
A Speech-to-Print, Linguistic Phonics Approach: What Is It and How Does It Compare to Orton-Gillingham?

Miriam Fein, MS, CCC-SLP

A speech-to-print approach to the remediation of reading and spelling difficulties shares many features with the Orton-Gillingham approach but also differs in significant ways. Highlighting the speech-to-print approach that is also known as linguistic phonics or structured linguistic literacy, this article provides an introduction to the concepts, skills, and knowledge taught, as well as to the organizational principle and methodology of instruction as compared to Orton-Gillingham. The speech-to-print approach roots instruction in the individual sounds of words with a focus on streamlined, integrated teaching, and an emphasis on scaffolded practice with immediate feedback. Constructs and models from the scientific literature, such as set for variability, statistical learning, self-teaching, spaced repetition, and cognitive load theory, are discussed in relation to the features of the approach. Although practitioners cannot yet rely on definitive evidence about the efficacy of specific approaches and programs as compared to others, a speech-to-print approach aligns with several key evidence-based principles and has been shown to have positive outcomes.

Dr. Samuel Orton's trailblazing work in the 1920s and 1930s shed light on the word reading difficulties that became known as dyslexia. Anna Gillingham built on his findings and methods to train teachers in an instructional approach, Orton-Gillingham (O-G), that has influenced the development of many programs and resources, not only for those identified as dyslexic but also for classroom instruction aimed at all beginning readers. Orton's theories and the instructional methods that grew out of them continue to influence the field of reading instruction and intervention.

Since Orton's initial observations, the scientific study of reading development, now referred to as the science of reading, has expanded our understanding and elucidated the significance of phonemic awareness (McGuinness, 2006), orthographic mapping (Ehri, 2014), individual differences (Stanovich, 1980), processing models of word reading development (Seidenberg & McClelland, 1989), self-teaching mechanisms (Share, 1995), statistical learning (Arciuli, 2018), and set for variability (Steady et al., 2019), as well as the overlap of dyslexia with language disorders (Adolph & Hogan, 2018). Additionally, we now have findings from both cognitive science (Sweller, 1994) and educational research (National Reading Panel, 2000) that can inform the teaching of reading.

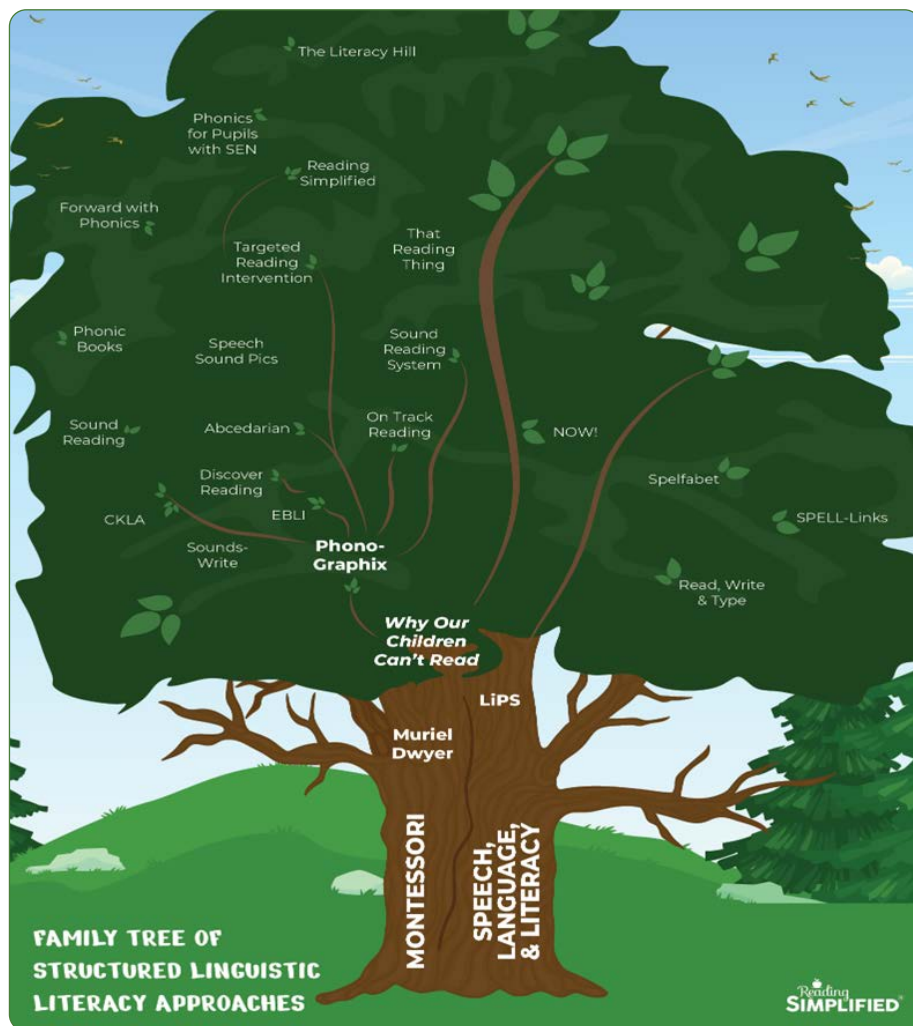


Figure 1
Family Tree of Structured Linguistic Literacy Approaches

Note: *This graphic depicts the roots and relationships of several speech-to-print programs and resources. Reprinted from readingsimplified.com by M. Ginsberg, 2023 readingsimplified.com/speech-to-print-third-way/, copyright 2023 by Reading Simplified, Ltd. Reprinted with permission.*

