Steps to Advance Literacy Solutions: Research Foundation

Introduction

Steps to Advance Literacy Solutions is a new program from Benchmark Education Company. This program comes with resources designed for students in Grades 2–6 who struggle with learning to read, students who are receiving Special Education services, and those who need more intensive instruction, practice, and time learning to be a successful reader. The resources include highly scaffolded, visually supported texts with instruction that develops skills and strategies to build background knowledge, vocabulary, and fluency, as well as strengthen listening, speaking, and writing skills.

The purpose of this research foundation document is to present the foundational research that was used in the development of this program, demonstrating the program is research based and research aligned. Information on how to implement the program is provided in manuals that come with the program and through the professional development available for this program. After an explanation of the framework of the program, this report includes information on the research related to overarching topics of:

- Background Knowledge
- Vocabulary Development
- Reading Comprehension
- Building Fluency
- Positive Learning Environment
- Collaborative Conversation

Each of the overarching topic sections are followed by a brief discussion of how the research is actualized in *Steps to Advance Literacy Solutions.*

Framework of Steps to Advance Literacy Solutions

Units in *Steps to Advance Literacy Solutions* provide three weeks of highly scaffolded and visually supported reading instruction. The gradual steps within each unit advance students' ability to access complex text. The week starts with a read-aloud by the teacher of core text, with modeling of a metacognitive strategy that will be used throughout the unit. Vocabulary words are explicitly taught the next day using a consistent instructional routine, based on the work of Beck, McKeown, and colleagues. Students have multiple exposures to different versions of the core text across the unit, with different levels of scaffolding. These texts are described below.

- Vocabulary Practice Text: a scaffolded version of the core text that is approximately two grades below grade level, chunked into a series of sections with strong picture support (the most effective type of vocabulary annotation) (Yeh & Wang, 2003)
- Amplified Text: a text that is on grade level (same as the core text) and is scaffolded by the picture-supported sections

- Core Text: an on-grade-level, complex text without the visual scaffolds

In *Steps to Advance Literacy Solutions* skills and strategies are explicitly taught, practiced, and applied during each lesson. However, the goal of instruction is accessing complex, grade-level text, not just learning a skill or strategy. Units are designed around a topic as a three-week event. Units are part of the overall vertical progression of 10 knowledge strands. Each unit, at each grade, is wrapped with an essential question and enduring understandings (McTighe & Wiggins, 2012, 2013; Wiggins & Wilbur, 2015), which serve as the most crucial linchpins of organizing a particular unit of study. The goals of essential questions are to stimulate thought, to provide inquiry, and to spark more questions, especially thoughtful student questions. Enduring understandings summarize what students need to learn and revisit throughout a lesson, a unit, a course, or their schooling as knowledge is systematically deepened.

To accomplish the goals of the lessons and units, background knowledge is gathered, built, applied, and synthesized. Both oral language and vocabulary are central to each week's texts. Students hear and interact with words, knowledge, and topic ideas through read-alouds, discussion of the enduring understandings, and completion of the knowledge blueprints. Lessons provide daily opportunities to strengthen listening, speaking, and writing skills through reading and writing practice.

Building Background Knowledge

According to Smith, Snow, Serry, and Hammond (2021), "knowledge can be classified according to its specificity; *background knowledge* comprises all of the world knowledge that a reader brings to the task of reading. This can include episodic (events), declarative (facts) and procedural (how-to) knowledge as well as related vocabulary" (p. 216). Domain knowledge is a subset of background knowledge and refers to knowledge of a specific and defined field, such as baseball or government. Vocabulary and background knowledge are important to inference making and understanding text; according to Oakhill, Cain and Elbro (2015), even very simple inferences rely on the requisite background knowledge and appropriate vocabulary associated with that vocabulary.

Kaefer (2020) states "background knowledge is essential for reading comprehension and learning from stories" (p. S173). Early development of content knowledge increases, exponentially, the amount of background knowledge children will develop over time, and background knowledge development is key to academic success for all students (Neuman, Kaefer & Pinkham, 2014; Pinkham, Kaefer, & Neuman, 2012). According to Kaefer, sufficient background knowledge that allows students to draw appropriate inferences about a text is needed to successfully comprehend the text. In fact, background knowledge is most critical for accessing complex texts.

