

Phonological–Orthographic Substitution Evaluation

P–O–S–E[®]



ASHA SCHOOLS
CONFERENCE 2015



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Friday, July 10, 2015: 11:15–12:15

Visit our exhibit (Booth 232)

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P–O–S–E[®], Inc
www.P-O-S-E.net
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What is the P-O-S-E©

- The P-O-S-E©: Phonological / Orthographic Substitution Evaluation is a criterion-referenced assessment instrument, designed to probe for substitution errors in a child's phonological (spoken) and orthographic (written, scored as equivalent phonology) representations of target short vowels presented in monosyllabic non-word and real word spelling and reading tasks; i.e. an incorrect phoneme is substituted for the target phoneme.
- Silent /e/ rule test items are incorporated as a cross-check and validation of the depth of short vowel proficiency. Outcomes provide prescriptive interventional direction when indicated.

What does the P-O-S-E© measure ?

- *A criterion-referenced screening test*, the Phonological Orthographic Substitution Evaluation (P-O-S-E©) is designed to extract underlying phonological codes operating in the student's reading and spelling processes.
- The P-O-S-E© elicits the sound/symbol system utilized by students in the automaticity of spelling & reading.
- P-O-S-E© focuses on short vowel proficiency using monosyllabic non-words and low frequency of occurrence real words.
- P-O-S-E© target level is Grade 3 with option to survey Grade 2.

How were P-O-S-E[©] test items selected?

- A short vowel assessment instrument was constructed using monosyllabic real and non-words in CVC (short vowel) and CCVCC (short vowel and silent /e/) formats, balancing target vowel occurrences, consonants and blends while avoiding homonyms.
- Given the inverse relationship between word-frequency and time required for perception (Hall, 1953), thirty low probability monosyllabic words were selected from catalogued vocabularies. (Thorndike, 1968; British National Corpus, via Webster's Online Dictionary, Rosetta Edition). Monophonic and biphonic phonotactic probabilities (Vitevitch, 2004) did not differ for real and non-word items ($P > .10$).
- Subsequent validation of real word frequency counts ($=4.4/10^6$; $SE=0.8$) was obtained using the Corpus of Contemporary English (Davies, 2008)

P-O-S-E© Low-Frequency-of-Occurrence Real Words

#	Real word Target	n/10 ⁶
1	tab	6.54
2	nip	1.12
3	pun	1.81
4	wed	5.95
5	cog	0.93
6	sap	2.91
7	bib	0.77
8	rut	3.16
9	den	7.46
10	cop	20.45

#	Target	n/10 ⁶
11	hack	4.21
12	drip	4.41
13	stub	1.28
14	clot	1.56
15	pest	3.24
16	rash	4.77
17	blip	1.49
18	flop	2.4
19	mend	2.09
20	chum	1.05

#	Target	n/10 ⁶
21	dime	5.44
22	mute	3.81
23	hose	6.19
24	fake	18.67
25	cone	5.51
26	vine	4.6
27	fume	0.35
28	kite	2.82
29	jade	3.95
30	tote	3.95

CVC		CCVCC		CCVCCe		CVC + CCVC	
Mean	5.11	Mean	2.65	Mean	5.53	Mean	
Standard Error	1.87	Standard Error	0.44	Standard Error	1.55	Standard Error	
Median	3.04	Median	2.25	Median	4.28	Median	
Mode	#N/A	Mode	#N/A	Mode	3.95	Mode	
Standard Deviation	5.92	Standard Deviation	1.40	Standard Deviation	4.90	Standard Deviation	
Sample Variance	35.04	Sample Variance	1.97	Sample Variance	24.01	Sample Variance	
Kurtosis	5.70	Kurtosis	-1.57	Kurtosis	7.25	Kurtosis	
Skewness	2.25	Skewness	0.47	Skewness	2.48	Skewness	
Range	19.68	Range	3.72	Range	18.32	Range	
Minimum	0.77	Minimum	1.05	Minimum	0.35	Minimum	
Maximum	20.45	Maximum	4.77	Maximum	18.67	Maximum	
Sum	51.10	Sum	26.50	Sum	55.29	Sum	
Count	10.00	Count	10.00	Count	10.00	Count	

CVC + CCVCC + CCVCCe	
Mean	4.43
Standard Error	0.83
Median	3.53
Mode	3.95
Standard Deviation	4.54
Sample Variance	20.61
Kurtosis	7.49
Skewness	2.64
Range	20.10
Minimum	0.35
Maximum	20.45
Sum	132.89
Count	30.00

P-O-S-E(c) REAL WORD FREQUENCY STATISTICS:

Resource: Corpus of Contemporary English (COCA) 1990 - 2011

2005-2009 spoken, fiction, magazine, newspaper, academic sources.

Frequency / million based on 425.000 million words.

Real word frequency of occurrence range between 0.25 and 25.0 per million.

P-O-S-E© Non-Word and Real Word Phoneme/Biphone Phonotactic Probabilities

	P-O-S-E Pseudo-word SV + /E/ test items "Klattese"	Phoneme probabilities Pseudo-words	P-O-S-E pseudo-word SV + /E/ test items	P-O-S-E real word SV + /E/ test items "Klattese"	Phoneme probabilities Real words	P-O-S-E pseudo-word SV + /E/ test items "Klattese"	Biphone probabilities Pseudo-words	P-O-S-E real word SV+ /E/ test items
1	vlp	0.1558	vip	t@b	0.1499	vlp	0.0088	tab
2	rEt	0.1890	ret	nlp	0.1572	rEt	0.0133	nip
3	s^g	0.1595	sug	P^n	0.1353	s^g	0.0073	pun
4	tab	0.1310	tab	wEd	0.1311	tab	0.0041	wed
5	p@g	0.1817	pag	kag	0.1711	p@g	0.0115	cog
6	zlb	0.1248	zib	s@p	0.2189	zlb	0.0028	sap
7	fEm	0.1689	fem	blb	0.1734	fEm	0.0075	bib
8	d^t	0.1570	dut	r^t	0.1553	d^t	0.0048	rut
9	lad	0.1326	lod	dEn	0.2208	lad	0.0043	den
10	w@p	0.1368	wap	kap	0.1903	w@p	0.0055	cop
11	S^g	0.0668	sug	h@k	0.1723	S^g	0.0019	hack
12	grab	0.1556	grob	drlp	0.2144	grab	0.0161	drip
13	glES	0.1053	glesh	st^b	0.1592	glES	0.0080	stub
14	blk	0.1732	blick	klat	0.2471	blk	0.0129	clot
15	pl@S	0.1664	plash	pEst	0.3255	pl@S	0.0138	pest
16	tr^b	0.1652	trub	r@S	0.1373	tr^b	0.0167	rash
17	Cag	0.0874	chog	blp	0.1671	Cag	0.0016	blip
18	bEmp	0.2097	bemp	flap	0.1478	bEmp	0.0171	flop
19	slnd	0.2618	slind	mEnd	0.2664	slnd	0.0176	mend
20	gr@t	0.2349	grat	C^m	0.0976	gr@t	0.0205	chum
21	nYd	0.0961	nide	dYm	0.1355	nYd	0.0040	dime
22	gyut / gut	0.1261	gute	myut / mut	0.1573	gyut / gut	0.0053	mute
23	moz	0.1266	moze	hoz	0.1088	moz	0.0055	hose
24	fek	0.1292	hake	fek	0.1292	fek	0.0039	fake
25	von	0.1678	vone	kon	0.2381	von	0.0032	cone
26	sYm	0.1861	sime	vYn	0.1528	sYm	0.0044	vine
27	fjut / fut	0.1427	fute	fjum / fum	0.1045	fjut / fut	0.0025	fume
28	bYp	0.1226	bipe	kYt	0.1929	bYp	0.0037	kite
29	bev	0.1040	bave	Jed	0.0809	bev	0.0032	jade
30	wod	0.1075	wode	tot	0.1598	wod	0.0031	tote

P-O-S-E© Non-Word and Real Word Phoneme/Biphone Phonotactic Probabilities

Σ Phoneme probabilities SV + /E/ Pseudo-words	
Mean	0.149
Standard Error	0.008
Median	0.149
Mode	#N/A
Standard Deviation	0.043
Sample Variance	0.002
Kurtosis	0.758
Skewness	0.582
Range	0.195
Minimum	0.067
Maximum	0.262
Sum	4.472
Count	30.000

Σ Phoneme probabilities SV + /E/ Real words	
Mean	0.170
Standard Error	0.010
Median	0.158
Mode	#N/A
Standard Deviation	0.053
Sample Variance	0.003
Kurtosis	1.348
Skewness	0.969
Range	0.245
Minimum	0.081
Maximum	0.326
Sum	5.098
Count	30.000

Σ Biphone probabilities SV + /E/ Pseudo-words	
Mean	0.008
Standard Error	0.001
Median	0.005
Mode	0.006
Standard Deviation	0.006
Sample Variance	0.000
Kurtosis	-0.555
Skewness	0.888
Range	0.019
Minimum	0.002
Maximum	0.021
Sum	0.235
Count	30.000

Σ Biphone probabilities SV + /E/ Real words	
Mean	0.011
Standard Error	0.002
Median	0.007
Mode	0.006
Standard Deviation	0.008
Sample Variance	0.000
Kurtosis	2.402
Skewness	1.685
Range	0.032
Minimum	0.002
Maximum	0.035
Sum	0.319
Count	30.000

t-Test: Two-Sample Assuming Equal Variances		
	Σ Phoneme probabilities SV+ /E/ Pseudo-words	Σ Phoneme probabilities SV + /E/ Real words
Mean	0.1491	0.1699
Variance	0.0018	0.0028
Observations	30.0000	30.0000
Pooled Variance	0.0023	
Hypothesized Mean	0.0000	
df	58.0000	
t Stat	-1.6787	
P(T<=t) one-tail	0.0493	
t Critical one-tail	1.6716	
P(T<=t) two-tail	0.0986	
t Critical two-tail	2.0017	
Mean Difference	0.0209	

t-Test: Two-Sample Assuming Equal Variances		
	Σ Biphone probabilities SV+ /E/ Pseudo-words	Σ Biphone probabilities SV + /E/ Real words
Mean	0.0078	0.0106
Variance	0.0000	0.0001
Observations	30.0000	30.0000
Pooled Variance	0.0001	
Hypothesized Mean	0.0000	
df	58.0000	
t Stat	-1.5093	
P(T<=t) one-tail	0.0683	
t Critical one-tail	1.6716	
P(T<=t) two-tail	0.1367	
t Critical two-tail	2.0017	
Mean Difference	0.0028	

How reliable is the P-O-S-E[©]?

