

## RESEARCH IN ACTION

## Ready, Set for Variability, Read!

Erica M. Barnes<sup>1</sup>  | Donna M. Scanlon<sup>1</sup> | Kimberly L. Anderson<sup>2</sup><sup>1</sup>University at Albany, State University of New York, Albany, New York, USA | <sup>2</sup>East Carolina University, Greenville, North Carolina, USA**Correspondence:** Erica M. Barnes ([ebarnes@albany.edu](mailto:ebarnes@albany.edu))**Received:** 23 April 2025 | **Revised:** 24 June 2025 | **Accepted:** 8 September 2025**Keywords:** decoding | set for variability | sight word vocabulary | word reading

## ABSTRACT

In printed English, there is some variability in the relationships between graphemes and the phonemes they represent. Learners who are sensitive to this variability learn to adjust their attempted pronunciation of an unfamiliar word such that they identify a real word that fits the context. This sensitivity and the ability to adjust attempted pronunciations are referred to as *Set for Variability* (SfV). Readers with a well-developed SfV try out different, reasonable pronunciations for graphemes in unfamiliar words and confirm accuracy by matching the decoding attempt to a word in their oral vocabularies and/or ensuring their attempted word makes sense in context. In this article, we discuss the research behind SfV and present instructional suggestions for developing SfV in young readers.

*“Having a well-developed SfV enables the reader to be flexible when decoding an unfamiliar printed word, using their existing orthographic knowledge and knowledge of word meanings.”*

*Ms. Navy has been teaching her first graders about vowel teams and introduced the idea that when two vowels are together in a word usually only one vowel sound is heard. She has also taught her students to be flexible with vowel sounds during her instruction. Students are now engaging in independent reading of natural text containing vowel teams. She notices how Xavier is running his finger below the print on the page as he reads the text. His finger stops under the word, “steak” and she sees him hesitate as he begins to puzzle through this unfamiliar word. He turns to her saying, “I found a vowel team in my book!” Xavier quietly says “st” followed by ē ē ē (long-e) and /k/. He blends these sounds back together to form the word “steek” and continues reading the sentence. Xavier’s brow furrows as he realizes “steek” is not a word he knows and he looks to Ms. Navy in confusion.*

Xavier’s situation is not uncommon as young readers often have moments of confusion when puzzling through unfamiliar words, especially words that do not completely follow typical spelling-sound correspondences. Even though Xavier followed

his teacher’s instructions for working with vowel teams, his decoding attempt did not result in an accurate pronunciation. Fortunately, Xavier is thinking about what he is reading and noticed his decoding error.

In this article, we discuss Set for Variability (SfV) as an important skill that can assist children with independently puzzling through and accurately identifying unfamiliar printed words with the goal of building readers’ sight word vocabularies (e.g., words immediately, effortlessly identified when encountered). We begin by discussing the challenges of English orthography pertaining to decoding. We then review current research on SfV in relation to word reading to highlight the affordances and predictive nature of SfV. Then we provide instructional suggestions for promoting SfV, focusing on vowel flexing (trying different sounds for vowels). Xavier and Ms. Navy will continue to join us to show SfV in action.

## 1 | Learning to Read English

Xavier’s error is largely rooted in the semitransparent, quasi-regular nature of English. In a transparent orthography, each grapheme corresponds with a single phoneme. This consistency can make decoding words relatively simple. Knowing

## Summary

- How do you support students with reading unfamiliar words with irregular grapheme-phoneme relationships?
- What do you do when a student notices that a word breaks a phonics “rule” (e.g., some violates the silent-e generalization)?
- How does your instruction support learners with building their sight vocabularies through independent reading?

the phoneme represented by each grapheme allows the reader to accurately decode the entire word, assuming all letter-sound associations are known and the reader can blend the sounds together. Languages such as Turkish, Italian, Basque, and Spanish have transparent orthographies.

English is a semitransparent or opaque orthography in which some graphemes may represent multiple phonemes (Share 2008). For example, *c* can represent a/k/ or /s/ sound. Many phonemes (especially vowel phonemes) may be spelled in more than one way. Adjacent placement of letters can also result in different sounds such as *-ow* in *now*, or *-eight* in height. Vowel letters are particularly challenging given the numerous associated pronunciations. According to Kearns et al. (2016), “A, E, I, O, and U are five graphemes with 15 possible pronunciations in polysyllabic words, to say nothing of Y with another five” (p. 455). Given these multiple possibilities, readers need to be somewhat flexible with their decoding attempts.

