

P-O-S-E(c): Application to ESL (Spanish/Hispanic) Student Populations

**Invited Presentation to the
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Phonological-Orthographic Substitution Evaluation®



Test Description and Intervention Manual

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Columbia Presbyterian Presentation

- ▶ Challenges
- ▶ Children enter school with a variety of experiences and access to literacy
- ▶ Wide differences between children from high print homes where English is the dominant language and children from second language homes, or children from homes with low print



Early observations

- ▶ Prior to designing a criterion referenced test observed
 1. patterns of errors in reading and spelling in students who had prior speech/language development issues
 2. Not all of these children had speech disorders
 3. In clinically preparation, writing an analysis of their error patterns became a foundation for intervention
 4. No existing test that elucidated error patterns



What is the P-O-S-E[©] designed to measure ?

- ▶ A standardized *criterion-referenced screening test*, the Phonological Orthographic Substitution Evaluation (P-O-S-E[©]) is designed to extract underlying phonological codes operating in the automaticity of the student's reading and spelling processes.
- ▶ Focuses on short vowel proficiency using monosyllabic non-words and low frequency of occurrence real words.



Why short vowels ?

- ▶ Common Core State Standards target 2nd grade for mastery of short vowels in monosyllabic words and the silent /e/
- ▶ The short vowel is the nucleus of every monosyllabic word
- ▶ Research based through rigorous compilation of reading models and assessment standards. Analyzed 33,000 test items, 22,000 short vowels and 11,000 silent e/rule
- ▶ Failure to acquire accurate short vowel knowledge inhibits future acquisition of long vowels.



How is the *spelling* test administered ?

Students are first administered a two part spelling test

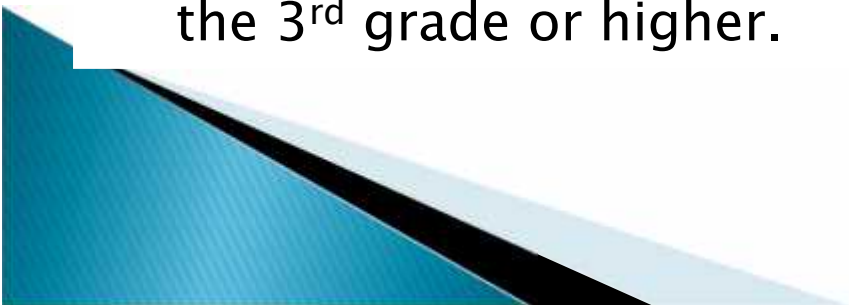
They are directed to “Write the word you hear”

First, administer the Nonsense words
Second, administered the real words

Group testing (18–20 minutes)
Testing can occur in the classroom or in groups of up to 75 students

Use an FM system to present to group so all students have equal acoustic access

Individual testing can be given to students in the 3rd grade or higher.



How and when is the *reading* test administered?

- ▶ Individual reading tests can be administered one week post spelling test.
- ▶ Group reading tests can be given using chairs outside the classroom.
- ▶ Students leave class for 4–5 minutes
- ▶ Students read two reading templates
- ▶ Clinician records reading responses on the student form



How does the P-O-S-E[®] measure a students performance ?

- ▶ Error patterns serve as the prescriptive base for a directed program of vowel training to correct weak and erroneous phonological–orthographic associations.
- ▶ Cross check error patterns on POSE results with WADE, WIST, WIAT, Woodcock test of Reading Mastery.. Word attack subtest or psuedo–word subtests



State test measures vs. student performance measures

Comparing a student's *actual* progress against that student's expected progress.

It is specific to the student and gives teachers data that specifies by individual and group what and where to teach.

* I Got Schooled, M. Night Shyamalan, Simon & Schuster, 2013.