As practitioners and parents become more aware of the existence of the interdisciplinary science of reading, questions about how to practically apply findings from this vast body of research are coming to the forefront, including discussion about an approach known as speech-to-print (S2P), linguistic phonics (LP), or structured linguistic literacy (SLL). Although the increased awareness of these terms is recent, the approach itself is not new. It has its own historical roots and a coherent evidence-informed set of features. Programs based on this approach have been used successfully in classrooms and by interventionists for at least 20 years. Their somewhat low profile may be due to several factors. Perhaps the main one is that the dominance of Orton-Gillingham-influenced, print-focused phonics has led to mindsets and habits that can make it challenging to understand the differences—or even notice them in the first place.

This article will illuminate specific aspects of a speech-to-print approach, comment on how they align with key insights from reading and learning sciences, and explore similarities and differences with the O-G approach. For those new to the S2P approach, this is an invitation to bring a spirit of curiosity to learning more and considering the possibilities it can offer to students.

While the Structured Linguistic Literacy family tree graphic in Figure 1 does not contain an exhaustive list, it is a helpful illustration of several programs and resources that have been developed from speech-to-print roots. Also, UK-style systematic synthetic phonics is not represented here, and does not have a speech-to-print orientation, but otherwise shares many features. The focus of this article will be the particular S2P approach influenced by the analyses and writings of the cognitive psychologist Diane McGuinness (McGuinness, 1997, 2006). This work led to the creation of several programs informed by a set of principles or “prototype” (McGuinness, 2006, p.323). McGuinness dubbed this approach “linguistic phonics.”¹ While there are differences among them, the programs and resources located on the Phono-Graphix branches of the tree graphic in Figure 1 most closely represent the approach discussed in this article.

¹“Linguistic phonics” is not to be confused with the very different “Linguistic approach” developed by Leonard Bloomfield and set forth in the “Let’s Read” program published in 1961.

When comparing this approach with Orton-Gillingham, it is important to note that O-G practices can vary depending on the practitioner’s training and the responsive adaptations they make. The manifestation of O-G in various commercial programs is also variable. With this in mind, the focus in the comparisons made will be on broad contours, tendencies, and the most common features. Examples will be drawn primarily with an intervention or educational therapy context in mind but much applies to the classroom as well.

SIMILARITIES AND DIFFERENCES

The initial, foundational understanding gained in an Orton-Gillingham certification course is typically of the broad essential features of the approach. While there are several versions of this list and the wording may vary, the characteristics are:

- direct and explicit
- code-based
- systematic, sequential, and cumulative
- diagnostic and prescriptive
- synthetic (part-to-whole) and analytic (whole-to-part)
- simultaneous multisensory (hearing, seeing, moving)
- cognitive (encouraging active understanding and reasoning)
- emotionally sound (building confidence and trust)

As guiding principles, these are well-supported by the evidence base on effective instruction and are just as integral to S2P/LP approaches as they are to O-G. The differences when using a S2P/LP approach lie in how some of these features are understood and how they manifest in the instructional practices. There are also several additional aspects of S2P/LP not captured in this list.

The feature of S2P/LP that is perhaps hardest to grasp for those familiar with a traditional phonics/O-G approach is all that is *missing*: the absence of syllable types (closed, open, vowel team, etc.), labels (short, long, hard, soft), keywords, flashcards, sandpaper, shaving cream or other materials, syllable division rules—or any phonics rules at all. S2P/LP practitioners also work at a faster pace and tend to guide students out of phonetically controlled or decodable text and into reading uncontrolled books more rapidly, thereby providing the quantity and breadth of text experience that we know is critical for the development of reading fluency (Stanovich & West, 1989).

The minimalism and efficiency are made possible by the synergistic effects of the organization, methodology, and language of instruction in a S2P/LP approach.

CONCEPTS, SKILLS, AND CODE KNOWLEDGE

When using a S2P approach students are explicitly taught key concepts about our written code, knowledge of the code itself,

and critical skills and processes for applying this to reading and spelling. While in O-G or traditional phonics approaches, the terms “concepts,” “skills,” and “knowledge” tend to be used interchangeably, S2P systems are very clear about what is included in each “bucket.”

Conceptual Understanding

Students need to grasp four essential concepts: #1—the individual sounds we help them isolate in the words they say are represented by symbols on the page from left to right; #2—a sound can be spelled with 1, 2, 3, or even 4 letters; #3—a sound can be spelled in multiple ways; and #4—one spelling can represent multiple sounds. Students are not expected to fully grasp these concepts at once. Their understanding evolves and deepens as teachers intentionally and continuously draw attention to these concepts and reinforce them while systematically teaching the skills and code knowledge. In contrast, the way O-G or traditional phonics teaching is presented can sometimes obscure these concepts about how the system works or at least fail to clearly highlight them.

