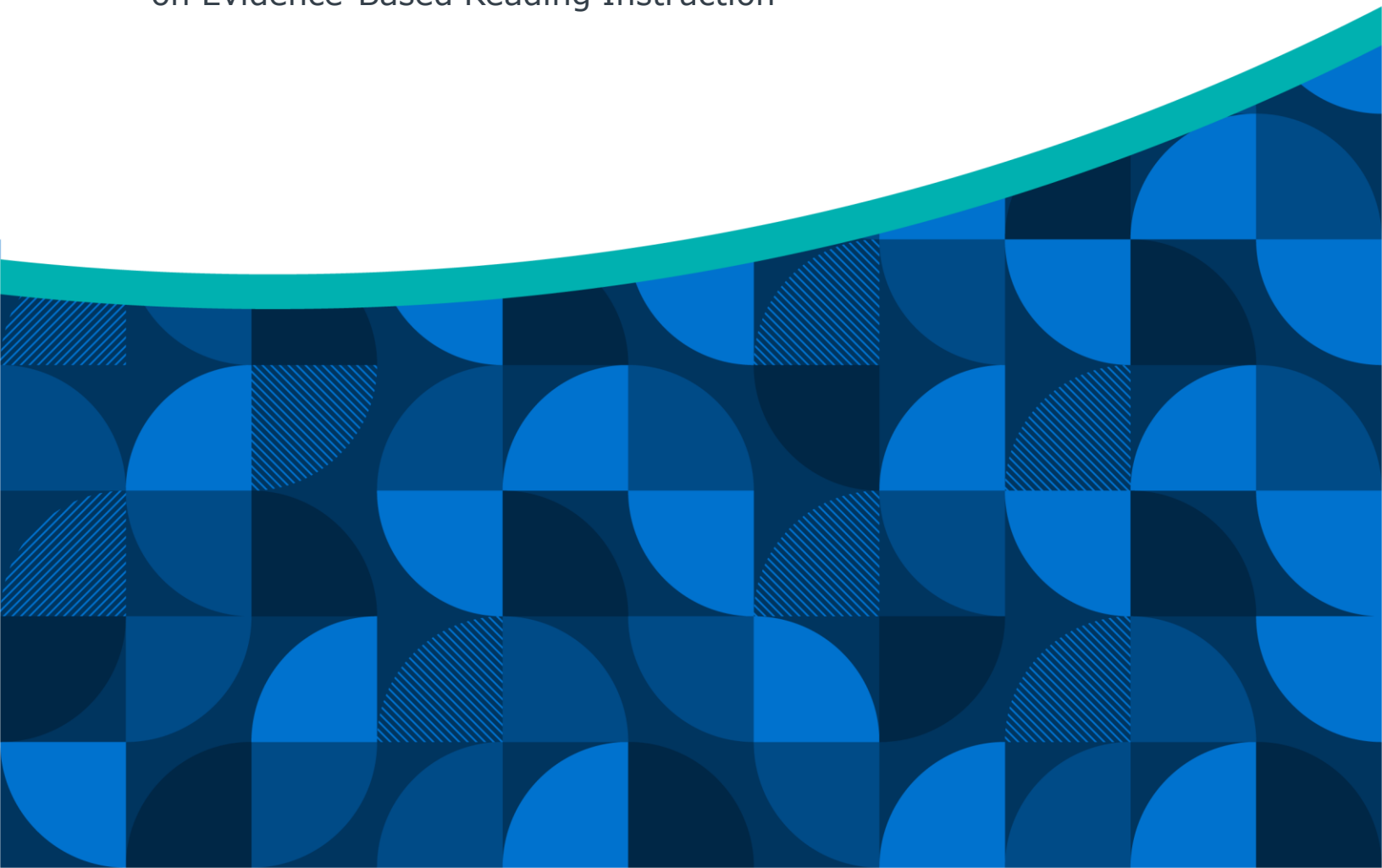# EAB

Practice Snapshot: Science of Reading Implementation Guide

Provide Explicit Guidance
on Evidence-Based Reading Instruction

EAB

Education's Trusted Partner to Help Schools and Students Thrive

Your Imperatives Determine Ours

INSTITUTIONAL STRATEGY

Prepare Your Institution for the Future
Executive guidance rooted in research to support your strategic priorities

MARKETING AND ENROLLMENT

Achieve Your Enrollment and Growth Goals
Tailored partnerships powered by a recruitment ecosystem with unrivaled reach to enroll your future classes

STUDENT SUCCESS

Build a Student-Centric Campus
Technology trusted by 850 schools to retain, graduate, and empower more students

DIVERSITY, EQUITY, AND INCLUSION

Advance DEI on Campus and in Your Community
Technology, research, and bold initiatives to strengthen your DEI strategy and eliminate equity gaps

DATA AND ANALYTICS

Embrace Digital Transformation
Data and analytics solutions built for higher education to guide decisions and accelerate innovation

We partner with 2,500+ institutions to accelerate progress and enable lasting change.