Factors contributing to high error patterns

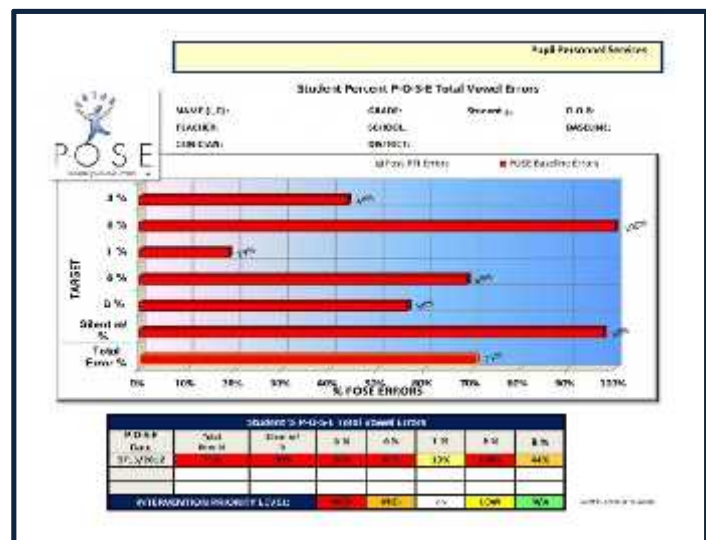
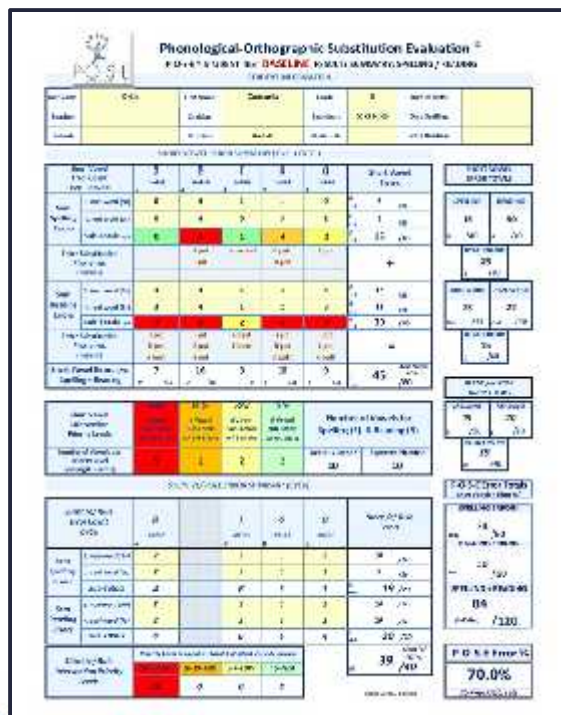
- ▶ English as a Second Language
- ▶ At risk students include:
speech/language disorders,
learning disabilities,
developmental issues
- ▶ Teaching methodology
- ▶ (Spanish vowel chart)



| Spanish/English Short Vowel Conflict | | | | | |
|---------------------------------------|----------------------|--------------------|---------------------------------------------------|-----------------------------------|-------------------------------------|
| U.S. English Vowel Phonemes AHD | U.S. English word | Common Alphabet | Reading Spanish Pronunciation (expected) | Spelling Spanish (examples) | Spanish Vowel Phonemes AHD |
| ä * | pad | A | pod (ä) | pade | ö |
| ē * | pet | E | payt (ā) | pate | ā ** |
| ī * | pip | I | peep (ē) | pep | ē |
| ō | top | O | toap (ō) | tap | ō |
| û | cut | U | coot (û) | cort | ōō |
| wī | quit | | kweet (wē) | quet (?) | wē |
| *vowel not common in Spanish | | | ** =short duration | | |



- ▶ The P-O-S-E[©] screening test performance outcomes on the five short vowels and the generalized silent /e/ rule are presented in the form of detailed individual student test data summaries in both tabular and graphic format.



Classification of P-O-S-E[®] test results

- ▶ FIVE SHORT VOWELS
- ▶ Indications for short vowel remediation are sorted into four color-coded intervention priority levels:

| Short Vowel Intervention Priority Levels | HIGH # Vowel Sub-Totals w/ 5-8 Errors | MID- # Vowel Sub-Totals w/ 3-4 Errors | LOW # Vowel Sub-Totals w/ 2 Errors | N/A # Vowel Sub-Totals w/ 0-1 Error |
|------------------------------------------------|------------------------------------------------|------------------------------------------------|---------------------------------------------|----------------------------------------------|
|------------------------------------------------|------------------------------------------------|------------------------------------------------|---------------------------------------------|----------------------------------------------|



Classification of P-O-S-E[©] test results

- ▶ SILENT /E/ RULE (Generalized)
- ▶ Indications for generalized silent /e/ rule remediation are sorted into four color-coded intervention priority levels:

| Silent /e/ Rule Intervention Priority Levels | Priority Level is based on total # of silent /e/ rule errors. | | | |
|-------------------------------------------------|---------------------------------------------------------------|-----------|---------|---------|
| | >20=HIGH | 10-19=MID | 5-9=LOW | < 5=N/A |
| | | | | |



- ▶ **CLASS SUMMARY DATA**
- ▶ When P-O-S-E[©] data are processed as a service, a summary report of entire class outcomes is available in tabular and graphic form.