Skills

The skills taught to proficiency are segmenting, blending, and manipulating sounds in single-syllable words and then syllable by syllable in multi-syllable words. These phonemic and syllabic skills are taught while working with written words. Students develop these skills from simple to complex by building words with letter tiles, manipulating sounds and graphemes in chaining activities (e.g., sap-slap-slip-slid-skid), and reading and writing words with increasingly challenging word structures from CVC (‘sat’) to CVCC (‘pond’), to CCCVCC (‘sprint’). A scaffolded process is used for extending these skills to reading and spelling multisyllabic words. There is no need for preliminary oral phonological awareness or phoneme awareness activities without print, which are often a part of traditional instruction. Instead, we can “cut to the chase” and immediately link sounds and letters in an integrated way, a practice shown as most effective and efficient (Brady, 2022; Brown et al, 2021; Ehri et al., 2001).

A S2P approach does not include practices that may increase the amount of information students need to remember such as work with onsets and rimes or blends as units (‘str’, ‘bl’, ‘-nd’, etc.). Instead, students gain skills at the phoneme level, and with exposure, ample practice, and immediate feedback, they build automaticity and recognition of larger patterns.

Code Knowledge

There are no flashcard decks or auditory drills of isolated sound-symbol correspondences as is common in O-G lessons. Keywords are not used. Keywords typically contain the sound only in the initial position of the word, and though they could be a memory hook at first, they may also create an unnecessary, additional barrier between the sound and symbol. Students are not presented with an arbitrary symbol (‘a’), told it represents an arbitrary sound (/a/) and then asked to read and spell words containing the correspondence. Using a S2P approach, the goal is to make the alphabetic principle crystal clear from the start by working with individual sound-symbol correspondences in the

context of what students already know—*whole spoken words*. This is a seemingly subtle but crucial difference that helps to integrate all the components and immediately make it meaningful. For example, we start with a spoken word like “mat” and ask, “What’s the first sound you hear in ‘mat’? Yes, /m/. This is /m/”—showing them the letter ‘m’. “What’s the next sound you hear in ‘maa’? That’s right, /a/. This is /a/” and so on, providing immediate affirmative or corrective feedback as needed while working systematically.

SOUNDS: THE ANCHORS OF THE SYSTEM AND THE STARS OF THE SHOW

As the term “speech-to-print” suggests, the speech sound or phoneme is “the star of the show” in many ways. First, a key element when doing lesson activities, such as reading and writing words or building words with tiles, is that students are always directed to *say the sound*, not the letter name. This is based on the understanding that while the letter name can be a convenient shorthand once students are working with more complex spellings, it is the sound that is functional for blending and segmenting. As we can hear, the name of the letter is itself often a syllable (‘ef,’ ‘gee,’ ‘aitch’) that may interfere with the sound needed for the task at hand. In the experience of many practitioners, this is particularly true for our most vulnerable students who have weaknesses in phonological processing or memory. When using S2P/LP, the typical “SOS” dictation (Simultaneous Oral Spelling) of an O-G lesson may look somewhat similar, but the key difference is that it would not include saying *letter names* but rather articulating only each *sound* as they write the grapheme, thereby strengthening the direct links between sound and symbol. Teachers always draw students’ attention to what their mouth is doing and what their ears are hearing and match that with what they write instead of asking them to recall or articulate rules. Writing the grapheme while precisely articulating the sound provides the multi-modal practice that is so critical for making the connections and embedding them into long-term memory. This is how the multisensory feature is operationalized in S2P/LP approaches. While teachers using O-G often include

tactile input (e.g., sandpaper, shaving cream) or non-handwriting motor activities (e.g., pounding, finger tapping, hopping), these practices have not been proven to add to the effectiveness (Fletcher, n.d.). When using the S2P approach, teachers adhere simply to the *multi-modal* practice of saying while writing.

Our writing system was invented in order to represent speech sounds. The analysis of oral language into individual sounds is what enabled the adoption of alphabet symbols to represent them (McGuinness, 1997). When using a S2P/LP approach, reading (decoding) and spelling (encoding) are always taught in tandem as reversible processes. While reading and spelling are both taught in O-G, they tend to be separated in different parts of the lesson plan. The S2P/LP approach highlights the reversibility of the code. Students often read a word and immediately write it; they write a word and immediately read it back. Despite a common misconception, the term S2P does not refer specifically and only to encoding activities or to activities like the “What says?” portion of an O-G lesson. Decoding and encoding are fully integrated, positioned immediately next to each other and taught as two sides of the same coin.

In addition to the focus on saying sounds while writing and the full integration of decoding and encoding in lessons, one of the main reasons for the label “speech-to-print” is that, just as the phoneme historically led the way in the creation of our writing system, it is the phoneme that leads the way in creating an organizational framework or schema for teaching our complex English alphabetic code.

AN ORGANIZED “FILING SYSTEM” FOR CODE KNOWLEDGE

S2P/LP helps students organize their knowledge of sound-symbol correspondences into sound-based mental frameworks or schemas.

