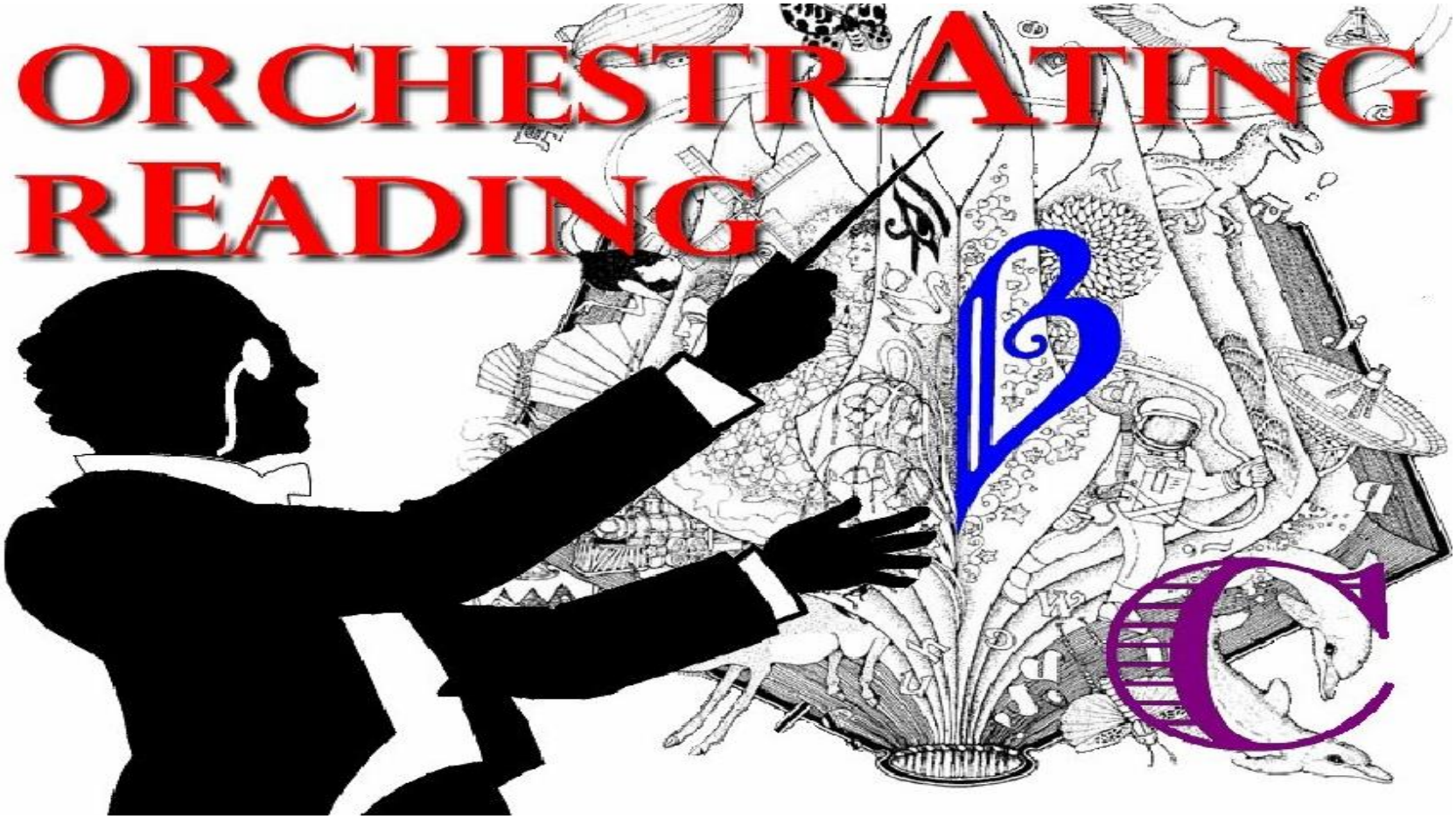
ORCHESTRATING READING



Companion video for this slideshow: https://youtu.be/WDVG9vZNI9w

Background – Letter-Sound – Spelling-Sound – Meaning-Sound – Ambiguity & Stutters

Cues – Types - Names – Silents – Discretes – Spectrum – Combined – Segments

REFRAME: "We have a problem" - more American's suffer long-term life-harm from the process of learning to read than from parental abuse, accidents, and all other childhood diseases and disorders *combined*.

Warning: Protracted difficulty with learning to read can lead to maladaptive cognitive and emotional habits that endanger the general health of learning. Above all else, do no harm.