Pharmacology-Orthographic Substitution Evaluation

CLASS SUMMARY

| Course: Pharmacology for Health Care | | Section: | Week: | Topic: | Score: |
|--------------------------------------|----------|----------|--------|--------|--------|
| Student: | Section: | Week: | Topic: | Score: | Grade: |

TOP 5 PERCENT ERRORS

| Error | Count |
|----------------------|-------|
| Pharmacology | 140 |
| Pharmacokinetics | 120 |
| Pharmacodynamics | 100 |
| Pharmacotherapeutics | 80 |
| Pharmacovigilance | 70 |

| Item | Score |
|------------------------------------------|-------|
| 1. Pharmacology for Health Care | 100% |
| 2. Pharmacokinetics for Health Care | 95% |
| 3. Pharmacodynamics for Health Care | 90% |
| 4. Pharmacotherapeutics for Health Care | 85% |
| 5. Pharmacovigilance for Health Care | 80% |
| 6. Pharmacokinetics for Health Care | 75% |
| 7. Pharmacodynamics for Health Care | 70% |
| 8. Pharmacotherapeutics for Health Care | 65% |
| 9. Pharmacovigilance for Health Care | 60% |
| 10. Pharmacokinetics for Health Care | 55% |
| 11. Pharmacodynamics for Health Care | 50% |
| 12. Pharmacotherapeutics for Health Care | 45% |
| 13. Pharmacovigilance for Health Care | 40% |
| 14. Pharmacokinetics for Health Care | 35% |
| 15. Pharmacodynamics for Health Care | 30% |
| 16. Pharmacotherapeutics for Health Care | 25% |
| 17. Pharmacovigilance for Health Care | 20% |
| 18. Pharmacokinetics for Health Care | 15% |
| 19. Pharmacodynamics for Health Care | 10% |
| 20. Pharmacotherapeutics for Health Care | 5% |

Assessing and Planning Intervention at building level

- ▶ Assemble a team which may include: speech, reading, special educator, ESL teacher, classroom teacher
- ▶ Review classroom reports for high and mid-intervention priority students
- ▶ Assign students to multiple staff who have student on case load
- ▶ Develop a chart for high and mid intervention students with staff assignments



Remediation in the general education classroom

▶ Where do we begin ?

Review the classroom summary report

- Short vowels are the intervention priority
- Note student error types
- Make a list of students with same errors
- Students with high intervention priority will be receiving intervention with adjunct staff members
- Form groups of students based on errors needing correction



Auditory training of short vowels

- ▶ Detect and describe short vowel errors and substitutions
- ▶ Select short vowels for auditory training remediation
- ▶ Begin with 3 short vowels, one known, two in error

Materials:

- ▶ Use dry-erasable boards, pens and erasers for materials
- ▶ Use short vowel icon cards



Sequence of short vowel teaching process

- ▶ First, review the names of the letters in the alphabet and the sounds of the letters
- ▶ Review the concept of vowels versus consonants
- ▶ Use short vowel template cards to teach letter names and sounds
- ▶ Have students name the letters and produce sounds



Sequence of Auditory Training

Auditory detection of sound

- ▶ Student detects the appropriate short vowel produced by teacher and marks correct vowel
- ▶ Vowels marked in error are restated
- ▶ Target vowel is matched to icon



Continued sequence of auditory training

Auditory discrimination

- Student listens to two short vowel sounds and correctly identifies sounds with letters
- Increase presentation to three short vowel sounds
- Present short vowel + final consonant for correct identification



Auditory identification with speech response

*Auditory perception matches
speech production*

- ▶ Short vowel is presented orally.
covering mouth, student repeats
sound accurately
- ▶ If in error, orally present short vowel
and have student repeat sound
- ▶ If error continues to be produced,
use cards with iconic representations
to cue sound
- ▶ Try error sound on the cue card to
show sound is incorrect
le. /U/, is used for /o/, “do we say
Uctopus ?