The P-O-S-E[©] 2006-7 Grade 3 validation study (n=275) demonstrated the following internal correlations:

- Cronbach alpha 120 test items: 0.96
- Cronbach alpha 60 spelling test items: 0.93
- Cronbach alpha 60 reading test items: 0.92
- Correlation spelling half with reading half :
 - $r = .77$ $P < .0001$.

How does the P-O-S-E[©] correlate with other measures of literacy?

The 2006–7 P-O-S-E[©] Grade 3 (Plainview, NY) validation study (n=275) demonstrated the following correlations:

- Contemporary (2006–7) NYS ELA: $r=.41$; $P=.0001$.
- Forward ELA scores +1 year $r=.39$; +2 years $r=.19$; +3 years $r=.28$; + 4years $r=.26$.
- Fountas and Pinnell Benchmark (*N=78): $r= .60$, $P<.0001$
- (Otis IQ: $r=.29$; $P < .0001$)

How does the P-O-S-E[©] correlate with other measures of literacy?

In the Mineola, NY 2012–13 study of Grade 3 students (n=191) , the following correlations were obtained:

Mineola U.F.S.D. Grade 3 (N=191) 2012-2013 Multiple Correlations Among Baseline and RTI P-O-S-E [©] Error Scores and Accepted Measures of Literacy.							
<i>Parameter (N=191)</i>	POSE Base	POSE RTI	Ben Base	Ben RTI	NWEA F12	NWEA SP13	ELA
POSE Base	1.00						
POSE RTI	0.78	1.00					
Benchmark Base	-0.69	-0.64	1.00				
Benchmark RTI	-0.64	-0.61	0.91	1.00			
NWEA/MAP Base	-0.56	-0.47	0.69	0.64	1.00		
NWEA/MAP RTI	-0.47	-0.46	0.64	0.63	0.80	1.00	
ELA 2013	-0.57	-0.54	0.69	0.66	0.72	0.69	1.00

What are P-O-S-E© short vowel substitution error patterns? I

- Phonological / Orthographic Substitution errors occur when a child's phonologic (read/spoken) or orthographic (spelled/written – scored as equivalent phonology) representations deviate within morphological context from the target vowels.
- When reported as a point at the intersection of Cartesian coordinates (F1 / F2) on the vowel quadrangle, substitution errors can be described in terms of deviations in direction and distance relative to the target vowel.
- The area immediately surrounding the target vowel is known as the phonological neighborhood. The most frequent category of errors is substitutions found in the phonological neighborhood.
- With ESL students, primary language phonotactic probabilities prevail. I.e. Spanish/Hispanic students will consistently substitute (ē) for (ĩ) when reading the letter l and reverse the pattern when hearing the phoneme (ĩ) .
- The second most frequent category of errors involves the substitution of long vowel cognates for short vowels and vice versa; I.e a silent /e/ rule infraction.

What are P-O-S-E© short vowel substitution error patterns? II

- The ubiquity of short vowel substitution error patterns suggests the presence of erroneous phonological/orthographic rules operating within the student's cognitive linguistic processing.
- Error patterns can also be characterized concurrently by the degree of symmetry between spelling and reading short vowel substitutions.
- P-O-S-E© substitution errors can range from adjacent to remote.
 - *Adjacent implies that the expressed short vowel is minimally displaced from the target vowel within the phonological neighborhood. Remote means that the expressed short vowel is widely removed from the target location on the vowel quadrangle i.e. Significantly removed from the phonological neighborhood.*
- P-O-S-E© substitution errors can be mirrored or disjunctive.
 - *Mirrored means that the same short vowel displacement locus is reflected in both the phonologic and orthographic expressions of the target. Disjunctive means that the short vowel displacement locus differs between phonologic and orthographic expressions of the target.*

What are P-O-S-E© short vowel substitution error patterns? III

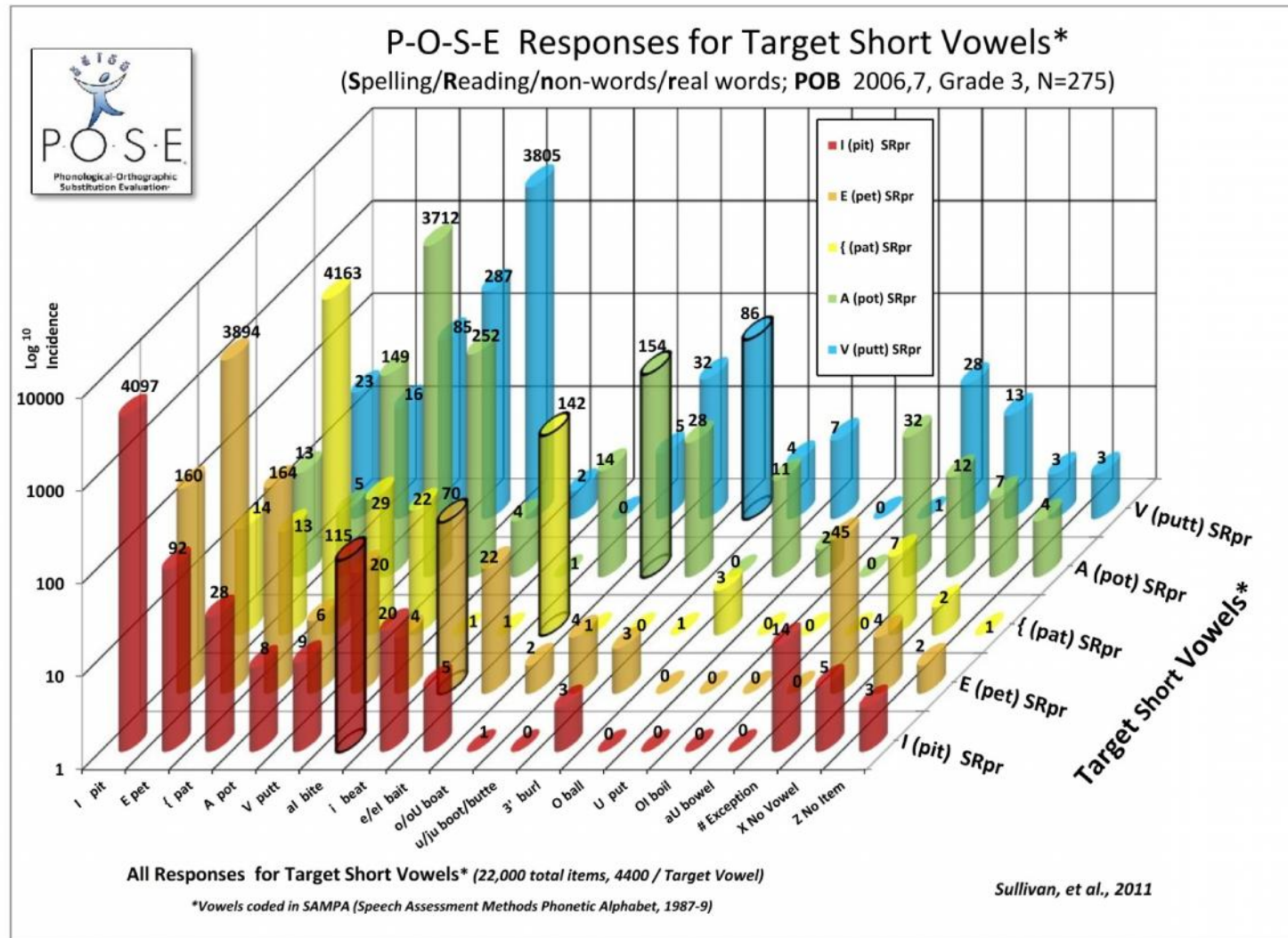
- P-O-S-E© substitution errors can be systematic or random.
 - *Systematic connotes that there is a consistency in locus of the expressed short vowel displacement on similar vowel test items. Random indicates a non-specific dispersion of errors within the vowel space. The latter condition (chaotic) suggests the absence of rules.*
- P-O-S-E© substitution errors may appear *obsessive*.
 - *The persistent substitution of a single vowel or vowel cluster across target vowels implies a rule to the effect of: "If you don't know the answer, substitute _____."*
- P-O-S-E© substitution errors can present as long vowel substitutions for short vowel items and short vowel substitutions for long vowel (silent /e/) items.
- P-O-S-E© item omissions of target vowels or entire test items are also reported as (null) substitution errors.
- Interpretation of the short vowel substitution error patterns provides interventional guidance. For example, a review of an ESL student's first language phonology and phonotactic probabilities may reveal phonemic variations in vowels which appear allophonic in English.

