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Career-Connected Literacy™

Proving What's Possible:

The Impact of Beable's Career-Connected Literacy® System

A groundbreaking research study validating Beable's power to accelerate literacy, close opportunity gaps, and put all students, regardless of starting point, on a personalized path to gainful employment.

Introduction

Beable® is K–12's only Career-Connected Literacy® platform, a visionary, multi-dimensional system that intertwines literacy acceleration, career exploration, and personal growth into a single, integrated experience. By leveraging AI and today's most advanced technologies, Beable creates personalized paths to literacy proficiency and gainful employment for every student, regardless of starting point.

This white paper presents findings from Beable's initial efficacy study, conducted across five school districts and nearly 4,000 middle and high school students, including English Learners and students in intervention programs during the first five months of the 2020–2021 school year. The study was designed to answer two key questions:

1) Does Beable improve student literacy, and does the pace of growth exceed expectations?

2) Does more frequent use of Beable result in greater literacy gains?

Lexile® growth was measured from the start of implementation in August through the end of the calendar year. The results revealed unprecedented acceleration, with many students achieving more than 5X expected annual gains.

This research validates Beable's ability to close both the literacy and opportunity gaps quickly, equitably, and at scale while respecting the whole child and extending the work of educators. It's not just a gamechanger. It's a life changer.

Key Findings

Beable Accelerates Literacy Growth by More Than 5X

Overall, students using Beable benefited from Lexile gains more than **five times greater than expected growth.**

Gains above expected growth were **significant across all grade levels** and highest for students in grades 10-12.

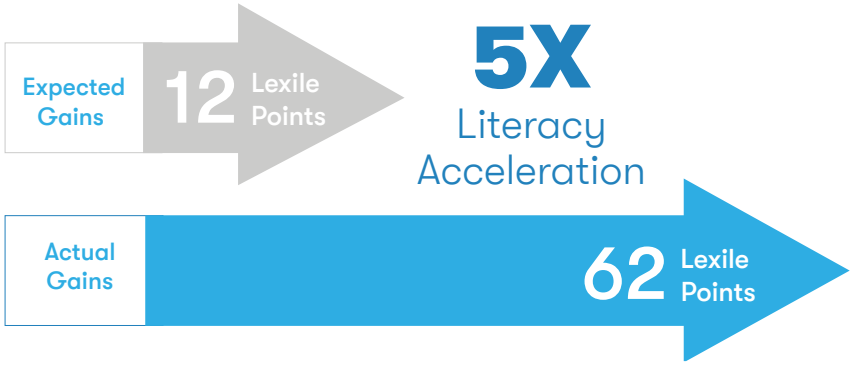
Students completing more Beable reading lessons experienced even greater gains, **surpassing their peers by 15 Lexile points (24%).**

As noted above, Beable enabled students to achieve this far higher rate of literacy growth even **amid the disruption caused by the pandemic.**