95%+ of our partners return to us year after year because of results we achieve, together.

Executive Summary

Most Early Grade Instruction Fails to Align with the Science of Reading

Researchers have long examined how the brain learns to read and what this means for reading instruction. However, most administrators and elementary reading teachers are unaware of this research and its implications for the classroom. As a result, more than half of today's fourth grade students struggle to reach reading proficiency.[1]

To support districts as they implement science-based reading reform, this guide from EAB's research on _The Science of Reading_ offers templates and resources that aim to help provide explicit guidance for implementing evidence-based reading instruction.

Ongoing Implementation Support is Rare, but Necessary to Ensure Lasting Impact

Providing principals and teachers knowledge of the science of reading is critical but not enough. Even the best professional development can fail to translate to classroom practice without ongoing support and pragmatic guidance. In a survey of 20,000 teachers, nearly all of them expressed their belief that ongoing instructional support is very helpful as they work to improve practice, but just one fifth of them believe they actually get that kind of support.

To compound this problem, schools often have inconsistent definitions of ideal reading instruction, and without a shared understanding, administrators and teachers are left to their own discretion to determine the best path forward.

50% Of administrators report that it is **very challenging to provide content-specific guidance** for teachers

162 Average hours per year that elementary teachers spend **creating and sourcing their own material** for literacy blocks

Districts need to **create clear and consistent structures** that will ensure teachers know how to translate this knowledge into practice and that will support them in doing so**. Explicit implementation guidance and frequent feedback** can help teachers and principals make sure their students benefit from scientifically-informed reading instruction.

Principals as Well As Teachers Benefit from More Explicit Guidance

"Principals help to set the foundations for school success, but we were finding that many of the principals themselves did not have much background in the science of reading…Some principals shared similar teacher beliefs that some students were unlikely to make much reading improvement by third grade because of non-school factors beyond their control. After all, this is how it's always been. We had to change our mindset."

Jack Silva, CAO
Bethlehem Area School District

---

1) As measured by the National Assessment of Educational Progress (NAEP), the only standardized national assessment

2) Foundational reading skills refer to phonological awareness, print concepts, phonics/word recognition, and fluency.

Source: National Center for Education Evaluation and Regional Assistance, 2010, Study of Teacher Preparation in Early Reading Instruction; National Center on Teacher Quality, 2016, Landscapes in Teacher Prep: Undergraduate Elementary Ed; NCES, 2017, Teacher Professional Development By Selected Teacher and School Characteristics: 2011-12; REL Southwest, 2007, Reviewing the evidence on how teacher professional development affects student achievement; EAB interviews and analysis.

Provide Explicit Guidance on Evidence-Based Reading Instruction

Snapshot Description

It can be difficult for teachers to integrate professional learning into the classroom without implementation support beyond professional development days. Such guidance helps teachers translate theory into practice. District leaders should aim to ensure teachers know what is expected of them by creating consensus around proper classroom time allocation, defining quality instruction, and highlighting what should and should not be emphasized in class.

Resources

Recommended Owners: Director of Curriculum and Instruction, Early Literacy Coordinator

Tool 1: Foundational Skills Instructional Guide
Tool 2: Sound Wall Starter Kit

Overview and Key Lessons

This section provides guidelines, tools, and strategies for supporting teachers as they align their instruction to brain-based reading research.

1 Ensure teachers are given **fundamental information related to teaching the foundational skills** by clearly defining the skills and supporting their practice in the classroom.

2 Provide teachers with the necessary information to **create classroom sound walls** and promote greater **focus on phonemic awareness and phoneme-grapheme correspondence**.

Source: EAB interviews and analysis.

1 | Foundational Skills Instructional Guide

Align Early Grade Instruction with Reading Research

In addition to providing teachers knowledge of scientifically-based research, it is important that district and school leadership assist them in translating this knowledge into classroom practice in a pragmatic and easy to implement way. **The following foundational skills instructional guide provides information on fundamental reading concepts as well as sample ideas for integrating their practice into the classroom**.

Establish a Shared Understanding of the Foundational Skills
Foundational Reading Skills as Defined by the Common Core State Standards

Phonological Awareness
- Discernment and manipulation of units of oral language, including words, syllables, and rimes
- Includes **phonemic awareness**, which is the recognition and manipulation of discrete speech sounds (phonemes)
- Can be promoted in the classroom with explicit reference to a **sound wall**
- *See page 6 for guidelines on phonological awareness progression and pages 10-16 for a guide to building a classroom sound wall*

Print Concepts
- Understanding the features and organization of print
- **Recognition and formation of letters and the basic elements of print** (e.g., capitalization and punctuation conventions)
- Foundational to introducing students to the **alphabetic principle** and to **sound/symbol (phoneme/grapheme) correspondence**
- *See page 7 for sample guidelines and strategies for practicing print concepts*

Phonics
- Understanding **sound and spelling patterns** through analysis of the relationship among sounds, letters, and roots within words
- Improves with knowledge of **morphology**, the study of the structure of words
- *See page 8 for sample phonics and morphology strategies*

Fluency
- Application of sound, letter, and word knowledge through accurate decoding
- Involves the **rate, accuracy, and expression (or prosody)** of one's reading
- Improves through **practice with decodable readers** and increased **automaticity of word recognition**
- *See page 9 for sample fluency guidelines and strategies*

Source: Student Achievement Partners, "Foundational Skills Guidance Documents: Grades K-2"; EAB interviews and analysis.