Phonological decoding skill is certainly central to reading but likely not sufficient for ensuring accurate orthographic mapping across all words (Share 2008). Theoretical models of reading acknowledge the importance of high-quality lexical representations (Perfetti and Stafura 2014), which entail knowledge of form (phonology, orthography, and morphosyntax) and meaning (semantics) of words. To read a word, the reader must have sufficient knowledge of grapheme-phoneme correspondences (GPCs), phonemic awareness, knowledge of the word in one’s oral vocabulary, and decoding ability according to Share’s self-teaching hypothesis (Share 1995). As noted, English is a semi-transparent orthography. Some words are fully decodable in that they follow typical spelling-sound correspondences (i.e., *fun* and *hat*). Other words may be partially decodable, where some graphemes represent their typical sounds, but others do not (i.e., *wasp*, *come*, and *island*). For partially decodable words, the reader can use known GPCs to decode some, but not all of the word. This variation in decodability indicates some words are more likely to be successfully decoded than others by readers with sufficient decoding ability. Variation in word decodability also means that words that can be partially decoded may require “clean up” (Steady, Compton, et al. 2019) where the reader also uses their knowledge of words and their meanings to determine the appropriate pronunciation of the word. This clean-up is often referred to as Set for Variability (SfV).

An emerging body of research supports the utility of developing a SfV (Steady et al. 2016, 2023; Steady, Compton, et al. 2019; Steady, Wade Woolley, et al. 2019). SfV enables readers to be somewhat flexible when they encounter partially decodable or irregular words. Readers use their knowledge of GPCs and larger orthographic units to develop an initial decoding of the irregular word. Since irregular words have at least one aspect that is not fully decodable, this initial attempt is likely not entirely accurate. The reader must then try out a different, reasonable pronunciation for one or more of the graphemes and determine the accuracy of pronunciation through matching the attempt with a word in the reader’s oral vocabulary.

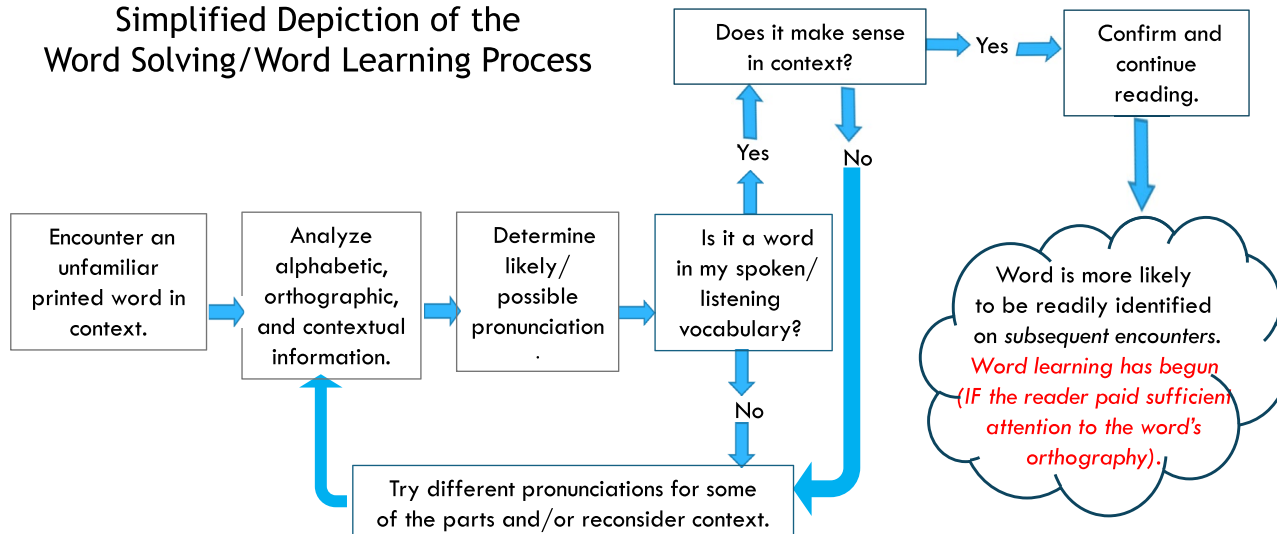
## 2 | What Is SfV?

In the context of reading words in isolation, SfV is the ability to “disambiguate the mismatch between the decoded form of the word and its correct pronunciation” (Edwards et al. 2022, p.1). Essentially, SfV is the ability to correct a mispronunciation of a decoded word by trying a different sound (or sounds) for some of the letters and determining if the new decoding attempt matches the pronunciation of a word in the reader’s oral vocabulary and makes sense in the context. Having a well-developed SfV enables the reader to be flexible when decoding an unfamiliar printed word, using their existing orthographic knowledge and knowledge of word meanings. This propensity for flexibility becomes increasingly important as developing readers encounter more multisyllabic words. Rather than guess at an unfamiliar word based on the text’s meaning, SfV involves readers in first utilizing orthographic knowledge paired with knowledge of word meaning to disambiguate an unfamiliar word that is at least somewhat decodable. When unknown printed words are encountered in context, learners’ SfV can be triggered when their initial attempt is not a real word, is not in their oral vocabulary, and/or is a word that does not fit the context. Consider, for example, the sentence “The **dove** flew through the air.” A reader’s phonics knowledge might initially lead to pronouncing the word *dove* with a long-o sound (an action/verb). However, consideration of contextual information and knowledge of word meanings would trigger the reader’s SfV, leading the reader to correct the contextually inaccurate pronunciation and resulting in identification of a word that fits the context. We illustrate the process in Figure 1 below.