What are common P-O-S-E[©] vowel substitution errors? I

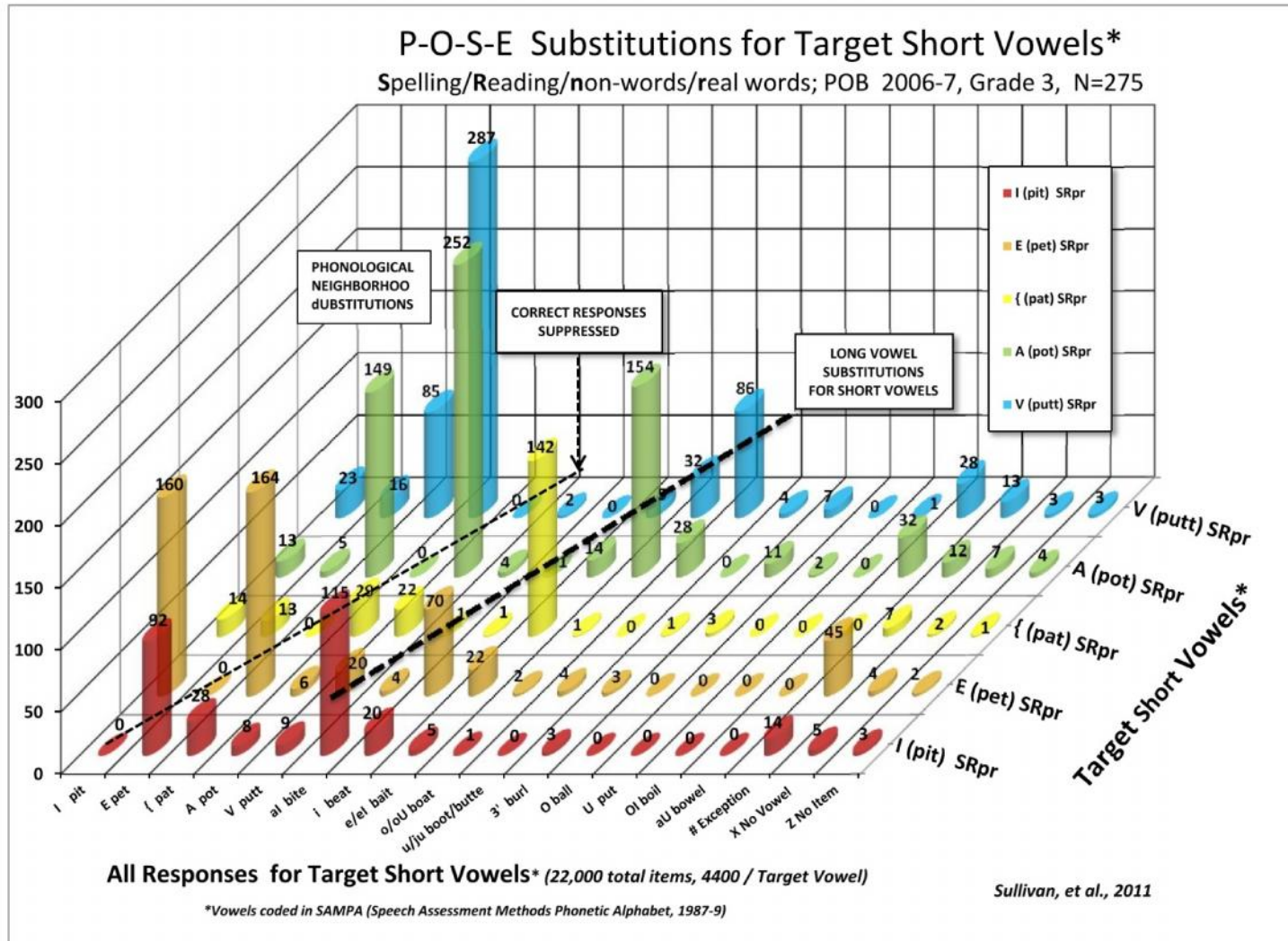
The table of short and long vowel substitution errors shown below is based on an analysis of 33,000 3rd grade P-O-S-E[©] test item responses from 275 students in three schools of the Plainview–Old Bethpage School District in 2006–07. District Demographics: 80% White; 15% Asian 4% Spanish/Hispanic; 0% Black.

33000 Total Items		P-O-S-E					POB N=275 Students		
22000 SV items		TOTAL VOWEL ERRORS					3/06 - 2/07		
11000 /E/ items									
ĩ		ě		ǎ		ö		ű	Sum
303		506		237		688		595	all errors
13.0%		21.7%		10.2%		29.5%		25.5%	2329
									100.0%
									avge
									10.6%
ī				ā		ō		öö/y	Sum
503				303		535		394	all errors
29.0%				17.5%		30.8%		22.7%	1735
									100.0%
									avge
									15.8%

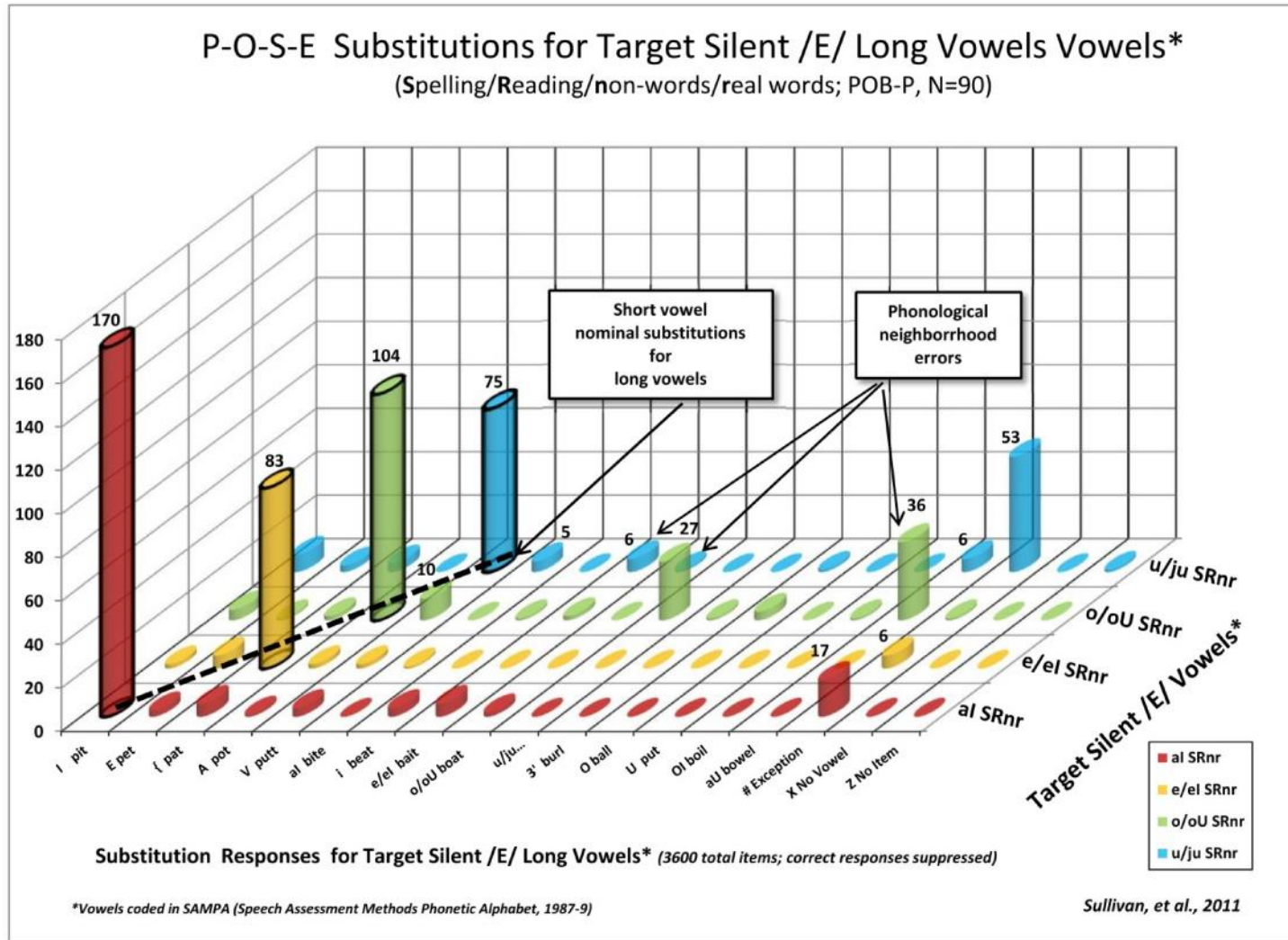
What are common P-O-S-E© vowel substitution errors? II



What are common P-O-S-E© vowel substitution errors? III



What are common P-O-S-E© vowel substitution errors? IV



Common Core State Standards

Criterion referenced testing of monosyllabic short vowels and the silent /e/ rule, in closed syllables, measures a body of knowledge determined by the State Common Core Standards to be *mastered* by the end of 2nd grade.

Why short vowels?

- Common Core State Standards target 2nd grade for *instruction* of short vowels in monosyllabic words and the silent /e/ rule
- “In the English language, the vowel forms the nucleus of every syllable” (S. Nolan, 2007)
- Failure to acquire accurate short vowel knowledge inhibits future acquisition of long vowels.

Learning to Read vs. Reading to Learn

- Students from K through 3rd grade are developing the skills for proficient reading
- Students from 4th grade and higher are using reading to learn.

How is the P-O-S-E[©] Administered ?