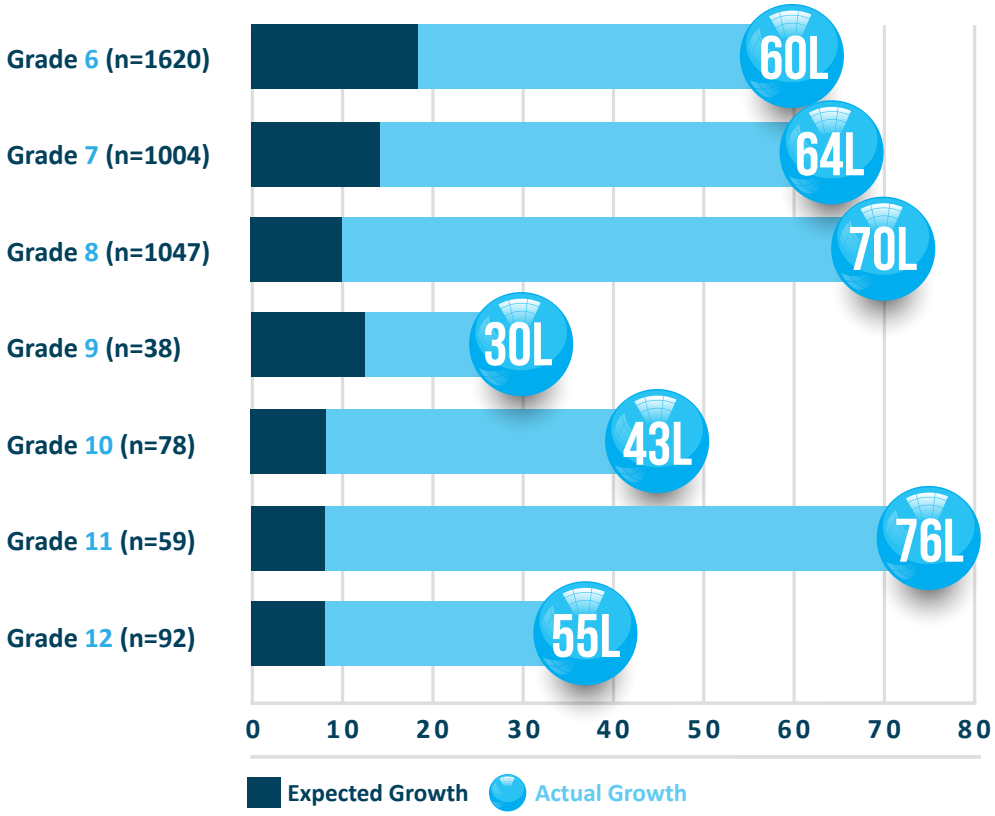
Detailed Findings

5X Extraordinary Lexile Growth

Students using Beable benefitted from Lexile growth more than five times greater than expected growth, gaining an average of 62 Lexile points (compared to the expected gain of 12 points).



Lexile Gains for Beable Users by Grade Level



Growth Across Grade Levels

Students across all the grade levels studied experienced Lexile gains far greater than expected. Gains above norms were highest for students in grades 10-12.

Methodology

This initial study of Beable's effectiveness was conducted from August 1 through December 31, 2020, across five school districts nationwide. The sample included 3,848 middle and high school students, including English Language Learners and those in intervention programs.

To assess literacy growth, the study used MetaMetrics' widely accepted benchmarks for expected annual Lexile® gains. Each student's progress was measured using two key data points:

- **Starting Lexile measure:** Established via the Beable Lexile Placement Test, administered at the beginning of each student's use of the platform. This computer-adaptive test, developed by MetaMetrics, efficiently determines a precise reading level for each learner.
- **Final Lexile measure:** Captured through the student's last Reading Challenge assessment. These formative assessments are delivered regularly to track ongoing progress and ensure that lesson content remains aligned to each student's evolving needs.

This methodology enabled Beable to continuously personalize instruction while capturing accurate, real-time data on literacy acceleration.

Grade Level	Expected Annual Gains
6	87L
7	69L
8	52L
9	34L
10	17L
11	17L
12	17L

Conclusion

Initial research confirms that the Beable Career-Connected Literacy® platform is redefining what's possible in accelerating literacy growth for all students, including English Learners and those in intervention programs. With gains reaching up to five times the expected annual rate, Beable is delivering outcomes that far exceed those of traditional solutions.

The data shows a clear correlation: the more students engage with Beable lessons, the greater their literacy acceleration. But Beable's impact goes beyond measurable gains. It cultivates the whole child and strengthens the broader school community by:

- **Ensuring equity and opportunity** through personalized learning paths
- **Connecting literacy to life and career readiness,** putting all students on a path to gainful employment
- **Supporting educators** by amplifying their efforts through intelligent automation and actionable data
- **Reducing costs** by replacing multiple fragmented programs with one comprehensive solution

Ultimately, Beable delivers more than literacy acceleration—it delivers life readiness. It equips students with literacy, confidence, and purpose to succeed in school, in work, and in life.

Join the Movement to Life-Ready Literacy

Beable is more than a platform. It's a movement to ensure every student, regardless of starting point, can accelerate literacy and envision a future of opportunity. If you're ready to redefine what's possible for your district, we invite you to take the next step.

Let's talk about how Beable can support your goals.

Request a personalized demo or connect with our team to explore implementation options tailored to your needs.

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Learn more and request a demo today.

www.beable.ai | Info@beable.com | 1.833.866.8066

Research to Practice: The Foundation of Career-Connected Literacy

Beable's Career-Connected Literacy® platform is grounded in a multi-dimensional framework that advances the whole child, combining literacy acceleration, career exploration, and personal growth into a single, integrated system. This section outlines the research-based components that power Beable's impact and differentiate it from traditional literacy solutions.