SfV was originally introduced by Gibson and Levin (1975) and has recently received increased attention. Current research indicates that SfV is a strong predictor of word reading, especially for emerging readers with less developed reading skills or dyslexia (Steady et al. 2023). An individual’s SfV may be a predictor of reading ability (Steady et al. 2023) as children with weaker SfV tend to have greater word reading difficulties. SfV is also a predictor of irregular word reading skill, such that children with stronger SfV tend to experience more success with decoding irregular words accurately (Steady, Wade Woolley, et al. 2019).

SfV instruction tends to be more effective for producing word reading growth (Steady et al. 2016) than instruction focusing solely on GPCs. Importantly, teaching SfV appears to have cascading effects, such that the effects of an SfV intervention on word reading and sentence comprehension were more

## The Development of Sight Vocabulary: Simplified Depiction of the Word Solving/Word Learning Process



Used with permission from Scanlon, Anderson, Barnes & Sweeny (2024), *Early Literacy Instruction and Intervention: The Interactive Strategies Approach*. NY: Guilford, p. 303)

**FIGURE 1** | Simplified depiction of the word-solving process (Scanlon et al. 2024).

pronounced months after the intervention than shortly after (Savage et al. 2018) likely because the longer interval provides more time for learners to employ their SfV to build their sight vocabularies. This implies that helping children to develop SfV can have long-term effects that continue to impact children’s reading months after explicit instruction on its use has concluded. Importantly, recent findings from an SfV intervention suggest that SfV instruction may be important for altering children’s word reading trajectories (Savage et al. 2024). In that study, what second and third grade students learned in the 15-week SfV intervention, as measured at post-test, was predictive of their later word reading abilities, but students’ word reading pretest scores were not. This suggests that instruction and use of SfV may be a powerful intervention tool for preventing or ameliorating word reading difficulties.

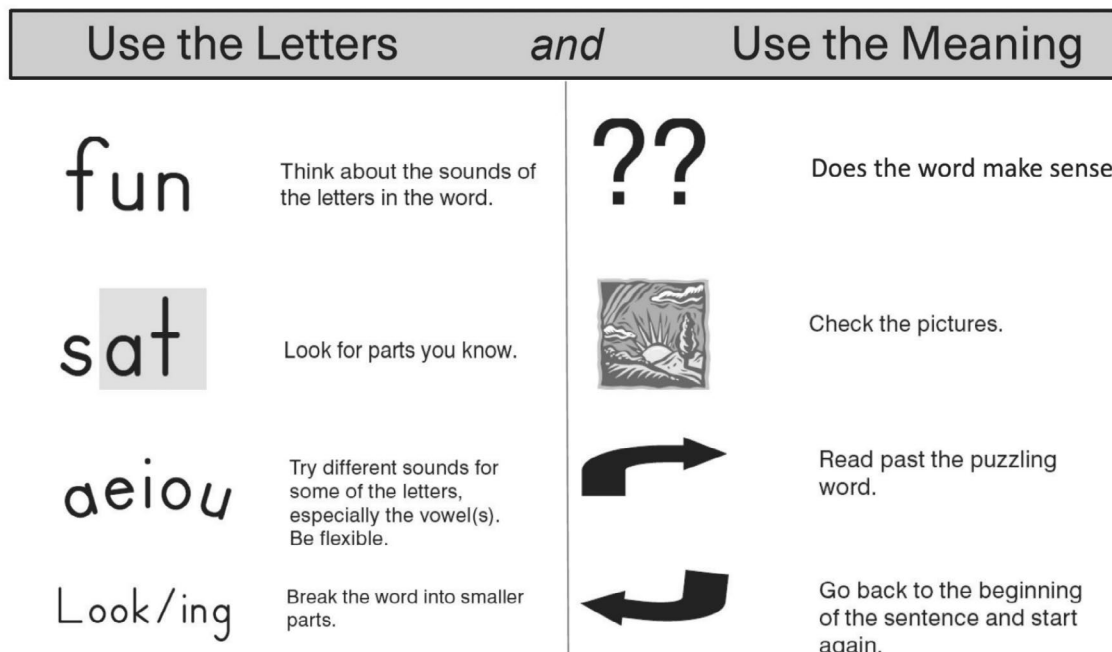
SfV may be an important component of Share’s self-teaching mechanism (1995) that facilitates the development of sight word vocabularies. As readers acquire knowledge of GPCs and larger orthographic units (e.g., rimes and common morphemes) they develop efficiency with decoding unfamiliar words through applying prior knowledge of spelling/decoding patterns. In essence, this knowledge (e.g., GPCs and larger orthographic units) allows readers to teach themselves how to decode unfamiliar words using their previous experiences with print as starting points. For example, a student may encounter the unfamiliar word “brake” and productively puzzle through the word using existing knowledge of the *br* blend and rime *-ake*. SfV may also be utilized with high frequency words with low frequency vowel spellings. Eventually, with sufficient practice and experience, words that are successfully puzzled through, often with the application of SfV, will become sight words that are read effortlessly. Developing sight word vocabularies is important as it allows for more efficient, accurate, and effective reading which, in turn, enables learners to

focus on the meaning of the text. SfV gives readers the ability to effectively and efficiently puzzle through unfamiliar words through detecting and applying spelling/decoding patterns and using knowledge of word meanings to confirm/disconfirm decoding attempts.