Tools to use for aiding auditory feedback

- ▶ Phonic phones– can be made with PVC pipes (2" PVC pipe elbow joints)
- ▶ Dry erasable boards
- ▶ Pens
- ▶ Eraser
- ▶ Pictures of tongue positions for vowel production
- ▶ Other reading materials which contain short vowel content



Vowel Matrix

| | |
|---|---|
| a | e |
| | |



Vowel-O-Phone



Short vowel icons

- ▶ Short /a/ *apple*



- ▶ Short /e/ *Ed*



- ▶ Short /i/ *itch*



- ▶ Short /o/ *octopus*



- ▶ Short /u/ *up*



Understand underlying concepts of vowel training

- Goal is to change auditory storage of error vowel to correct vowel
- Vowels are produced within the mouth-no visual cues
- Vowels have close phonological relationships-acoustic wave form
- Important to complete the auditory-articulatory loop
- Classroom conditions with noise can create difficulty identifying vowels



Teaching short vowels

- ▶ Short vowel errors occur most frequently on vowels produced in similar ways
- ▶ Techniques
 - Short /o/ and short vowel /u/ are low back vowels
 - Demonstrate short /o/, use iconic symbol “*octopus*”
 - Demonstrate short /u/, use iconic symbol *up* or *umbrella*
 - Present CVC words with one vowel initially using real and nonsense words having the student mark the vowel heard in the word



To establish mastery of short vowel errors

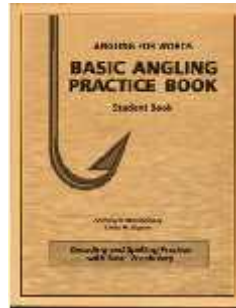
- ▶ Have student read short lists of CVC's with real and nonsense words containing the short vowel error
- ▶ Have student write short lists of CVC's with real and nonsense words containing the short vowel error
- ▶ Write sentences containing words from the lists
- ▶ Student can use nonsense words as character names or places



Materials used for short vowel error correction

▶ Basic Angling Practice Book– Student Book

*(Available through
www.P-O-S-E.org)*



Short vowel in one syllable words

- Short /a/ page 1
- Short /i/ page 1
- Short /u/ page 4
- Short /o/ page 10
- Short /e/ page 7

Short vowel in consonant blends

- Short /a/ page 14
- Short /i/ page 15
- Short /u/ page 16
- Short /e/ page 18
- Short /o/ page 19

Secondary information regarding consonants

- ▶ Initial or final blends

Initial blends include: dr, st, cl, bl, fl, ch

Final blends include: ck, st, sh, ch, nd, mp

- ▶ Letter orientation

b or d reversals

p and b reversals

d and g confusions



What reference materials are available for teaching the rules ?

▶ Initial consonants and blends

Basic Angling Practice Book–Student book

Initial blends page 20

- Final blends page 21
- Teach initial blends first
- Use both real and nonsense words
- Demonstrate sound and have student produce the sound



Specific word ending consonant blends

▶ Final consonant

Basic Angling for Words

- nk words Page 24
- ng words Page 24
- sh words Page 25

▶ Initial and final consonant blends

Basic Angling for Words

ck words Page 23

ch words Page 27

tch words Page 27

th words Page 26



Teaching letter orientation

- ▶ Identify type of letter orientation reversal
- ▶ Techniques
 - Make a bed with your hands (see handout for further description)
 - Watch me carefully “abc my d”
 - For the letter /b/, first “make the bat, then make the ball”
 - For the letter /d/, first draw the doorknob, then the door
- ▶ Have students edit their writing to identify letter reversal errors



Introduce the silent /e/ rule words

- ▶ Mastery of short vowel words is first completed
- ▶ Introduce silent /e/ rule words found in error on student response sheets
- ▶ Teach vowel-consonant-e
 - Materials Basic Angling For Words Book
 - Long a-consonant-e Page 50, 51
 - Long i-consonant-e Page 52
 - Long o-consonant-e Page 53
 - Long u-consonant-e Page 55
 - Long e-consonant-e Page 56



Students read words with short vowels and silent /e/ rule

- ▶ Present sentences mixing CVC, CCVCC and silent e rule
- ▶ Student reads words priming the use of decoding rules with CVC and silent e rule words
- ▶ Students read teacher selected text material with single syllable words and silent e rule words
- ▶ Students spell words mixing words with short vowels and silent e rules



Final Stage

- ▶ Measure student acquisition of rules taught using nonsense words mixed with real words
- ▶ Student can perform on a spelling test accurately spelling words taught
- ▶ Student can write sentences using words at mastery level
- ▶ Student can read practice sentences, pages 13, 17, in Basic Angling For Words Study Book
- ▶ V-consonant-e compound words can be spelled and read on page 59 of the word study book

