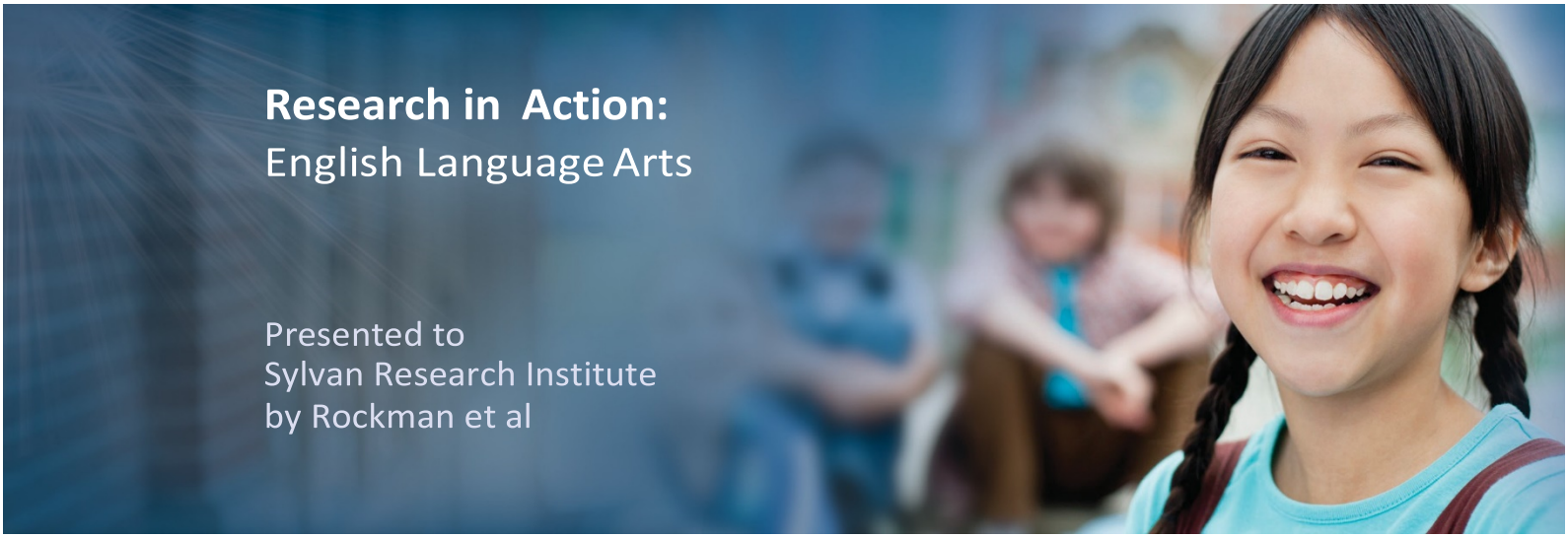
Research in Action:

English Language Arts

Autumn, 2016

PURSUING EDUCATIONAL EXCELLENCE

SYLVAN RESEARCH INSTITUTE



Research in Action:
English Language Arts

Presented to
Sylvan Research Institute
by Rockman et al

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Research in Action: English Language Arts

INTRODUCTION

Sylvan Learning offers a variety of English language arts programs to remediate skill gaps, provide enrichment, and help pre–K through high school students meet the challenges of a rigorous language arts curriculum. The programs include the Ace it! small-group instructional program, camps, and Sylvan's new digital teaching platform, SylvanSync. This highly personalized program uses tablet computers to deliver and manage digital content, which teachers then use to tailor instruction to students' individual needs and learning arcs. All of Sylvan's programs can be delivered at Sylvan Learning Centers or at schools or community sites.

Like all of Sylvan's instructional programs, the language arts programs are based on scientifically based evidence and widely accepted theories of teaching and learning. They also draw on reports that have synthesized the trends and research on effective language arts and literacy instruction, including the National Research Council's *Preventing Reading Difficulties in Young Children* (1998); the National Reading Panel's 2000 report, *Teaching Children to Read*; the Alliance for Educational Excellence's *Reading Next* report (2006); the U.S. Department of Education's Institute of Education Science's (IES) What Works Clearinghouse; the IES-funded Best Evidence Encyclopedia reports from the Johns Hopkins University School of Education's Center for Data-Driven Reform in Education (CDDRE); as well as other studies from the National Institute for Literacy, the National Council of Teachers of English (NCTE), the National Governors Association (NGA) and Council of Chief State School Officers (CCSSO).

Sylvan Learning maximizes the instructional effectiveness of each student's program by:

- Creating an instructional plan for each student;
- Using a curriculum that is aligned to national and state education standards;
- Providing ongoing evaluation and daily monitoring to track achievement;
- Promoting academic self-confidence, perseverance, and a positive mindset;
- Involving parents in their child's educational program; and
- Involving classroom teachers, when appropriate, in students' educational programs

This report reviews that research and the various ways in which Sylvan incorporates it into its instructional programs. The report begins with a discussion of the theoretical views on the language and literacy skills that students need in order to become effective readers, and describes how researchers and policymakers have most recently reframed those skills to reflect what students will be required to know and do to be ready for college and careers and, more broadly, the demands of the 21st-century workplace and global, information-based economy. The report also reviews the established research on effective literacy instruction, including the shifts brought about by the Common Core State Standards (CCSS), such as the emphasis on foundational skills, text complexity, and the progressive development of reading comprehension skills. The instructional strategies proposed to address the new standards include learning progressions and ongoing assessment, both a key part of SylvanSync's digital platform, and both discussed in this report.

Readying students for college and careers is a tall order, often beyond what classroom teachers can provide during the school day; thus, Sylvan's programs are based not only on literacy research but also on the latest research on effective out-of-school programs. A number of studies have highlighted the attributes of high-quality programs and learning opportunities (see, for example, Rockman & Fontana, 2009; Vandell et al., 2004; Beckett et al., 2009; Lauer et al., 2006). According to these studies, programs that are likely to be effective in reaching the goals set for their students include individualized instruction and engaging content aligned with that from the student's school day. Research on the impact of out-of-school strategies, including a meta-analysis of two decades of rigorous research conducted by the Mid-Continent Research for Education and Learning, also points to positive effects on reading achievement for low-performing students, including statistically significant effects among students in the lower elementary grades (Miller, Snow, & Lauer, 2004; see also Pashler & Bain, 2007).

Sylvan also supports the development of non-cognitive skills, because research suggests that participation in after-school programs not only improves students' academic performance but also builds self-confidence, self-esteem, and positive attitudes toward school (Durlak & Weissberg, 2007). Increasingly, the research on non-cognitive factors such as these has come to focus on a cluster skills and dispositions related to academic success. For example, Stankov and Lee (2013) found that levels of confidence were the best predictors of cognitive performance, and that self-concept and self-efficacy were also linked to academic performance (Stankov & Lee 2014). West et al. (2016) found positive correlations between measures of conscientiousness, self-control, and grit and elementary and middle school students' attendance rates and test-score gains. They also found that attendance and test scores were associated with "growth mindset," a term coined by Carol Dweck to distinguish between two types of learners: those who see intelligence as unchangeable or fixed, and those who see it as malleable, something that can be increased through effort. Students who see intelligence as fixed may doubt their skills and avoid challenging tasks, whereas those who believe intelligence can change tend to respond to roadblocks with increased effort (Dweck, 2010). Numerous studies conducted by Dweck and colleagues have shown that this mindset is strongly related to academic growth (Blackwell, Trzesniewski, & Dweck, 2007; Dweck, 2006, 2010).

For decades Sylvan Learning's instructional methods have incorporated student motivation techniques and parental involvement. Starting in 2011, Sylvan began systematically measuring elements of student motivation and their relation to the Sylvan program. Based on the non-cognitive research and large body of research on the importance of motivation and other factors that affect students' academic performance, some of which was referenced above, Sylvan partnered with Rockman et al to create the Student Outlook Survey (Rockman et al, 2013) and monitor this data in relationship to the academic achievement of the students it serves. The Sylvan Outlook Survey (SOS) is a proprietary assessment of what Farrington et al. (2012) have called "academic mindset." As part of Sylvan's assessment suite, the SOS results have been used to guide discussions with parents and to provide yet another way to personalize the Sylvan experience for students.

Drawing on studies of effective out-of-school learning, Sylvan programs encourage student success by providing:

- Experienced, highly trained **staff** who know how to work with children with diverse learning preferences and those who thrive with a more individualized approach
- Quality **curriculum** that is (a) aligned to school curriculum and to local, state, and national standards; (b) age- and grade-level appropriate; and (c) delivered with effective **instructional techniques**, including varied pedagogical styles, personalized instruction, and engaging, interactive learning experiences

- Programs that provide adequate **structure** but also **flexibility** in session length and program duration
- **Motivational techniques** that promote academic self-confidence, perseverance, and a positive mindset
- Strong and positive **partnerships** with classroom instructors, parents, and schools
- Quality **resources**, including technology and facilities that foster sustained involvement in a safe, healthy environment
- Well-aligned **evaluation** and research components to provide feedback on the programs.

SYLVAN LANGUAGE ARTS PROGRAMS

As mentioned earlier, Sylvan offers different programs, each of which has different features. **SylvanSync Reading** is Sylvan's most individualized language arts program. Using an integrated technology platform, SylvanSync provides digital education resources to support teachers and students, and resources that adapt to students' individual needs, based on their performance. The platform helps teachers scaffold instruction and motivate and instruct students in a highly individualized manner. The platform tracks student progress and identifies the most appropriate learning resources to be delivered to the student.

SylvanSync Reading provides instruction to students in levels 1–12 in phonics, oral fluency, vocabulary, and comprehension skills, from the most basic topics to more sophisticated analysis and evaluation of texts across the curriculum. Students also have many opportunities to practice writing in response to texts.

The **Ace it! Reading** curriculum is a customized, proprietary small-group reading curriculum developed in collaboration with Harcourt Achieve, Inc., for students in levels K–8. The program addresses the five essential components of reading instruction—alphabetic knowledge and phonemic awareness, phonics, fluency, vocabulary development, and comprehension instruction—as identified by the National Reading Panel (NRP, 2000) and supported by the 2006 NRP report, *Teaching Children to Read*. Additional research indicates that students who are struggling to succeed academically need to receive comprehensive, systematic, explicit, and intensive instruction. Sylvan's reading program is built on these foundations and uses a balanced approach for building the student's overall reading knowledge and skills. Delivered in groups of 8–10 students, Ace it! provides opportunities for collaboration and communication throughout the learning process.

The **Sylvan Language Arts camps** are small-group programs that focus on literacy skills as well as writing development. These camps are designed to enrich a student's academic experience through engaging, creative, and collaborative activities.

THEORETICAL VIEWS OF READING

Although the CCSS have raised the bar, the new standards still generally comport with views on reading and reading instruction that theorists and researchers have explored, debated, and established over the last three decades. For many theorists, reading is a constructive process. Meaning does not simply reside in a text, but "is constructed each time a reader and text come together" (Freeman & Freeman, 2000, p. 24; Rosenblatt, 1995; Silver-Pacuilla, 2008). Good readers engage in multiple, simultaneous processes to make sense of texts, recognizing letters and decoding words, connecting words in their vocabulary, and using comprehension strategies to connect what they read to what they already know.

Although the new standards still endorse this long-standing notion that sense-making involves integrating background knowledge with what readers encounter on the page, they also stress—more so than previous standards—the meaning inherent in a text, the knowledge needed to determine what a text or author is saying, and the importance of gaining the knowledge and vocabulary to read and understand a variety of texts, structures, and conventions (Beck & McKeown, 1991; Bransford, Brown, & Cocking, 2000; Goodman, 1992; Kintsch, 1988; Shanahan & Duffett, 2013; Shu, Anderson, & Zhang, 1995; Vygotsky, 1978). This meaning-making applies not just to literature, but to any new content in any domain to ensure that students are ready to read content they will find in college and the work place.