Instruction that supports the development of SfV is an important component of the Interactive Strategies Approach (ISA; Scanlon et al. 2024), a comprehensive approach to early literacy instruction that emphasizes direct, systematic phonics instruction paired with explicit instruction on strategies for solving/identifying unfamiliar words encountered while reading (see Figure 2). In the ISA, SfV instruction occurs in the context of multiple explicitly taught word identification strategies (see Figure 2), one of which emphasizes vowel flexing operationalized as trying different, reasonable pronunciations for graphemes with less stable sound representations (e.g., vowels, c, g, s). Studies of the ISA found the approach to be effective for reducing reading difficulties in kindergarten and first grade children (Scanlon and Anderson 2020, 2005, 2011) and improving word identification skills among older elementary-aged learners with word reading difficulties (Gelzheiser et al. 2011, 2019). We next discuss how instruction to promote the development of SfV is implemented in ISA, with a particular focus on vowel flexing.

### 3 | Encouraging Learners to Employ SfV With Vowels

Teaching students to be flexible with their decoding attempts can be enormously valuable as learners gain proficiency with foundational phonics skills. Children should be made aware of the letter-sound pairings that are likely to be less stable, such as *c* (represents either a /k/ or /s/), *g* (/j/ as in giraffe or /g/ as in



**FIGURE 2** | Word solving strategies. Used with permission from Scanlon et al. (2024).

garden), and vowels (a, e, i, o, u, y and vowel digraphs). Vowels merit special attention.

All vowel letters can represent multiple sounds, with the sound typically being influenced by the placement of the vowel within the word/syllable and/or the surrounding letters. Therefore, readers are encouraged to approach vowels as decision points in unfamiliar words and to be flexible in decoding attempts (Scanlon et al. 2024). Vowel flexing refers to trying a different sound for the vowel when the first attempt does not result in a real word that makes sense in context. Vowel flexing is effective when children know multiple sounds the vowel grapheme can represent and can make a reasonable (not random) attempt at producing the vowel sound. For example, when decoding a word with only one medial vowel, the child may first try out the short vowel sound (e.g., pronouncing *date* as rhyming with *mat*). If the attempt does not result in a real word that makes sense within context or does not match a word in the child's oral vocabulary, then the child should try out another reasonable sound for the vowel (typically either the long sound or, for more skilled readers, schwa). The child can then evaluate this second or third decoding attempt to see if it matches a word in their vocabulary and makes sense in context.

Vowel flexing can be particularly helpful with some words that do not follow typical spelling patterns and are partially decodable. For example, *give* is somewhat irregular as the silent-e generalization does not apply. Children familiar with the silent-e generalization may initially produce an inaccurate attempt that would rhyme with *jive*. If they are flexible with the vowel, they could attempt a short-i sound, which would produce an accurate decoding. The child can confirm the decoding attempt is a word in their oral vocabulary and makes sense in context. Vowel flexing is most effective when done in context, particularly if there are multiple real words that can result from decoding attempts

(e.g., *great* which could be decoded as *greet*). Vowel flexing may be practiced with isolated words but only when there is only one real word that would result from decoding attempts.

*Ms. Navy recognizes this as an opportunity to remind Xavier to be flexible. She has taught her students that vowels can be treated as decision points, where they can try the different sounds (long, short) to see which one results in an actual word. She approaches Xavier and points to the strategy list he has attached to his desk (see Figure 2). Xavier glances through the list and immediately brightens up, "Oh, I should try a different vowel sound. I don't know the word 'steek' and it doesn't make sense." Xavier tries a different sound, this time substituting the long-e sound with a short-e sound. He blends the sounds back together slowly to produce the word, 'stek' and continues to read the sentence. "That's not right either, should I try again?" Ms. Navy sees this as an opportunity to build Xavier's stamina and resiliency, "That was a reasonable attempt. It's a good idea to try a different vowel sound. Sometimes we need to try several sounds with vowels and continue to be flexible. Let's try the sounds for the a."*

Xavier's second attempt again did not result in an actual word in his oral vocabulary. He is clearly focused on decoding and understands the importance of confirming his decoding attempt to ensure it is a word in his oral vocabulary, in a sense, checking that it is an actual word.

#### 4 | Instructional Routine for Vowel Flexing With Single Vowels

Below, we present an instructional dialogue for explicitly teaching SfV that can be embedded at an appropriate point in your curriculum when students have learned both the short and long sounds for the target vowel. Prior to instruction, prepare a set of target words from your reading curriculum that

can be partially decoded and do not follow the typical spelling pattern for that vowel. The other GPCs in the words should be fully decodable and known to the students. After instruction, the students should read natural texts containing opportunities to practice vowel flexing in context, with some teacher support, as in the Xavier vignette (Tables 1 and 2).