In a study of background knowledge, Kaefer (2020) found that "students with higher levels of knowledge on a topic, including the vocabulary specific to that topic, that was activated through prereading activities attended more to the relevant illustrations and made more appropriate inferences than did students who acquired new knowledge from prereading activities" (p. S180). Kaefer also found that "when students did not already have background knowledge related to the topic at hand, they were unlikely to engage in inductive inferencing, even if they successfully learned the information shared in the prereading activities" (p. S180).

According to Kaefer (2020), read-alouds are a popular way to convey content knowledge and build literacy skills. To be most effective, read-alouds should be interactive (Barnes & Dickinson, 2017) and involve multiple genres (Duke, Halvorsen, & Knight, 2012). Additionally, Kaefer suggests the usage of diversified books provides students a chance to hear stories and information that address knowledge they have already started to develop. Simple comprehension can be achieved by providing knowledge in prereading activities. Prereading activities can be the first step toward developing rich background information on a topic.

If there is not enough background information in books to enable complex comprehension using read-alouds, different strategies for building background knowledge could be used. Knowledge is best built when it:

- can be processed in-depth (Beck & McKeown, 2007; Coyne, McCoach, Loftus, Zipoli, & Kapp, 2009);
- is repeated over time (Pinkham, Neuman, & Lillard, 2011); and
- can be connected to information that students already know (Shing & Brod, 2016).

Fisher and Frey (2009) suggest the use of essential questions that foster inquiry, create opportunities for discussion, and build background knowledge, if they do not have a single concrete answer. Additionally, building core knowledge (the main concepts of a topic) allows students to learn and understand new concepts. It may be advantageous to use knowledge-building activities in subject areas in addition to read-aloud activities.

Application of Building Background Knowledge Research in *Steps to Advance Literacy Solutions*

The building of background knowledge starts with the first activity of each unit in *Steps to Advance Literacy Solutions*: the introduction to the unit topic and the presentation of the enduring understandings for the unit. It continues through the unit with the teacher read-aloud of the weekly on-grade-level core text, explicit vocabulary instruction of Tier 2 and/or Tier 3 words, activation of knowledge when reading the different levels of text, during collaborative conversations around activities related to the topic and texts, and through daily application to reading and writing.

The vertical alignment of topics in *Steps to Advance Literacy Solutions* builds background knowledge not only during the three weeks of the unit, but also across time as topics are revisited and augmented with grade-appropriate concepts and vocabulary. The cross-curricular nature of *Steps to Advance Literacy Solutions* allows students to transfer background knowledge to science and social studies as well as literary-based lessons. When students accumulate background knowledge through daily lessons, they gain confidence in their abilities and participate more frequently.

Building Vocabulary

Stuart and Stainthorp (2016) describe two types of vocabulary: receptive and expressive (or productive). The receptive vocabulary is the set of words that are understood but not necessarily used daily. Having a large receptive vocabulary means understanding a wide range of spoken and written communications. The expressive vocabulary contains the words we use when communicating with others. If we have a

large expressive vocabulary, we can better convey our meaning. Vocabulary size grows with age as more words are encountered and added.

Kilpatrick (2015) indicates vocabulary belongs primarily on the language comprehension side of the Simple View of Reading (Gough & Tunmer, 1986). “Oral familiarity with a word plays the primary role in sight-word development, and any benefits of the semantic properties appear to be secondary” (Kilpatrick, 2015, p. 90). Stuart and Stainthorp (2016) state “the more extensive the breadth and depth of one’s vocabulary, the better one’s comprehension of texts is likely to be. The larger the vocabulary, the greater the chance that meanings of words in texts are already known” (p. 130).

Stuart and Stainthorp (2016) indicate that reading to students has a long tradition, supports implicit vocabulary learning, and is supported by evidence (e.g., Robbins & Ehri, 1994). In the Flack, Field, and Horst (2018) meta-analysis of research on storybook reading, the authors identified what influenced the new word learning during shared storybook reading. Results included reading style; use of dialogic techniques such as pointing, providing definitions, or asking students questions during reading; and increasing the number of times students hear words during reading through repeated readings and asking questions about targeted words.

Beck and McKeown (2001) investigated the kinds of text and the kinds of talk that were most beneficial for read-aloud experiences. They developed a technique called “Text Talk” (p. 13), “an approach to enhancing young children’s ability to build meaning from text in which the teacher intersperses reading with open questions and discussion, and follows each story with explicit attention to vocabulary” (p. 18). Beck and McKeown (2001) indicate there were multiple components important to this technique. These components included the selection of texts; initial questions that required students to describe and explain; follow-up questions that scaffolded students’ thinking; the pictures in the texts (presented after that portion of the text related to the picture had been heard and discussed); students’ background knowledge; and vocabulary.