Over the last few decades, the pendulum has swung between a code-based approach to teaching reading and a whole language approach—the so-called "reading wars." Theorists who favor the former approach believe that learning is sequential—that students need direct instruction in the basics, in the small pieces such as word analysis skills, before they tackle higher-level concepts (e.g., Adams, 1990; Ehri et al., 2001). Whole language proponent maintain that reading skills should be taught in the context of reading and writing, and that students learn best when exposed to language, reading materials, and knowledgeable speakers (Freeman & Freeman, 2000).

Sylvan uses a blended approach to literacy instruction. Follow this link to see a lesson that uses a code-based approach to reading. It is a phonics lesson that provides explicit instruction in blending consonant sounds to decode words

This link will take you to an example of a whole language approach to teaching reading, which helps students comprehend the basic structures of sentences. Both approaches to reading are taught in an integrated fashion throughout Sylvan instruction.

Current thinking suggests that the controversy was based on a false dualism: Students need both, or a balanced approach and a broad set of strategies, to become skillful readers. The authors of the current standards in some ways harken back to the 1960s and 1970s research by Jeanne Chall (1967) who proposed that early readers (K–2) develop foundational skills, then progressively build knowledge and vocabulary through exposure to literature and content-rich informational texts (Shanahan & Duffett, 2013). As students gain fluency, they can focus more on comprehension and begin to read critically, considering such questions as the author's purpose and the structures and conventions at play (Luke & Freebody, 1999b; Underwood, Yoo, et al., 2007).

These sample lessons show instruction in the author's purpose and cause and effect, a common organizational structure for narrative and informational texts.

EFFECTIVE LITERACY INSTRUCTION

To reach a high level of fluency, students need to develop skills that include print concepts, phonemic awareness, phonics, fluency, vocabulary, and comprehension—the proficiency components laid out in the in the ELA K–5 standards. These components generally align with the components of effective literacy instruction described by the NRP's *Teaching Children to Read* report. The components apply to all children, though children most at risk need more explicit, intensive, and comprehensive support, the kind provided in a small- group or one-on-one format (Foorman & Torgesen, 2001), such as the learning environment and experience at Sylvan Learning. Students who need extra support or remediation will likely progress at a different pace—they cannot, as Winn (2004) points out, "simply get there in one jump" (p. 91)—so need extended time and practice to become proficient, which may exceed what classroom teachers can provide (Anderson, 1995; Ericsson, 2000).

These components, described in more detail below, are essentially the same pillars endorsed by the NCTE, and are those around which Sylvan's language arts programs are structured.

> A key goal of Sylvan Learning's language arts programs is that students obtain the skills and strategies needed for successful academic performance, and gain awareness of how these skills and strategies can contribute to their success as readers. Sylvan teachers focus on skills such as phonemic awareness, comprehension monitoring, and self-scoring in writing activities, so that students can understand what they already know—and what skills they still need to hone.

Print Concepts and Phonological Awareness

The current standards propose foundational skills for K–2 students, designed to help them develop an understanding of the concepts of print, the alphabetic principle, and other conventions of the writing system. Researchers agree that students need a strong foundation in alphabetics in order to develop phonological awareness and become fluent readers (Bruck, 1990; Manis, Custodio, & Szeszulski, 1993; Siegel, 1989; Torgesen, 2002). They have also found that alphabetics is a strong predictor of reading success. As Snow and colleagues (1998) point out, "Just measuring how many letters a Kindergarten student is able to name when shown letters in a random order appears to be nearly as successful at predicting future reading as is an entire readiness test" (p. 113). Beginning readers need not only to recognize letters, but do so effortlessly (Biemiller, 1977–1978; Stanovich, Cunningham, & Cramer, 1984). This quick recognition can speed up children's learning of the sounds associated with the letters and help them develop not only the verbal knowledge needed to understand written material but also the motivation to read.

Follow this link to see a sample lesson that focuses on beginning consonant sounds. Students in SylvanSync Reading receive continuous review and reinforcement of these skills during their phonics instruction, to promote fluency of letter knowledge.

Researchers have also paid increasing attention to the development of phonological awareness as a basis for learning to read and write (Snow et al., 1998). Phonological awareness is the ability to first recognize that words are made up of sounds, and then to break them into syllables, detect rhymes, and identify initial consonants. Young children show beginning phonological awareness when they make up silly rhymes—"baby, waby, taby"—or give playful labels to items or people, like "Sammy wammy" or "Judy ludy." Children who have not experienced language play or listened to literary genres like poems before beginning school are at a disadvantage in the early reading classroom.

There is also considerable research suggesting that many early reading difficulties stem from problems with phonemic awareness, an aspect of phonological awareness that involves being able to hear the individual sounds, or phonemes, in spoken words (Adams, 1990; Ehri et al., 2001; Ehri & Wilce, 1985; Grossen, 1997; Juel & Minden-Cupp, 2000; Snow et al., 1998). This skill is not an intuitive one—children hear "dog" as a single unit more naturally than "d-o-g"—but with direct instruction they can tease out the phonemes. Research from the NRC and NRP has shown that intensive, preventive instruction in phonemic awareness can bring the word-reading skills of children at risk for reading disabilities solidly into the average range. Their research also shows that phonics instruction is most effective when combined with instruction in comprehension and fluency (National Institute of Child and Health Development, 2000; Torgesen, 2002). A meta-analysis of 33 studies by Chambers et al. (2016) found that comprehensive programs with a balance of skill-focused and child-initiated activities had clear positive effects on literacy outcomes at the end of preschool as well as on kindergarten follow-up measures. Programs that focus on developmental constructivist, child-initiated activities but do not incorporate phonemic awareness and phonics skills were less effective than those that focused on both early literacy skills and developmental activities.

Click here for an illustration of how Sylvan Learning's reading programs give students phonemic awareness experiences as a foundation for actual reading. Sylvan Learning integrates systematic phonics instruction with comprehension and fluency instruction during every Sylvan session.

Phonics and Word Recognition

As with the current standards, many theorists and practitioners advocate teaching beginning readers to attend to multiple clues, including visual or orthographic and contextual clues, in order to identify unknown words. Frequent exposure to a word helps students recognize it, but they also need mechanisms to identify words that they may not encounter frequently. These mechanisms include recognizing patterns in chunks of words they will see over and over— back-pack-sack or day-pay-say (Juel & Minden-Cupp, 2000)—or breaking apart one-syllable words into onset (initial sound) and rime (the rest of the syllable), as in l-ake. Decoding other words based on that pattern (c-ake, f-ake, s-ake, t-ake) may also be helpful (Bruck & Treiman, 1992; Goswami, 1995; Vandervelden & Siegel, 1995; see also Juel & Minden Cupp, 2000). Recent evidence also suggests that combining synthetic phonics instruction, or sounding out words letter-by-letter, with instruction emphasizing word parts, improves word recognition skills (Lovett et al., 2000, and Schneider, Roth, & Ennemoser, 2000, both cited in Pressley, 2001). The strands in the CCSS foundational standards also stress the links between phonics skills and word recognition skills.

The phonics component of Sylvan's Reading program is based on the NRP finding indicating that systematic synthetic phonics instruction—an approach that explicitly teaches students to convert letters into sounds and then blend the sounds to form recognizable words—had a positive effect on reading skills of students with learning disabilities (NRP, 2000). This type of instruction also benefits other low-achieving students, and has been shown to be significantly more effective in improving low-income children's alphabetic knowledge and word-reading skills than instruction less focused on these initial reading skills (NICHD, 2000). Sylvan's Reading programs include sound blending and an onset/rime instructional approach.

Fluency

Once word recognition becomes more automatic, readers spend only milliseconds on word components, freeing up more time for the other cognitive tasks involved in reading. In the early 1970s, researchers examining automatic information processing in reading noted that because we have a limited amount of attention to devote to any cognitive task, the two tasks involved in reading—word recognition and comprehension—can compete for attention (Farstrup & Samuels, 2002; Foorman & Mehta, 2002; LaBerge & Samuels, 1974). The bridge between these two tasks is fluency. Because fluent readers identify words automatically, they can focus most of their attention on comprehension; the inverse is true of less fluent readers, whose focus on word recognition leaves little time for comprehension (NICHD, 2000).

The simple answer to how to help students become fluent readers is to give them more practice. The NRP analyzed research on two widely used instructional approaches to build fluency: repeated oral reading, with explicit guidance and feedback, and independent silent reading. Oral reading, in a group, gives readers practice in decoding, prosodic reading, phrasing, and comprehension, and allows them to hear what fluent reading sounds like and how fluent readers interpret text with their voices (Kuhn & Stahl, 2000; Rasinski & Hoffman, 2003). Guidance and feedback—from peers, parents, and teachers—can also help readers recognize and correct their mistakes (Osborn & Lehr, n.d.).

Research also shows that both the volume of practice and the type of reading materials affect development of fluency (Foorman & Mehta, 2002; Shanahan, 2002). The National Institute for Literacy (2007) found that students do better when they do "wide reading"—that is, read the basal text for a few days, then shift to other leveled texts—which builds fluency, vocabulary, and engagement (Kuhn, 2009). Teachers have also long been encouraged to promote independent reading, either through free-time or sustained silent reading, and correlational evidence indicates a relationship between reading ability and the volume of practice that students get reading independently. Experimental evidence, however, does not always show concomitant gains in achievement, likely because students are not focusing as intensively or getting feedback, or may simply not have the ability to improve on their own. This does not mean that teachers should not encourage students to read on their own, in and outside of school: According to the research, even 15 minutes a day of independent reading can expose students to more than a million words of text in a year (Anderson, Wilson, & Fielding, 1988).

The current standards deepen the focus on fluency in ELA instruction in several ways. Diverging somewhat from previous positions, these standards emphasize the importance of domain knowledge and progressively more complex texts. Research suggests that the ability to use different discourse structures is linked to reading success (Mandler & Johnson, 1977; Meyer, 1975; Shanahan & Duffett, 2013; Stein & Glenn, 1979). First-graders who have heard or read many stories have likely internalized their text structure, or story grammar, and can comprehend at considerably higher levels than they can read on their own; this may also be true of older students, well into middle school. Reading from texts with a variety of structures builds familiarity with new structures and provides models for everything from phonological patterns of multi-syllabic words to new vocabulary (Grossen, 1997).

Fluency development, as seen in this sample lesson, is integrated into the learning activities for each instructional session. Content-area specific informational passages have been developed for each instructional level, and students have the opportunity for repeated oral reading of these passages, with the specific focus on reading accurately with appropriate rate, phrasing, and expression. Activities include initial oral readings by the teacher, who models each passage; student partner reading to increase opportunities for oral reading; and student oral reading to increase fluency.