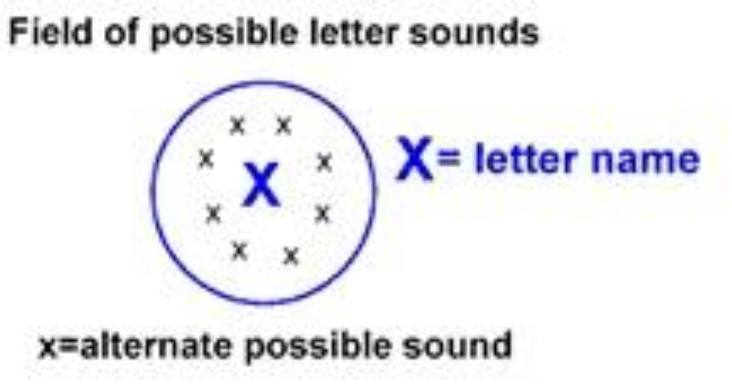
www.childrenofthecode.org

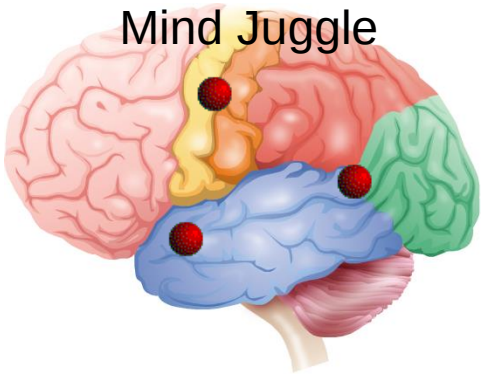
First-person demonstrate the correlation between cueing a reduction in letter-sound ambiguity and reading improvement.

Orchestrating Reading is a way of coaching a learner during the process of learning to read but it is not meant as a teaching model. It's a training step for both you and the learner that draws your attention together in the flow of working out the letter sound confusions. It is primarily a way of guiding you into becoming more first-person learning oriented in your understanding of the challenges involved in learning to read. It isn't easy. As a skilled reader you take for granted the kinds of confusions experienced by your struggling students. Orchestrating reading provides you with a personal 'learning scope' that will help you track in real-time the confusions your readers are struggling with.

ORIENTATION: FIRST PERSON LEARNING

OBJECTIVE: SYNC UP - learn to connect with the learner's confusions as they are happening. Intentionally, pedagogically-tactically, **orchestrate the learner's confusion** and meet them in it with real time cues and feedback that helps them learn their way through the confusion.





Cake

Cake

Letter-Sound Ambiguity

The letters of the English writing system have ambiguous and confusing relationships with the sounds of the English language.

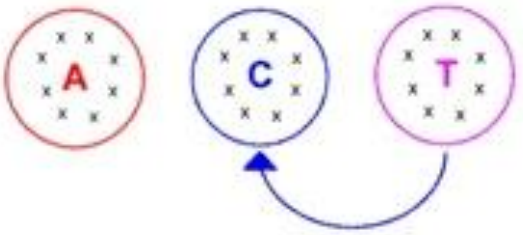
In the English writing system letters and the sounds they represent have complexly ambiguous relationships. Most letters represent a number of potential sounds. Letters can sound like their letter names, they can be silent, they can represent a spectrum of sounds related to their name (ace, fast, fall), they can represent sounds discretely different than their name (yes my lovely) they can combine to represent sounds not represented by any other single letters (ch, th, wh, sh) and they can combine to represent sounds of other single alphabet letters (ph = f).

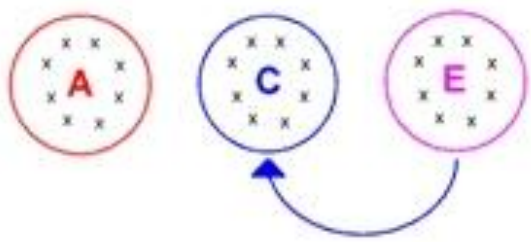
Spelling-Sound Ambiguity

Determining which of a letter's potential sounds it is to actually sound like in any instance of its use depends on resolving the letter sounds of the other letters that accompany it in the word (Bite or Bit - Deed, Dead). Resolving the letter sounds in a word is determined by the *spelling* of the word (or sub-word sound). Notice the "c" sound variations in the following:

an agency for advancing the clarity of consciousness about changes in scientific uncertainty

The sounds conveyed by the c can be a '**c**' as in agency, a near 's' as in advancing, a 'k' as in clarity, it can join with other letters to make a larger unit as in consciousness or changes, it can represent silence as in scientific, and it makes the sound of a stronger 's' as in uncertainty. In each case the sound of the c is determined by one or more letters preceding, following or surrounding it in the word.