Spelling test

- Group or individual administration
- Time: 30 minutes
- Two sections (30 items each)
 - Non-words – “vip”
 - Low-frequency-of – occurrence real words – “mute”

Reading test

- Individual administration
- Time: 5 minutes per student
- Two sections (30 items each)
- Words are identical to spelling test



P-O-S-E© ARCHITECTURE
MODULAR PERMUTATIONS

P-O-S-E©

*Phonological-Orthographic
Substitution Evaluation*

Spelling

STIMULUS 1



RESPONSE 1



Process



Evaluate

Reading

STIMULUS 2



RESPONSE 2



Process





P-O-S-E© ARCHITECTURE
MODULAR PERMUTATIONS

P-O-S-E©

*Phonological-Orthographic
Substitution Evaluation*

Spelling

STIMULUS 1
*Phonological
Auditory input*

RESPONSE 1
*Visually monitored
Grapho-Motor
Orthographic
output*

*Process: Transform
Orthography to
equivalent
Phonology*

Evaluate Vowel Substitution Error Patterns

Reading

STIMULUS 2
*Orthographic
Visual input*

RESPONSE 2
*Auditorily monitored
Oral-Motor
Phonological
output*

*Process: Transcribe
Phonology
Enter
Phonology*

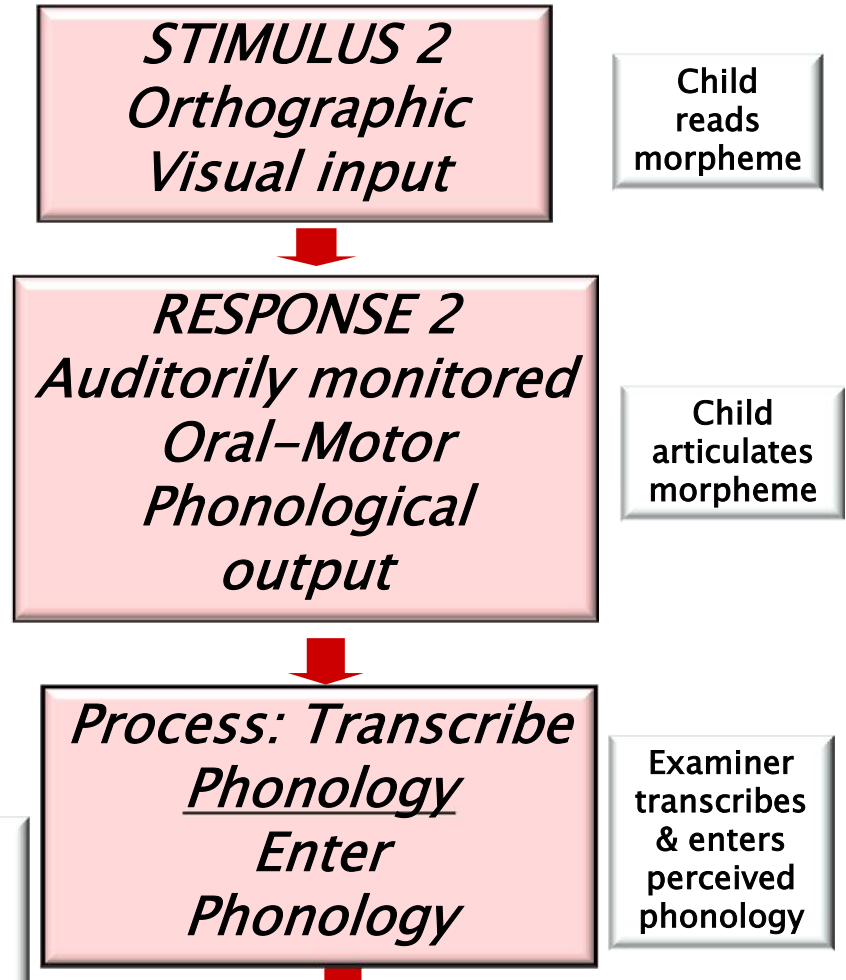
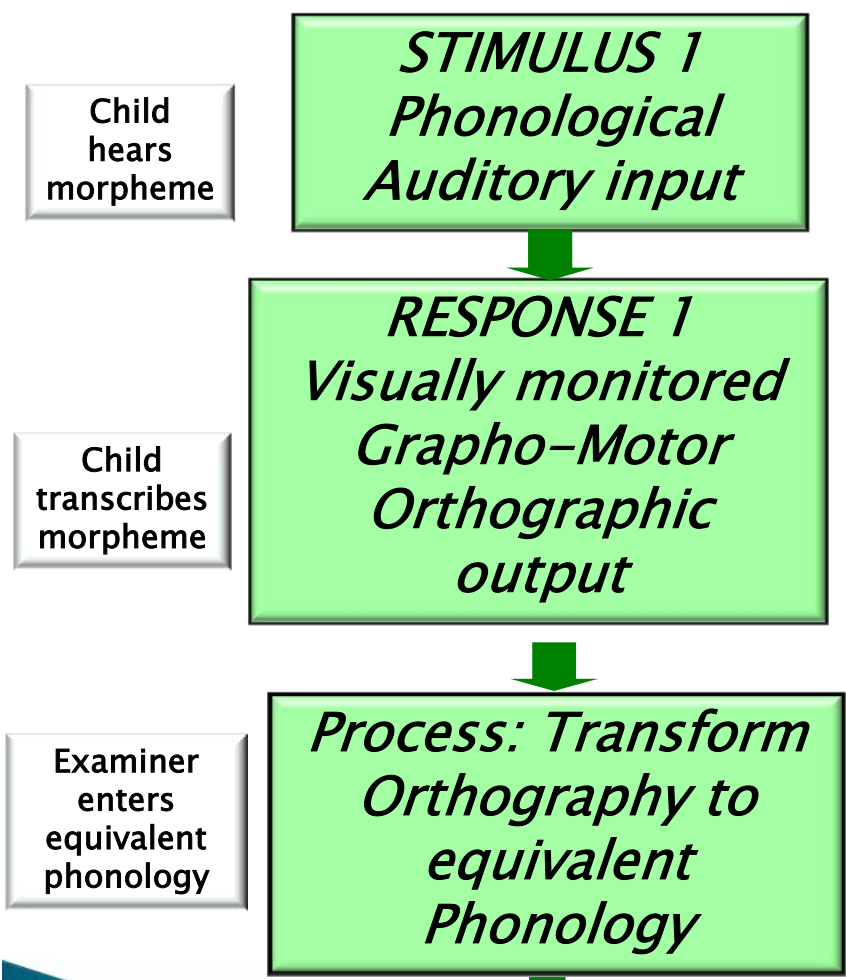


P-O-S-E© ARCHITECTURE
MODULAR PERMUTATIONS

P-O-S-E©

Phonological-Orthographic Substitution Evaluation Reading

Spelling



Examiner
evaluates
vowel
substitution
error patterns

Evaluate Vowel Substitution Error Patterns

P-O-S-E©, Inc
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Carol A. Sullivan, CCC-SLP
Roy F. Sullivan, PhD, CCC-A



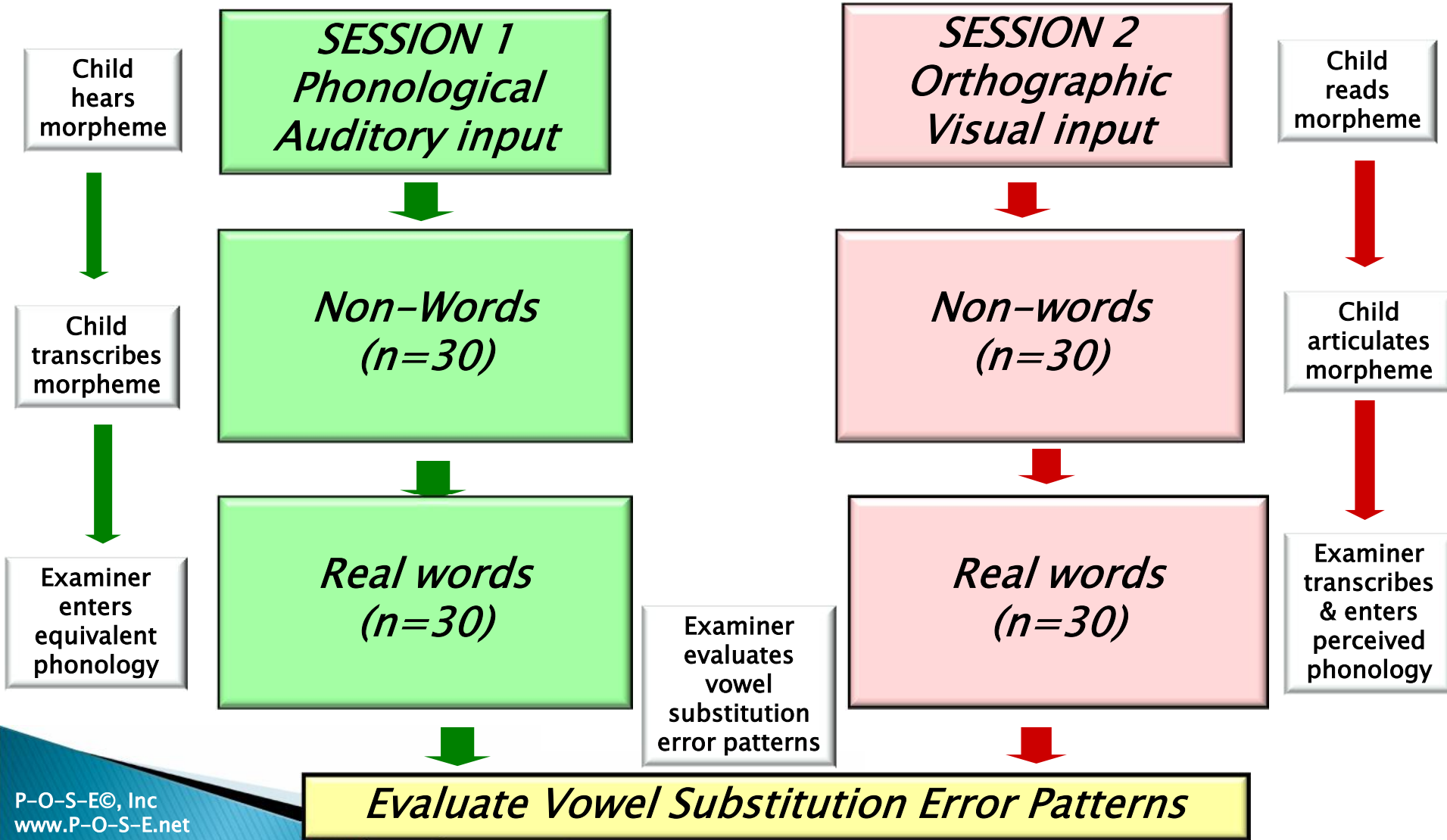
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*Phonological-Orthographic
Substitution Evaluation*