Vocabulary

The standards also emphasize the importance of students' vocabulary development to increase comprehension and enable further learning (Shanahan & Duffett, 2013). Blachowicz and Fisher (2000) note four principles to guide vocabulary instruction and development:

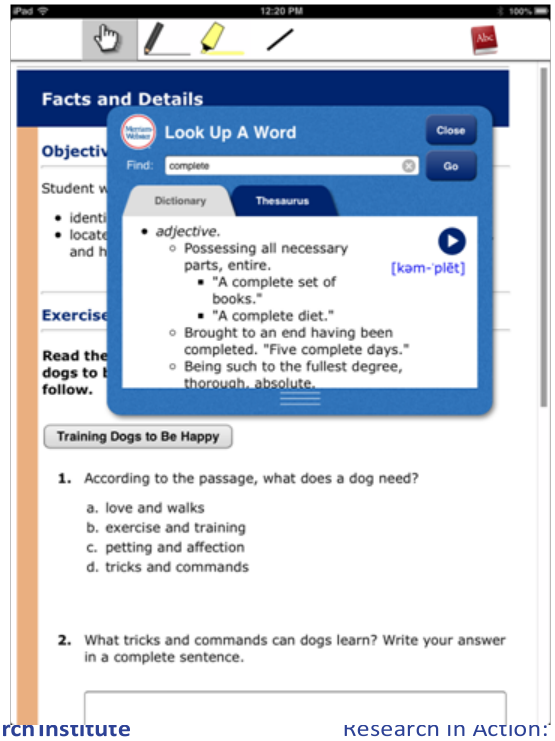
1. Students should be immersed in words and active in developing their understanding; they should also have access and repeated exposure to multiple sources of information to learn words, and ways to personalize word learning (Lehr, Osborn, et al., 2004).

2. Students also need to be taught to use dictionaries, thesauri, and other reference tools, including online versions, to look up new words (National Institute for Literacy, 2007).

3. Teachers should make use of explicit learning to teach vocabulary, using strategies such as graphic organizers and repetition (Allen, 2007).

4. Finally, children should learn academic vocabulary, such as "summarize," and the meanings of words with a specialized school meaning, such as "plane" (Hiebert & Lubliner, 2008). As noted above, the standards emphasize domain vocabulary that students encounter reading complex texts such as content-rich non-fiction and informational texts (Shanahan & Duffett, 2013).

This screenshot shows the electronic dictionary/thesaurus tool in SylvanSync



Irwin, Moore, Tornatore, and Fowler (2012) suggest that teachers can help students acquire a strong vocabulary by providing explicit instruction. The authors explain that "storytime can be utilized to help develop a rich, expressive vocabulary" by focusing on words that are used repeatedly in a story, having children act out unfamiliar words presented in stories, and by "relat[ing] new words to their own life" (p. 22). In an attempt to increase at-risk students' vocabulary development, Loftus and colleagues (2010) provided vocabulary instruction to small groups of kindergartners in addition to their regular classroom instruction. This additional instruction allowed the students to review target words' meanings, repeat the instructional activity from the classroom instruction, and participate in oral language activities. When introducing new words, teachers should also include words that are likely to appear in future texts, have multiple meanings (e.g., plane, board), and involve morphemes; they should also include conceptual words in content-area learning (Kamil, Borman, et al., 2008).

This sample lesson shows instruction in using word roots to decipher new words. Sylvan Learning integrates vocabulary instruction in all language arts programs. Teachers engage students in analyzing word parts (prefixes, suffixes, and roots); studying and deciphering multiple-meaning words; and using dictionaries, thesauri, and glossaries. Reading passages introduce and expose students to new vocabulary in context, and all instructional text defines new academic terminology.

Students can learn new vocabulary through reading, but research suggests that the probability of learning an unfamiliar word through context clues alone is about one in ten (Blachowicz & Fisher, 2008; Jenkins, Stein, & Wysocki, 1984; Lehr, 2004; Nagy, Herman, & Anderson, 1985). Students are likely to use contextual information to confirm that they have correctly identified a word, but if they have no hook—no prior knowledge—then fully understanding the meaning of a new word is difficult (Goodman, 1986; Shu et al., 1995). Strategies that focus on building and drawing on students' background knowledge before reading tend to be more effective than looking up a word in the dictionary or putting it in a sentence (see Marzano, 2003, & Smith, 1997). The emphasis in the standards on providing vocabulary development along with assigning progressively challenging text is to help ensure that students build that background knowledge.

Sylvan delivers both direct and indirect vocabulary instruction in each session. Follow this link to see a sample lesson that shows the direct instruction in vocabulary in context. Students are also encouraged to monitor their own comprehension by asking themselves questions such as: *What does this word mean? Have I seen this word before? How can I decode this word?*

Comprehension

Researchers agree that explicit comprehension instruction, along with carefully chosen texts, teacher modeling, guided practice, think-alouds, and explicit talk about comprehension strategies—all help to build strong comprehension skills (CCSSO, 2010; Kamil, 2008). The growing research base on adolescent literacy also supports a need for direct instruction in reading and writing skills in order to build competency in complex literary tasks (e.g., National Institute for Literacy, 2007).

The primary grades have traditionally been a time to hone word-recognition skills, but research suggests that this may also be a good time for teachers to model comprehension strategies. These strategies can positively affect primary students' reading skills in the short term and, over the longer term, help them develop better comprehension skills (Pressley, 1999, 2001). The field, however, has been slow to use these strategies in the early grades. When Dolores Durkin conducted her study of reading comprehension in 1978–1979 and found that there was very little comprehension instruction in primary classrooms, neither she

nor others who became familiar with her research could have imagined that, three decades later, this kind of instruction was still limited to simply asking post-reading comprehension questions (Pressley, 2001). Now, based on the RAND study recommendations and the requirements of the current standards, teachers are again being encouraged to go beyond simple questions and use more complex comprehension strategies in the early grades. The standards also emphasize multiple kinds of texts, including informational texts, with different levels of complexity and structures starting in the early grades to progressively build vocabulary, knowledge, and comprehension.

By including multiple strands in each session—comprehension, fluency, phonics, and vocabulary—Sylvan's Language Arts programs organically integrate the skills students need to become successful readers. In every strand, and at each instructional level, teacher modeling is key to helping students develop and master literacy skills.

Strategies for Effective Comprehension Instruction

Over the past two decades, there has been a great deal of research around what works best for teaching reading comprehension. The NRP identified the following categories of instructional strategies that improve comprehension. Many are more effective when used as part of a multiple-strategy method.

Comprehension Monitoring. Explicit instruction in, and monitoring of, comprehension skills is one of the more effective means of building children's competencies in constructing meaning from text. According to the NRP, comprehension can be improved by teaching students to use specific cognitive strategies when they encounter "barriers to understanding what they are reading" (NICHD, 2000, p. 17). The teacher demonstrates the strategies until the student can use them independently.

Sylvan Reading instructors are trained to challenge students to extend their thinking by connecting their current and previous learning. Effective strategies for teaching comprehension monitoring include:

Model the Process (Think-Aloud): Model the internal dialogue you want students to have aloud. Ask questions of yourself to model fix-up strategies and then answer those questions. Sample Think-Aloud (Modeling Fix-up Strategies):

- This is a new word. How can I find out what it means?
- When I read those words, the picture in my head is...
- This part is confusing. Should I read it again or just keep going in case it is explained later?
- Did that make sense?
- How does this relate to what I already know?
- What worked and why did it work?

- How can I use this new information?

Scaffold Instruction: Gradually decrease the amount of intervention when working with the student. Move from intense interaction to monitoring the student who is working independently.

Build on What Students Know: Provide detailed instruction when introducing a skill. Offer less intervention as students learn the content, and less prompting as students begin to master the skill independently.

Graphic Organizers. One of the most common instructional strategies available to aid students who are having difficulty deriving meaning from text is the graphic organizer, which helps students identify key concepts and see the relationships between them (Muth & Alvermann, 1999). Graphic organizers, which include story or text structure charts, Venn diagrams, story maps, timelines, word webs, and other kinds of diagrams, give students visual clues that they can relate to written or spoken words, before or after reading (Echevarria, Vogt, & Short, 2000).

Because of the importance of visual and scaffolded support for learning, all Sylvan Learning programs include a variety of graphic organizers at each instructional level for various strands of literacy instruction. Below is a sample graphic organizer, which may also be used in lieu of written paragraphs for Learning Log activities

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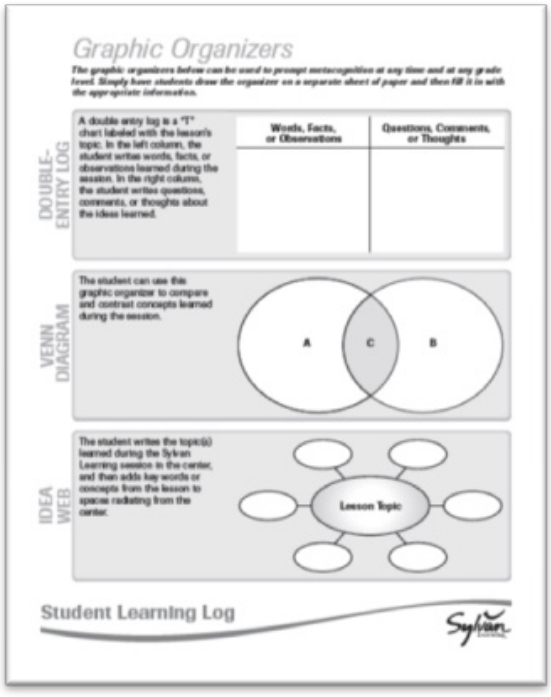


Questioning Strategies. Asking questions is by far the most common strategy used by classroom teachers. Díaz-Rico and Weed (1995) suggest that teachers use a hierarchy of questions, ranging from those requiring a nonverbal response—a head movement, manipulating materials, pointing—to either/or questions, and finally to open-ended

questions that require higher-order thinking. Research also points to the importance of framing questions in order to accommodate levels of language proficiency, posing questions to individuals or groups, and letting students generate questions themselves (Trumbull & Farr, 2005).

Sylvan Learning instructors are trained to ask critical questions, and each Sylvan lesson employs a variety of questions to engage the student in the learning process. Sample types of questions include:

Literal questions: Which character in the story tried to blow down the pigs' homes?

Inferential questions: Why did the third pig use bricks to build his home? What does this tell you about him?

Probing questions: What do you think about short cuts in general? What types of situations might require a shortcut, and when would a thorough, slow job be preferable?

Summarizing. Summarizing is considered to be one of the most important comprehension strategies for reading, writing, and study skills (Bretzing & Kulhavy, 1979). Good readers summarize as they read to self-check for comprehension, drawing on their own background knowledge, and knowledge of author biases or intentions and text structure (Bauman, 1986, and Dole, Duffy, Roehler, & Pearson, 1991, cited in Honig, Diamond, & Gutlohn, 2000). Students need to be shown how to look for these signposts to determine what is important and summarize as they read (Garcia, Pearson, & Jimenez 1990).

In recognition of the importance of effective text summarization, Sylvan Learning's Reading programs target key skills and strategies such as accessing prior knowledge, main idea and supporting details, sequencing, story structure, text features, and author's purpose throughout all levels. Summarizing lessons integrate all of these key skills, helping students to synthesize the important ideas presented in a text. This sample lesson features exercises in summarizing text.

Story Structure. Most readers have an internal sense of "story grammar" (Mandler & Johnson, 1977), and drawing on this intuitive sense of characters, settings, and episodes can improve comprehension (Dole, Brown, & Trathen, 1996; Gersten, Fuchs, Williams, & Baker, 2001). An emphasis on story structure, in both pre- and post-reading, provides a framework that helps students—especially those at risk—organize and retain important information (Dimino, Taylor, & Gersten, 1995), promoting inferential thinking (Davis, 1994; Davis & McPherson, 1989; Pearson, 1985). Explicit instruction in story grammar and story maps have had positive effects on reading comprehension skills of students in elementary (Baumann & Bergeron, 1993; Idol & Croll, 1987; Newby, Caldwell, & Recht, 1989) and secondary grades (Dimino et al., 1995; Gurney, Gersten, Dimino, & Carnine, 1990).

In Sylvan Reading programs, students are exposed to text in a variety of formats and genres. When presented with narrative texts, students are encouraged to understand the structure of the narrative in order to answer higher-level thinking questions about the text. All narratives in Sylvan Learning lessons represent cultural and economic diversity, and vary by topic, theme, genre, style, and format. This sample lesson focuses on analyzing plot structure in narrative text.