Continue instruction with the other selected target words from your curriculum that encourage vowel flexing (e.g., *kind*, *spin*, or *wind*). This time, allow the student to sound out the word. Scaffold the decoding attempt by reminding the student of the strategy (*try different sounds for some of the letters, especially the vowels*) and encourage the student to check that the word makes sense within the sentence and/or is a word the child knows the meaning of.

## 5 | Vowel Flexing With Vowel Teams

Vowel teams are especially challenging as they may represent multiple phonemes. Consider the many pronunciations of *ea*. It is pronounced as long-a in *great*, short-e in *head*, long-e in *meat*, schwa in *ocean*, and as two distinct phonemes in *idea*. The word *lead*, which contains the *ea* vowel team, can even have two pronunciations depending on whether the word is an adjective (the *lead* pellet) or a verb (*lead* the way). In the case of *lead*, the ability to accurately decode the word requires more than GPC

knowledge. Such ambiguous cases require the reader to try different possible pronunciations, check the possibilities against their oral vocabularies to determine if the possible pronunciation is a real word, and then determine whether the word makes sense in the sentence.

When providing vowel flexing instruction with vowel teams, it is important to consider which teams are strong choices that will lead to accurate decoding. We want to select vowel teams that make the sound of one of the vowels rather than a new sound. For example, *break* is a strong choice as the vowel team represents a long-a sound. In contrast, *ground* would not be a strong choice as the vowel team represents a new sound rather than the long or short sound of either of the vowel letters. Vowel teams that can typically be accurately decoded via vowel flexing include those presented in Figure 3 (see <https://www.guilford.com/resources/Early-Literacy-Instruction-and-Intervention-Third-Edition/9781462553655> for additional examples). Other vowel teams that have one common pronunciation (e.g., au, aw, ew, oi, and oy), those with two common pronunciations (e.g., oo, ow, and ou), or r-controlled vowels (e.g., ir, er, ar, and ur) may require explicit, direct instruction. These multiple pronunciations and possibilities can be very challenging for readers who are not yet proficient. Explicit instruction with orthographic mapping may also be used to support the learning of irregularly spelled high-frequency words, especially with very beginning readers.

**TABLE 1** | Instructional dialogue for vowel flexing with single vowels.

Directions for task	Teacher says	Comments/teacher actions
Show the target word “child” in the sentence “Ben is a child.”		Consider using a student’s name.
Introduce the vowel flexing strategy (“try different sounds for letters, especially the vowels”).	“I’m going to pretend that I don’t know this word yet so we can learn a new strategy. Let’s start by using a strategy we already know. We can look at the letters in the word and think about their sounds. This will help us think about what the word might be.”	Model sounding out the word using a short-i sound. (/ch/ / ĭ / /l/ /d/)
Model “does the word make sense” strategy.	“Hmmm. When I sounded it out, it made a word that I know ( <i>chilled</i> ) but that word doesn’t make sense in the sentence. Sometimes we need to use more than one strategy when we’re trying to figure out/ solve words we don’t already know. Let’s try our new strategy, “ <i>try different sounds for some of the letters, especially the vowels</i> ”. Let’s start with the vowel. We already tried the ĭ sound. What is another sound for i?”	Allow the child to respond with the long-i sound.
Confirm response and model sounding out the word.	“Yes, the letter i can also sound just like its name. Let’s try using that sound in our word.”	Model sounding out the word with the long-i sound (/ch/ / ī / /l/ /d/).
Model defining the target word to demonstrate knowledge of word meaning and confirming the decoding attempt makes sense in the sentence.	“Child! I know the meaning of that word. A child is a kid. Let’s see if this makes sense in our sentence.”	Read the original sentence “Ben is a child” and confirm that this decoding makes sense.