Spelling

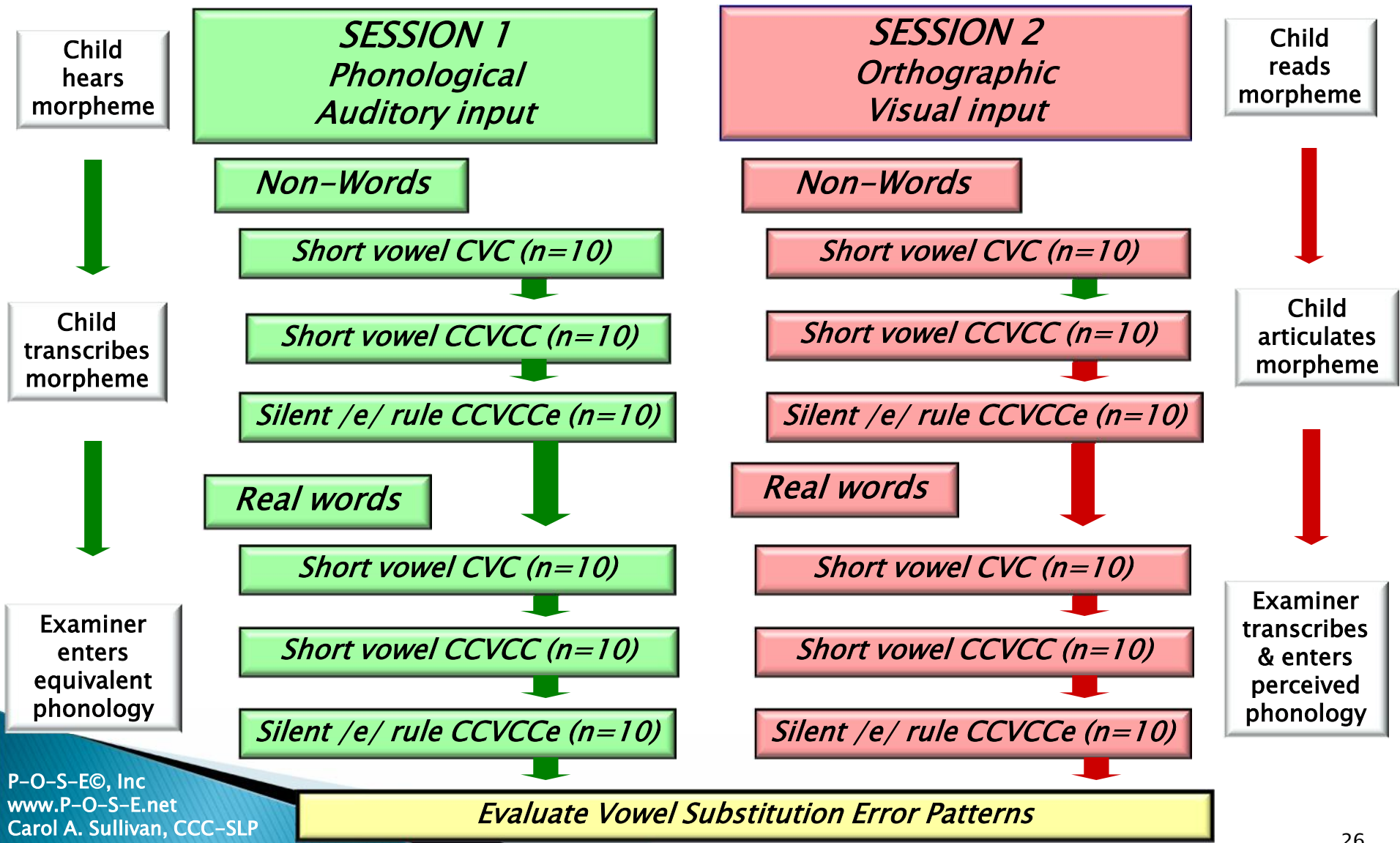
Reading

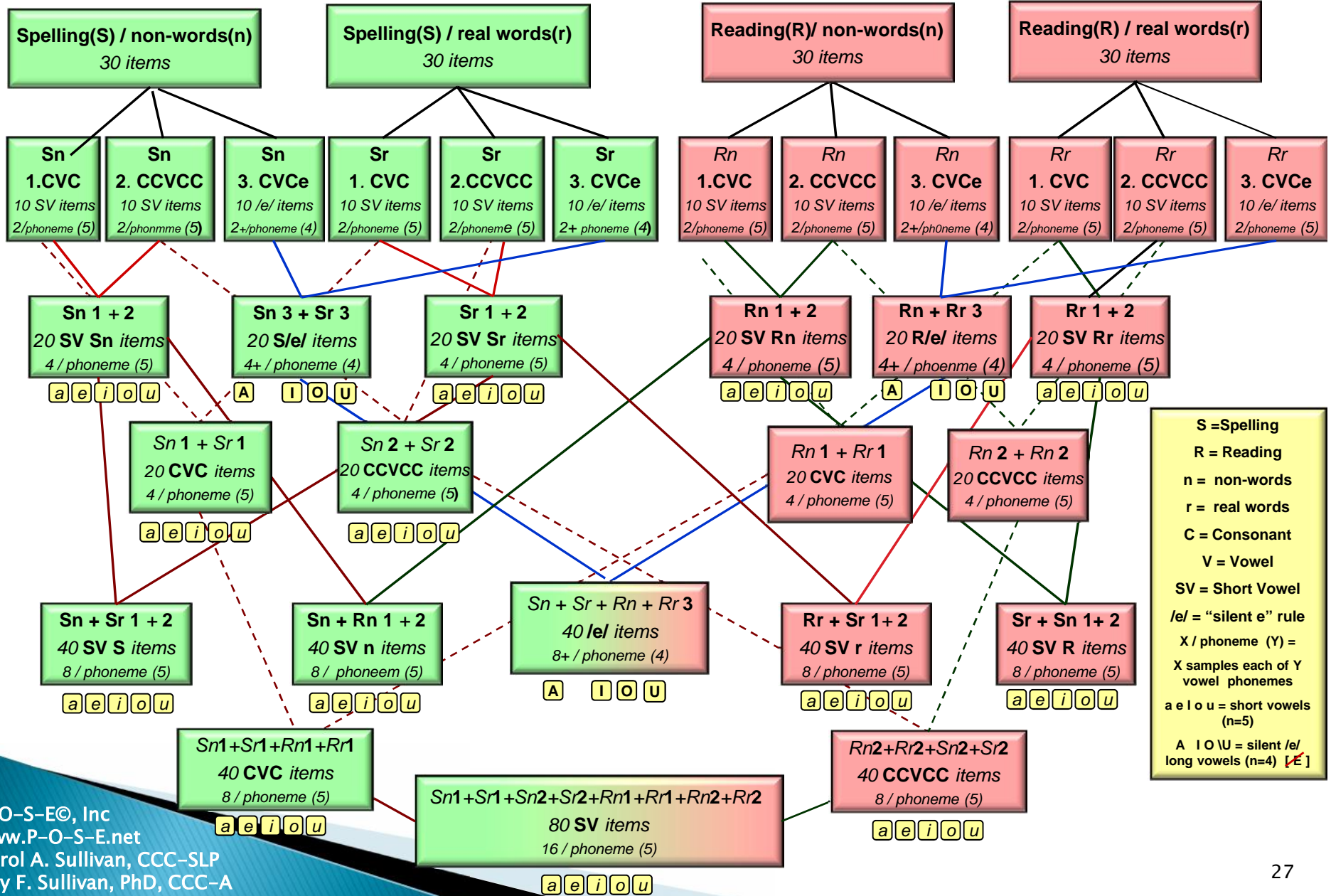




Spelling

Reading





To view videos demonstrating P-O-S-E[©]
test procedures, visit: *www.P-O-S-E.NET*
Select the A-V tutorials tab

SPELLING, INDIVIDUAL



SPELLING, SINGLE CLASS




SPELLING, MULTI-CLASS



READING INDIVIDUAL



P-O-S-E© RTI Spelling Test Results for Grade 3 ESL Student in Her Own Handwriting




Phonological-Orthographic Substitution Evaluation ©

Spelling Non-Words

Name: **Falana** Grade: 3 Teacher: Mrs. K Williams School: Jacksonville Date: 9-11-12

Directions: Listen and spell the words you hear.

1. <u>vep</u>	11. <u>shap</u>	21. <u>pid</u>
2. <u>let</u>	12. <u>atop</u>	22. <u>hair</u>
3. <u>suge</u>	13. <u>atcan</u>	23. <u>rise</u>
4. <u>top</u>	14. <u>flap</u>	24. <u>page</u>
5. <u>ridge</u>	15. <u>prash</u>	25. <u>vote</u>
6. <u>ted</u>	16. <u>thud</u>	26. <u>sun</u>
7. <u>time</u>	17. <u>thug</u>	27. <u>like</u>
8. <u>but</u>	18. <u>bep</u>	28. <u>pipe</u>
9. <u>lad</u>	19. <u>steh</u>	29. <u>bone</u>
10. <u>wape</u>	20. <u>box</u>	30. <u>mode</u>



Phonological-Orthographic Substitution Evaluation ©

Spelling Real Words

Name: **Falana** Grade: 3 Teacher: A. K. Williams School: Jacksonville Date: 9-13-12

Directions: Listen and spell the words you hear.