1 | Foundational Skills Instructional Guide

Sample Phonological Awareness Guidelines and Strategies

Phonological Awareness

Sequence Instruction to Match the Progression of Reading Development

Think of reading development occurring along a spectrum of complexity. Instruction should similarly progress from simplest skills to the most complex.

▶ Consider the following progression of **phonological awareness development**:

SIMPLEST

1 **Oral Rhymes and Alliteration**
Recognition of the sounds at the beginning and ends of words

2 **Words in Sentences**
Identification of the number of words in a sentence

3 **Syllables in Words**
Breaking words down into discrete syllables

4 **Onset and Rime in Words**
Breaking down syllables into the initial sound before the vowel (onset) and the closing sound including the vowel (rime)

5 **Discrete Phonemes in Words**
Identification of English's 44 phonemes in spoken words

MOST COMPLEX

▶ Consider the following **guidelines when planning instructional sequencing**:

① **Teach students all consonant phonemes before moving on to consonant blends** (consonant clusters that blend two or more sounds together) **or digraphs** (consonant clusters that produce one sound).

② When introducing new sounds, be sure to **avoid teaching two sounds of similar articulation one right after the other.** For example, two phonemes that differ only in voiced or voiceless articulation should be taught separately.

▶ *See the **Sound Wall Starter Kit** on pages 10-16 for guidance on building a sound wall to promote phonological awareness in your classroom.*

eab.com

1 | Foundational Skills Instructional Guide

Sample Print Concepts Guidelines and Strategies

A Print Concepts

Ensure Students Master the Alphabetic Principle

Understanding the alphabetic principle, the systematic relationship between the written letters of an alphabet and its sounds, is a critical skill students must master to decode words accurately and one that requires frequent practice in the classroom. Embed practice of phoneme-grapheme or sound-symbol correspondence into lessons to help students achieve mastery of this fundamental principle.

▶ Every phoneme is represented by a single grapheme, which can be one or more letters. Consider the following examples. [*See pages 33-35 for a complete list of English phonemes and corresponding graphemes and page 36 for information on critical phonemes for speakers of non-mainstream English*.]

	Phoneme	Corresponding Graphemes	Examples
①	/e/	a, ai, eigh, aigh, ay, et, ei, au, a_e, ea, ey	b**a**by, m**ai**d, w**eigh**, str**aigh**t, p**ay**, fil**et**, **ei**ght, g**au**ge, m**a**d**e**, br**ea**k, th**ey**
②	/ʃ/	sh, ce, s, ci, si, ch, sci, ti	**sh**am, o**ce**an, **s**ure, spe**ci**al, pen**si**on, ma**ch**ine, con**sci**ence, sta**ti**on

▶ Students need to **practice mapping phonemes to graphemes** to improve their decoding ability and their understanding of the alphabetic principle. Students can practice by **manipulating chips, tiles, or other markers to segment words into their component phonemes/graphemes, or they can use a grid**, such as the example below in which a student writes one grapheme (representing a single phoneme) in each box of the grid.

maid	m	ai	d
sham	sh	a	m
cheese	ch	ee	se

Source: Student Achievement Partners, "Foundational Skills Guidance Documents: Grades K-2"; Cabarrus County Schools, "Types of Sorts," 2019; Williams et al., "Word Study Instruction in the K-2 Classroom,"2019; Moats et al., "Teaching Phonics, Word Study, and the Alphabetic Principle," Sopris West, 2nd ed. 2010; EAB interviews and analysis.

eab.com

1 | Foundational Skills Instructional Guide

Sample Phonics Guidelines and Strategies

Phonics

Help Students Build Lifelong Language Comprehension Skills

Explicitly teach students key elements of morphology, or the study of the structure of words and word formation, to help students recognize the meaning of word roots, prefixes, and suffixes and the rules that govern their synthesis.

▶ A **morpheme** is the smallest unit of language that conveys meaning. Morphemes can be **free**, meaning they can stand on their own as independent words, or they can be **bound**, meaning they are affixes (i.e., prefixes or suffixes) that cannot stand on their own and must be combined with a free morpheme. A **word matrix**, such as the one below, can help students visualize the multiple ways bound and free morphemes combine to form new words.

		-ful	-ness
un-	**help**	-s -ing -ed	
		-er	-s

▶ Using **word sums**, such as the equations below, can help students better understand the relationship between morphology and phonology, making **explicit common spelling and pronunciation conventions**.

$$un + self + ish + ness = unselfishness$$

$$please + ant + ly = pleasantly$$

$$desire + able + ity = desirability$$

▶ Direct instruction in morphology can also help ELL students make connections between English words and words in other languages. Learning to **recognize cognates, or words of similar etymological origins**, builds linguistic skills across many languages.