Approaching Texts Critically. Researchers and policymakers agree that critical literacy and critical thinking are key to successful ELA programs (Luke & Freebody, 1999a; NGA & CCSSO, 2010; Underwood, 2007). Becoming a critical reader means recognizing that

> "texts are not neutral, that they represent particular views and silence other points of view…and that [they] can be critiqued" (Luke & Freebody, 1999a, p. 3). A critical stance toward texts, along with the opportunity to share one's own perspective, is key to engaging students from different backgrounds in high-level literacy practices (Sheets, 1999). Many theorists argue that to become successful readers, children need to see themselves as text analysts even in the early grades (Freebody & Luke, 1990).

All of Sylvan's Reading programs emphasize higher-level thinking skills, including evaluating an author's reasoning and critical analysis of text. Every lesson—even those focused on basic comprehension monitoring—includes at least one activity or opportunity for students to apply a skill, analyze an author's perspective, synthesize ideas, or make connections between the text and their own experiences. Follow this link to a sample lesson that asks students to evaluate a text and an author's reasoning.

Metacognition

Good readers use their metacognitive resources to think about purposes and expectations for their reading or to step back from the automatic part of reading and consciously engage with the text in a strategic way. They think about whether they understand the text and, if not, what they can do to improve understanding (Brown & Campione, 1994; see also Brown, Pressley, Van Meter, & Schuder, 1996; Dole, 2000; Paris, Wasik, & Turner, 1991; Pressley, 2001; van den Broek & Kremer, 2000). Readers can also use metalinguistic awareness to think about the units of language: words, syllables, phonemes, sentences, and word endings. Even young children practice this: Almost as soon as they get to school, children are expected to use language to talk about language. The teacher may instruct kindergarteners to "think of a word that begins with 'b'," or "dictate a sentence about your birthday." There are degrees of metalinguistic skill, ranging from the kindergartener's recall to the older reader's ability to comprehend more demanding texts. Successful readers engage in a number of actions to get the most out of reading, looking back and forth to clarify a confusing point, anticipating what might come next, or monitoring how well they understand a text (Pressley, 1999).

Writing

Writing is an important part of any language arts program and, along with reading comprehension, is a strong predictor of academic success (Graham & Perin, 2007). Students whose literacy achievement is below basic often struggle with both writing and reading. Their writing typically includes few supporting details, little or no organizational structure, and problems with mechanics, including grammar, spelling, and punctuation (ACT, 2007). Research shows that writing can help improve reading, and that the more students write, the better they read (Graham & Herbert, 2010).

The Sylvan writing program is based on the NCTE standards for English language arts, the result of a four-year effort between the International Reading Association and the NCTE (NCTE, 1995). Designed to guide students toward being proficient users of language, these standards reflect "consensus among literacy teachers and researchers about what students should learn in the English language arts—reading, writing, listening, speaking, viewing, and visually representing" (NCTE, 1995, p. 1). Students also develop writing skills in the SylvanSync reading program, which gives them opportunities to respond in writing to various reading passages in every comprehension Intended Learning Outcome (ILO). Students must reflect on what they read and provide developed responses that show their ability to analyze and evaluate both narrative and informational texts.

The Link Between Vocabulary and Comprehension

The strong relationship between comprehension and vocabulary is a consistent finding in reading research: Good readers tend to have large vocabularies (Anderson & Freebody, 1981; Nagy, Herman, & Anderson, 1987), and students who don't, those who lack effective word-learning strategies, struggle with comprehension (Lehr & Osborn, 2005). The NRP encourages a multiple-strategy approach to instruction, one that improves reading through improving vocabularies, especially those in rich contexts (Beck, Perfetti, & McKeown, 1982; McKeown, Beck, Omanson, & Pople, 1985). The link between vocabulary and comprehension is also a key principle of the current standards.

Readers rely on both word knowledge and world knowledge, or prior knowledge, to comprehend what they read. World knowledge is not just a random collection of memories but rather a collection of schemata, or mental frameworks that organize related information (Piaget, 1952). Children likely have schemata for experiences like "recess," "birthday party," and "bedtime," and when they read they draw on one or more schemata. Comprehension depends on making inferences, and, to do so, readers need to be able to tap into the right schemata (Anderson & Pearson, 1984). If readers cannot use these frameworks or do not have the right frameworks, they have to rely on the text. Teachers need to be aware that students may make a variety of legitimate interpretations of the same text because of cultural differences, and that some children may not have enough contextual information to make sense of what is going on (Pressley, 2001).

> Helping students access personal experiences and prior knowledge related to all aspects of reading is a key focus of Sylvan Learning's language arts programs. Teachers help students access their prior knowledge related to the reading process, to the form and structure of text, and to the text topic. These activities occur not only as pre-reading activities but also during and after reading in order to support and extend students' vocabulary development and comprehension.

CURRENT STANDARDS AND DEFINITION OF LITERACY

The call for an increase in domain reading and informational texts has caused some controversy, but theorists and policy makers point out that "This important shift serves to correct the fact that, for too many years, students have had little access to the kinds of literary nonfiction and informational texts they need to prepare them for the rigor of advanced coursework in college and beyond" (Shanahan & Duffett, 2013, p. 7). Following a framework presented by the National Assessment of Educational Progress (NAEP), the standards recommend that by Grade 12, students are reading 70% of the time from informational text and from literary text 30% of the time. These types of reading involve building a wide range of skills, including studying specialized vocabulary, learning to deconstruct complex sentences, using different text structures, posing discipline-relevant questions, comparing claims across texts, and using disciplinary norms to understand what counts as evidence in different contexts (CCSSO, 2010; Heller & Greenleaf, 2007; Lee & Spratley, 2009). By addressing the call for increased attention to informational texts across the grades, K–12, teachers can help students continually engage in the "close, attentive reading that is the heart of understanding and enjoying complex works of literature," as well as the "critical reading necessary to pick carefully through the staggering amount of informational texts that builds knowledge, enlarges experience, and broadens worldviews" (CCSS, 2010, p. 1). Developing these skills, habits, and knowledge will help ensure "that all students are college and career ready in literacy no later than the end of high school" (CCSS, 2010, p. 1).

This lesson shows a sample of the types of informational texts that students encounter in SylvanSync.

Although the specific proportions of textual requirements in the current standards are weighted toward non-fiction, the call for informational texts is not entirely new. Over the past five years, a number of researchers and organizations, including the Alliance for Excellent Education (2007), the Carnegie Council (2009), and the CCSSO (2010), have made a strong case for content area literacy as a component of well-rounded literacy programs, and for the importance of including explicit instruction about how to derive meaning from these texts. There has also been increasing concern that too much of the elementary curriculum has focused on narratives, to the exclusion of expository texts (Duke & Bennett-Armistead, 2003; Duke & Kays, 1998; Gambrell, Morrow, & Pennington, 2002; Kamil & Lane, 1997; Newkirk, 1987). This research in many ways challenges conventional wisdom, which says that before third grade, children learn to read, and that after that, they read to learn.

Expository texts are harder for young children, in part because they do not have an internal sense of story structure that guides them, as with narrative text (Egan, 1993; Moffett, 1968; Stein & Glenn, 1979; Whaley, 1981). However, with explicit instruction and experience, even young students can engage with texts that involve description, sequence (as in the steps of a science experiment), comparison, cause and effect (Calfee & Curley, 1984), and other text structures.

The emphasis on text complexity and informational content stems in part from a redefinition of "what it means to be a literate person in the twenty-first century," which is not what it meant only a few decades ago. The term "literate" itself is no longer confined to English language arts, but extends to other subjects. There is also a recognition that the world of text is changing dramatically with the explosion of electronic documents and multimedia. Standards have always been set with an eye to college and career readiness, but the new standards attempt to prepare students to be literate in an information-rich society. With "the globalization of labor markets, economic demands, and the increasing demands of a technologically advanced workforce, literacy has been viewed as a main factor for societies' financial growth and success" (Zygouris-Coe, 2012, p. 35).

Theorists, educators, and policymakers agree that students' and workers' skills have not kept pace with the demands even of the current college and work environments. Of even more concern is that while the complexity of reading demands for college, career, and citizenship have held steady or risen over the past half century, the complexity of texts students are exposed to or asked to engage with has actually declined (CCSS, 2010). Results from a National Center for Educational Statistics (NCES) survey report confirm the gap: 20% of first-year students in 2- and 4-year programs were enrolled in remedial courses in the 2007–2008 academic years (Sparks & Malkus, 2013; Tierney & Garcia, 2011).

Within the Sylvan Learning reading programs, specific attention has been given to both the appropriate mix of narrative and expository texts and to the direct instruction in the component features of these different types of text. Whereas narrative instruction focuses on the structure of stories (character, setting, and plot), expository text instruction focuses on the typical features, organization, and structure of expository text. In Sylvan Learning language arts courses, students read and write across the curriculum, and they learn to write using expository text structures and strategies that will help them succeed in all their academic subjects. Sylvan Learning's reading programs present students with informational passages that span academic disciplines. Fluency lessons have students practice orally reading—and constructing meaning from—expository passages that cover topics in different disciplines. Sylvan Learning helps upper-elementary through middle and high school students "read to learn" across the curriculum.

LEVERAGING TECHNOLOGY FOR LITERACY INSTRUCTION

Adaptive Technology, Learning Progressions, and Assessment

With advances in computer technology, the popularity of adaptive computer programs has risen in the last decade. Adaptive tests tailor questions to student ability level, posing more difficult questions following correct answers and easier questions following incorrect ones.

> Sylvan Learning uses a blended learning approach to deliver its curriculum. "For Sylvan Learning, its digital teaching platform, SylvanSync, is used to motivate and engage students in ways that are appropriate for the twenty-first century. SylvanSync uses assessment data to customize the learning experience as it integrates teacher-led instruction with digital content and online experiences. The SylvanSync technology helps the teacher understand where students are in the learning progression, so that they can know when to mentor, when to teach, and when to listen" (Richards & Dede, 2012, p. 6, 7–8).

The SylvanSync digital platform incorporates an assessment system that allows teachers to customize and target instruction depending on student needs and ability level. A study conducted by the Parthenon Group (2011) found that personalized learning, often faster, accelerated learning, is ideal for students. SylvanSync technology is effectively supporting teaching and learning in the Sylvan environment, and exploring how best to leverage technology in service of a highly personalized learning experience. The new technology has enabled Sylvan to use the vast amount of data it now has available to continuously improve both the platform and the program implementation and ensure that Sylvan students are receiving world-class educational services.

A critical element of the SylvanSync program is assessment. Initially, Sylvan uses assessments to determine where to start a student's personalized program. This placement in the SylvanSync reading program starts with a student's score on the STAR Reading test, a computer adaptive assessment from Renaissance Learning that incorporates a research-based learning progression. Since Sylvan's content is mapped to that learning progression, the student's score on the test is the first step in determining the starting point. That point is further refined when each student takes a very short pretest that is embedded in the instructional content. This process has been shown to work well for students in kindergarten and above who can read.