1. <u>tap</u>	11. <u>hace</u>	21. <u>dime</u>
2. <u>nap</u>	12. <u>diep</u>	22. <u>map</u>
3. <u>pad</u>	13. <u>stap</u>	23. <u>nose</u>
4. <u>lived</u>	14. <u>clap</u>	24. <u>take</u>
5. <u>clap</u>	15. <u>pet</u>	25. <u>cone</u>
6. <u>sape</u>	16. <u>flash</u>	26. <u>vine</u>
7. <u>beeb</u>	17. <u>bee</u>	27. <u>Bwem</u>
8. <u>fat</u>	18. <u>dad</u>	28. <u>kite</u>
9. <u>kene</u>	19. <u>man</u>	29. <u>vide</u>
10. <u>cup</u>	20. <u>han</u>	30. <u>tote</u>

P-O-S-E© Baseline Spelling Test Errors Transcribed in AHD* Notation by SLP



Phonological-Orthographic Substitution Evaluation®
WWW.P-O-S-E.COM

#1 Spelling Non-Words (S/n)

Name: Felina A. Date: 7-13-12 Teacher: K School: Jackson

CVC	Responses	SHORT VOWEL ERRORS						Other
		Initial Consonant	ā	ē	ī	ō	ū	
vip	vct	v			ē		p t	
ret	t	r					t	
sug	suge	s				ū	g	+e
tob	tod	t					b d	
pag	pae	p	ā				g	+e
zib	zed	z			ou		b d	
fem	sim	f		ī			m	
dut	bvt + b	d					t	
lod	t	l					d	
wap	wape	w	ā				p	+e

CCVCC	Responses	SHORT VOWEL ERRORS						Other
		Initial Consonants	ā	ē	ī	ō	ū	
shug	shap	sh					g	p
grob	grod +	gr					b	d
glesh	t	gl					sh	
blick	flep + fl	bl			ou		ck	p
plash	t	pl					sh	
trub	t	tr					b	
chog	thog + th	ch					g	
bemp	shap + sh	b					mp	
slind	slen	sl			ē		nd	
grat	t	gr					t	
Sum of S/n CVC + CCVCC Errors			2	1	4	0	2	

CVCe	Responses	SILENT /e/ RULE ERRORS						Other
		Initial Consonants	ā	ī	ō	ū	Final Consonants	
nide	nid	n		ī			d	e
gute	you t + y	g				ou	t	e
moze	mouse	m			ou		z	s
hake	pagac	p	ā				k	gac
vone	t	v					n	e
sime	sin	s		ī			m	e
fute	t	f					t	e
bipe	t	b					p	e
bave	beve	b	ā				v	e
wode	t	w					d	e
Sum of S/n CVCe Errors			2		2	1	1	

Page 2

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WWW.P-O-S-E.COM

#2 Spelling Real Words (S/r)

Name: Felina A. Date: 9-13-12 Teacher: K School: Jackson

CVC	Responses	SHORT VOWEL ERRORS						Other
		Initial Consonant	ā	ē	ī	ō	ū	
tab	tap +	t					b	p
nip	nep	n			ē		p	
pun	pen	p					n	
wed	t	w					d	
cog	clog + cl	c					g	
sap	sape	s	ā				p	+e
bib	beb	b			ou		b	
rut	rat	r					t	
den	dene	d		ē			n	+e
cop	cup	c				ū	p	

CCVCC	Responses	SHORT VOWEL ERRORS						Other
		Initial Consonants	ā	ē	ī	ō	ū	
hack	hacc	h	ā				ck	+e
drip	drep	dr			ou		p	
stub	stud +	st					b	d
clot	t	cl					t	
pest	t	p					st	
rash	t	r					sh	
blip	bep + b	bl			ou		p	
flop	dlop + dl	fl					p	
mend	men +	m					nd	
chum	chom	ch				ou	m	
Sum of S/r CVC + CCVCC Errors			2	1	4	1	3	

CVCe	Responses	SILENT /e/ RULE ERRORS						Other
		Initial Consonant	ā	ī	ō	ū	Final Consonant	
dime	t	d					m	e
mute	t	m					t	e
hose	t	h					s	e
fake	t	f					k	e
cone	t	c					n	e
vine	t	v					n	e
fume	bwam bw	f				ou	m	e
kite	t	k					t	e
jade	t	j					d	e
tote	t	t					t	e
Sum of S/r CVCe Errors			0	0	0	1		

Page 3

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P-O-S-E© Baseline Reading Test Errors Transcribed in AHD* Notation by SLP

Phonological-Orthographic Substitution Evaluation
 #3 Reading Non-Words (R/n)
 WWW.P-O-S-E.COM

Name: Falana A. Date: _____ Teacher: K. School: Jackson

CVC	Responses	SHORT VOWEL ERRORS					Final Consonant	Other
		Initial Consonant	ä	ë	ī	ō		
vip	zip + z	v					p	
ret	rit	r		ē			t	
sug	+	s					g	
tob	tub	t				u	b	
pag	psg	p	ä				g	
zib	zud	z				u	b	d
fem	+	f					m	
dut	+	d					t	
lod	+	l					d	
wap	whip	w	ē				p	

CCVCC	Responses	SHORT VOWEL ERRORS					Final Consonants	Other
		Initial Consonants	ä	ë	ī	ō		
shug	shig	sh					g	
grob	+	gr					b	
glesh	gl:sh	gl		ē			sh	
blick	bl:ck	bl			ō		ck	sh
plash	pl:sh	pl	ō				sh	
trub	trub	tr				ō	b	
chog	+	ch					g	
bemp	pob	b		ō			mp	
slind	sl:nd	sl			ō		nd	
grat	grat	gr	ō				t	

Sum of R/n CVC + CCVCC Errors: 4 3 3 1 2

CVCe	Responses	SILENT /e/ RULE ERRORS					Final Consonant	Silent /e/	Other
		Initial Consonant	ä	ī	ō	ū			
nide	mid	n		ē			d	✓	
gute	gut	g				ū	t	✓	
moze	mōz	m			ō		z	✓	
hake	+	h					k	e	
vone	+	v					n	e	
sime	sēmē	s		ē			m	✓ ä	
fute	fut	f		ē		ū	t	✓	
bipe	b:mp	b		ī			p	mp ✓	
bave	b:ve	b	ä				v	e	
wode	wōd	w			ō		d	✓	

Sum of R/n CVCe Errors: 1 3 2 2

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Phonological-Orthographic Substitution Evaluation
 #4 Reading Real Words (R/r)
 WWW.P-O-S-E.COM

Name: Falana A. Date: _____ Teacher: K. School: Jackson

CVC	Responses	SHORT VOWEL ERRORS					Final Consonant	Other
		Initial Consonant	ä	ë	ī	ō		
tab	+	t					b	
nip	nēp	n			ē		p	
pun	pōn	p				ō	n	
wed	wēp	w		ē			d	
cog	cōdj	c				ō	g	dj
sap	+	s					p	
bib	didj + d	b					b	dj
rut	rudj + t	r					t	dj
den	+	d					n	
cop	cōp + t	c					p	b

CCVCC	Responses	SHORT VOWEL ERRORS					Final Consonants	Other
		Initial Consonants	ä	ë	ī	ō		
hack	hēck	h	ē				ck	nh
drip	drip	dr			ē		p	
stub	stōd	st				ō	b	d
clot	cōsed	cl				ō	t	sed
pest	pōsh	p				ō	st	sh
rash	rūsh	r	ū				sh	
blip	blōd	bl			ō		p	
flop	+	fl					p	
mend	+	m					nd	
chum	shōd	ch				ō	m	d

Sum of R/r CVC + CCVCC Errors: 2 2 3 2 2

CVCe	Responses	SILENT /e/ RULE ERRORS					Final Consonant	Silent /e/	Other
		Initial Consonant	ä	ī	ō	ū			
dime	+	d					m	e	
mute	mūt	m				ū	t	✓	
hose	hōt	h					s	st e	
fake	fēck	f	ē				k	nh ✓	
cone	+	c					n	e	
vine	+	v					n	e	
fume	fūm	f				ū	m	✓	
kite	kīt	k		ī			t	e	
jade	+	j					d	e	
tote	tōnt	t			ō		t	nt e	

Sum of R/r CVCe Errors: 1 1 1 2

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Data Analysis of P-O-S-E© responses

Individual Student SCORING

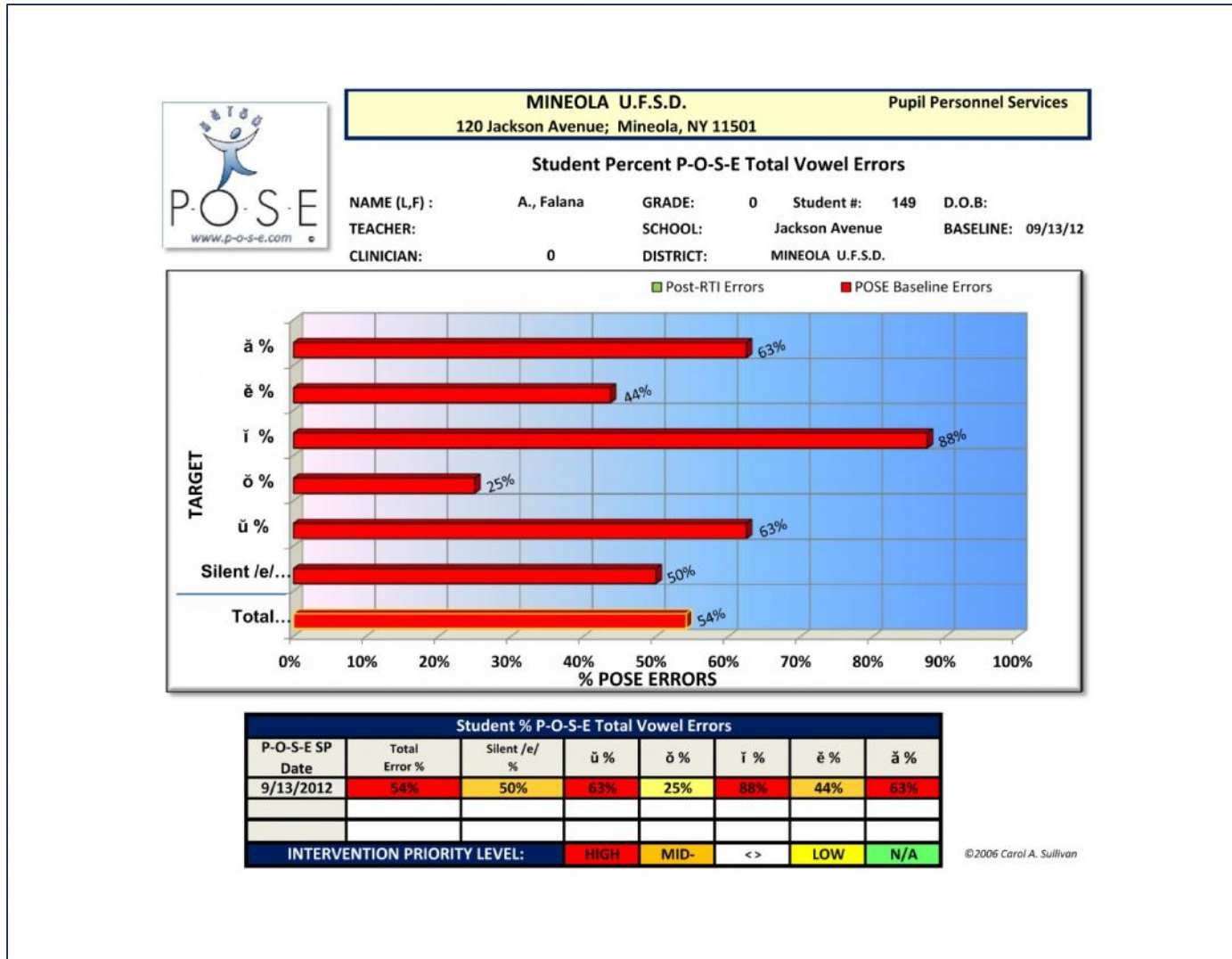
- Individual student responses are entered into the included Excel-based computer application that analyzes the results.
- An individual report is produced that identifies error patterns in short vowels and the silent /e/ rule.
- The analyzed data becomes a prescriptive template for targeted intervention by classroom teachers, speech-language pathologists, reading teachers and ESL teachers.