1. The State of Student Learning Today

Our world is home to 1.2 billion young people between the ages of 10 and 19 (UNICEF, 2019) each with specific needs, challenges, and aspirations for the future. The skills and knowledge young people acquire today must be relevant to the future economy and enable them to become the innovators, thinkers, and problem solvers of tomorrow. In fact, TNTP.org (The Opportunity Myth, 2018) reported that more students than ever are graduating from high school with career aspirations that require a college degree, and yet students are unprepared to meet their goals for college and careers At Beable, we believe, and the evidence in this report demonstrates, that a thoughtfully designed multi-dimensional system and curriculum can meet all these needs, closing the literacy and opportunity gap that has continued to widen. This system will prepare young people for the kinds of intellectual, personal growth and skillset demands they will face in college, in careers, and in adult life.

Powered by its *BeableIQ* technology engine, the Beable multi-dimensional LifeReady Literacy™ System has been developed to assess and understand the whole child with the underlying premise that improving students' success requires raising their self-awareness through a better understanding of themselves. This understanding should focus on social-emotional learning (CASEL, 2003), which is designed to help students manage emotions, build relationships, solve interpersonal problems, and make effective decisions. In building these essential skills, students lay the foundation for 21st Century Skills (AES,2020)—learning skills, literacy skills, and life skills—and ultimately for the employability or essential skills that students need in order to demonstrate success in any career (San Diego Workforce Partnership). Caskey & Anfara (2014) describe young adolescents as evolving and becoming more aware of their interests and topics that have meaning to them. Beable's system is designed to raise student self-awareness and improve their metacognitive understanding of themselves as learners, as they become agents of their own change.

Uniquely, Beable takes a multi-dimensional approach to 2-12 education, advancing the whole child by intertwining social and emotional learning with literacy acceleration, intervention response, content area acquisition, and career development. One of the most important aspects of Beable's multi-dimensionality is its ability to ensure both annual growth required of all students and catch-up growth required by struggling students. Fielding et al. (2007) describe that students who are lagging behind cannot catch up by working faster; rather they must be given additional time on task to master the information that must be learned. Similarly, research has proven that the additional time on task must be targeted to the specific skills gaps students have (Connor, Spencer, Day, Giuliani, et al, 2014; Sonnenschein, Stapleton,Benson, 2010). In TNTP's report, The Opportunity Myth (2018), researchers stated that students, particularly those of color and low-income backgrounds, are not receiving grade-level assignments with strong instruction that motivates students to engage in deep learning.

The Beable system identifies those students who require annual growth and those who also require catch-up growth and ensures all students receive grade-level assignments and assessments with the additional scaffolds they need to be successful alongside their classmates. It provides targeted additional instruction to students who need it. To do so,the system combines proven-effective instructional methodologies for each student: differentiation, individualization, and personalization.

2. Assessments and Surveys to Understand the Whole Student and Make Academic-to-Career Connections

Beable administers a series of assessments, inventories, and surveys to students, parents, and all educators to gather the necessary information to understand and meet the needs of the whole student. These form the basis of the Beable Learner Record. By listening to students and families, Beable is able to support the recommendation made by TNTP (2018) to focus on the success of individuals, not groups or averages. All information gathered about students is housed in a student's Learner Record, which follows them year-to-year and documents their interests, accomplishments, goals, and overall evolution. The importance of a Learner Record is well documented, offering all educators and parents a view into their students and makes it possible for all stakeholders to contribute to the evolution of every student. It adds to the student-teacher connectedness, known to have a significant impact on student learning (Chetty, Friedman, Rockoff, 2011; Nye, Konstantopoulos, Hedges, 2004). Learners begin using Beable with a short video that sets a strong purpose for the work they will do in the system. The video prompts students to envision what they'd like to be one day and draws a connection between students' visions of their future careers and the literacy levels required for those careers. The video informs students that it's possible to improve literacy levels simply by reading more. Reading more at one's "just right" reading level (Tomlinson, 1999, 2004) and reading more at increasinglevels of text complexity (Shanahan, 2016; Morgan, Wilcox, and Eldredge, 2010) are widely accepted and research-validated approaches to improving literacy levels. Within Beable, students do both, first read grade-level content at their Lexile level as a scaffold to reading the same lesson written at grade-level text complexity. The video concludes by prompting students to take the Beable Lexile® Placement Test so that they can set a baseline and get on track to fulfilling their visions of their future selves.