For younger learners and those who have not yet learned to read, the assessment process is more challenging. Historically, a number of assessments of various skills that contribute to a student's ability to read have been administered to determine a student's readiness to read. This process has been time-consuming, costly, and frustrating for the student. It has also resulted in a variety of potentially confusing results that must be interpreted locally. To reduce the assessment time and frustration for these young learners, Sylvan has chosen to use the STAR Early Literacy (SEL), also from Renaissance Learning, shown by recent research to be a reliable measure. In a recent study, McBride and colleagues examined the relationships between four early literacy assessments: the Group Reading Assessment Diagnostic Evaluations (GRADE), Dynamic Indicators of Basic Early Literacy Skills (DIBELS), the Texas Primary Reading Inventory (TPRI), and (SEL). Their research showed a strong correlation between SEL and the National Reading Panel's (NRP) relevant measures. It also indicated that SEL is about as highly inter-correlated with the other batteries' subtests as they are with one another (McBride et al., 2010). SEL takes less time, about 10 minutes, and because it maps to items from seven literacy domains, it can generate report sub-scores for four of the five NRP component skills—all but fluency. It is important to note that the researchers also found that the pattern of inter-correlations of non-fluency measures with fluency suggests the tests of fluency, vocabulary, comprehension, and word reading are measuring the same underlying construct.

Recent research has stressed the importance of ongoing formative assessments to give students useful feedback about how they are doing and how they can improve; these assessments also tell teachers how to adjust instruction (Black & Wiliam, 1998). Formative assessment, which can be as simple as the teacher questioning a student or observing how a student completes a task, enhances learning, especially for low achievers. The What Works Clearinghouse report on assessment concluded that using an assessment cycle to assess, teach, and adjust instruction is an effective strategy (Hamilton, 2009). Similarly, the Institute of Education Sciences, in its guide for Response to Intervention (RTI), emphasizes the importance of assessment at the beginning and middle of the semester, and at least monthly for children who are not achieving like their peers (Gersten, Compton, et al., 2008). Valencia & Hebard (2013) looked at the issue of classroom assessments and their role in informing instruction and monitoring student progress. They strongly support the use of formative assessments to determine what a student needs to do next.

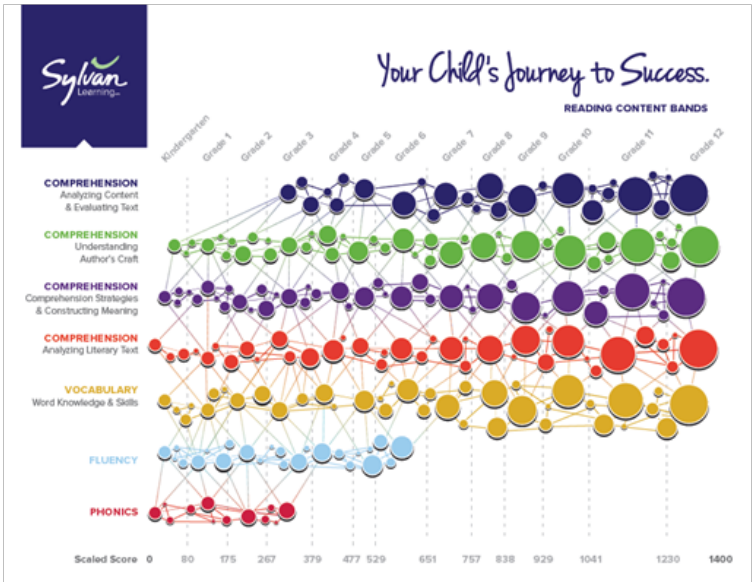
Summative assessments, which gauge students' skills and achievement level, usually take the form of a final evaluation of a student's progress, such as the standardized test(s) given each school year or at the end of a course at the middle school and high school levels.

Sylvan Learning language arts programs incorporate external formative assessments to determine where each student should start instruction by determining an approximate place on a learning progression and to monitor student progress against national measures. Sylvan programs also include embedded formative assessments that are used by teachers to inform instruction along the way. For SylvanSync programs, Sylvan uses Renaissance Learning's STAR assessments to provide placement level data, determine benchmark achievement, and create individualized plans. Following the initial assessment, teachers monitor ongoing skill and knowledge development that has occurred as the result of Sylvan Learning programs. Instructional modifications are made based on students' daily performance and performance on these assessments. Progress assessments are administered at approximately 24-session intervals using the STAR assessments to measure growth, guide future instruction, and evaluate students' overall progress.

This sample Pretest is an example of the formative assessments used to move students along their progression of skills.

SYLVAN'S LEARNING PROGRESSION FOR READING

The graphic below illustrates how Sylvan has organized its reading content to provide a coherent path to academic success in reading.



Technology to Promote Literacy Development

There are several ways to look at the role of technology in literacy development. According to Burnett (2010), technology is most frequently seen as the deliverer of literacy instruction, but it is also a site for interaction around texts, and a medium for meaning-making. Burnett noted that more research is needed given that current educational practices are becoming increasingly anachronistic in a world in which digital environments are redefining knowledge, learning, and relationships. Razfar and Yang (2010) observed that as information technologies transform literacy from print-based media into digital, hybrid, and multilingual forms, learning and instruction must adapt. Acknowledging the changing nature of instruction, Sylvan continues to explore and monitor how best to apply technology in the service of learning.

Drawing on notions of literacy as social practice, Wolfe and Flewitt (2010) discuss how the advent of new technologies has introduced new dimensions into young children's literacy learning. They call attention to the fact that it is critical to understand not only the role digital technologies can play in young children's literacy development, but also the need for early literacy practitioners to have the curriculum and guidance they need to help students learn effectively. There is growing evidence that well-designed innovative instructional technologies in the hands of well-trained teachers can provide the tools and support practitioners need—and produce positive literacy outcomes (Chueng & Slavin, 2012, April).

The use of digital technologies as a tool for promoting early literacy has also stirred controversy among some early childhood practitioners (Formby, 2014) and clearly requires more research (Daugherty et al., 2014). However, there are early indicators that carefully designed technologies can help promote literacy development for young children. When engaging with e-books, for example, the careful design features relevant to potential literacy outcomes include: interactive features, quality assessment, repetition, and adult interaction (Salmon, 2014). In a study of the inclusion of digital literacy content from public media producers in preschool curriculum supplements, Penuel et al. (2010) noted that the practice holds potential for improving literacy outcomes, particularly for low income preschool-aged children with the lowest early literacy skills.

Content Delivery via Tablet Computers

SylvanSync delivers instructional content via tablets, which early research has shown motivates and engages students (Rockman et al, 2012), but also preserves the important role of the teacher in the Sylvan learning environment. Increased use of tablet technology for literacy instruction has provided opportunities for research, and initial results point to the positive impact of this technology on reading achievement. Li and Pow (2011), for example, found that when students were provided with tablet technology inside and outside the classroom, their classroom and home learning was enhanced: "Tablet-PC classes outscored the non-Tablet-PC classes in searching for information, reading information, organizing information, analyzing data, writing" (p. 322). In a study involving one fifth-grade student and a pre-service teacher, McClanahan, Williams, Kennedy, and Tate (2012) gained insights into how tablets can improve learning.

> Sylvan Learning's adaptive curriculum and assessments provide the motivation, engagement, and individualization students need to be successful. "The **SylvanSync** platform helps track student progress and identifies the most appropriate learning resources for each student and removes much of administrative burden associate with more personalized approaches to instruction" (Dede & Richards, 2012, p. 3). With the help of SylvanSync, students begin instruction at the appropriate level, progressing at an individualized rate. Sylvan tutors are free to focus their attention on student interactions and remediation.

During their tutoring sessions the pre-service teacher and the student used applications and games on the iPad to work on fluency, word recognition, and comprehension, as well as lessons on reading comprehension focusing on distinguishing between main idea and details, sequencing, and inferring (McClanahan et al., 2012). Qualitative analysis also suggested a more positive attitude toward reading and "learning in general" (p. 26). While the authors acknowledge that the limitations of this study prevent it from being generalized to other students and contexts, their findings can inform future research. Tablet computers seem to have the potential to enhance children's emergent literacy skills such as alphabet knowledge, print concepts, and emergent writing. The optimal use of tablets for early literacy learning may be dependent upon the type of scaffolding used by parents or teachers and the availability and quality of literacy tablet applications (Newmann & Newmann, 2014).

Some research suggests that these technologies are more effective when used in the context of high-quality literacy instruction. Northrop and Killeen (2013) suggest teaching the targeted literacy skill without the tablet, modeling a tablet application, and then providing guided practice followed by independent practice. Schugar, Smith, and Schugar (2013) also describe success when using tablet technology in one-on-one tutoring sessions in a university reading clinic. They advocate the use of tablets in tutoring sessions and classroom settings. These authors believe that students should be made familiar with the device before using it in reading instruction. They also encourage instructors to teach students how to transfer what they already know about reading books in print to reading using an e-reader. Olson and colleagues (1997, as quoted in Biancarosa & Griffiths, 2012) found that struggling readers can "benefit from programs that provided individualized e-reading practice opportunities in story reading, comprehension strategies, and phonological analysis" (p. 144). After conducting a meta-analysis of the literature, Biancarosa and Griffiths concluded that "e-reading technology tools can help to improve literacy outcomes for all children and youth" (p. 154).

SYLVANSYNC READING LESSON DESIGN FORMAT

Learning Log

At the beginning of each tutoring session, the teacher provides students with an opportunity to think about thinking in the form of the Learning Log prompt. A teacher could ask, “How will you use what you learned in your session today?”, “What questions do you have about what you learned today?”, or “What ideas do you want to know more about?” At the end of the session students reflect, in writing, about their understanding and learning strategies—how they went about thinking about the topics in the introduction, and how they applied their learning to items in the Try Together and Independent Practice sessions. Deliberate and active, this form of metacognition helps students consolidate their learning. Below is a sample of a Learning Log.

Lessons or Intended Learning Outcomes (ILOs)

Students need direct instruction to learn the concepts, principles, and strategies essential for reading. To help each child learn to the best of his or her ability, Sylvan reading programs provide a framework that combines Guided Practice (GP) and Independent Practice (IP) lesson objects to help students achieve mastery of specific reading skills. After sufficient practice, students take Mastery Tests to demonstrate understanding and retention.

Pretest

The aim of the pretest is to determine whether a student needs explicit instruction in a given skill. Designed to take no more than 10 minutes, the test requires students to work through 5 items that test all lesson objectives. If students score less than 80%, direct instruction and skill practice will be offered. If students scores 80% or higher, they will move forward to the next skill in their learning progression.

Table 1. Elements of Pretests

Element	Description
Objectives	Each ILO and the lesson objects associated with it provide the student with specific objectives, so students see right away what skills they will gain during the course of the lesson object. Objectives reflect the new Bloom's taxonomy wording and include measurable, observable goals that the student will meet by completing the exercises.
Exercises	The student completes 5 different items that measure a student's mastery of the skill objectives.
Evaluation	The instructor scores each item as correct, incorrect, or not assigned. The calculation of the score as a percentage will be displayed to the instructor. The "not assigned" designation should only be used in rare circumstances—as when the instructor is confident that the student understands the concept and assigns only the odd questions in the short time remaining in a session.

Guided Practice

The aim of the Guided Practice lesson objects is to scaffold instruction for students. The instructor guides the student through each step of skill-learning to ensure that the student grasps the concepts and can perform the skill independently. Designed to take 10 to 15 minutes, the Guided Practice lesson objects are efficient and interactive.

Table 2. Elements of Guided Practice Lesson Objects

Element	Description
Objectives	Each ILO and the lesson objects associated with it provide the student with specific objectives, so students see right away what skills they will gain during the course of the lesson object. Objectives reflect the new Bloom's taxonomy wording and include measurable, observable goals that the student will meet by completing the exercises.
Introduction	The Introduction to the lesson object explains the skill, defines key terms, and links the skill to real-world examples. It is vital that the student understands why the skill is important and how it applies to his or her world.
Examples	The Examples section of each Guided Practice provides sample problems and solutions using a "reveal" feature to explain how the correct answer was reached. Students can work through the sample problems to understand the processes involved in each skill.