Student Baseline P-O-S-E[®] Test Results Analyzed Using Included Excel[®]-Based Scoring Application: Table Format


Phonological-Orthographic Substitution Evaluation [®]										
P-O-S-E [®] STUDENT TEST BASELINE RESULTS SUMMARY: SPELLING / READING										
STUDENT INFORMATION										
Last Name:	A.		First Name:	Falana		Grade:	3		Date of Birth:	
Teacher:			Clinician:	0		Examiner(s):	S: cs R: cs		Date Spelling:	9/13/2012
School:	Jackson Avenue		District:	MINEOLA U.F.S.D.		Student #:	149		Date Reading:	9/27/2012
SHORT VOWEL ERROR SUMMARY (CVC, CCVCC)										
Short Vowel Error Count CVC + CCVCC	1 n=4+4	2 n=4+4	3 n=4+4	4 n=4+4	5 n=4+4	Short Vowel Errors				
Sum Spelling Errors	1. non-word (Sn)	2	1	4	0	2	B 9 /20			
	2. real word (Sr)	2	1	4	1	3	C 11 /20			
	Sub-Totals n/B	4	2	8	1	5	D 20 /40			
Enter Substitution Phonemes (max=3)						+				
Sum Reading Errors	3. non-word (Rn)	4	3	3	1	2	F 13 /20			
	4. real word (Rr)	2	2	3	2	3	G 12 /20			
	Sub-Totals n/B	6	5	6	3	5	H 25 /40			
Enter Substitution Phonemes (max=3)						=				
Short Vowel Errors n/16 Spelling + Reading	10	7	14	4	10	J 45 /80				
Short Vowel Intervention Priority Levels	HIGH 1 vowel w/ 3-4 Errors	MID- 2 vowel Sub-Totals w/ 3-4 Errors	LOW 3 vowel Sub-Totals w/ 2 Errors	N/A 4 vowel Sub-Totals w/ 0-1 Error	Number of Vowels for Spelling (5) & Reading (5)					
Number of Vowels per Priority Level Spelling & Reading	6	2	1	1	Actual Number	10				
Expected Number					10					
SILENT /e/ RULE ERROR SUMMARY (CVCe)										
Silent /e/ Rule Error Count CVCe	6 N=2+2	7 N=3+3	8 N=3+3	9 N=2+2	Silent /e/ Rule Errors					
Sum Spelling Errors	1. non-word (Sn)	2		2	1	1	K 6 /10			
	2. real word (Sr)	0		0	0	1	L 1 /10			
	Sub-Totals	2		2	1	2	M 7 /20			
Sum Reading Errors	3. non-word (Rn)	1		3	2	2	N 8 /10			
	4. real word (Rr)	1		1	1	2	O 5 /10			
	Sub-Totals	2		4	3	4	P 13 /20			
Priority Level is based on total # of silent /e/ rule errors.						Silent /e/ TOTAL				
Silent /e/ Rule Intervention Priority Levels	10-19=HIGH	10-19=MID	5-9=LOW	< 5=N/A	M 20 /40					
	20	0	0	0	N/A					
P-O-S-E Error Totals										
Short Vowels + Silent /e/										
SPELLING ERRORS										
D+K 27 /60										
READING ERRORS										
H+L 38 /60										
SPELLING + READING										
D+K+H+L 65 /120										
P-O-S-E Error %										
54%										
((D+K+H+L) /120) * 100										

P-O-S-E[®], Inc
 www.P-O-S-E.net
 Carol A. Sullivan, CCC-SLP
 Roy F. Sullivan, PhD, CCC-A

Student Baseline P-O-S-E[®] Test Results Analyzed Using Included Excel[®]-Based Scoring Application: Chart Format



Student Baseline P-O-S-E© Test Transcript Using School District Forms-with-Processing (Option)



P-O-S-E © DIAGNOSTIC TRANSCRIPT

LNAME: A FNAME: Falana

I.D.#: 0149112 DATE: 9/13/2012

Target	Spell,n CVC	Read,n CVC	Target	Spell,r CVC	Read,r CVC
1 vip	v e p	z i pit p	1 tab	t a p	t a pat b
2 ret	r e t	r i pit t	2 nip	n e p	n a beet p
3 sug	s u ge	s u putt g	3 pun	p a n	p o pot n
4 tob	t o d	t u putt b	4 wed	w e d	wh i pit p
5 pag	p a ge	p a bait g	5 cog	c o g	c a pat dj
6 zib	z e d	z u putt d	6 sap	s a pe	s a pat p
7 fem	f i me	f e pet m	7 bib	b e b	d i pit dj
8 dut	b u t	d u putt t	8 rut	r a t	r u putt dj
9 lod	l o d	l o pot d	9 den	d e ne	d e pet n
10 wap	w a pe	wh i pit p	10 cop	c u p	c o pot b

Target	Spell,n CCVCC	Read,n CCVCC	Target	Spell,r CCVCC	Read,r CCVCC
11 shug	sh a p	sh i pit g	11 hack	h a ce	h u putt nk
12 grob	gr o d	gr o pot d	12 drip	dr e p	dr a pat p
13 glesh	gl e sh	gl i pit sh	13 stub	st u d	st o pot d
14 blick	fl e p	bl o pot sh	14 clot	cl o t	cl o boat sed
15 plash	pl a sh	pl o pot sh	15 pest	p e st	p a pat sh
16 trub	tr u d	tr o boat dj	16 rash	r a sh	r u putt sh
17 chog	th o g	ch o pot g	17 blip	b e p	bl o pot d
18 bemp	sh e p	p o pot b	18 flop	dl o p	fl o pot p
19 slind	sl e n	sl o pot nd	19 mend	m e n	m e pet nd
20 grat	br a t	gr o pot t	20 chum	ch o m	sh o pot d

Target	Spell,n CCVCCe	Read,n CCVCCe	Target	Spell,r CCVCCe	Read,r CCVCCe
21 nide	n i d	m e pet d	21 dime	d i me	d i bite m
22 gute	y ou t	g u putt t	22 mute	m u te	m o putt t
23 moze	m ou se	m o pot z	23 hose	h o se	h o boat st
24 hake	p a gkc	h a bait k	24 fake	f a ke	f u putt nk
25 vone	v o ne	v o boat n	25 cone	c o ne	c o boat n
26 sime	s i n	s a beet mee	26 vine	v i ne	v i bite n
27 fute	f u te	f u putt t	27 fume	bw e m	f u putt m
28 bipe	b i pe	b i pit mp	28 kite	k i te	k i pit t
29 bave	b e ve	br a pat ve	29 jade	v a de	j a bait d
30 wode	w o de	w o boat d	30 tote	t o te	t o boat nt

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 Roy F. Sullivan, PhD, CCC-A