The graphics in Figures 2 and 3 are depictions of the organizational framework of the S2P approach. Each “drawer” in this “filing

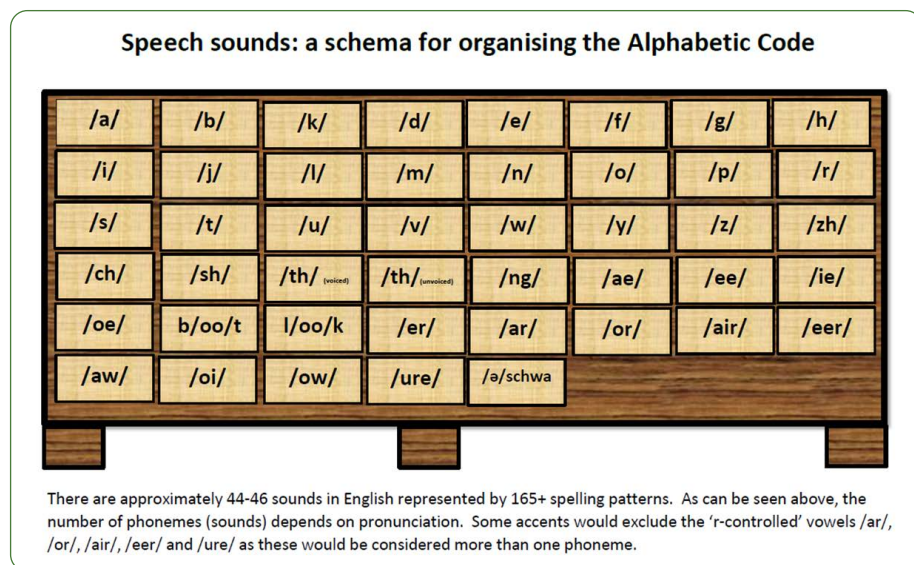


Figure 2

Speech Sounds: A Schema for Organizing the Alphabetic Code

Note: This “chest of sounds” depicts the way code knowledge is organized by sound in a speech-to-print/linguistic phonics approach. Reprinted from the *phonicbooks.co.uk* by T. Reis-Frankfurt, (<https://www.phonicbooks.co.uk/2023/05/16/chest-of-sounds-a-useful-visual-metaphor-for-understanding-the-alphabetic-code/>). Copyright 2023 by Phonic Books Ltd. Reprinted with permission.

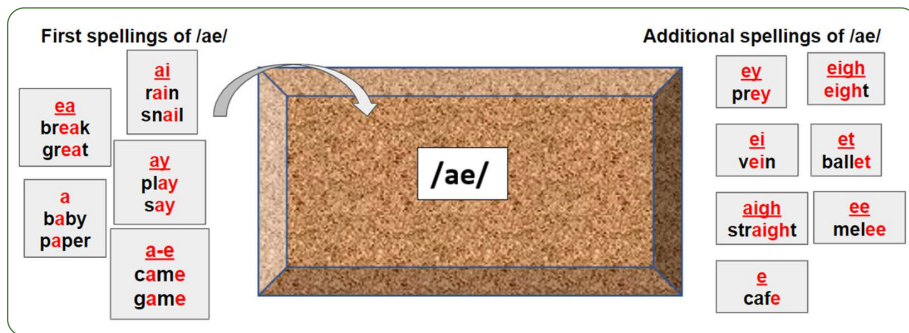


Figure 3
Multiple Graphemes That Can Represent the Phoneme /ae/

Note: Shared with permission from presentation by Tami Reis-Frankfort, *Phonic Books, DK Publishing Ltd. Copyright 2023.*

cabinet” represents a phoneme and contains multiple graphemes that can represent the phoneme.

The scope and sequence is typically divided into an “initial” or “basic” code and an “extended” or “advanced” code. When teaching the basic code, we help students isolate the phonemes in words and show them how those phonemes are represented by single letters or 2,3, or 4-letter graphemes. The code is kept transparent at first (one sound to one grapheme) to help students acquire the alphabetic principle and hone their skills. When teaching the advanced code, we help students isolate a phoneme and show them, in the context of words, *multiple* ways the phoneme can be spelled within one lesson. We introduce this complexity on the foundation that has been built. Sorting activities are often used for this purpose, where students read words with the same sound (e.g., gate, great, play, rain, etc.) and sort them according to the way the target sound /ay/ is spelled. In O-G or traditional phonics, the scope and sequence is typically organized around a mix of sound and print, sometimes introducing one or more sound-symbol correspondences as a way to spell a sound, other times a visual or orthographic pattern such as vowel team, or vowel-consonant-e, or open syllable. A S2P/LP approach, however, organizes the teaching of the code by sound, thereby reducing the number of categories or “file drawers” students need to learn.

Practitioners often have understandable concerns about students becoming overwhelmed when introduced to many graphemes at once. There are two important considerations here. First, as discussed above, the sound-based “filing system” keeps things mentally organized for students to prevent confusion and overwhelm, capitalizing on the human mind’s pattern-seeking mechanisms. Because students have the conceptual foundation of how the system works, they do not perceive all these new graphemes as multiple disconnected bits of information; instead, they are chunked and filed away as “ways to spell the sound.”