The vocabulary instruction from Text Talk included the following activities:

> The instructional activities for each word began by bringing to mind the use of the word from the story and explaining its meaning. Then students were involved with using or responding to use of the word. Each activity also included having children repeat the word so they had a phonological representation of what they were learning. (Beck & McKeown, 2001, p. 18)

Beck and McKeown (2007) extended the investigation of the Text Talk and vocabulary instruction, called Rich Instruction, with two additional studies. Rich Instruction included “explaining word meanings in student-friendly language, providing multiple examples and multiple contexts, and requiring student to process words deeply by identifying and explaining appropriate and inappropriate uses and situations and creating multiple contexts” (p. 254).

In the first of two studies, students in Grades K–1 received the vocabulary instruction on sophisticated, Tier 2 words with high utility (n = 52) or received no vocabulary instruction (n = 46). Both groups received the Text Talk instruction during the read-alouds. For the treatment group, the vocabulary instruction occurred after a story had been read, discussed, and finished. The students who received the

vocabulary instruction showed significantly more vocabulary learning than the group that received no vocabulary instruction.

The second study by Beck and McKeown (2007) was carried out in a different school setting with different students in Grades K–1. This study involved the amount of vocabulary instruction. All students received the Text Talk read-alouds. Six words in each of seven trade books were identified for vocabulary instruction. The six words were assigned for two treatment conditions: Rich Instruction as used in the first study or More Rich Instruction. More Rich Instruction included additional instruction across several days. Specifically, all words were treated to Rich Instruction, but three of the words also had additional instruction presented across several days in two additional review cycles. In both grades, the additional review cycles made a statistically significant difference with a higher number of words learned during the study.

Beck and McKeown (2007) showed that students in Grades K–1 who received Rich Instruction after the read-aloud learned and added sophisticated words to their vocabulary. The second study showed more instruction and purposeful use of the words was "beneficial, with gains about twice as large for words given more instruction, in both kindergarten and first grade" (p. 262). Still, "it takes a lot to know a word" (p. 264).

In a continuing effort to understand vocabulary instruction, McKeown and Beck (2014) examined two different approaches to vocabulary instruction: a repetition condition and an interactive condition. The repetition condition, based on Biemiller and Boote (2006), used repeated reading of a storybook and practice with definitions of identified words. The interactive condition was based on a cognitive process approach (Beck, Perfetti, & McKeown, 1982; Coyne et al., 2010). In addition to reading a story one time, "the cognitive processing-based instruction offers additional contexts for the words and engages students in responding to the contexts and generating their own contexts" (McKeown & Beck, 2014, p. 522).

Results from the McKeown and Beck (2014) study of 131 Grade K students showed that both treatment methods enabled recognition of word meanings when compared to a control group that only read stories. Between the two treatment groups, the cognitive processing-based instruction was superior on the higher-order processing, particularly context integration and production. An implication of this study is that "instruction that prompts active processing allowed children as young as kindergarten to have more success in tasks that tapped high-order language processing relative to instruction that offered repeated reading and word meaning practice or story reading only" (McKeown & Beck, 2014, p. 528).

Not only did Beck, McKeown, and their colleagues study vocabulary acquisition with student in Grades K–1, as summarized earlier, but they also conducted a series of studies with Grade 4 students (Beck et al., 1982; McKeown, Beck, Omanson, & Perfetti, 1983; McKeown, Beck, Omanson, & Pople, 1985). Ford-Connors and Paratore (2015), summarized this work:

> Deep vocabulary learning is realized when vocabulary instruction (a) develops both definitional knowledge and understanding of a word's broad range of semantic connections and related concepts, (b) provides many exposures to target words in multiple contexts (McKeown et al., 1983), and (c) requires that students justify and

> explain their reasoning as they make associations among words. Moreover, … the instructional contexts that contributed to increased word learning (as well as text comprehension) employed both print- and discussion-based interactions with words (p. 53).