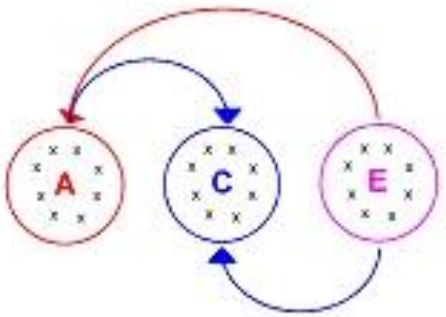


The words 'act' and 'ace' both have an 'a' before the 'c'. The sound of the 'c' changes from a 'k' sound to a 'c-s' sound when the 't' on the end of act is replaced with an 'e' making the word 'ace'.

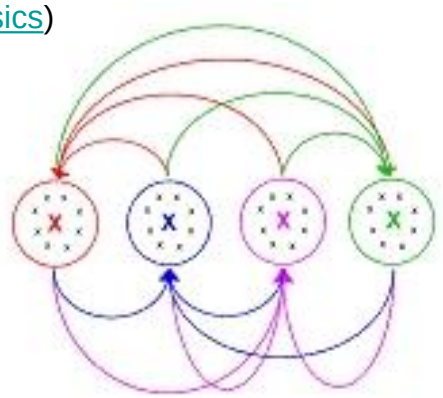
Spelling-Sound Ambiguity (continued)

Letters function like ‘variables’ in an equation that contain a range of possible sound values. Each successive letter, though it may itself be ambiguous, reduces the letter-sound ambiguity of the letters that precede it and constrains the possible sounds in the letters that follow it. The field of possible sounds that a letter can make collapses (disambiguates) down to the particular sound it is actually making only by *concurrently* processing the other letters in the word and only then by reference to spelling conventions.

(analogous to waves and particles in physics)



The ‘c’ sound changes as the ‘e’ shifts the ‘a’ sound from act to **a**ce.



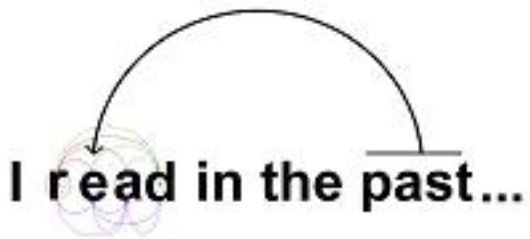
It is possible for any given letter in a word to have its letter sound determined by any one of the other letters within the word.

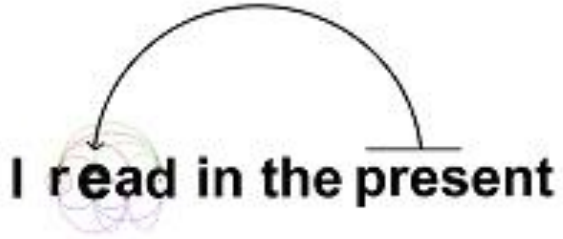
Word Meaning and Letter Sound Variability

Some words sound different even though they are spelled the same. Same-spelling word-sound variations can determine letter sounds in the word's letters.

It is important to live well. I like **l**ive performances.

The 'I' in 'live' can represent different sounds depending on the word's sound which can sound different even though the words are spelled the same. Words like this sound different not because of any difference in the letters within them but rather from the meaning of the word which is a product of its context not its letters or spelling.





Words that are spelled the same but sound different (heteronyms) have their word sounds changed based on the *meaning* that other words in the sentence attribute to it. The context of a word, which involves understanding the meaning of the sentence the word is in, can determine the word's meaning and sound which can in turn determine its constituent letter's sounds.

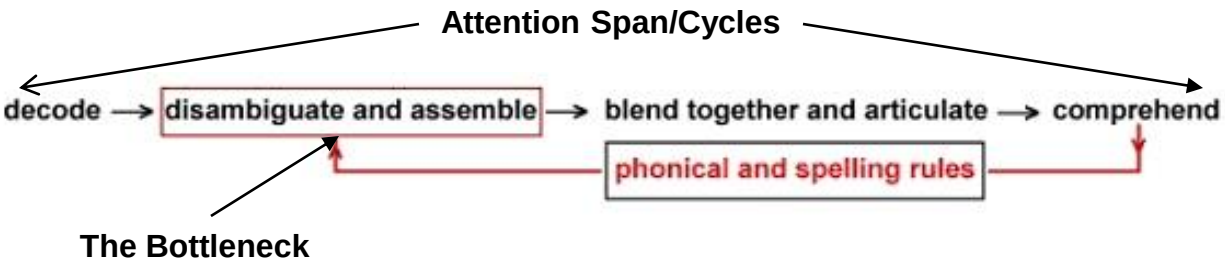
Ambiguity and Reading Stutters

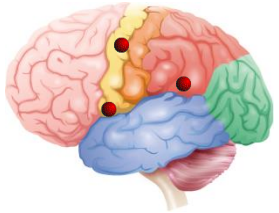
In learning to read our brains must develop automatic processing routines that will generate a virtually heard or actually spoken stream of words according to the information and instructions contained in the code.