Example of Morphological Analysis through Cognates			
Language	Root	Suffix	Full Word
English	**Rapid**	**-ly**	**Rapidly**
Spanish	Rápido/a	-mente	Rápidamente
French	Rapide	-ment	Rapidement

Source: Fromkin et al. (2011), *An Introduction to Language*, 9th ed.; Student Achievement Partners, "Foundational Skills Guidance Documents: Grades K-2"; Bowers, WordWorks Literacy Centre; Shanahan, "What Should Morphology Instruction Look Like"; Moats et al., "Teaching Phonics, Word Study, and the Alphabetic Principle," Sopris West, 2nd ed. 2010; EAB interviews and analysis.

1 | Foundational Skills Instructional Guide

Sample Fluency Guidelines and Strategies

Fluency

Increase Fluency Through Ongoing Practice of Decoding and Word Recognition

Incorporate ample opportunity for students to recognize spelling and sound patterns within the language to support fluency and increase automaticity in word recognition.

▶ It's important that students have the opportunity to apply their knowledge of decoding skills to decodable texts.

💡 **Begin practicing decoding skills with decodable texts that use a combination of consonant and short vowel sounds**. This will allow access to words that follow the consonant-vowel-consonant (CVC) pattern.

▶ Word sorting can be a helpful exercise that allows students to increase their familiarity with a number of words by expanding upon their knowledge of known spelling and sound patterns to recognize new words. Word sorts can be executed two different ways:

① **Closed Sort**: Students sort the provided words according to pre-determined categories, which can be based on sound patterns or spelling patterns (e.g., words with a short "a" versus a long "a" or words with a CVC pattern and those without).

② **Open Sort**: Students sort the provided words according to their own observed categorizations. This variation of word sorting is likely most effective with more advanced readers.

A Note about Writing…

Consider Writing an Opportunity for Skills Practice and Progress Monitoring
Utilize a combination of encoding and decoding exercises to ensure application of learned skills and identify gaps in understanding.

▶ Examine students' writing to gain insight into the concepts they've mastered and those they have not. Encouraging students to use **inventive spelling methods**—slowly articulating the sounds they hear in a word and their corresponding grapheme—can improve both decoding and encoding skills, while **highlighting the sounds and symbols the student may still need to practice**.

🔧 For more instructional guidance and activity examples related to foundational skills practice in the classroom, visit Student Achievement Partners' "Foundational Skills Guidance Documents" at AchievetheCore.com.

Source: Student Achievement Partners, "Foundational Skills Guidance Documents: Grades K-2"; Cabarrus County Schools, "Types of Sorts," 2019; Williams et al., "Word Study Instruction in the K-2 Classroom,"2019; Moats et al., "Teaching Phonics, Word Study, and the Alphabetic Principle," Sopris West, 2nd ed. 2010; EAB interviews and analysis.

2 | Sound Wall Starter Kit

The Importance of Sound Walls in the Early Grades

Useful in Teaching Phonemic Awareness and Phoneme-Grapheme Correspondence

Most early grade reading teachers decorate their classrooms with alphabet signs and guides, which are helpful to students as they increase their mastery of print concepts and letter recognition. However, to support students in their development of phonemic awareness and sound-symbol correspondence, teachers should also use a sound wall to guide students through the process of producing sounds and mapping each sound to its corresponding letter or group of letters. See example photos below.

Source: tools4reading, 2019; EAB interviews and analysis.
eab.com

2 | Sound Wall Starter Kit

How to Build a Sound Wall

1. Find a Prominent Space in the Classroom

Locate a wall, bulletin board, or white board with enough space to accommodate the sounds included in the sound wall. Remember there are 44 total speech sounds in the English language.

2. Organize the Sounds by Category

First separate the consonants from the vowels. [*see the next page for guidance on vowel arrangement*] Then separate consonants from consonant digraphs. [*see pages 13-15 of this toolkit for a list of all English phonemes by categorization*]
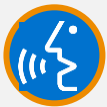
3. Use Images of Corresponding Mouth Positions to Assist in Articulation

Cartoon images, drawings, photos, or computer graphics of the position of the mouth that corresponds to each of the sounds can **remind students of the way in which each sound is articulated**.

4. Include Images to Illustrate Words that Contain the Sound

In addition to using images of the mouth articulating the sound, **provide an image to represent one of the words in which that sound can be found**. For example, an image of a balloon can remind students of the sound /b/.