Secondly, students are not expected to master and be able to recall all the graphemes right away before moving on to another sound. Aligned with the findings from cognitive science on the benefits of spaced repetition (Brown et al., 2014; Willingham, 2002), students continuously revisit this code knowledge at regular intervals, and mastery is not expected in a stepwise fashion but rather over time with application, feedback, and retrieval, while reading and spelling words with these correspondences.

THE POWER OF CONCEPTUAL UNDERSTANDING: FEEDBACK, SPELLING, STATISTICAL LEARNING

When students grasp concept #3—there are multiple ways to spell a sound—and they can file their code knowledge by sound, it helps teachers address spelling in efficient and empowering ways. The ability to conventionally spell words lags behind the ability to read them as spelling involves not only recognizing the correspondence but the more difficult process of retrieving the specific, correct way to spell a sound in a particular word. Students are given the skills and knowledge to write a plausible spelling for each sound. If they are unsure, they are empowered to ask, for example, “Which spelling of /ee/ do I use: Is it the ‘ea’ or the ‘ee’? (This is where letter names are useful.) Teachers can then provide them with corrective feedback such as, “In this word, the /ee/ is spelled with a ‘y’.” And they may point out a pattern like, “We often use that one at the end of longer words.” Instead of trying to help students articulate and remember rules, they provide this precise feedback along with controlled exposure to patterns. Students’ cognitive resources are not overloaded by trying to recall and articulate a rule and consider exceptions.

Over time, authors of various O-G-based programs and practitioner trainings have formulated many different rules and identified exceptions for both spelling and reading, but students frequently have difficulty recalling them. Alternatively, some students may find it easy to memorize the rule, and can recite it verbatim, but lack the ability to automatically apply it in practice. Regardless, our writing system is not truly rule-governed, but rather “quasi-regular” (Seidenberg, 2017). The S2P process helps students conserve their mental energy and allows them to keep going, accumulating the experience and practice to feed the statistical learning mechanisms that help them become attuned to patterns (Arciuli, 2018). As the cognitive psychologist Mark Seidenberg puts it, “Explicit instruction and conscious effort are the visible tip of the iceberg; statistical learning is the mass below the surface” (Seidenberg, 2017, p.87).

When students grasp concept #2—sounds can be spelled by multiple-letter spellings—they can file the sound-symbol correspondences they learn into that “concept drawer” (‘ff’ in “stuff” is 2 letters, but just one sound; ‘ou’ in “young” is 2 letters but just one sound; ‘mb’ in “thumb” is 2 letters but just one sound; ‘igh’ in “light” is 3 letters but just one sound, ‘ear’ in “earn” is 3 letters but just one sound, ‘ough’ in ‘thought’ is 4

letters but just one sound, etc.). This allows us to use streamlined language (e.g., “2 letter spelling”) instead of multiple terms such as consonant digraph, vowel team, diphthong, r-controlled, etc.

The interacting and mutually reinforcing way that conceptual understanding, code knowledge, and skills are taught also allows us to drop terms like “bonus” or “silent” letters and means we don’t need to separate words into regular and irregular categories (sometimes called red words, trick words, or sight words in O-G or traditional phonics) to be taught using different methods.² All words have sounds, and all sounds have spellings that represent these sounds. This is also consistent with the quasi-regular nature of our code, and it means that students do not need to stop and think about which category the word is in and which strategies or rules they need to invoke. Instead, we give them a consistent process to use and provide them with controlled exposure and ample text input to support statistical learning. We know that students with dyslexia learn in the same fundamental way, but they need considerably more practice and repetition (He & Tong, 2017).

THE POWER OF CONCEPTUAL UNDERSTANDING: SET FOR VARIABILITY AND SELF-TEACHING

As students begin to grasp concept #4—a spelling can represent more than one sound—we can help them develop flexibility while reading. They can “flex” sounds, for example, trying different sounds of ‘ea’ in a word like “steady” if they initially read it as “steedy,” or different sounds of ‘a’ in “cabin,” “apex,” “father,” or “raven,” prompting them with minimal language by just tapping our pencil or saying “What else could this be?” or simply telling them the sound and asking them to then put that sound in and re-blend the sounds into the word. The language is streamlined and helps them develop a “set for variability,” the ability to use existing code knowledge to decode a word and then make sound substitutions and corrections as they “listen for the word” they recognize. We can also do this when they encounter a correspondence we have not yet taught them within our scope and sequence, or one they cannot recall. For example, if they encounter the word “soul” and read it as “sool” because they have already learned that ‘ou’ can spell the /oo/ sound, but not its other possible sounds, we may say, “Yes, this could be /oo/, but in this word it’s /oa/. Say /oa/ here.” And then we ask them to re-blend the word. This set for variability is increasingly being recognized as an important skill in reading development, and there is some evidence that it can be successfully taught (Steady et al., 2019).