**TABLE 2** | Instructional dialogue for vowel flexing with vowel teams.

Directions for task	Teacher says
Remind students they have practiced vowel flexing with single vowels and have gotten pretty good.	“Vowel flexing can also be used when there are two vowels next to each other. We can try both sounds for the vowels until we come up with a real word that makes sense in the sentence.”
Show students the sentence with the target word underlined.	“I’m going to pretend I don’t know this word so we can learn a new way to use the “try different sounds” strategy. When two vowels are together in a word (point to the <i>ea</i> in <i>steak</i> ), usually only one sound is heard. So, we say just one sound for both of the vowels together. A good way to puzzle through words like this is to think about the different sounds we know for each of the vowels and see which sound makes a real word. This will help us think about what the word might be.”
Model sounding out the word using the long and the short sounds for E.	“Watch me as I try to figure out this word. (Point to the word ‘steak’.) I’ll start by trying the two sounds I already know for the letter E. The sound for E can be the same as its name, <i>ē</i> , or it can be <i>ĕ</i> , like the sound we hear at the beginning of Ed. So, I’ll try those two sounds for the letter E. /s/ /t/ / <i>ē</i> / /k/, <i>stĕk</i> , /s/ /t/ / <i>ĕ</i> / /k/, <i>steek</i> .”
Model checking to see if the attempted pronunciation is a word in the student’s oral vocabulary and continuation of vowel flexing.	“Hmmm. Those don’t sound like real words, so I’ll try the two sounds for the letter A. The sound can be the same as its name, <i>ā</i> , or it can be <i>ă</i> , like the sound we hear at the beginning of apple. So, I’ll try those two sounds for the letter A. /s/ /t/ / <i>ā</i> / /k/, <i>stāk</i> . That’s a real word, maybe it’s <i>steak</i> . Just to be sure, I’m going to try the other sound for A, /s/ /t/ / <i>ă</i> / /k/, <i>stak</i> . Hey, that’s a real word too!”
Model using the sentence to help determine which word is correct.	“Let’s use our <i>think about what makes sense</i> strategy to help figure out which word makes sense. <i>The girl likes to eat steak</i> . I know that steak is something you eat, so that makes sense. Just to be sure, I can try the word <i>stack</i> , also. <i>The girl likes to eat stack</i> . No, that doesn’t make sense. <i>Stack</i> is a real word, but you can’t eat <i>stack</i> ! This word must be <i>steak</i> .”

## 6 | Instructional Routine for Vowel Flexing With Vowel Teams

Using your instructional materials/curricula, select several words with a vowel team that does not follow the most common pronunciation for that vowel team. The other GPCs in the words should be fully decodable and known to students. It is helpful to present the words in sentences (e.g., for the word “steak,” “She likes to eat steak.”). Reviewing the long and short sounds for E and A can ensure the student is ready to work with a vowel team that can be decoded via vowel flexing.

Continue instruction with the additional examples (i.e., *waist* or *bread*), this time allowing the students to sound out the word. Scaffold the decoding attempt by reminding the students of the strategy (*try different sounds for some of the letters, especially the vowels*) and encourage them to check that the word is a real word and/or makes sense within the sentence. After instruction, provide opportunities for the students to practice using natural texts providing support as needed.

Word reading is an item specific task that depends on the decodability of the word *and* the word reading ability of the reader (Steady and Compton 2019). A child who is a developing reader may read some words accurately and effortlessly and need to puzzle through other words in a slow and laborious manner. Given this, it is important to consider not only what we are teaching (words, spelling patterns, GPCs, etc.) but also the

current ability of the reader. Purposeful, careful, and responsive instruction can facilitate the further development of a self-teaching mechanism, which allows for the development of word reading proficiency.

*Xavier realizes he has tried both the long and short sounds for E, so he attempts the long A sound as this is the other vowel in the team. He slowly reads ‘st/ ā/ /k/’ and continues to read the sentence. “I know that steak is a food and this makes sense here!” Xavier smiles up at Ms. Navy knowing he has successfully decoded the word.*

Xavier’s persistence with puzzling through the word for an accurate identification builds his orthographic knowledge and increases the likelihood that he will successfully identify *steak* upon later encounters (Ehri 2020). Additionally, Xavier has developed the understanding that *ea* can represent the long-a sound, which may be useful in the future when he encounters words such as *break* or *great*. By puzzling through the word successfully, Xavier has essentially taught himself how to read the word using his strategies and GPC knowledge. This is an example of Share’s self-teaching mechanism, where the reader applies their GPC knowledge to decode unfamiliar words and uses context and knowledge of word meanings to confirm/disconfirm decoding attempts. Successfully puzzling through unfamiliar words builds Xavier’s word reading ability (his sight vocabulary) and helps move him toward automaticity with decoding and word reading proficiency more generally.

ai	ea	ie	oa	ue
ay	ee		oe	ui
	eu*			

\*As in *pseudo*.

**FIGURE 3** | Vowel teams that typically can be accurately decoded through vowel flexing (Gelzheiser et al. 2019).

## 7 | Developing Knowledge of Word Meanings

SfV depends on semantic knowledge in addition to GPC knowledge as there is a lexical component to SfV (Wang et al. 2013). Children with larger oral vocabularies have larger word banks to draw from when attempting to match a pronunciation with an actual word. Larger vocabularies also are associated with broader knowledge of sounds and spellings (Metsala 2011). A reader with a limited oral vocabulary may accurately decode a word but may not be able to confirm the accuracy of the attempt due to unfamiliarity with the decoded word (in either pronunciation or meaning). A reader with a larger vocabulary can confirm a decoding attempt by matching it to a word in their oral vocabulary and ensuring the meaning of the word is congruent with the meaning of the text in which it occurs. Thus, in addition to teaching children decoding skills, an emphasis also needs to be placed on vocabulary development. Knowledge of word meanings and pronunciations likely facilitates the use of SfV.