Silverman et al. (2014) confirmed the findings of Beck, McKeown, and their colleagues (Beck et al., 1982; McKeown et al., 1983; McKeown et al., 1985) with their analysis of the relationship between certain types of vocabulary instruction and the difference between monolingual and bilingual students in 33 classrooms of students in Grade 3–5. Those findings include that both monolingual and bilingual students benefit from instruction that included attention to explicit definitions; word relations that includes a broad range of semantic connections and related concepts; exposure to words in multiple contexts; morphology and syntax; and students' justification and explanation of the reasoning behind associations they make among words.

Oakhill et al. (2015) identify two purposes for teaching vocabulary: helping students learn the meaning of specific words, and helping students learn how to best figure out the meaning of new words through independent reading. When teaching the meanings of specific words, it is helpful to explain key words and link those words to topic knowledge before students read a text. It is also helpful to provide instruction on Tier 2 words (Beck, McKeown, & Kucan, 2005). Repetition of new vocabulary words is also helpful.

Oakhill et al. (2015) identify two ways to help students learn how to best figure out the meanings of new words. These methods are not mutually exclusive. Teaching students how to derive meanings from context is one way to figure out the meanings of new words. Oakhill et al. (2015) state "children can be taught to search the context for clues about the unknown word's category (what sort of thing is it?), for defining characteristic (how can you describe it?), and for likes and opposites (do you know of something similar or the opposite?)" (p. 66).

The other method to help students learn how to best figure out the meanings of new words is to teach word knowledge through morphology. "Morphemes are the smallest *meaningful* units in language" (Moats, 2020, p. 134). Morphology is the study and description of the meaning components of words (Oakhill et al., 2015). Moats (2020) states "recognition of and memory for morpheme structure help us decode, spell, and understand the meaning of words as we expand our vocabularies and become fluent readers and writers" (p. 134). "Rapid word recognition, independent discovery of word meaning, and spelling accuracy are all associated with knowledge of word structure at the level of morphemes" (Moats, 2020, p. 134). Derivational morphology occurs when a new word is derived from an old word by the addition of affixes (Stuart & Stainthorp, 2016). Some affixes are prefixes and must come before the root, and some are suffixes and must come after the root. "Using affixation to support vocabulary extension in school can be very productive and fun and has the benefit of supporting spelling skills as well" (Stuart & Stainthorp, 2016, p. 108).

Wasik, Hindman, and Snell (2016) report on book reading practices as they relate to increases in vocabulary. Findings show six strategies that are consistently used in studies: reading and rereading texts; explicitly defining words; encouraging dialogue about book-related vocabulary through questions and discussion; retelling; using props to illustrate word meanings; and encouraging students in post-

reading activities that promote the exploration and discussion of vocabulary. A clear theme from the review of the literature showed that the adult-child interaction during book reading is critical for vocabulary learning to occur. These strategies allowed the deeper exploration of vocabulary opportunities, and supported growth in background knowledge.

One such model that promotes the exploration and discussion of vocabulary is the use of graphic organizers. The Frayer Model (Frayer, Fredrick, & Klausmeier, 1969) is an example of a graphic organizer that has been in use for a very long time. The Frayer Model encourages student inquiry during the work acquisition process, activates students' thinking about a concept, and provides an opportunity to assess conceptual understanding (Dazzeo & Rao, 2020; Keeley, 2013). According to Keeley, the Frayer Model can be completed individually or where students work collaboratively in small groups. The graphic organizer includes space for a student-friendly definition of the targeted concept or word, examples and nonexamples (e.g., synonyms and antonyms), and a picture or sentences that further define the concept or word. The Frayer Model has also been effectively used to teach vocabulary with students with disabilities (Wanjiru & O-Connor, 2015; Zorfass & Gray, 2014).

Application of Building Vocabulary Research in *Steps to Advance Literacy Solutions*

As with building background knowledge, building vocabulary is a daily occurrence in *Steps to Advance Literacy Solutions*. The Tier 2 and Tier 3 vocabulary words are related to the unit topic and the texts that will be read during the unit, so vocabulary words are contextually grounded. The vocabulary words are explicitly introduced and taught, using consistent routines students learn to anticipate (gradual release model using the teach, model, and practice approach). Vocabulary words are encountered multiple times in multiple contexts, including print-based (reading and writing activities in the student's *My Reader* consumable, including the Frayer Model graphic organizer) and conversation-based (collaborative conversations with teachers and classmates). A multilingual glossary provides student-friendly definitions and sample sentences using the word in multiple languages. The weekly vocabulary cards provide a structured vocabulary review using the Quick Vocabulary tasks on each card. The vocabulary cards also provide morphological and word study tasks in the Notice section, where students examine the form of the words.