The function of letters is to cue the *assembly* of virtual or actual word sounds.

A letter does not represent one particular sound. Each letter represents *a field of possible sounds*. A letter is like an equation variable. A letter's sound-value can only be determined by understanding its context. Letter sounds can vary according to word spelling conventions. Letter sounds can vary according to meaning of a word (words can sound different even though they are spelled the same). This is just a sample of the overall ambiguity in the system.

Working through this artificial confusion (disambiguating) while juggling (buffering) all the necessary variables before attention spans-out is what makes learning to read English so difficult.





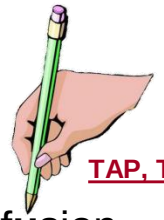
Slow disambiguating *stutters* all subsequent processes

Cueing Readers Through The Code's Confusions

Read silently along with the reader while paying attention to the ambiguity in the code they are reading and concurrently paying attention to the learner's voice, face, and tension. Learn to hear and see and later anticipate reading 'stutters' and to 'cue' the learner's mind to work through them.

Meet the learner's mind in the flow and, right when they are actually experiencing confusion, give them a hint, a 'cue', that helps them 'get' which of a letter's possible sounds it is actually making in the word they are reading.

Begin by using a pencil or pen in much the same way an orchestra conductor uses a wand – tapping it, moving it up and down, in circles, and left and right. Use the pencil tip to guide the learner's eyes in reading and move at a pace that is comfortable for him or her. When you sense their flow stutter, move the pencil tip in ways that will CUE them through the confusion.



TAP, TAP

-Real time, in the flow, CUES that reduce confusion

-Movements that are analogs of the sound variation they suggest

-Synchronize Teacher and Learner via attention to Code

CUES by “Types” of Letter-Sound Confusions

The purpose of the CUES is to reduce the amount of confusion that is stuttering the processing of a struggling reader’s brain. Due to the haphazard origin of the code’s confusing letter-sound relationships it isn’t possible to develop a cueing system that will eliminate all the confusion. We can however greatly reduce the confusion.

The following is an index of the major cues. Each uses a distinctly different pencil/pen tip movement to CUE the reader. Each cueing movement is a dynamic visual analog of the difference in sound it is suggesting.

Letter Names (1st wire and fire)

Silent Letters

Alternate Letter Sounds: Discrete

Alternate Letter Sounds: Spectrum

Combined Letter Sounds

Segmentation

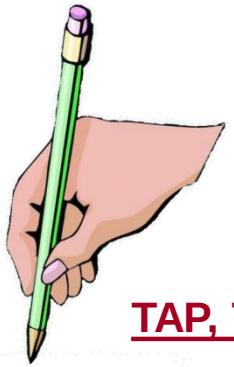
Letter Names

One of the most difficult confusions for developing readers to resolve is an unintended consequence of learning the ABCs (letter name sounds). Because we teach (most) children the ‘ABCs’ before we teach them to read, their minds become conditioned to associate a letter with its letter name sound. When later learning to read, the learner’s response to seeing a letter is to ‘hear’ its letter name. As it is seldom the case that a letter sounds like its letter name, the confusion created by this association works against the process of learning to read. We want to provide struggling readers a way to determine when a letter’s sound is to be read as its letter name and when it is not.

“Tap” the top of a letter to indicate that it’s making its letter-name sound.

remake imagination

cake



be

TAP, TAP

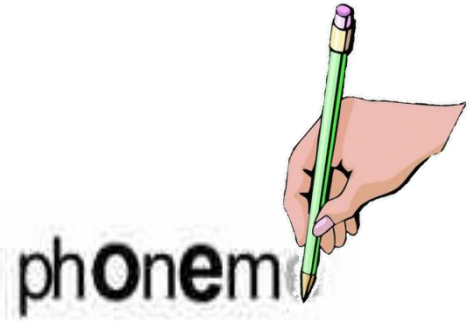
Silent / Unpronounced / Minimally Pronounced Letters

Some letters are not pronounced as in the case of the ‘a’ in ‘sea’ and the ‘k’ and ‘w’ in know. This is another layer of letter-sound ambiguity that works against the process of learning to read. We want to provide struggling readers a way to determine when a letter is ‘silent’ or minimally pronounced.