Try Together	The Try Together section is an interactive section of the lesson object, designed to give students practice applying their new knowledge of a skill to specific examples. Different question types are presented, and the student works with the instructor to make sure that he or she understands the concepts.
Evaluation	Because the Guided Practice is highly interactive, it can be difficult to place a numeric score on the process. For that reason, Sylvan uses the following EGO scoring process: **E** = Excellent (100%; really has it) **G** = Good (80–99%; strong performance) **O** = OK (79% or below; getting there but struggled some)

Independent Practice

Once a student has satisfactorily completed the Guided Practice, he or she will move on to Independent Practice. In these lesson objects, the student will demonstrate the ability to independently answer questions that address the target skill. Designed to take 10 to 15 minutes, the Independent Practice lesson objects contain the following:

Table 3. Elements of Independent Practice Lesson Objects

Element	Description
Objectives	Each lesson object provides the student with specific objectives. The student sees right away what skills he or she will gain during the course of the lesson object. Objectives reflect the new Bloom's taxonomy wording and include measurable, observable goals that the student will meet by completing the exercises in the lesson object.
Introduction	The Introduction to the Independent Practice lesson objects gives the student a brief reminder of what he or she learned in the Guided Practice.
Exercise	The Exercise section of the Independent Practice presents different question types for students to answer. Each question type is preceded by specific directions for the student. There may be multiple-choice questions, short-answer questions, matching questions, essay questions, or graphic organizers to fill in. By completing multiple activities within each learning object, the student can apply different strategies to meet each stated objective.
Evaluation	The instructor scores each item as correct, incorrect, or not assigned. The calculation of the score as a percentage will be displayed to the instructor. The "not assigned" designation should only be used in rare circumstances—as when the instructor is confident that the student understands the concept and assigns only the odd questions in the short time remaining in a session.

TECHNOLOGY AND THE KEY COMPETENCIES

A number of researchers have begun to look at innovative uses of technology to promote literacy. Their work spans the gamut of reading instruction, including those that focus on the addition of speech to computer-presented text, as well as those who study the effects on vocabulary, word recognition, spelling, and comprehension. Many content standards documents include standards for technology (see, for example, the Information and Communication Technology Literacy Maps by the Partnership for 21st Century Skills, 2004; see also Wellings & Levine, 2009). In 2004, a consortium of national education groups conducted a follow-up study to a meta-analysis of experimental or quasi-experimental research studies conducted from 1987 and 2002, as part of the NRP research, on the instructional uses of technology and reading instruction. Their report, *Technology and Teaching Children to Read* (Sherman, Kleiman, & Peterson, 2004) included the recommendations bulleted in the following section.

Phonemic Awareness and Phonics

Several studies included in the NRP and the Education Development Center (EDC) studies showed positive results using software with a combination of text and speech (Barker & Torgesen, 1995; Mitchell & Fox, 2001; Reitsma & Wesseling, 1998; van Daal & Reitsma, 2000). This research followed up on a number of other studies over the last decade that were focused on computer-based phonological awareness and reading instruction or computer-assisted remedial reading (Wise & Olson, 1995; Wise, Ring, & Olson, 2000). Studies have also shown that drills that use visual highlighting and synthesized speech support phonics learning (Grabe & Grabe, 1996; Wise, Olson, & Treiman, 1990). Computer-assisted instruction (CAI) with feedback mechanisms has been found to improve phonological awareness and word identification (MacArthur, Graham, & Schwartz, 1991a, 1991b; MacArthur, Graham, Schwartz, & Schafer, 1995). A number of these studies focus on primary grades, but several have shown that software designed to drill phonics also benefit upper elementary students with reading difficulties (Jones, Torgesen, & Sexton, 1987; Olson, Wise, Ring, & Johnson, 1997; Roth & Beck, 1987).

The Northeast and the Islands Regional Technology in Education Consortium (NEIRTEC) report (Sherman, Kleiman, & Peterson, 2004) advocates that technology be used to do the following:

- Provide tasks that involve both segmenting words into sounds and blending sounds into words
- Provide tasks that involve matching sounds with letters and spoken words with written words
- Provide immediate feedback to students
- Individualize problem sets to focus on letter-sound correspondences and unfamiliar words
- Repeat activities and alter the speed of the speech to met individual needs
- Provide activities designed for two or three children to work together
- Engage children with game contexts and attractive visual presentations
- Provide reports for teachers around children's progress and areas for additional work

- Provide texts for reading with scaffolds to support phonics skills
- Engage children in productive, self-directed work on phonemic awareness to meet individual needs.

In a recent study of kindergarten students receiving one-on-one tutoring support, the analysis showed that "computer-assisted peer tutoring can improve students' academic success" (Wood, Mustain, & Lo, 2013, p. 45). The results indicate that the kindergarteners began the study with a mean of between 6 and 19.3 phonemes per minute and ended the intervention period with 25.6 to 53 phonemes per minute.

Fluency

While the NEIRTEC report (Sherman, Kleiman, & Peterson, 2004) points out that very little research has been conducted that specifically focuses on the fluency of oral reading, some of the research on phonics, vocabulary, and comprehension has also measured changes in students' ability to read out loud. Based on these findings, the NEIRTEC report advocates that technology used for fluency instruction should

- Provide a model of fluent oral reading
- Provide on-demand or automated help in decoding individual words, so that a problem with a few words does not disrupt the child's reading
- Provide visual highlighting of phrases to guide the child in learning to read with expression
- Allow beginning readers to tackle more varied and challenging texts with additional support for pronunciation and meaning, allowing them to read on their own and gain additional experience
- Provide speech recognition tools so that students can get immediate help while reading aloud
- Provide recording and analysis tools to help teachers assess students' fluency and inform instruction.

Although these technology tools are not currently in SylvanSync, Sylvan has plans to develop and integrate recording/playback capabilities within the Fluency lessons.

Vocabulary

Several studies have found that children use software applications and electronic talking books to develop vocabulary. Jones, Torgesen, and Sexton (1987), for example, found that students acquired word learning strategies as well as specific words, and McKenna and Watkins (1996) found that hypermedia and hypertext features helped students in a multi-age primary classroom read books above their reading level and make significant gains in vocabulary. Other researchers have found that at-risk readers scored higher on vocabulary tests after using electronic textual aides (Anderson-Inman & Horney, 1998) and that upper-

elementary and middle-school students who used electronic texts in place of traditional print-based texts showed improvement in comprehension, vocabulary, and text (Reinking & Rickman, 1990).

Based on the findings of these studies, the 2004 NEIRTEC report recommends that technology used for vocabulary instruction should:

- Provide online, interactive vocabulary lessons, with features to engage students, provide feedback, individualize instruction, and keep records for teachers
- Provide online dictionaries, thesauri, and encyclopedias with speech capabilities in order to build word-learning strategies
- Provide hyperlinks that give students definitions and further information about key ideas in the texts
- Provide students with additional opportunities to extend their vocabularies by using on-line materials and exchanges (websites, discussions, online publishing, blogs, and other technology-enabled uses of text).

Text Comprehension

Research has shown that interactive electronic books can also support comprehension instruction for both K–3 and upper elementary students. Higgins and Boone (1991), who conducted a study of K–3 use of an interactive basal reader that features synthetic speech, animations, definitions, pictures, and other tools, found that students using this reader significantly outperformed those using traditional basal readers (see also De Jong & Bus, 2004; Matthew, 1997; Medwell, 1996). SylvanSync Reading levels K–2 has incorporated many of these features. Other research further supports the use of electronic books with a talking feature. Lewin (1997) found that computer systems that provide cues to cross-check meaning, as well as animations and illustrations so that children can read more independently, result in students developing effective coding strategies. Several studies demonstrated dramatic effects among upper elementary students with learning disabilities using electronic talking books (Lewin, 1997; Olofsson, 1992; Olson, Foltz, & Wise, 1986; Wise & Olson, 1989).

Korat (2010, cited in Biancarosa & Griffiths, 2012) found that presenting books as digital text can "lead to improvement in phonological awareness, word-reading skills, and vocabulary knowledge for kindergarten and first grade readers" (p. 144). Korat and Shamir (2012) also studied the impact of access to word meaning in e-books on young readers' learning of word meaning. Korat and Shamir had children in the experimental group use an e-book with a feature that displayed explanations of difficult words on the screen after the narrator reads the entire page, along with pronunciations and pictures supporting its meaning (p. 142). The authors report:

> Our results show that the children in the experimental group who experienced e-book reading progressed significantly more than the children from the control group who did not read the e-book. This progress appeared for word meaning and word reading following the computer support as well as for word reading in a situation without e-book support (p. 147).

Segal-Drori, Korat, Shamir, and Klein (2009) examined the impact of young students reading e-books with support from an adult on the students' concept about print (CAP), word reading, and phonological awareness. These researchers compared students who used the e-books with adult support, students who read the e-book independently, students who read a printed book with adult instruction, and students who participated in the regular kindergarten program. The results of the study showed that the students who read the e-books with adult support showed "greater progress in word reading and CAP compared to all other groups" (p. 924). Additionally, on the measure of phonological awareness, those same children out-performed children in the group that read the e-book independently (Segal-Drori et al., 2009).

The 2000 NRP and 2004 NEIRTEC reports argue that hypertext and hypermedia can aid in comprehension because they can be used to scaffold learning and give the learner greater control (see also Anderson-Inman & Horney, 1998; MacArthur & Haynes, 1995; Underwood & Underwood, 1998). According to a study by Franzke, Kintsch, Caccamise, Johnson, and Dooley (2005), a computer tutor that allows students to express their understanding of new material by writing summaries and guides the students through successive cycles of revision has a significant effect on students' reading comprehension.

Writing

The NRP also suggested that word processing is a useful addition to reading instruction, particularly when used with a process writing approach. Based on their meta-analysis, the NEIRTEC report authors (Sherman, Kleiman, & Peterson, 2004) recommend that technology be used in the following ways to support text comprehension:

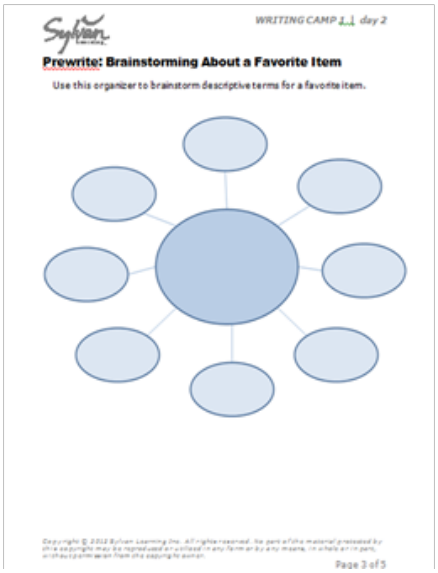
- Provide hypertext and hypermedia that include scaffolding, such as clarifications, summaries, concept maps, and key questions related to texts
- Provide embedded prompts that ask students to answer questions, add to graphic organizers, or summarize information
- Provide online tools such as a word processor or a concept-mapping tool to support students' work
- Encourage active reading by providing scaffolding options to read words aloud, provide definitions, explain concepts in texts, and provide visual aids.

Sylvan is moving forward with plans to integrate these technologies into the SylvanSync Writing program.

There is also some recent research on teachers' efforts to use technology in the writing curriculum in order to integrate the CCSS (Butler, Monda-Amaya, & Yoon, 2013). Butler and colleagues argue that

> [f]or students who have difficulty writing, this process provides structure and several opportunities for the teacher to address students' needs. Using graphic organizers, prompts, and multiple means of representation, expression, and engagement, the digital monitoring product (DMP) is tailored to guide students through a productive and engaging experience in narrative writing. (p. 8)

Technology can also be integrated into Writing Workshop frameworks to engage and support struggling writers and digital storytelling (Bogard & McMackin, 2012).