Importantly, students are not presented with this challenge from the start but encouraged to develop this flexibility once they already have foundational conceptual understanding, strong skills, and sufficient code knowledge. And crucially, these types

of cues and precise prompts to “flex” sounds are drastically different from the “word solving” prompts sometimes used in balanced literacy approaches or Reading Recovery-influenced interventions that promote use of some letter-sound information along with pictures and context to arrive at the words. When providing supportive practice and coaching for flexibility, we are always prompting students to say each sound left to right, blend, and listen for the word. As the reading researcher Mark Seidenberg has written, “The best ‘cue’ to the word is the word itself” (Seidenberg, 2021 para. 11).

With a S2P/LP approach, there is typically more emphasis on this type of supportive practice within connected text than with O-G. We are not aiming to explicitly teach every single possible correspondence, nor is this even realistic with our complex code. It is through this essential scaffolded practice, precise error correction, and coaching for flexibility that we can help promote implicit learning and launch our students into the “self-teaching” stage that is an important part of reading development (Share, 1995). Students with dyslexia ultimately need to enter this stage as well, but they need considerably more support and practice in order to do so. Keeping in mind the common formulation of explicit instruction as “I do, we do, you do,” a S2P/LP approach can be understood as one in which the strongest emphasis is placed on the “we do” stage.

HOW CAN STUDENTS READ AND SPELL MULTISYLLABIC WORDS WITHOUT SYLLABLE TYPES OR SYLLABLE DIVISION RULES?

We have seen how anchoring instruction in speech while teaching the essential concepts, skills, and code knowledge allow us to drop rules and coach students for flexibility. This provides a good foundation for understanding the S2P/LP approach to multisyllable words. Nevertheless, teaching students to grapple with multisyllable words without syllable division rules can be particularly hard to imagine from an O-G mindset. Here are some points that may be helpful.

First, it’s important to remember that a syllable is actually a unit of speech or *pronunciation* and to try and forget about the print at first. There are natural breaks between spoken syllables that we can access if we hum or sing a word. I imagine calling my dog Freddie at the dog park: The first syllable ends with me stretching out the vowel sound /e/ and the next one starts with the /d/ consonant. It is these natural, spoken, “mouthfuls of sound” that we match to the print, all the while accepting some flexibility because these syllable breaks are not rigid. The sounds that naturally fall out of my mouth as I sing “America” in “America the Beautiful,” cluster into these syllables: “A-me-ri-ca.” Though this feels most natural to me, I could also comfortably sing it as “A-mer-i-ca.” When teaching students to read multisyllabic words using a S2P approach, teachers first divide the words for them so they can practice reading each syllable just as they would a one syllable word and then blend the syllables together, flex any sounds they need to (including adjusting for schwa), and listen for the word. Teachers then show them how to say each sound and stop to blend into a syllable at a point that is comfortable

²A very small number of words like “a,” “I,” “the,” “of,” “to” may be introduced at the initial stages outside of the phonic sequence and sometimes without reference to sounds in order to enable reading and writing connected text, i.e., sentences.

to say. We therefore would not teach students to divide a word like “rabbit” as “rab-bit” because we do not pronounce two /b/ sounds in that word. The natural way we typically say it would be ‘ra-bbit’. Students do not need a “closed syllable” rule to tell them the sound of the ‘a’ when they are taught to instantly “flex it” if they try a different sound first. The ‘bb’ is simply a 2-letter spelling for one sound, /b/.

O-G practitioners sometimes find that even after teaching the rules for dividing words and supporting their application, students ultimately need to be flexible anyway. This is not surprising given the evidence that syllable division rules can actually be quite unreliable (Kearns, 2020). Abandoning these rules from the start can feel uncomfortable at first for both student and teacher—a bit like a leap of faith. However, once we see success and experience the efficiency and lightening of the load for both students and for ourselves, it can be quite encouraging.

COGNITIVE LOAD THEORY AND LANGUAGE DEMANDS

The education researcher and writer Dylan Wiliam once commented on Twitter that he has “come to the conclusion that Cognitive Load Theory is the single most important thing for teachers to know.” Cognitive Load Theory (Sweller, 1994) is a model that explains the relationship of working memory, which is limited and easily overloaded, and long-term memory, which is unlimited, and the factors that affect our ability to allocate precious working memory resources towards getting knowledge and skills into our long-term memory. This model helps us understand that, in order to maximize student learning, we should design instruction to minimize what is known as “extraneous” cognitive load so as not to overload working memory. When working memory is overloaded, it is very difficult for learning to make its way into long-term memory. While the cognitive feature of O-G usually refers to learning declarative rules and consciously recalling and applying them, these rules are actually considered “extraneous load” within a S2P/LP approach. Trying to remember rules, consider the exceptions, and then apply them, can pull working memory resources away from the immediate task of reading or spelling a word and may actually increase cognitive load and distract students from the procedural learning of decoding and encoding. As many students who struggle with reading have particularly weak working memories, minimizing the cognitive load can be especially important for them.

Rules also tend to be formulated in linguistically complex ways and may represent a burdensome language processing demand for some students. While Orton conceptualized dyslexic students as those with isolated word reading difficulties in the context of strong cognitive and language skills, we now know that dyslexia actually occurs across the spectrum of intelligence and overlaps with developmental language disorder as well as with attention deficit and other challenges. There is evidence that at least half of students with dyslexia (word-level reading difficulties) also have broader language challenges (Adolph & Hogan, 2018). Therefore, keeping the language demands to a minimum is an important consideration as well.