5. Illustrate Various Spellings of the Sound

English phonemes can map to English graphemes in a number of ways. Use the sound wall to **provide examples of the many ways a sound can be spelled** to improve students' ability to recognize the sound in words. [*see pages 13-15 for a list of all English phonemes and corresponding spellings*]

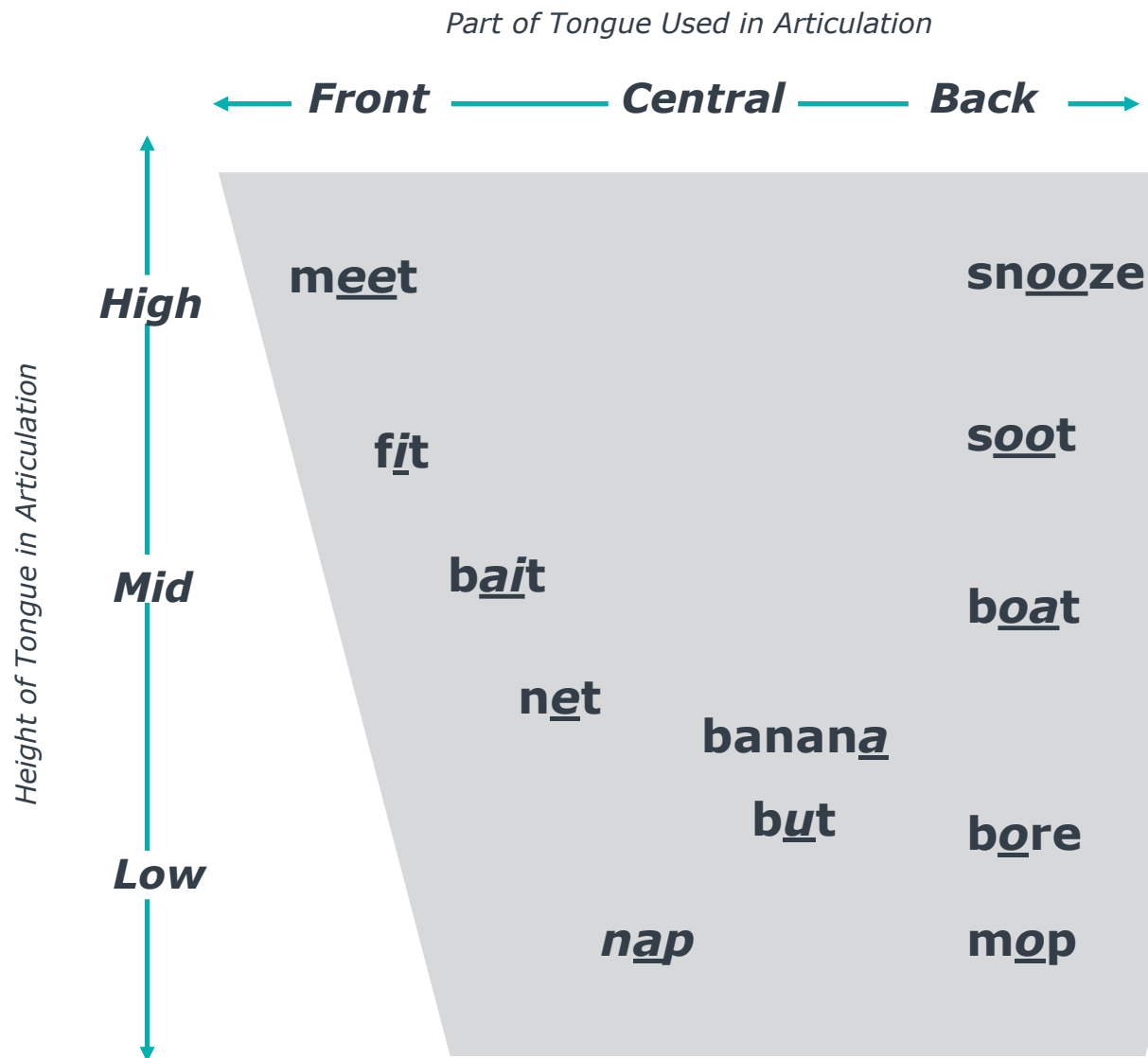### 6. Use Sound Wall to Promote Phonological Awareness and Phonics Mastery

Point out the sound wall as often as the alphabet wall when referring to spelling patterns and sounds. **Remind students of this classroom resource as they work to decode and encode new words**. Support English language learners by emphasizing the most difficult phonemes for non-native English speakers. [*see page 36 for a list of critical phonemes that often prove difficult for Spanish-speaking students*]

Source: EAB interviews and analysis.

2 | Sound Wall Starter Kit

How to Build a Sound Wall

Arrange Vowel Sounds to Correspond with Place of Articulation

Linguists study both the place and manner of articulation of phonemes, or speech sounds, in a given language. The following sound wall format is based on the English vowel chart used by linguists to highlight the variation in vowel articulation. The vertical labels designate the height of the tongue (i.e., high, mid, low), while the horizontal labels designate the part of the tongue involved in articulation (i.e., front, central, back).