“Cover”, “hide” or “obscure” letter(s) to indicate degree of silence.

know You are right

Mightily



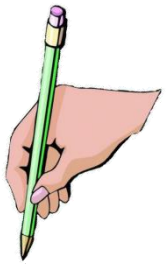
Hide / Obscure

Alternate Sounds: Discrete

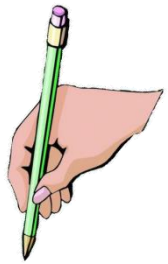
c = k = can

Many letters are used to represent sounds that don't sound anything like their letter name sound ('c' as 'k', 's' as 'c', 'x' as 'z', etc.). One approach to cueing is to draw upon their difference in tone. Each different letter sound can be distinguished as being either lower or higher in tone or pitch than the letter's LN sound. We can use relative elevation as a cue for indicating that a letter is making one of it's discrete letter sounds and to suggest which of the letters alternate sounds it is to make.

Stoke up or down to indicate a letter's higher or lower alternate sound



Vertical Strokes



Up for Higher Sound

Down for Lower Sound

Kids love to play in the gym·na·si·um.

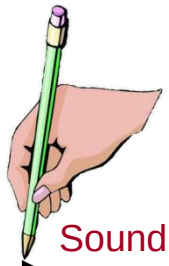
'z' 'ooh' 'j''i' 'z''e'

Alternate Sounds: Spectrum

Some letters have alternative letter sounds that all sound similar in some way as in the case with the letter ‘a’, which in addition to the LN ‘**a’** sound can also sound like aw (talk), or ae (dad). In this sense, ‘a’, ‘ae’ and ‘aw’ are variations along a ‘spectrum’ of similar sound. One attribute of letters that have a spectrum of alternate sounds is the difference in length of time, or duration, that each alternate sound lasts. In this case we could 'stretch' the width of characters to emphasize their longer or shorter durations.

Stroke horizontally in widths and at speeds to indicate shorter or longer sounds.

Horizontal Strokes varying in width and speed



Shorter Sound ← had

Longer Sound → walk

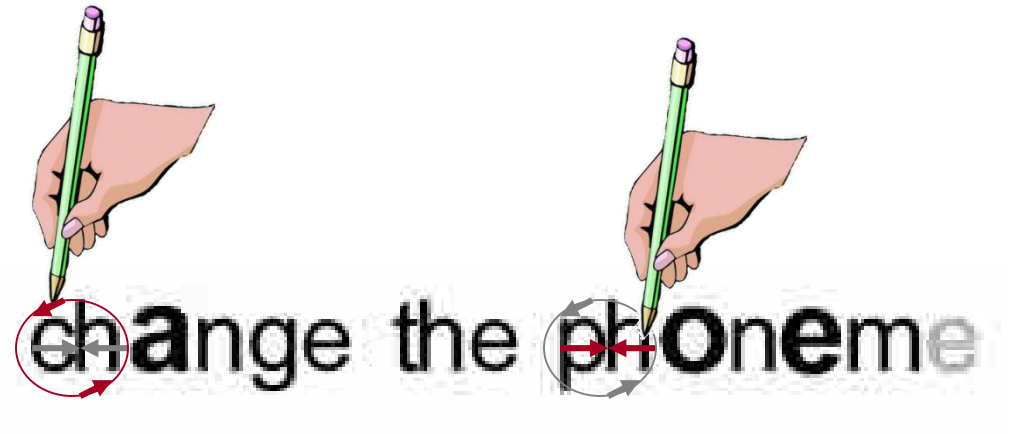
quick movement

slow movement

Combined Letter Sounds

Combined letter sounds are in a class by themselves. The problem with combined letter sounds is recognizing that their individual letters are not to be decoded separately but combined to represent a distinct group sound.

Trace a circle that includes the letters and/or 'push' them together to indicate that they are to make one sound.

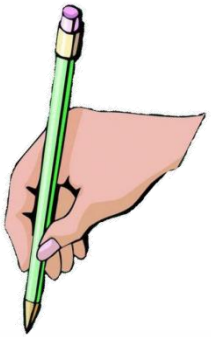


Encircle **Push Together**

Segmentation

Another significant problem for struggling readers is recognizing the beginning and ending of the sub-sounds in longer words.

Use Vertical Strokes to “Slice” the word into subsounds



Vertical Slicing Strokes

compartmentalized

segmentation

Slice Apart