Reading Comprehension

Castles, Rastle, and Nation (2018) state "reading comprehension is not a single entity that can be explained by a unified cognitive model" (p. 28). Rather, "it is the orchestrated product of a set of linguistic and cognitive processes operating on text and interacting with background knowledge, features of the text, and the purpose and goals of the reading situation" (p. 28). Stated slightly differently, "comprehension comes about through the interaction of knowledge (e.g., vocabulary, background knowledge), processes that operate on text (e.g., meaning activation, inference generation), and general cognitive factors (e.g., working memory)" (Castles et al., 2018, p. 34).

Willingham (2017) states "comprehension includes not only understanding the text moment by moment as you read it, but also the development of some overall sense of what the text is about. And that's what sticks with you" (p. 107). In discussing how comprehension works, Willingham discusses extracting ideas from sentences; connecting those ideas; the situational model created from connecting those

ideas (keeping track of what the main character is doing, the timing of events, the spatial relations among the elements of the story, causal relations among events in the text, and whether events are relevant to the main character's goals); bridging meaning across sentences; making inferences when necessary; and having broad knowledge across many topics. Willingham acknowledges that "teaching reading is not just a matter of teaching reading. The whole curriculum matters, because good readers have broad knowledge in civics, drama, history, geography, science, the visual arts, and so on" (p. 127).

Stuart and Stainthorp (2016) state that the important predictors of students' reading comprehension are the ability to draw inferences, an understanding of story structure, comprehension-monitoring ability (Oakhill, Cain, & Bryant, 2003), vocabulary knowledge, and grammatical skills (Muter, Hulme, Snowling, & Stevenson, 2004). Stuart and Stainthorp state "all these abilities are essential for understanding texts" (p. 119). Further, "without good language skills and extensive experience of print, they [students] may not understand what they are reading" (p. 119).

Kilpatrick (2015) states that when word recognition skills are removed from consideration, "reading comprehension difficulties most commonly involve language comprehension difficulties" (p. 323). Language comprehension skills include "vocabulary, syntax, general background knowledge, specific topical knowledge, listening comprehension, knowledge of idioms and expressions, working memory, and attention" (Kilpatrick, 2015, p. 323). Oakhill, Cain, and Elbro (2019) point out that poor comprehenders' reading problems often do not become apparent until Grade 3 or 4 because that is when the materials students are being asked to read become increasingly complex in terms of language comprehension.

Application of Reading Comprehension Research in *Steps to Advance Literacy Solutions*

Steps to Advance Literacy Solutions is designed to help Grades 2–6 struggling readers access grade-level complex text and step up to grade-level standards. Using a gradual release model, teachers model comprehension skills used to access meaning from the text. Students then practice those skills during guided practice, and finally, partner or independent practice. The vertical progression of 10 knowledge strands enables students to build content-area knowledge while grade-level literacy skills are developing.

Each unit targets skills and strategies to support engagement, meaning making, and knowledge building. The Unit Knowledge Blueprint connects the content with the Enduring Understandings, which are developed and comprehended through the reading of texts, writing activities, and collaborative conversations. Teachers read aloud the week's on-grade-level core text and model a metacognitive strategy that students will practice throughout the unit. The comprehension skills and strategies serve as the tools, not as the goal, for making meaning of the progressively more complex texts students will encounter across the week.

Building Fluency

The three aspects of fluent reading most often measured are accuracy, appropriate rate, and prosody (Kuhn & Stahl, 2003), with the ultimate goal of extracting meaning from the text being read (Gough & Tunmer, 1986). Hudson, Koh, Moore, and Binks-Cantrell (2020) identify dysfluent readers as those who

find “their cognitive attention consumed primarily by decoding as they have to intently and laboriously attend to letters, sound-symbol correspondences, and word recognition” (p. 2). Further, “the inability to achieve automaticity in lower-order processing places large demands on working memory, leaving few resources available to negotiate meaning making in texts” (p. 2).