## 8 | Reading Widely

One of the most effective means of building reading proficiency is to engage children in reading widely and frequently (Allington and McGill-Franzen 2021). Independent reading is exceptionally powerful for further reading development and learning (Ehri 2005, 2014; Share 1995). Frequent independent reading of diverse texts, both decodable and natural, allows the reader to encounter unfamiliar words and utilize their word-solving skills along with SfV to accurately identify them. Seidenberg (2017) notes the importance of reading as a data-absorbing task where “the sheer amount and variety of text that children read is important” (p. 92). Beginning readers encounter many unfamiliar words when reading widely across texts including a wide range of words. These word encounters and successful decoding attempts allow the child to see “statistical patterns” over time (Seidenberg 2017) and use these detected patterns in future decoding attempts, thereby contributing to the development of learners’ self-teaching skills. Decodable texts are tightly controlled to focus on specific phonics patterns. This makes them a good choice for practicing newly taught phonics skills. As SfV is distinct from phonics, texts that are not controlled for decodability, including narratives and nonfiction texts, are stronger choices for enabling learners to build their sight vocabularies via application of SfV since readers are more likely to encounter unfamiliar words that cannot be readily decoded in “natural” texts.

## 9 | Conclusion

A strong foundation in GPCs is essential but not sufficient for developing a sight word vocabulary. Irregular words do not completely follow GPCs that are commonly taught and therefore may require the reader to be flexible with decoding attempts. Developing readers’ SfV can help them effectively puzzle through words that do not follow typical spelling patterns or that include patterns that have not yet been explicitly taught/practiced. This flexibility can enable self-teaching, allowing readers to develop strong orthographic mappings that may be generalized to other unfamiliar words. Importantly, helping students to develop SfV may both minimize later word reading difficulties and support the development of the extensive sight vocabulary needed to enable comprehension of progressively more complex texts.

### Take Action!

1. Develop and teach students to play a memory-style matching game that encourages application of their SfV.
  - a. Print 5–10 sentences containing a target word that encourages the use of SfV on a set of index cards, one sentence per card with each target word underlined. Provide a matching picture for each sentence on a different index card, one picture per card.
  - b. Place cards in two columns on the table, with sentences and pictures facing up.
  - c. Taking turns, a student will read a printed sentence using SfV as needed. The student may use the provided pictures to support and confirm the decoding attempt of the target word. If the student is able to accurately decode the word, the student keeps the sentence and picture cards, and another student takes a turn. Provide support as needed and remind the student to use the provided strategy list.
  - d. When all matches are complete, each student practices reading the words aloud again to promote automaticity. The cards may be placed face down on the table to play the game as in a memory/matching style in additional rounds.
2. Make the game available for students to play on their own or with a partner, replacing the sentence and picture cards to match current instruction as needed.

### Conflicts of Interest

The authors declare no conflicts of interest.

### Data Availability Statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

### References

- Allington, R. L., and A. M. McGill-Franzen. 2021. “Reading Volume and Reading Achievement: A Review of Recent Research.” *Reading Research Quarterly* 56, no. S1: S231–S238. <https://doi.org/10.1002/rrq.404>.
- Edwards, A. M., N. Seigelman, V. M. Rigobon, V. M. Kearns, J. R. Rueckl, and D. L. Compton. 2022. “Unpacking the Unique