Students then complete the fully computer adaptive Lexile level assessment developed by MetaMetrics, the developers of the Lexile framework and leaders in the scientific assessment of students' comprehension of text and the measurement of a text's complexity. This full assessment is administered one time over the course of the student's lifetime within Beable, minimizing the amount of testing that students have to complete. Walsh (2017) talks about the pitfall of assessments as they become the end goal and often take away from valuable classroom time to focus on the test rather than on the essential learning that students need to complete each year. The use of a computer adaptive test eliminates the need for ongoing tests, which are replaced by short Reading Challenges that recalibrate a student's Lexile level whenever they seem ready to take on a greater challenge, thus accelerating literacy growth and reducing the literacy gap

Students' initial Lexile scoresserve a number of important functions:

1. Differentiation: Within Beable, both students and texts are measured through the Lexile Framework. Every lesson developed is written to 10 Lexile levels in English and also in Spanish. The system then delivers grade-appropriate academic content tailored to the student-specific Lexile level, allowing learners to work with content differentiated to their ability level. Differentiated learning refers to the"learning experiences in which the approach or method of learning is adjusted to meet the needs of individual student." (Culatta (2016) Of great importance, every student is working on the same grade-level assignment (TNTP, 2018).
2. Individualization: The Beable system automatically establishes the gap for each student—how far are they from grade-appropriate reading expectations. The system then recommends the specific number of reading lessons, as well as the types of scaffolds and supports, that each student needs per week in order to overcome that gap. This individualized path, which is automatically created by BeablelQ, gives administrators the information they need to set up appropriate interventions for their students.

''The vocational interest typology developed by Holland 1959, 1997 is the most widely adopted theoretical framework for interest measurement."

Briley, Hoff and Rounds, 2017

The second inventory that students complete is a RIASEC Career Indicator, which reports out in the RIASEC framework based on John Holland's general interest scales: realistic, investigative, artistic, social, enterprising, and conventional (Holland, 1997). Research has shown the power of interests in predicting career and academicperformance, success, and income (Rounds, 1995; Su, 2012; Renninger and Hidi, 2001). Rounds defines interests as "trait-like preferences...that motivate goal-oriented behaviors and orient individuals toward certain environments." The fact that interests are also considered to be relatively stable for both people and environmentsmakes them an ideal tool in career development.

After completion of the survey, students receive a RIASEC code, generally reported in a 2- or 3-letter code (for example, ASE combined the traits of artistic, social, and enterprising), which the BeablelQ engine then uses tocreate a personalized career exploration path for each student.

Through an integration with the O*Net database, which provides information on different careers including the RIASEC themes associated to each career, this personalized exploration starts in early grades (second grade) andextends through adulthood to ensure that learners start young, continue to learn about themselves, and continue to explore what they can strive for.

3.The Role of Personalization and Student Choice

The U.S. Department of Education (2016) describes the importance of student involvement and choice, a key component of the Beable system. Students are able to set personal academic and career goals as they track their Lexile growth. By establishing personal goals, students invest more in their learning and work toward their self-selected success. Carter Country Superintendent Ronnie Dotson (2016) talks about the importance of goalsetting in improving student performance, with a particular emphasis on making sure that goals are specific, measurable, attainable, and relevant.

Within Beable, self-selection extends beyond establishing personal goals. Through a Reading Topic Picker, students also make decisions about topics that interest them beyond the academic requirement. The results of this survey are used by BeableIQ to deliver personalized reading options to students both to support student choice and provide more time on task. As they participate in different activities, students learn more about themselves and update their responses, creating a new personalized pathway. Krashen (2011) makes the recommendation that readers choose their own reading materials, as they are the best judges of what will engage them and what is appropriate for them. Struggling readers, in particular, are in need of additional opportunities for leisure reading (Miller, Moss, 2013).

Finally, as part of the full understanding of the whole student, Beable asks students a series of questions throughout the year via a Student Interest Profile to learn more about them, their personal interests, their hobbies, their views—for example, do they enjoy sports, are they interested in travel, what foods do they enjoy most, and so much more. In part, this is to gain a broader picture of each child, but also it becomes a vehicle for more closely connecting students and teachers. John Hattie's meta-analysis (2018) determined that student/ teacher connectedness is one of the most impactful variables in improving student performance. With access to individual student information, teachers can have conversations and connect outside of academic discussions. Through this knowledge, teachers gain the confidence that every student can meet the demands with grade-level expectations, a critical criteria for student success as stated in TNTP's (2018) report. Teachers also have access to aggregated data, which they may use to connect to multiple students, to create learning opportunities based on student interest, or to use instructionally as they establish collaborative learning groups.