This image shows a graphic organizer used to brainstorm ideas for an essay in Sylvan's Writing camp.

DIFFERENTIATED INSTRUCTION FOR DIVERSE LEARNERS

English Learners

To address different learning needs, it is important to address the question of equity or equal access to educational opportunities. Unfortunately, this issue is often a hidden dimension in the literature on how best to teach children to read and write. The ability to develop a range of literacy and discourse skills is influenced by the economic resources of a child's family and community, which can in turn influence their access to print and language experiences early on (e.g., Goodman, 1986; Neuman & Roskos, 1997; Purcell-Gates, 1996; Teale, 1986). The child's acquisition of language skills may also be affected by what is too often a mono-cultural perspective on what counts as valuable experience and knowledge. Differences between teachers' and students' cultural norms may cause teachers to overlook many of the things that children know and can do (Trumbull & Farr, 2005).

According to the research, to meet the needs of students who make up the diverse—and growing—English learner (EL) population in the United States, it is important to use a "difference" rather than "deficit" model, acknowledging that all students bring their own educational histories, knowledge bases, and orientation to learning to read and write (Alliance for Excellent Education, 2007; August & Shanahan, 2006; Purcell-Gates, 2002). Like any demographic of students, EL students have varying needs: They may need literacy instruction in their first language, help with spoken English and English grammar, or help with vocabulary in both languages. Students from immigrant families who have lived in rural regions with poor access to formal education may have had limited literacy experiences and few at-home activities to support literacy development in any language (Fishman, 1989; Langer, Bartolomé, Vasquez, & Lucas, 1990; McCarty & Schaffer, 1992; Trumbull, Diaz-Meza, & Hasan, 2003).

The What Works Clearinghouse synthesis on EL instruction (Beckett et al., 2009) found that effective practices include: extensive vocabulary instruction through conversations, listening to adults and reading on their own; instruction in alphabetics and comprehension and in both academic and conversational English; and paired EL work for

at least 90 minutes a week (see Gersten, Baker, et al., 2007). Chueng & Slavin (2012, March) supported the findings of other researchers in a synthesis of research on effective reading programs for Spanish-dominant students and also noted the importance of the quality of instruction. For ELs whose parents are not fluent in English, it is important to help students learn vocabulary directly, by explicitly teaching vocabulary words before students read a text and explaining how to use dictionaries, decipher word meanings, and use context clues (Taylor, Pressley, & Pearson, 2002). Other research indicates that the majority of EL students are likely to need explicit instruction in English orthography, word analysis (Beaumont, de Valenzuela, & Trumbull, 2002), and comprehension (Lehr & Osborn, 2005).

As part of its ongoing efforts to address the needs of its increasingly diverse student population, Sylvan has designed its language arts and reading programs based on the research on instruction for diverse learners, including ELs. This research informs student curricula, teacher training materials, and program-management training. Support for students with limited English focuses on phonological sensitivity to the sounds of English; accessing and building prior knowledge; vocabulary development; scaffolded comprehension; and integrated reading and writing activities. To support students likely to need some explicit instruction in English orthography and word analysis, Sylvan's language arts curriculum provides explicit instruction in phonemic awareness, phonics, spelling, vocabulary, grammar, and word analysis (rhyming, sound blending, short vowels, consonant blends, and syllabification rules). Sylvan's curriculum supports implicit and explicit vocabulary development for students with limited English proficiency in the following ways:

- Explicit teaching of key vocabulary prior to reading the text and word study focused on prefixes and suffixes.
- Inclusion of a student glossary in the student materials, and vocabulary instruction related to context clues, multiple-meaning words, synonyms, antonyms, and categorization.

While Sylvan's programs address the needs of diverse learners, there are plans to further scaffold reading instruction for ELs. This effort will include explicit instruction in academic vocabulary and English language structure. It will also make use of audio and other rich media resources to support fluency and English language development. Academic vocabulary refers to words that appear frequently in texts across academic disciplines, but rarely occur in oral conversation (Nagy & Townsend, 2012). In a randomized field trial of an academic vocabulary intervention designed to bolster language and literacy skills, Lesaux et al. (2014) found that the intervention improved students' vocabulary knowledge, morphological awareness skills, and comprehension of expository texts that included the targeted academic words, as well as their performance on a standardized measure of written language skills. The effects were generally larger for students whose primary home language is not English and for those students who began the intervention with underdeveloped vocabulary knowledge. Silverman & Hines (2009) found that young English language learners who experienced multimedia-enhanced vocabulary instruction showed accelerated growth in knowledge of not only the target words but also general vocabulary.

Accessing Prior Knowledge for EL Students

As noted above, readers rely on both word and world (prior) knowledge to comprehend what they read. Thus, every time teachers introduce a concept in the classroom, it is important that they find out how much students already know about it. One way for teachers to activate the "funds of knowledge" (Diaz, Moll, & Mehan, 1986) within students who are members of ethnic minority communities is to choose texts that are "culturally congruent" and deal with topics or settings familiar and meaningful to students. Students can then share their culture-specific knowledge and experiences, thus helping the teacher weave this knowledge into lessons.

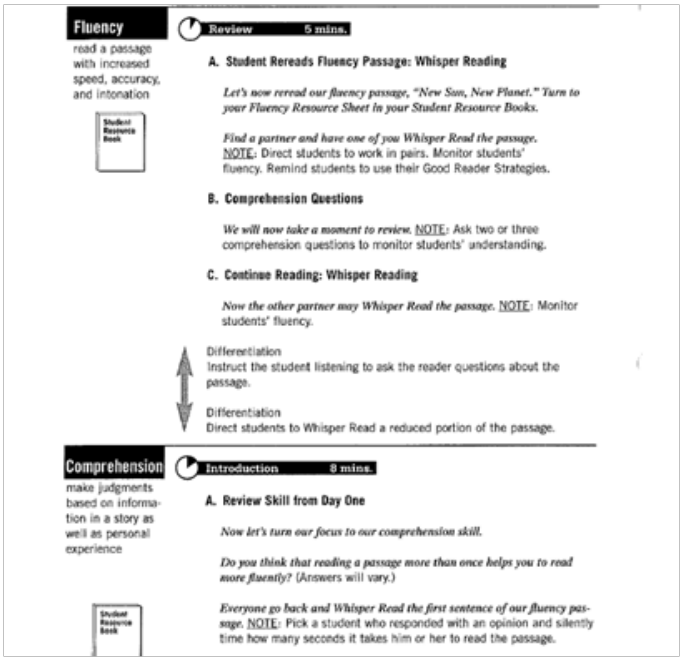
Accessing prior knowledge is an integral component of Sylvan's instructional philosophy. To help students make connections between text and prior knowledge and experience, and to make reading more meaningful, teachers provide verbal support and modeling. Reading passages reflect diverse cultural perspectives and allow for students of all backgrounds to identify with—or compare to their own lives—themes, characters, and settings.

There is evidence that English learners also benefit from strategy instruction (Fitzgerald, 1994; Weber, 1991; cited in Lehr & Osborn, 2005). Specific approaches that have shown promise include reciprocal teaching and question-answer relationships (QAR) (Raphael, 1986). To achieve the reading fluency that is critical to reading comprehension, teachers should encourage EL students to read passages aloud with systematic and explicit guidance. The Center for the Improvement of Early Reading Achievement (CIERA) also recommends that ELs participate in read-alouds of big books, read along with proficient readers, and listen repeatedly to books read aloud in English (Hiebert, Pearson, Taylor, Richardson, & Paris, 1998). Teachers also need to provide "verbal scaffolding," or prompting and questioning, and "procedural scaffolding," in which teachers show how to do something (Echevarria et al., 2000).

This sample shows an Ace it! Fluency lesson, which demonstrates:

- Student participation in read-alouds and whisper reading of text in the Act It! small-group reading program
- Repeated student readings of selected fluency passages, focusing on rate, phrasing, and expression

Ongoing opportunities for peer and teacher modeling of fluent, proficient reading



Fluency

read a passage with increased speed, accuracy, and intonation

Review 5 mins.

A. Student Rereads Fluency Passage: Whisper Reading

Let's now reread our fluency passage, "New Sun, New Planet." Turn to your Fluency Resource Sheet in your Student Resource Books.

Find a partner and have one of you Whisper Read the passage. NOTE: Direct students to work in pairs. Monitor students' fluency. Remind students to use their Good Reader Strategies.

B. Comprehension Questions

We will now take a moment to review. NOTE: Ask two or three comprehension questions to monitor students' understanding.

C. Continue Reading: Whisper Reading

Now the other partner may Whisper Read the passage. NOTE: Monitor students' fluency.

Differentiation
Instruct the student listening to ask the reader questions about the passage.

Differentiation
Direct students to Whisper Read a reduced portion of the passage.

Comprehension

make judgments based on information in a story as well as personal experience

Introduction 8 mins.

A. Review Skill from Day One

Now let's turn our focus to our comprehension skill.

Do you think that reading a passage more than once helps you to read more fluently? (Answers will vary.)

Everyone go back and Whisper Read the first sentence of our fluency passage. NOTE: Pick a student who responded with an opinion and silently time how many seconds it takes him or her to read the passage.

Family Involvement

Families of ELs may also have different perspectives on schooling and varying degrees of understanding of the U.S. educational system (Goldenberg, Gallimore, Reese, & Garnier, 2001). Studies of minority populations have shown that parents want to be involved (Chavkin & Williams, 1993; Delgado-Gaitan, 1992) but have different notions of participation than mainstream parents (Goldenberg & Gallimore, 1995; Trumbull, Rothstein-Fisch, & Hernandez, 2003; Valdés, 1996). Research has also shown that there are no differences in family involvement across both race and socioeconomic status (National Urban League, 2008), but how that involvement happens may be different for across demographic populations (Delgado-Gaitan, 1992; Goldenberg, Gallimore, & Reese, 2003; Valdés, 1996).

> Sylvan Learning programs serve a wide student population and recognize the cultural diversity that exists in the families of their students. Communicating with these families is a high priority for Sylvan teachers and Sylvan Learning Center directors, and each center strives to address the needs of its parent population and incorporate parents as partners in their children's educational programs. To encourage initial and ongoing communication with families, Sylvan's small-group programs aimed at at-risk students, informal meetings, and conferences can be scheduled after school and during evening hours that are convenient for families and that provide a more relaxed atmosphere for parents.

Adolescent Learners

All students need to develop literacy skills in order to succeed, but the need is especially pressing for struggling adolescent readers to ensure that they do not fall further behind and that they can meet the challenges of new literacy standards and workforce demands that call for the ability to understand complex informational texts. As Alvermann (2002) notes in an NRC-commissioned paper synthesizing the research on effective instruction for adolescent readers, "young people's literacy skills are not keeping pace with societal demands of living in an information age that changes rapidly and shows no sign of slowing" (p. 3). The Carnegie Council on Advancing Adolescent Literacy (2010) argues that "an adolescent who continues to read as if in third grade will do poorly on a sixth-grade test that requires reading more complex passages, synthesizing information, and forming conclusions based on evidence" (p. 14).

Research shows that adolescents benefit from explicit vocabulary and comprehension instruction and from intensive individualized interventions (Kamil & Borman, 2008). Secondary readers also need exposure to, and the skills to access, a greater variety of texts. Schoenbach and colleagues (1999), conducting research as part of the Strategic Literacy Network, suggest teaching struggling secondary readers "survival" strategies that afford them more autonomy. By teaching students how to deal with texts that seem beyond their reading ability—by using participatory approaches, reading apprenticeships, and peer interaction—teachers can provide the scaffolding students need, and gradually withdraw support as students assume more responsibility for their own learning (Schoenbach, Greenleaf, Cziko, & Hurwitz, 1999; cited in Alvermann, 2002).