Part of Tongue Used in Articulation

⟵ **Front** ——— **Central** ——— **Back** ⟶

Height of Tongue in Articulation

High

m**ee**t   sn**oo**ze

f**i**t   s**oo**t

Mid

b**ai**t   b**oa**t

n**e**t

banan**a**

b**u**t   b**o**re

Low

n**a**p   m**o**p

2 | Sound Wall Starter Kit

List of 44 English Phonemes

Consonants

Phoneme	Graphemes	Examples
1. /b/	b, bb	**b**ug, bu**bb**le
2. /d/	d, dd, ed	**d**ad, a**dd**, mill**ed**
3. /f/	f, ff, ph, gh, lf, ft	**f**ig, cli**ff**, **ph**one, enou**gh**, ha**lf**, o**ft**en
4. /g/	g, gg, gh, gu, gue	**g**un, e**gg**, **gh**ost, **gu**est, prolo**gue**
5. /h/	h, wh	**h**op, **wh**o
6. /dʒ/	j, ge, g, dge, di, gg	**j**am, wa**ge**, **g**iraffe, e**dge**, sol**di**er, exa**gg**erate
7. /k/	k, c, ch, cc, lk, qu, q(u), ck, x	**k**it, **c**at, **Ch**ris, a**cc**ent, fo**lk**, bou**qu**et, **qu**een, ra**ck**, fo**x**
8. /l/	l, ll	**l**ive, we**ll**
9. /m/	m, mm, mb, mn, lm	**m**an, su**mm**er, co**mb**, colu**mn**, pa**lm**
10. /n/	n, nn, kn, gn, pn	**n**et, fu**nn**y, **kn**ow, **gn**at, **pn**eumonic
11. /p/	p, pp	**p**in, ha**pp**y
12. /r/	r, rr, wr, rh	**r**un, ca**rr**ot, **wr**ench, **rh**yme
13. /s/	s, ss, c, sc, ps, st, ce, se	**s**it, le**ss**, **c**ircle, **sc**ene, **ps**ycho, li**st**en, pa**ce**, cour**se**
14. /t/	t, tt, th, ed	**t**ip, ma**tt**er, **Th**omas, ripp**ed**
15. /v/	v, f, ph, ve	**v**ine, o**f**, Ste**ph**en, fi**ve**
16. /w/	w, wh, u, o	**w**it, **wh**y, q**u**ick, ch**o**ir
17. /z/	z, zz, s, ss, x, ze, se	**z**oo, bu**zz**, hi**s**, sci**ss**ors, **x**ylophone, cra**ze**, pha**se**
18. /ŋ/	ng, n, ngue	ri**ng**, pi**n**k, to**ngue**
19. /j/	y, i, j	**y**ou, on**i**on, hallelu**j**ah

2 | Sound Wall Starter Kit

List of 44 English Phonemes

Consonant Digraphs

Phoneme	Graphemes	Examples
20. /ʒ/	s, si, z	trea**s**ure, divi**si**on, a**z**ure
21. /ʧ/	ch, tch, tu, ti, te	**ch**ip, wa**tch**, fu**tu**re, ac**ti**on, righ**te**ous
22. /ʃ/	sh, ce, s, ci, si, ch, sci, ti	**sh**am, o**ce**an, **s**ure, spe**ci**al, pen**si**on, ma**ch**ine, con**sci**ence, sta**ti**on
22. /θ/	th (voiceless)	**th**ings, wi**th**
23. /ð/	th (voiced)	**th**y, lea**th**er

Short Vowels

Phoneme	Graphemes	Examples
24. /æ/	a, ai, au	c**a**t, pl**ai**d, l**au**gh
25. /ɛ/	e, ea, u, ie, ai, a, eo, ei, ae	**e**nd, br**ea**d, b**u**ry, fr**ie**nd, s**ai**d, m**a**ny, l**eo**pard, h**ei**fer, **ae**sthetic
26. /I/	i, e, o, u, ui, y, ie	**i**t, **E**ngland, w**o**men, b**u**sy, g**ui**ld, g**y**m, s**ie**ve
27. /a/	o, a, ho, au, aw, ough	h**o**p, sw**a**n, **ho**nest, m**au**l, sl**aw**, f**ough**t
28. /ʌ/	u, o, oo, ou	l**u**g, m**o**nkey, bl**oo**d, d**ou**ble
29. /ə/ (schwa sound)	a, i, e, u, ar, er, or	**a**bout, dolph**i**n, tick**e**t, cact**u**s, doll**ar**, ladd**er**, hon**or**
30. /ʊ/	oo, u, ou, o	l**oo**k, b**u**sh, w**ou**ld, w**o**lf