4. Literacy Acceleration Integrated with Academic Mastery

While self-selected, personalized reading has its place and provides incredible value in terms of engagement, motivation, and growth, there remains the academic reality that students at each grade level in each state are accountable to the same standards and the same content requirements (CCSS, 2010; TNTP, 2018). As part of Beable's multi-dimensional approach, and to extend teachers by achieving two key goals both at the same time, literacy acceleration is intertwined with the core content area mastery. Accordingly, Beable offers academic lessons to address district content requirements with each lesson differentiated to 10 Lexile levels so every student—regardless of reading level—can acquire requisite content and prepare for high-stakes tests. Academic content is also individualized, with each lesson accompanied by Companion Sections to provide needed scaffolds/supports to ELL, SPED, and gifted students. Core content also is individualized by the number of lessons needed for students to achieve annual growth—two lessons/week over the course of the year. Students requiring additional reading lessons for catch-up growth receive the number of lessons per week required to close their particular gap.

When students enter a core reading lesson, they complete two components: Read and Quiz. There are multiple purposes to the core lesson components:

1. Enable students to accelerate their literacy skills—their ability to comprehend text—as measured by their Lexile growth. Students work with text differentiated to their Lexile level to support them in their learning (Tomlinson). At the same time, students always have access to the version of the lesson written at grade-level text complexity, in accordance with the requirements of the Common Core State Standards (2010). Research has proven that students who consistently work at their Lexile level are able to double or even triple their expected reading gains in a year. It is critical that students systematically read at more increasing levels of text complexity (Shanahan, 2016; Morgan, Wilcox, and Eldredge, 2010). These are both widely accepted and research-validated approaches to improving literacy levels.

2. As students work through the Read component of the lesson, they encounter inline reading comprehension items designed to preparestudents for the high-stakes ELA assessments by challenging them with literal and inferential questions at every Depth of Knowledge (Webb, 1997, 2002) even as they build their content area knowledge. It's important that instructional time not be taken away in order to prepare students for the assessments (Gulek, 2010). Reading text at the complexity level they will see on the tests with practice on thetechnology-enhanced items theymwill see on those tests provides everyday preparation for the tests even while focusing on the mastery of content as per grade-level academic requirements. Beable provides the same grade-level accountability for all students (TNTP, 2018).

3. As students progress through each of the lessons of a course, they acquire the content area knowledge to pass their end-of-course tests. The purpose of the Quiz component is to give students practice with the types of questions they will encounter on those tests and also to give teachers essential data about areas where students are struggling most. Also embedded into each lesson are discussion questions that promote discussions in the classroom, which are provento have an effect size of .82 on student achievement (Hattie, 2018).

5. Additional Supports to Improve Literacy and Content Acquisition

Common Core (2010) describes the need for shared responsibility, for all educators to take part in the development of literacy skills in middle/high school students. Kids need to learn more about content areas (math, science, history, etc.) so they have context for the content presented in more complex texts. Students who are reading below level especially need more powerful instruction from their content-area teachers because they can't acquire critical knowledge by reading the texts themselves (Torgesen et al., 2007). Additionally, because of the increasing complexity of texts, and also because of the increasingly sophisticated responses students are expected to make to what they read, students must continue to grow in their ability to make inferences, draw conclusions, and engage in critical thinking.

Research has repeatedly demonstrated that the use of a student's home language has significant impact on literacy development as well as their overall academic success (Genesee, F., Lindholm-Leary, K., 2010). For this reason, Beable provides an option for students to work completely in their native language of Spanish—completing the Lexile placement test and RIASEC inventory in Spanish and completing content area lessons in Spanish to ensure content knowledge acquisition. Additionally, students have a number of tools to support their reading by improving their vocabulary, their fluency, and their comprehension. These include an embedded dictionary, a Read Aloud tool, and a translation tool into 100+ languages.

For students requiring catch-up growth in addition to expected annual growth, Beable provides a number of supports that create an individualized path for every student and ensure their success in meeting grade-level expectations (TNTP, 2018) by engaging in grade-specific practices.

a. Additional academic reading options are available for teachers to assign to guarantee the number of reading sessions required to attain both annual and catch-up growth.

b. Additional time on task for any academic lesson to give additional exposure to the lesson with a focus on the specific gaps that each student has. Effective instruction requires extensive independent practice so that students receive the practice they need to overlearn the skill in order for it to become fluent and automatic (Rosenshine, 2012).