> Sylvan Learning's language arts courses provide scaffolded lessons in which the teacher actively engages the student and explicitly models skills. During the scaffolding process, teachers help students determine their purpose(s) for reading, in order to set the stage for meaningful independent learning. The teacher then gradually turns over autonomy and responsibility for learning to the student.

MOTIVATION, LEARNING, AND ACHIEVEMENT

Educational psychologists and social cognitive theorists have long explored the role of motivation in student learning and achievement, and generally agree that students—of all ages—need both cognitive skill and motivational will to do well in school (Pintrich & Schunk, 2002). They need what a recent comprehensive review of the literature on the non-cognitive factors that shape students' performance terms an "academic mindset" (Farrington et al., 2012), which includes being engaged in learning, feeling confident in their abilities, and being willing to persevere at even difficult tasks.

Research shows that motivation and a sense of self-efficacy are positively related to higher levels of achievement and increased persistence on difficult tasks (Bandura, 1997; Eccles, Wigfield, & Schiefele, 1998; Pintrich & De Groot, 1990; Pintrich & Schunk, 2002). The research also shows that motivation and engagement have a positive effect on reading. According to Guthrie (2001), engaged, intrinsically motivated readers are eager to understand what they are reading. They also enjoy learning and believe in their reading abilities (see also McGough, Bennett, & Rice, 1996). A national sample of students at three ages (9, 13, and 17 years) showed that the more highly engaged readers—who tended to be motivated, strategic, knowledgeable, and socially interactive—showed higher achievement than those who were less engaged (Campbell, Voelkl, & Donahue, 1997).

Theorists have increasingly focused on the fact that motivation is not an all-or-nothing characteristic nor is it a fixed trait. Students can be motivated in multiple ways and to multiple degrees, depending on the context of their learning—and instructional designs, settings, and teachers' efforts can make a difference. The research on motivation proposes a number of strategies to foster higher levels of engagement—using prior knowledge, self-monitoring, analyzing new vocabulary, reading trade books, viewing videos, and interacting socially, such as collaborating with peers discussing an Internet search (Alvermann, 2002). These strategic forms of support are particularly relevant for those students with a history of failure; teachers need to re-engage these students in the learning process, which can help build their intrinsic motivation for learning. Research has also shown that token systems are effective across grade levels, school populations, and school behaviors (Kazdin, 1982; McLaughlin & Williams, 1988; O'Leary & Drabman, 1971; O'Leary & O'Leary, 1976; Williams, Williams, & McLaughlin, 1991).

Researchers have also shown how certain teacher behaviors—especially perceived caring, responsiveness, and nonverbal immediacy—can directly and positively affect the motivation of their students, which can then result in increased learning (Christophel, 1990; Richmond, 1990). Teachers can help students value reading—or find "their motivation from within" (Jetton, Alexander, & White, 1992).

Recognizing the impact of motivation on student achievement, Sylvan Learning has developed a Student Motivation Program that focuses on encouraging and recognizing the positive student behaviors that characterize successful students. The Motivation Program employs a system of positive reinforcement that fosters student growth and achievement by providing multiple opportunities for individual attention and encouragement. Each program component recognizes individual student accomplishments, reinforces desired behaviors, and creates a positive learning environment. The structure of the program also maximizes student-teacher interaction. The individual and small-group instructional settings allow for teachers and students to work in close proximity and maintain direct eye contact, which ensures a quick response between exchanges.

To explore the impact of these and other ongoing efforts to support student success, in 2011, Sylvan Learning launched a study of how the Sylvan experience, and particularly the SylvanSync digital teaching platform, might improve student engagement and motivation. A key part of the study was the development of the Student Outlook Survey (SOS), which helps track changes in students' attitudes as they progress through Sylvan programs. The SOS drew heavily upon the research on students' attitudes toward learning and the importance of a growth mindset (Dweck, 2006, 2010; Blackwell, Trzesniewski, & Dweck, 2007). The SOS data also enables Sylvan to explore key links between attitudes and achievement (Rockman et al, 2013). Understanding that the field of non-cognitive measurement continues to evolve (Egalite et al., 2016) and that educators and policy makers alike continue to debate the benefits of these measures and their proper use in schools, Sylvan is moving forward to update the SOS. The next version of the survey will include enhancements to two factors that are most strongly affected by the Sylvan program—self-confidence and perseverance (grit)—and the addition of a new factor, academic mindset, which will replace valuing schools and school engagement, two factors less tied to the Sylvan experience (Rockman et al, forthcoming).

SYLVAN'S INTERVENTION FRAMEWORK AND INSTRUCTIONAL DESIGN

Sylvan Learning's framework draws on Kame'enui's (2004) work on "Levels of Intervention," a three-tiered approach to remedial academic services for students who are not performing at grade level. The classroom teacher provides the Level I core instruction for the school-wide population. Sylvan provides Level II small-group instruction and Level III individualized instruction for students who need additional help; both are designed to supplement and enhance what children learn in the classroom (see Table 4). In a Level II small-group setting, or in an individualized Level III intervention, Sylvan students have opportunities to reflect on their earlier experiences and make meaning of their new ones. For example, Learning Log prompts allow students to reflect on their understanding and learning experiences at the end of each tutoring session.

Table 4: Sylvan Intervention Framework

Level	Target Population	Program Description	Interventionist	Grouping	Setting	Sylvan Programs
I	School-wide Population	Core Instructional Program	Full Courses	Classroom Teacher	Regular Classroom	N/A
II	Students at risk & have difficulty not achieving at grade level & whose learning needs have not been met by Level I. demonstrate different instructional needs than those who achieve in Level I.	Core instructional program + Sylvan Learning supplemental instruction. More systematic, intensive, & explicit than Level I programs	Homogenous small groups with 6:1–10:1 student-teacher ratio	Highly trained Sylvan Learning Instructor	Outside of the regular classroom, during the day, or after school	Sylvan Learning Reading &Writing Camps & small-group courses, such as Ace It! & College Prep Writing
III	Students who demonstrate sustained lack of adequate progress despite intervention activities provided at Levels I & II intervention	Core instructional program together with Sylvan individualized instruction and intervention	Individualized instruction with reduced student-teacher ratio (3:1–1:1)	Highly trained Sylvan Learning Instructor	Inside or outside of the regular classroom, during the day, or after school program	Sylvan Learning's Beginning & Academic Reading courses, SylvanSync

Mastery Learning

Mastery learning, first described by Benjamin Bloom (1968) and refined and modified by others (Block, 1971; Block & Anderson, 1975; Keller, 1968), involves establishing a performance level identified as "mastery," regularly assessing student progress, and providing corrective instruction to enable students to reach this performance level on a final assessment. This approach assumes that with a sufficient amount of time and resources, most students can master instructional objectives (Slavin, 1989). Guskey and Pigott (1988), who conducted a meta-analysis of mastery studies, found that "group-based applications of mastery learning yielded consistently positive effects on a broad range of student-learning outcomes, including student achievement, retention, involvement in learning activities, and student affect" (p. 213). Mastery learning is a hallmark of the SylvanSync program.

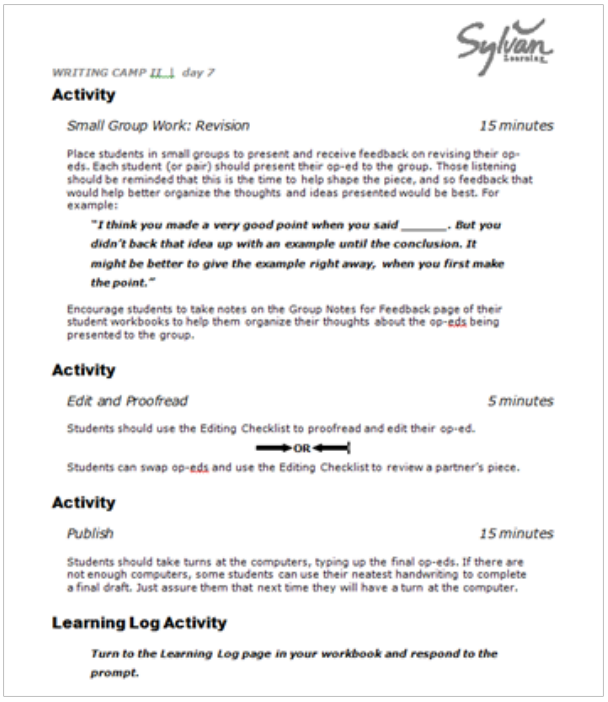
Small-Group Instruction

Small-group instruction, as can be seen in Ace it! and language arts camps, emphasizes instructional diversity rather than uniformity. Instructional methods include ability grouping, reciprocal peer tutoring, and unstructured group work (Abrami et al., 1995; Lou et al., 1996). Research shows significantly larger effects of within-class groupings when teachers in the small-group condition had more or different training than those in the whole-class condition, when grouping was based on ability and other factors, such as gender or group cohesiveness, and when teachers used cooperative learning. Research has also shown that effective instruction for children at risk of academic failure includes more time, repetition, and intensity, best afforded by small-group instruction. Studies have shown that children with reading disabilities learn faster under these small-group settings than in typical classroom environments (Foorman & Torgesen, 2001). They may need more positive emotional and cognitive support, and instruction must be carefully sequenced so that skills build gradually; students need to see what needs to be done to complete a task successfully.

Cooperative Learning

Ace it! and Sylvan camp programs are delivered in small groups, which allows students more time to discuss and solve problems with peers. Participation is a key factor in learning. The more students talk together, and the more feedback they receive, the more advances they make in learning. Especially in a classroom with different levels of language proficiency, it is important to encourage everybody to participate.

Small-group instruction is a core element of Sylvan Learning programs, which have student-teacher ratios from 6:1 to 10:1. The Sylvan environment facilitates active student engagement and participation. The low student-teacher ratios permit teachers to promote participation from all students, allowing them to solve problems, share ideas, and monitor understanding in a collaborative format. Below is a sample lesson from a writing camp that illustrates how Sylvan promotes collaboration in its small group programs.



WRITING CAMP II_1 day 7

Activity

Small Group Work: Revision — *15 minutes*

Place students in small groups to present and receive feedback on revising their op-eds. Each student (or pair) should present their op-ed to the group. Those listening should be reminded that this is the time to help shape the piece, and so feedback that would help better organize the thoughts and ideas presented would be best. For example:

"I think you made a very good point when you said _____. But you didn't back that idea up with an example until the conclusion. It might be better to give the example right away, when you first make the point."

Encourage students to take notes on the Group Notes for Feedback page of their student workbooks to help them organize their thoughts about the op-eds being presented to the group.

Activity

Edit and Proofread — *5 minutes*

Students should use the Editing Checklist to proofread and edit their op-ed.

OR

Students can swap op-eds and use the Editing Checklist to review a partner's piece.

Activity

Publish — *15 minutes*

Students should take turns at the computers, typing up the final op-eds. If there are not enough computers, some students can use their neatest handwriting to complete a final draft. Just assure them that next time they will have a turn at the computer.

Learning Log Activity

Turn to the Learning Log page in your workbook and respond to the prompt.

SUMMARY

Sylvan's language arts programs draw upon scientifically based evidence and widely accepted theories of teaching and learning. As we have demonstrated above, Sylvan's language arts programs have been designed based upon the best research on teaching reading, writing, and language arts, motivating students and how to meet the needs of students who are struggling in school. In addition, Sylvan has demonstrated that it is a leader in the use of technology to support teachers with the integration of computer adaptive tests and adaptive learning programs to personalize the instructional experience. Sylvan continues to monitor its own data as well as published research on relevant topics and regularly applies these findings in the ongoing improvement of its educational programs.

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