to change its meaning. Throughout *My Reading Academy*, students must focus on the use of language and vocabulary within texts as they reread and answer questions using text evidence.



Figure 9. In this example of a vocabulary activity, students are asked to complete the picture by adding the tallest landform to the surface of Earth. Because students have developed an understanding of the words while reading the texts, they should be able to identify that of the choices, only a volcano is a tall landform. Students who answer incorrectly are given targeted reteaching of the vocabulary words and how they relate.

Comprehension

Research suggests that text sets are an effective way to build background knowledge and improve overall comprehension (Cervetti et. al., 2016). Text sets are collections of texts and media resources focused on a specific topic, designed to help all learners build background knowledge and vocabulary through a volume of reading on science, social studies, and other high-interest topics. Students who read conceptually coherent texts demonstrate more knowledge of the concepts, have a deeper understanding of academic vocabulary, and can recall information more efficiently compared to students who read books on unrelated topics. The use of conceptually coherent texts with a singular focus of a topic allows students to gain both a broad perspective and an in-depth sense of the subject matter (Ivey, 2002).

My Reading Academy has a robust library of conceptually coherent text sets organized by relevant science or social studies topics. The topics for each text set were informed by an extensive analysis of state and national content standards. As an example, topics and big ideas covered within the kindergarten text sets include

- Animals: Animals have special ways to meet their needs.
- Community: Adults have different jobs that help our community.
- Weather: Weather affects how we dress and act.
- Plants: Seeds grow into plants that have roots, stems, flowers, and fruit.
- Transportation: We use different types of transportation for different reasons.
- All About Me: Our senses help us meet our needs and experience the world.



Figure 10. All books include a diverse tapestry of cultures, religions, physical abilities, global regions, and viewpoints.

As students work through the titles, *My Reading Academy* incorporates explicit instruction in verbal reasoning skills. In the teaching videos that occur before each book, the program hosts introduce key concepts or skills. The hosts then appear in mid-text “think alouds,” where they model the skill. During and after reading, students engage with the text by answering questions and making connections.

All comprehension questions require students to use text evidence. Students begin by answering literal questions that can be answered through text evidence. This is taught through explicit modeling and guided practice. Students then learn how to make inferences and answer inferential questions. They are explicitly taught to answer these questions using text evidence combined with their background knowledge.

Comprehension skills and strategies are explicitly taught through teaching videos and in-book teaching animations. Students practice these skills as they read. Feedback and scaffolding are provided to students when performance on comprehension questions indicate that there is a lack of understanding. By the end

of each grade level, students will have received a robust repertoire of skills and strategies. Through explicit instruction by our host, Miracle, and the strategic application of these skills and strategies across many texts, students become more equipped each year to become active, engaged readers.

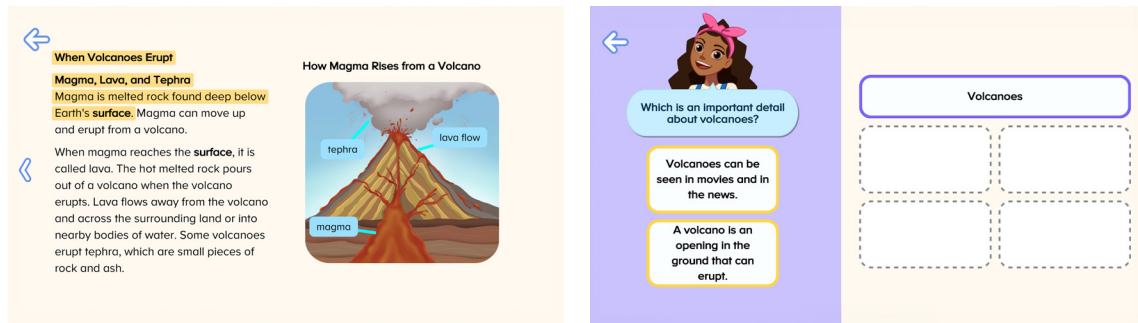


Figure 11. Reading experiences include a variety of text layouts, question types, and response methods.

Conclusion:

This white paper describes how *My Reading Academy* is a research-driven and engaging game-based solution designed to form the fundamental components of reading proficiency. Rooted in the principles of reading science, *My Reading Academy* is a holistic reading program that imparts evidence-based reading techniques for each area of reading, encourages purposeful practice through enjoyable gaming formats, and fosters immersive reading experiences that build students' knowledge of the world while nurturing a genuine love for reading. In summary, *My Reading Academy* combines research-backed strategies and interactive elements to create a dynamic platform for cultivating successful young readers.

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