The Companion Sections in Beable reinforce what is described in the Reading Next Report (2006) as strategic tutoring—providing each student with the individualized instruction that they need. These companion sections are designed to be completed either independently or with the support of a pull-out teacher and have the goal of fillingin the skills gaps while preparing students to go back into the classroom and have success with the content arealesson. Companion Sections include:

a) Background Information. Extensive research has shown that background knowledge can facilitate and in fact is often an essential component of reading comprehension (Pressley, 2000; Marzano, 2004; Guthrie, 2008; National Research Council, 2000). Struggling readers often lack the background knowledge and vocabulary necessary to make the new information "stick." The more we can activate and build background knowledge, the more students can make sense of and remember new information from the text. Beable recognizes that each learner comes to a topic with varying levels of background knowledgeand leverages recent research (O'Reilly, Wang, and Sabatini, 2019) to provide additional front-loading and meaning-making after reading—only for those students who need it, since background knowledge is highly context-dependent.

In the Background Information companion section, students in need of background building and frontloading:

i. Watch a video that sets the stage for the upcoming lesson by introducingthe key concepts and key vocabulary. This differentiated approach to presenting the content helps students engage with and have success mastering it in a different way (Tomlinson).

ii. Complete a set of comprehension questions to establish that they havethe foundation in place to move onto the Core Reading.

b) Word Study. Students who are struggling with fluency and foundation skills have opportunities to work with words from the text that they will encounter during the Core Reading. Pressley (2000) speaks to the importance of instruction for word-level skills as a key ingredient for successful reading comprehension.

The word study companion section has the following components:

- Preview, during which students listen to the sound structure of a word before attempting to decode it. This increasing awareness is essential forreading success and is applicable to older students who don't focus onthe details of the spoken word (Louisa Moats and Carol Tolman, 2009).
- Classify, during which students identify and categorize words based on syllabication rules, which they can use in the future. Research has proven the impact of this order and organization of learning activities onthe way information is processed and retained (Glynn and Divesta 1977;Lorch and Lorch 1985; Van Paten, Chao, and Reigeluth 1986).
- Code, during which students use shapes to associate with each rule for syllable division. This activity provides independent practice to solidify the new information and master the techniques. Using word study and strategies to read multi-syllabic words makes the decoding process more efficient, improves spelling, and increases in reading (The Reading Teacher Sourcebook of Effective Instruction for Middle School Students with Reading Difficulties, 2007) and its deliberate practice helps to improve performance (Gobert and Compitelli, 2007).

- Pre-read text, with audio support and highlighting to focus on fluencypractice of the core reading, with a focus on applying the words they just learned in text. This application of skills they just learned cementstheir learning (ASCD, 2003) while the repeated reading improves theirability and automaticity (NRP, 2000; Hattie, 2018).

- While learning syllabication rules, students are also developinga strong knowledge base of sight words, which helps them buildconfidence and fluency in text—all contributing to improved comprehension (McArthur et al, 2015).

c) Vocabulary. Ample research has pointed to the need for vocabulary building and language knowledge for improving reading comprehension (Kamil et al., 2008; Duke et al., 2011). Because the range of vocabulary in text grows rapidlyafter third grade, students must expand their knowledge of word meanings to keep up with more complex text. "Vocabulary and verbal knowledge play increasingly important roles in supporting reading comprehension as students move from elementary to middle to high school." How to address this? 1) Expose kids to words in reading. Students learn the meanings of many new words by inferring their meaning from how they are used in text and from theirknowledge of word parts (Torgesen et al., 2007). The vocabulary companionsection is designed to give this type of exposure and practice.

d) Reading Comprehension. It's been emphasized that strategy instruction is important across grades (Hougen, 2015; National Reading Panel, 2000) andthat it's been demonstrated to improve reading outcomes (Boardman, Boele,& Klingner, 2018). The purpose of the Reading Comprehension companion section is to promote the use of a variety of reading comprehension strategies during the Core Reading experience. The goal of the comprehension companion section is not merely to provide instructional activities but rather to promote the use of and thinking about reading strategies (T. Shanahan et al., 2010), the use of which is a challenging task (Pearson & Cervetti, 2017). Kamil et al. (2008) highlighted several strategies as being particularly impactful: summarization, asking questions about text, drawing inferences from text, using graphic organizers to visualizepart of the text—some of which were reinforced as having strong effect sizes in Hattie's (2018) metanalysis of over 300 studies. The companion section is focused, then, on a limited number of strategies (Block & Duffy, 2008) andon helping students to determine why and how to use those strategies, raising students' metacognitive awarenessto strategy use (Baker, 2017). The companion section introduces students to a variety of strategies, allowing them to then practice these strategies on a range of texts. In elementary grades, students practice the same strategies repeatedly across texts; however, secondary students are asked to use multiple strategies within a single passage helping to use thes trategies in a more authentic way.