eab.com

2 | Sound Wall Starter Kit

List of 44 English Phonemes

Long Vowels

Phoneme	Graphemes	Examples
31. /e/	a, ai, eigh, aigh, ay, et, ei, au, a_e, ea, ey	b**a**by, m**ai**d, w**eigh**, str**aigh**t, p**ay**, fil**et**, **ei**ght, g**au**ge, m**a**d**e**, br**ea**k, th**ey**
32. /i/	e, ee, ea, y, ey, oe, ie, i, ei, eo, ay	b**e**, b**ee**, m**ea**t, lad**y**, k**ey**, ph**oe**nix, gr**ie**f, sk**i**, dec**ei**ve, p**eo**ple, qu**ay**
33. /aɪ/	i, y, igh, ie, uy, ye, ai, is, eigh, i_e	sp**i**der, sk**y**, n**igh**t, p**ie**, g**uy**, st**ye**, **ai**sle, **is**land, h**eigh**t, k**i**t**e**
34. /o/	o, oa, o_e, oe, ow, ough, eau, oo, ew	**o**pen, m**oa**t, b**o**n**e**, t**oe**, s**ow**, d**ough**, b**eau**, br**oo**ch, s**ew**
35. /u/	o, oo, ew, ue, u_e, oe, ough, ui, eu, ou	wh**o**, l**oo**n, d**ew**, bl**ue**, fl**u**t**e**, sh**oe**, thr**ough**, fr**ui**t, man**eu**ver, cr**ou**p
36. /ju/	u, ou, eau, ew, ieu, iew, eu, yu, eue	**u**niform, y**ou**, b**eau**ty, f**ew**, ad**ieu**, v**iew**, f**eu**d, **yu**le, qu**eue**
37. /ɔɪ/	oi, oy	s**oi**l, t**oy**
38. /aʊ/	ow, ou, ough	n**ow**, sh**ou**t, b**ough**

R' Controlled Vowels

Phoneme	Graphemes	Examples
39. /ɛr/	air, are, ear, ere, eir, ayer	ch**air**, d**are**, p**ear**, wh**ere**, th**eir**, pr**ayer**
40. /ɑr/	ar, er, ear	**ar**m, s**er**geant, h**ear**t
41. /ɜr/	ir, er, ur, ear, or, our, yr	b**ir**d, t**er**m, b**ur**n, p**ear**l, w**or**d, j**our**ney, m**yr**tle
42. /ɔr/	or, oor, ore, oar, our, ar	p**or**k, d**oor**, m**ore**, b**oar**d, f**our**, w**ar**
43. /ir/	ear, eer, ere, ier	**ear**, st**eer**, h**ere**, t**ier**
44. /ʊr/	ure, our	c**ure**, t**our**ist

Source: Reading Well Dyslexia (2018) "The 44 Phonemes in English"; EAB interviews and analysis.

2 | Sound Wall Starter Kit

Critical Phonemes for Non-Mainstream English Speakers

Support English Language Learners in Their Study of Phonemic Awareness

Students whose first language is a language other than English or who come from a home where a dialect distinct from Mainstream English (MSE) is spoken may need additional practice to learn the phonemes of Mainstream English that may differ from their native language or dialect. Therefore, it is critical for schools to be mindful of the phonetic features of the different dialectical and language structures that are represented in their diverse student body. Schools should provide additional reading instruction for non-MSE speakers by focusing on the phonemes they are least familiar with. See below for a list of English phonemes that often prove difficult for Spanish-speaking students.

Sample English Phonemes Most Difficult for Spanish Speakers

English Phoneme	Examples
/ʃ/ → "sh" (voiceless)	**sh**ell, mi**ss**ion, na**tio**n, **ch**ef, spe**c**ial
/ʒ/ → "sh" (voiced)	mira**ge**, plea**s**ure
/θ/ → "th" (voiceless)	**th**ing, wi**th**
/ð/ → "th" (voiced)	**th**at, **th**is
/dʒ/ → "j"	**G**eor**g**e, **j**ail, ed**g**e
/z/ → "z"	**z**ebra, ha**s**
/v/ → "v"	**v**iolin, **v**ery
/r/ → "r"	**r**obe, fu**r**, he**r**
/æ/, /ɛ/, /I/, /a/, /ʌ/ (short vowels)	c**a**t, l**e**d, b**i**t, m**o**p, **u**s

---

The American Speech-Language Hearing Association provides information on phonetic systems and cultural differences related to the following languages and dialects:

Sample Languages

- Amharic
- Arabic
- Bhutanese
- Bosnian
- Burmese
- Chinese
- Congolese
- Dafuri
- Haitian Creole
- Hindi
- Hmong
- Korean
- Pashto and Persian
- Russian
- Spanish
- Somali
- Tagalog
- Turkish
- Vietnamese

Sample Dialects

- African American Vernacular English (AAVE)
- Chicano English

Source: American Speech-Language-Hearing Association (2018), "Phonemic Inventories and Cultural and Linguistic Information Across Languages."; Thonis, E. (1983) "The English-Spanish Connection. Compton, CA: Santillana; EAB interviews and analysis.

eab.com

Additional Resources

This toolkit was developed as part of an ongoing research study, *The Science of Reading,* from EAB's District Leadership Forum. For more resources, and to learn more about the District Leadership Forum, visit us at www.eab.com/k12.