Rupley, Nichols, Rasinski, and Paige (2020) looked at reading fluency from a historical perspective. While reading aloud with expression and fluency used to be the norm in education in the United States, silent reading gained ground as a better approach to developing readers’ comprehension when texts and other forms of information became more readily available. However, research and national reports identified significant contributions of oral reading fluency to reading comprehension and academic proficiency. Rupley et al. conclude “fluent reading development is important to learners’ academic achievement and reading comprehension” (p. 1). Research (e.g., Paige, Rasinski, Magpuri-Lavell, & Smith, 2014; Rasinski, Rupley, Pagie, Nichols, 2016; Rasinski et al., 2017) also indicates that there are benefits of practicing oral reading fluency beyond the primary grades, where prosody predicts reading comprehension better than reading rate.

Hudson, Lane, and Pullen (2005) state “reading fluency is one of the defining characteristics of good readers, and a lack of fluency is a common characteristic of poor readers” (p. 702). Kilpatrick (2015) states “fluency refers to reading words quickly and accurately, but also with proper intonation or prosody … Just as songs vary their pitch, so do readers vary their intonation as they read. Such prosody suggests that the reader comprehends the passage *as she reads it*, otherwise she would not likely know when to inflect her voice” (p. 121). Blevins (2017) states “as readers begin to recognize larger and larger numbers of words automatically, their reading fluency (the speed and accuracy with which they read) improves” (p. 154). Additionally, Blevins makes the point that “the more times a student encounters a word in text, the more likely the student will recognize it by sight and avoid making reading errors. Reading fluency is linked to reading comprehension. Improvements in reading fluency improve understanding of text” (p. 154).

“The most effective [reading] programs include daily exposure to a variety of texts and incentives for children to read independently and with others” (Moats, 2010, p. 17). “Practices that build reading fluency include short practice drills in component skills, repeated readings of text, alternate reading with a partner, simultaneous oral reading of easy material, and daily independent reading” (Moats, 2010, p. 17). In a synthesis of research from 2001 to 2014, Stevens, Walker, and Vaughn (2017) found 19 studies examining reading fluency and comprehension outcomes for students with learning disabilities in Grades K–5. Findings suggest that all readers show improvement in reading fluency (reading rate and accuracy) and comprehension with repeated oral reading practice with the teacher or peer feedback.

Shanahan (2005) stated “the National Reading Panel examined 51 studies of oral-reading fluency instruction and found a substantial pattern of evidence supporting the idea that teaching oral fluency improves reading achievement” (p. 18). Shanahan concluded the different types of instruction to increase oral reading fluency share three essential features: 1) the instruction must include oral reading rather than silent reading; 2) there must be repetition, allowing students to practice reading texts repeatedly so that improvement occurs in accuracy, speed, and expression; and 3) guidance or feedback is beneficial, making it important to have a listener who can provide help.

Application of Building Fluency Research in *Steps to Advance Literacy Solutions*

Steps to Advance Literacy Solutions focuses on three aspects of fluency: accuracy, appropriate rate, and expression (or prosody). Teachers model different aspects of fluency each week. Students practice the aspect using the Vocabulary Practice Text. Additionally, rereading and partner reading of the weekly texts provide practice opportunities, and teacher or partner guidance provides needed feedback to improve fluency skills. These practice opportunities also reinforce background knowledge and vocabulary learning.

Positive Learning Environment

Then creation of a positive learning environment is key to student success with *Steps to Advance Literacy Solutions*. As Hammond (2018) stated, "the ultimate goal of culturally responsive teaching is to help students accelerate their learning by building cognitive learning muscles" (p. 41). Muscles come with practice and a gradual increase in the weight or, in this case, complexity of grade-level texts. For this to be effective, there needs to be support within the classroom and from home.

Improvement of classroom climate and classroom dynamics has gained focus in recent years, particularly in connection to students' academic achievement (Wang, Degol, Amemiya, Parr, & Guo, 2020). In a meta-analysis of 61 studies, Wang et al. determined "classroom climate had small to medium positive associations with social competence ($r = 0.18$, $p < .001$), motivation and engagement ($r = 0.25$, $p < .001$), and academic achievement ($r = 0.12$, $p < .001$)" (p. 10). "Classroom climate composed of instructional, socioemotional, and organizational classroom processes is associated with youth's academic and socioemotional outcomes" (Wang et al., 2020, p. 10).