HOW DO STUDENTS PROGRESS QUICKLY WITH S2P AND WHY IS THIS SO IMPORTANT?

As we have seen, the synergy of concepts, skills, and knowledge allows students to begin reading uncontrolled text with support more rapidly. While we continue to teach the code systematically and explicitly, S2P/LP uses a consistent and reliable process to scaffold reading and provide the necessary feedback. Therefore, it is not essential that every pattern or sound-symbol correspondence students encounter is something we have already taught. We can give them the precise feedback they need in the moment to support their success and learning. This focus on application allows students to access the volume and breadth of input they need for faster progress. O-G practitioners aim to build confidence by ensuring regular success, but this can sometimes mean that students are never expected to know or do something they haven’t been taught explicitly. This can inadvertently lead to learning environments that are excessively protective. When using a S2P approach, we give our students the conceptual framework and explicit teaching they need to get started and provide specific, targeted coaching to promote confidence and independence.

Many older students in particular come to us feeling unsuccessful and discouraged, and time is not on their side. They cannot afford to linger too long in tightly controlled text or get stuck at a particular level in a program because they have not yet achieved mastery with reading or spelling words with a specific pattern. The ability to progress at a faster pace via spiraling and spaced practice is critical for their motivation and self-efficacy. The opportunity to receive coaching and support to successfully read authentic books that are relevant to their school curriculum or interests can be motivating and empowering.

CONCLUSION

Education researchers have not yet conducted enough of the kinds of comparative studies that allow us to make definitive statements about the efficacy of particular programs and approaches, such as Orton-Gillingham, as compared to others (Stevens et al., 2021). There is certainly a great need for implementation science to extend the science of reading to a practical science of *teaching* reading that is effective, efficient, and equitable (Seidenberg, 2022). Nonetheless, well-informed practitioners can use their understanding of the research to look for best bets, and there are indications that programs based on S2P/LP principles can produce strong outcomes (Kilpatrick, 2015; McGuinness, 2006; Vernon-Feagans et al., 2013).

As the evidence base evolves, our knowledge and understanding also grow. As thoughtful practitioners, we are accustomed to adding to our toolbox. However, mixing an approach such as S2P/LP with other methods and procedures may dilute the efficiency of the approach and potentially confuse students. It can be hard to imagine that adopting one approach that declutters and organizes the toolbox instead of adding to it may actually benefit our students the most. Despite some misconceptions, S2P/LP does not involve teaching 44 sounds in isolation and does not refer only to spelling or encoding activities. It can describe

a carefully structured, streamlined, and integrated system of teaching our students to read and spell that is worthy of further investigation.

ADDITIONAL SPEECH-TO-PRINT RESOURCES

The following resources may be especially useful to explore in order to better understand the methodology and approach described in this article:

- [S2P/SLL/Linguistic Phonics Exploration Facebook Group](#)
- [Sounds-Write Teach Your Child to Read and Write free Udemey course](#)
- [The Sounds-Write podcast](#)
- [The Literacy Blog](#)-John Walker
- [How to Teach Reading Blog](#)-Monique Nowers *sight word* post
- [Phonic Books-Resources](#)
- [Stellar Teacher podcast-Reading Simplified episode](#)
- [Reading Meetings with Mark \(Seidenberg\) and Molly-Reading Simplified](#)
- Ebli webinars such as [Supported Reading in Text](#): What this looks like and how to get there
- [Five from Five blog](#)-Self-Teaching Hypothesis
- [That Reading Thing blog](#)-Why not to teach syllable types
- [Filling the Pail blog](#)-Greg Ashman 'Cognitive Load Theory: The single most important thing for teachers to know'

REFERENCES

Adlof, S. M., & Hogan, T. P. (2018). Understanding dyslexia in the context of developmental language disorders. *Language, Speech, and Hearing Services in Schools, 49*(4), 762–773. https://doi.org/10.1044/2018_LSHSS-DYSLC-18-0049

Arciuli, J. (2018). Reading as statistical learning. *Language, Speech, and Hearing Services in Schools, 49*(3S), 634–643. https://pubs.asha.org/doi/10.1044/2018_LSHSS-STLT1-17-0135

Brady, S. (2022). *A 2020 perspective on research findings on alphabetic (phoneme awareness and phonics): Implications for instruction (Expanded version)*. The reading league. <https://www.thereadingleague.org/wp-content/uploads/2020/10/Brady-Expanded-Version-of-Alphabetic-TRLJ.pdf>

Brown, K. J., Patrick, K. C., Fields, M. K., & Craig, G. T. (2021). Phonological awareness materials in Utah kindergartens: A case study in the science of reading. *Reading Research Quarterly, 56*(S1), S249–S272. <https://doi.org/10.1002/rrq.386>

Brown, P. C., Roediger, H. L., & McDaniel, M. A. (2014). *Make it stick: The science of successful learning*. The Belknap Press of Harvard University Press.