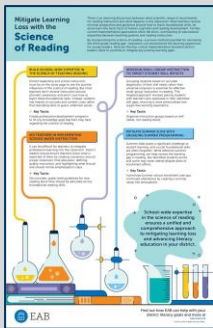| Case Study	Case Study: Improving Early Literacy Through the Science of Reading
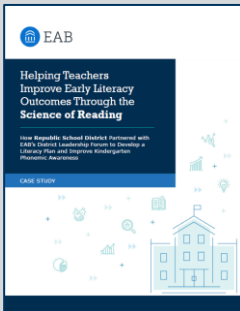
Learn how Republic School District Partnered with EAB to Develop a Literacy Plan and Improve Kindergarten Phonemic Awareness.

Read the case study here.

Infographic	Mitigate Learning Loss with the Science of Reading

Download the infographic here.

There is an alarming disconnect between what scientific research recommends for reading instruction and what happens in the classroom. Most teachers receive minimal preparation and guidance around how to teach foundational skills, let alone learn the basic facts of human cognition and reading development. Further, current implementation approaches often fall short, contributing to educational disparities between teaching systems and reading instruction.

By incorporating the science of reading—a proven method essential for narrowing the third-grade reading gap—educators can revolutionize the learning experience for young readers. This infographic outlines the four critical implementation elements district leaders need to combine to mitigate any existing learning gaps.

Comprehensive Support to Help
Districts Advance Their Strategic Priorities

The District Leadership Forum
Helping Public School Systems Get Further, Faster, Together

Lack of Progress is No Longer an Option

In 2017, a group of 30 superintendents discussed a shared frustration: despite decades of investment and no shortage of advice, schools have made very little progress in advancing student achievement. Too often, the "solutions" offered fail to recognize the real barriers to change in schools.

So, we launched a partnership together, focused on building a model of support that would help partners overcome those barriers. While carefully honing that model, we've grown to represent 200+ districts – tackling some of education's thorniest challenges along the way.

We're thinking big to help our partners achieve ambitious goals. We invite you to learn more about how the forum works and consider whether joining our movement for progress is right for your schools.

How the District Leadership Forum Helps Partners Drive Progress From the Boardroom to the Classroom

A Unique Approach to Finding Practical Solutions

Honed through 30 years working with 2500+ institutions, EAB's research process boils the ocean to identify practices that work and can be feasibly replicated in schools of any size or means

Professional Education That Makes Complex Topics Easier to Understand and Address

Always rooted in research, EAB experts equip central office leaders, principals, and teacher leaders with the insights and skills needed to tackle today's most pressing challenges

Strategy and Decision Support to Help Your Team Chart a Path Forward

EAB experts work year-round with partners to craft strategies and navigate thorny decisions, bringing unique insights and world-class problem-solving skills to your team

Change Enablement Resources Designed to Ease the Burden of Implementation

The biggest barrier to leading change is often time. We save partners hundreds of hours by creating the guides, communications, and resources needed to implement best practices

Facilitated Collaboration With Peers Tackling the Same Problems at the Same Time

From executive roundtables for superintendents to guided implementation collaboratives, we connect leaders across the nation for shared learning and action to navigate today's problems, together

Providing Deep Expertise on How to Tackle Today's Most Pressing Challenges

Where We're Helping Forum Partners to Make Progress Today

Examples of challenges EAB can help new partners to address on Day One:

Reducing Chronic Absenteeism

⇒ Hardwire effective communication

⇒ Strengthen student engagement

Raising Early Literacy

⇒ Build knowledge of reading science

⇒ Equip principals to lead successful implementation

Preparing Principals to Lead Change

⇒ Develop strategic thinking and leadership skills

⇒ Protect principals' time for strategic work

Preventing Disruptive Behavior

⇒ Create conditions for positive behavior

⇒ Increase the capacity of your support staff

Scaling Career Readiness

⇒ Scale effective career advising

⇒ Expand access to work-based learning

Raising Teacher Morale and Retention

⇒ Diagnose root drivers of low morale/engagement

⇒ Collaborate with teachers to design right-fit solutions

Optimizing Support for Student Mental Health

⇒ Strengthen early identification

⇒ Scale access to mental health care in schools

Closing College Access Gaps

⇒ Create a culture of high expectations

⇒ Remove barriers to application and matriculation

Responding to Community Flashpoints

⇒ Build your district's risk register

⇒ Hardwire practices to prevent escalation

Insights on 100+ partner-requested topics available in EAB's K-12 research library

Relentlessly Focused on Helping Districts Turn Research Into Results

Examples of how EAB's insights have led to real-world impact for District Leadership Forum Partners

Raising teacher morale and retention at Ogden Public Schools

Aligning instruction with the Science of Reading at Republic R-III

Tackling chronic absenteeism at Johnson Middle School

ABOUT EAB

At EAB, our mission is to make education smarter and our communities stronger. We work with thousands of institutions to drive transformative change through data-driven insights and best-in-class capabilities. From kindergarten to college to career, EAB partners with leaders and practitioners to accelerate progress and drive results across five major areas: enrollment, student success, institutional strategy, data analytics, and diversity, equity, and inclusion (DEI). We work with each partner differently, tailoring our portfolio of research, technology, and marketing and enrollment solutions to meet the unique needs of every leadership team, as well as the students and employees they serve. Learn more at eab.com.