- Relationship Between Set for Variability and Word Reading Development: Examining Word- and Child-Level Predictors of Performance.” *Journal of Educational Psychology* 114, no. 6: 1242–1256. <https://doi.org/10.1037/edu0000696>.
- Ehri, L. C. 2005. “Learning to Read Words: Theories, Findings and Issues.” *Scientific Studies of Reading* 9, no. 2: 167–188. [https://doi.org/10.1207/s1532799xssr0902\\_4](https://doi.org/10.1207/s1532799xssr0902_4).
- Ehri, L. C. 2014. “Orthographic Mapping in the Acquisition of Sight Word Reading, Spelling Memory, and Vocabulary Learning.” *Scientific Studies of Reading* 18, no. 1: 5–21. <https://doi.org/10.1080/10888438.2013.819356>.
- Ehri, L. C. 2020. “The Science of Learning to Read Words: A Case for Systematic Phonics Instruction.” *Reading Research Quarterly* 55: S45–S60. <https://doi.org/10.1002/rrq.334>.
- Gelzheiser, L. M., D. M. Scanlon, L. Hallgren-Flynn, and M. Connors. 2019. *Comprehensive Reading Intervention in Grades 3–8*. Guilford Press.
- Gelzheiser, L. M., D. M. Scanlon, F. R. Vellutino, L. Hallgren-Flynn, and C. Schatschneider. 2011. “Effects of the Interactive Strategies Approach-Extended: A Responsive and Comprehensive Intervention for Intermediate Grade Struggling Readers.” *Elementary School Journal* 112, no. 2: 280–306.
- Gibson, E. J., and H. Levin. 1975. *The Psychology of Reading*. MIT Press.
- Kearns, D. M., H. J. Rogers, T. Koriakin, and R. Al Ghanem. 2016. “Semantic and Phonological Ability to Adjust Recoding: A Unique Correlate of Word Reading Skill?” *Scientific Studies of Reading* 20, no. 6: 455–470. <https://doi.org/10.1080/10888438.2016.1217865>.
- Metsala, J. 2011. “Lexical Reorganization and the Emergence of Phonological Awareness.” In *Handbook of Early Literacy Research*, edited by S. B. Neuman and D. K. Dickinson, 66–84. Guilford.
- Perfetti, C., and J. Stafura. 2014. “Word Knowledge in a Theory of Reading Comprehension.” *Scientific Studies of Reading* 18, no. 1: 22–37. <https://doi.org/10.1080/10888438.2013.82768>.
- Savage, R., G. Georgiou, R. Parrila, and K. Maiorino. 2018. “Preventative Reading Interventions Teaching Direct Mapping of Graphemes in Texts and Set-For-Variability Aid At-Risk Learners.” *Scientific Studies of Reading* 22, no. 3: 225–247. <https://doi.org/10.1080/10888438.2018.1427753>.
- Savage, R., G. K. Georgiou, T. Inoue, K. Dunn, and R. Parrila. 2024. “Set-For-Variability Predicts Responsiveness to Tier 2 Reading Interventions.” *Scientific Studies of Reading* 29: 115–137. <https://doi.org/10.1080/10888438.2024.2418940>.
- Scanlon, D. M., and K. L. Anderson. 2020. “Using Context as an Assist in Word Solving: The Contributions of 25 Years of Research on the Interactive Strategies Approach.” *Reading Research Quarterly* 55, no. S1: S19–S34. <https://doi.org/10.1002/rrq.335>.
- Scanlon, D. M., K. L. Anderson, E. M. Barnes, and J. M. Sweeney. 2024. *Early Literacy Instruction and Intervention: The Interactive Strategies Approach*. 2nd ed. Guilford Press.
- Scanlon, D. M., F. R. Vellutino, S. G. Small, D. P. Fanuele, and J. M. Sweeney. 2005. “Severe Reading Difficulties—Can They be Prevented?: A Comparison of Prevention and Intervention Approaches.” *Exceptionality* 13, no. 4: 209–227.
- Seidenberg, M. 2017. *Language at the Speed of Sight: How We Read, Why so Many Can't, and What Can Be Done About It*. Basic Books.
- Share, D. L. 1995. “Phonological Recoding and Self-Teaching: Sine Qua Non of Reading Acquisition.” *Cognition* 55: 151–218.
- Share, D. L. 2008. “On the Anglocentricities of Current Reading Research and Practice: The Perils of Overreliance on an “Outlier” Orthography.” *Psychological Bulletin* 134, no. 4: 584–615. <https://doi.org/10.1037/0033-2909.134.4.584>.
- Steady, L. M., and D. L. Compton. 2019. “Examining the Role of Imageability and Regularity in Word Reading Accuracy and Learning Efficiency Among First and Second Graders At-Risk for Reading Disabilities.” *Journal of Experimental Child Psychology* 178: 226–250. <https://doi.org/10.1016/j.jecp.2018.09.007>.
- Steady, L. M., D. L. Compton, Y. Petscher, et al. 2019. “Development and Prediction of Context-Dependent Vowel Pronunciation in Elementary Readers.” *Scientific Studies of Reading* 23, no. 1: 49–63. <https://doi.org/10.1080/10888438.2018.1466303>.
- Steady, L. M., A. E. Edwards, V. M. Rigobon, et al. 2023. “Set for Variability as a Critical Predictor of Word Reading: Potential Implications for Early Identification and Treatment of Dyslexia.” *Reading Research Quarterly* 58, no. 2: 254–267. <https://doi.org/10.1002/rrq.475>.
- Steady, L. M., A. M. Elleman, M. W. Lovett, and D. L. Compton. 2016. “Exploring Differential Effects Across Two Decoding Treatments on Item-Level Transfer in Children With Significant Word Reading Difficulties: A New Approach for Testing Intervention Elements.” *Scientific Studies of Reading* 20, no. 4: 283–295. <https://doi.org/10.1080/10888438.2016.1178267>.
- Steady, L. M., L. Wade Woolley, J. G. Rueckl, K. R. Pugh, J. D. Elliott, and D. L. Compton. 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, no. 6: 523–532. <https://doi.org/10.1080/10888438.2019.1620749>.
- Wang, H., L. Nickels, K. Nation, and A. Castles. 2013. “Predictors of Orthographic Learning of Regular and Irregular Words.” *Scientific Studies of Reading* 17: 369–384. <https://doi.org/10.1080/10888438.2012.749879>.

#### More to Explore

- To the Classroom Podcast: Dr. Laura Steady and Dr. Donald Compton—Set for Variability.
- <https://podcasts.apple.com/us/podcast/19-dr-laura-steady-and-dr-don-compton-set-for-variability/id1671184358?i=1000629025571>
- Classroom Caffeine Podcast: A Conversation with Dr. Donna Scanlon <http://www.classroomcaffeine.com>.
- Anderson, K. L., and D. M. Scanlon. 2020. “The Development of Sight Vocabulary.” *The Reading Teacher*, 74, no. 3: 346–352. <https://doi.org/10.1002/trt.1953>.