Application of Positive Learning Environment Research in *Steps to Advance Literacy Solutions*

Steps to Advance Literacy Solutions is built with a framework that supports the creation of a positive learning environment. This framework includes:

- High-interest and highly scaffolded resources designed to support students
- Embedded visual support in all components of the program, leading to building background knowledge and reading comprehension
- Establishing behavioral and instructional routines; using a teach, model, and practice approach that builds confidence and develops strong reading habits
- Carefully curated, authentic texts and culturally sensitive materials commissioned to provide a balance of literary and informational topics, covering science, social studies, and literature

The culturally sustaining support in *Steps to Advance Literacy Solutions* includes Home–School Connection Letters in 5 languages, a multilingual glossary supporting 10 languages, and the use of authentic and culturally sensitive texts. In the lessons, multilingual learner support suggestions are provided for teachers based on three levels of need: light, moderate, and substantial. Social-emotional learning support, based on the CASEL 5[1] (self-awareness, self-management, social awareness,

[1] For more information about the CASEL 5, please see https://casel.org/fundamentals-of-sel/what-is-the-casel-framework/.

relationship skills, and responsible decision-making), is provided within the Teacher's Resource System in the form of suggested activities, discussion questions, and strategies.

Collaborative Conversations

Ford-Connors and Paratore (2015) state "classroom discussion offers a language-rich context in which to explore words' meanings and uses and to tie important vocabulary to texts and content. In this way, discussion serves as a setting for rich instruction known to support students' word learning" (p. 77). Further, "talk represents the currency of exchange in the classroom, an essential teaching and learning tool through which to convey ideas and develop understandings" (Ford-Connors & Paratore, 2015, p. 82).

Ford-Connors and Paratore (2015) summarized the productive contexts for teaching and learning research for collaborative conversation. These contexts include the following:

- Strengthening students' learning, the language-rich interactions that occur when teachers and students productively discuss content and grapple with ideas are proven effective tools (Nystrand, Wu, Gamoran, Zeiser, & Long, 2003; Soter et al., 2008).
- Discussion promotes students' knowledge about words and conceptual understandings because a productive setting allows and enables the exploration of words and connections to discipline-specific concepts (Harmon, 2000; Snow, Lawrence, & White, 2009; Stahl & Clark, 1987; Stahl & Vancil, 1986).
- The new knowledge acquired by dialogic interactions where students explore ideas related to important words can then be counted as a cognitive resource in subsequent academic tasks (Dixon-Krauss, 2002; Stahl & Vancil, 1986).
- Teachers have a range of instructional talk moves, such as questioning, elaborating, or speculating, that can provide scaffolding that in turn engages students productively with content and encourages academic inquiry (Dixon-Krauss, 2002; Sharpe, 2008).
- Through uptake and revoicing, teachers use some part of the students' responses to open and extend the conversation (Ford-Connors & Robertson, 2017). Uptake and revoicing are characteristics associated with more productive discussions in many content areas (e.g., Nystrand, Wu, Ganoran, Zeiser, & Long, 2001; Soter et al., 2008). Teachers can help students build connections and integrate new information with what is already known (Nystrand et al., 2003; Wolf, Crosson, & Resnick, 2005).

Application of Collaborative Conversation Research in *Steps to Advance Literacy Solutions*

The use of collaborative conversation during the *Steps to Advance Literacy Solutions* lessons is another key to success for students. Collaborative conversations allow students another opportunity to hear and use the Tier 2 and Tier 3 vocabulary words, augmenting the work with vocabulary words in texts and writing activities (Stahl & Nagy, 2006).

Conversations, particularly academic conversations, allow students to see different perspectives, build ideas, and solve problems (Zwiers & Crawford, 2011). With the guidance of the teacher, use of the Knowledge Blueprint and Enduring Understandings, and texts with a series of text evidence questions,

students participate in constructive conversations by citing supporting information or evidence, which builds not only their vocabulary but also new knowledge as they become more comfortable with speaking and listening, as they become able to state and support their opinions.

Summary

Learning to read is critical for students to be successful. For those who are struggling, effective solutions need to be available. *Steps to Advance Literacy Solutions* was designed to be a clear, flexible, easy-to-use resource that aims to help teachers integrate the informational and literary reading goals outlined in the standards with students' own personal learning goals.

This report provides information about the research behind the program. The overarching topic studies in reading comprehension and in building background knowledge, vocabulary, and fluency provide direction on what should be included in a program for students. Research does not necessarily suggest the best framework for literacy solution programs. A framework should lead students to successful outcomes by being flexible, being easy to use for teachers and students, providing accountability in the form of assessments to monitor progress, and providing engaging authentic and culturally sensitive texts. *Steps to Advance Literacy Solutions* includes the solid research with the framework where teachers can help students build reading skills and confidence.

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