Ehri, L., Nunes, S., Willows, D., Schuster, B., Yagoub-Zadeh, Z., & Shanahan, T. (2001). Phoneme awareness instruction helps children learn to read: Evidence from the National Reading Panel's meta-analysis. *Reading Research Quarterly, 36*(3), 250–287.

Ehri, L. C. (2014). Orthographic mapping in the acquisition of sight word reading, spelling memory, and vocabulary learning. *Scientific Studies of Reading, 18*(1), 5–21. <https://doi.org/10.1080/10888438.2013.819356>

Fletcher, J. (n.d.). *People and organizations: Jack Fletcher*. (Interview transcript) Reading rockets. Retrieved August 20, 2023, from <https://www.readingrockets.org/people-and-organizations/jack-fletcher>

He, X., & Tong, S. X. (2017). Quantity matters: Children with dyslexia are impaired in a small, but not large, number of exposures during implicit repeated sequence learning. *American Journal of Speech-Language Pathology, 26*(4), 1080–1091.

Kearns, D. M. (2020) Does English have useful syllable division patterns? *Reading Research Quarterly, 55*(S1), S145–S160. <https://doi.org/10.1002/rrq.342>

Kilpatrick, D. A. (2015). *Essentials of assessing, preventing, and overcoming reading difficulties*. Wiley.

McGuinness, D. (1997). *Why our children can't read, and what we can do about it: A scientific revolution in reading*. Simon & Schuster.

McGuinness, D. (2006). *Early reading instruction: What science really tells us about how to teach reading*. MIT.

National Reading Panel (U.S.) & National Institute of Child Health and Human Development (U.S.). (2000). *Report of the National Reading Panel: Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. U.S. Dept. of Health and Human Services, Public Health Service, National Institutes of Health, National Institute of Child Health and Human Development.

Seidenberg, M. S., & McClelland, J. L. (1989). A distributed, developmental model of word recognition and naming. *Psychological Review, 96*(4), 523–568. <https://doi.org/10.1037/0033-295X.96.4.523>

Seidenberg, M. S. (2021, November 20). *Clarity about Fountas and Pinnell*. Reading matters. Retrieved August 20, 2023, from <https://seidenbergreading.net/2021/11/20/clarity-about-fountas-and-pinnell/>

Seidenberg, M. S. (2022, March 22). *The "Science of Reading" is a work in progress*. Reading matters. Retrieved August 20, 2023, <https://seidenbergreading.net/2022/03/22/the-science-of-reading-is-a-work-in-progress/>

Share, D. L. (1995). Phonological recoding and self-teaching: Sine qua non of reading acquisition. *Cognition*, 55(2), 151-218. [https://doi.org/10.1016/0010-0277\(94\)00645-2](https://doi.org/10.1016/0010-0277(94)00645-2)

Stanovich, K. E. (1980). Toward an interactive-compensatory model of individual differences in the development of reading fluency. *Reading Research Quarterly*, 16(1), 32-71. <https://doi.org/10.2307/747348>

Stanovich, K.E., & West, R.F. (1989). Exposure to print and orthographic processing. *Reading Research Quarterly*, 402-433.

Steady, L. M., Wade-Woolley, L., Rueckl, J. G., Pugh, K., Elliott, J. D., & Compton, D. L. (2019). The role of set for variability in irregular word reading: Word and child predictors in typically developing readers and students at-risk for reading disabilities. *Scientific Studies of Reading*, 23(6), 523-532. <https://doi.org/10.1080/10888438.2019.1620749>

Stevens, E. A., Austin, C., Moore, C., Scammacca, N., Boucher, A. N., & Vaughn, S. (2021). Current state of the evidence: Examining the effects of Orton-Gillingham reading interventions for students with or at-risk for word-level reading disabilities. *Exceptional Children*. <https://doi.org/10.1177/0014402921993406>

Sweller, J. (1994). Cognitive load theory, learning difficulty, and instructional design. *Learning and Instruction*, 4(4), 295-312. [https://doi.org/10.1016/0959-4752\(94\)90003-5](https://doi.org/10.1016/0959-4752(94)90003-5)

Willingham, D. T. (2002, August 16). *Ask the cognitive scientist*. American federation of teachers. Retrieved August 20, 2023, from <https://www.aft.org/ae/summer2002/willingham>, Accessed August 20, 2023

Vernon-Feagans, L., Kainz, K., Hedrick, A., Ginsberg, M., & Amendum, S. (2013). Live webcam coaching to help early elementary classroom teachers provide effective literacy instruction for struggling readers: The Targeted Reading Intervention. *Journal of Educational Psychology*, 105(4), 1175-1187. <https://doi.org/10.1037/a0032143>

Miriam Fein, MS, CCC-SLP, has a master's degree in communication sciences and disorders from Emerson College and is an ASHA-certified speech-language pathologist and licensed reading specialist in Massachusetts. She has served students in a variety of settings with a focus on reading, spelling, writing, and language intervention. Her private practice in the Boston area includes direct work with students and families as well as professional development and consulting to schools. She completed her Orton-Gillingham certification through Massachusetts General Hospital over 20 years ago. While seeking ways to meet the needs of students whose progress was stalled or slow, she began experimenting with speech-to-print methods and has found them to be effective and efficient. She is currently a Sounds-Write practitioner.