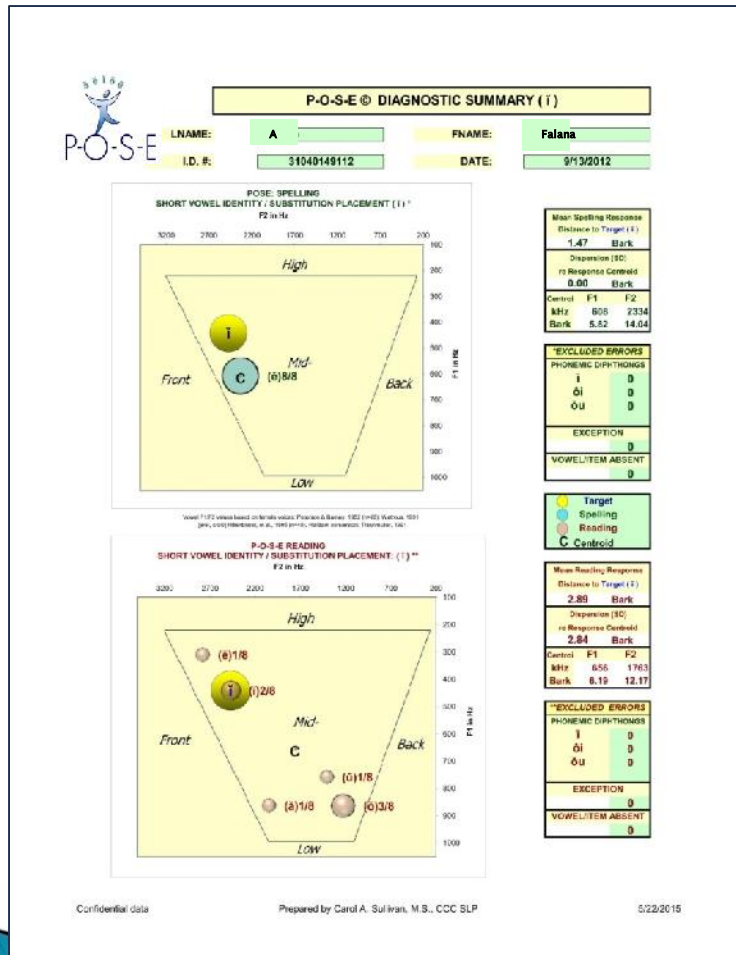
Confidential Data

5/2/2015

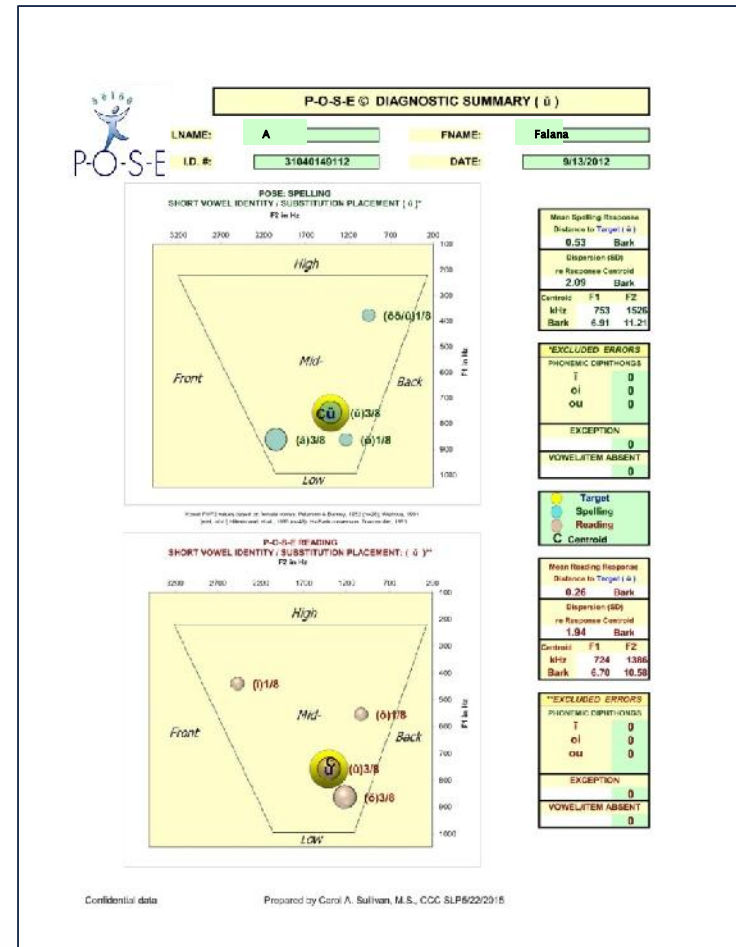
35

Student Baseline P-O-S-E[®] Test Outcome Using Individual Vowel Quadrangle Display (Option)

SHORT (ɪ) SPELLING AND READING



SHORT (ʊ) SPELLING AND READING



Data Analysis of P-O-S-E© Responses

Class and Grade Level Scoring I

- Where full class or grade level P-O-S-E© testing is proposed, it is essential that school districts avail themselves of the P-O-S-E© Forms-With-Processing (FWP) service.
- Considerable staff time is saved. Spelling results are scored directly from the handwritten response sheets and coordinated with Reading results entered in the data processing program from the examiner's transcription of errors.
- Because a comprehensive table of vowel errors and exceptions is incorporated into the computerized processing service, scoring is internally consistent and not subject to variability of interpretation among examiner/scorers.
- The FWP service produces, for each student on a single color-coded table, a series of enhanced individual reports including a transcript of vowel errors as well as pre-vowel and post-vowel consonant errors.

Data Analysis of P-O-S-E© Responses

Class and Grade Level Scoring II

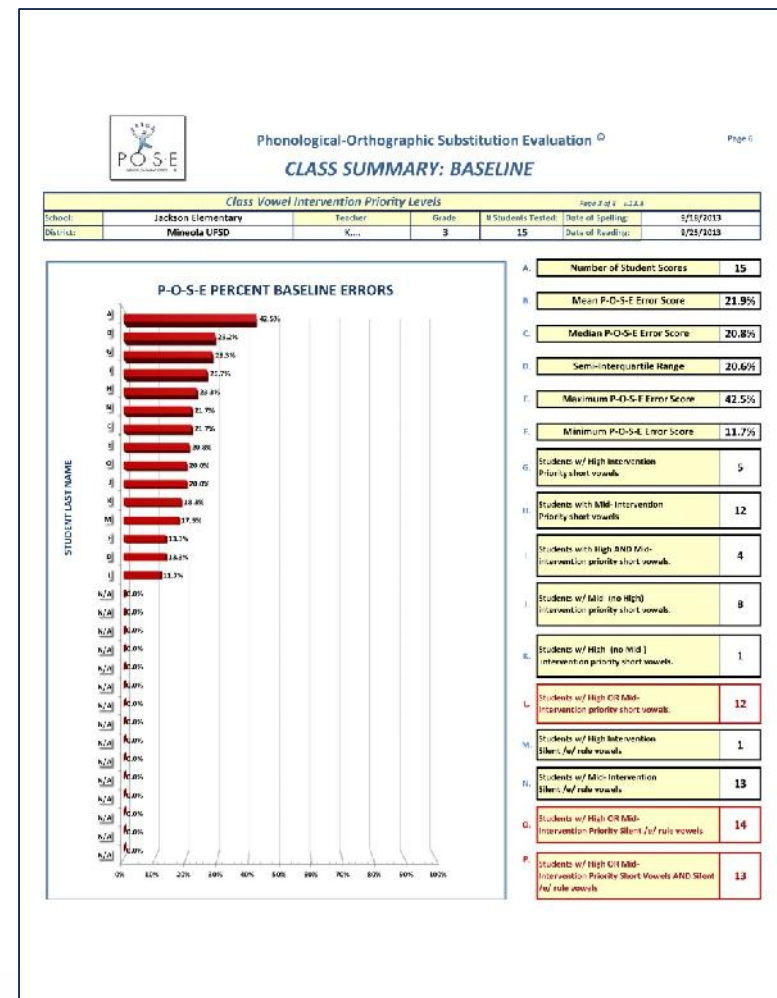
- A full class Baseline performance report is compiled for each class that identifies error patterns in short vowels and the silent /e/ rule long vowels for every student
- The baseline FWP analysis sets intervention priority levels becoming a prescriptive template for targeted intervention by classroom teachers, speech-language pathologists, reading teachers and ESL teachers.
- For year-end P-O-S-E© RTI testing, a detailed FWP report compares Baseline and RTI findings for each class member and for the class as a whole including tables of RTI gains in performance.
- Sample reports can be view on the *www.P-O-S-E.net* website.

P-O-S-E© Forms-With-Processing Baseline Class Summary Report

Phonological-Orthographic Substitution Evaluation ©
CLASS SUMMARY BASELINE

Page 4

Class Vowel Intervention Priority Levels																				
9/20/2018 - 12/14/18																				
School:		Jackson Elementary			Teacher:		K...		Grade:		3		# Students Tested:		15		Date of Spelling:		8/18/2018	
District:		Minnetonka UFSD															Date of Reading:		8/28/2018	
ID#	ID#	Last Name (PLEASE CAPITALIZE STUDENT'S NAME)	First Name	High CR Mid-Intervention Priority Levels				Total Errors (N=15)	# P-O-S-E TOTAL IN PRIOR SPELLING INTERVENTIONS										Total Errors (N=15)	
				Short Vowels	Mid Vowels	Long Vowels	CR Mid		S	O	A	I	E	U	O	U	Other	Total		
1	1	A	Adrianna	2	2	1	5	25	S	0	8	0	2	8	18	42.5%				
2	2	B	Andy	1	3	1	5	15	R	0	3	0	1	4	7	29.2%				
3	3	C	Nicole	0	2	3	5	12	S	0	2	0	3	5	10	21.7%				
4	4	D	Vasilios	0	0	1	9	11	R	1	4	0	4	1	9	13.3%				
5	5	E	Nicholas	0	2	0	8	17	S	0	3	0	1	1	8	20.8%				
6	6	F	Oleska	0	1	0	9	11	R	0	0	0	3	0	9	13.3%				
7	7	G	Sarah	1	2	0	7	19	S	0	3	0	0	7	12	28.3%				
8	8	H	Arman	0	3	2	5	14	R	0	2	1	0	0	3	23.3%				
9	9	I	Thomas	1	3	1	5	11	S	0	6	2	3	4	6	26.7%				
10	10	J	Jack	0	1	3	6	13	R	0	1	1	4	0	5	20.0%				
11	11	K	Rahul	0	1	3	6	11	S	1	2	1	3	2	8	18.3%				
12	12	L	Delia	0	0	3	7	9	R	0	2	0	0	0	3	11.7%				
13	13	M	James	0	1	2	7	10	S	1	4	1	2	2	7	17.5%				
14	14	N	Marianna	1	0	0	9	20	R	0	1	0	0	0	3	21.7%				
15	15	O	Luke	0	1	3	6	13	S	0	4	0	2	0	8	20.0%				

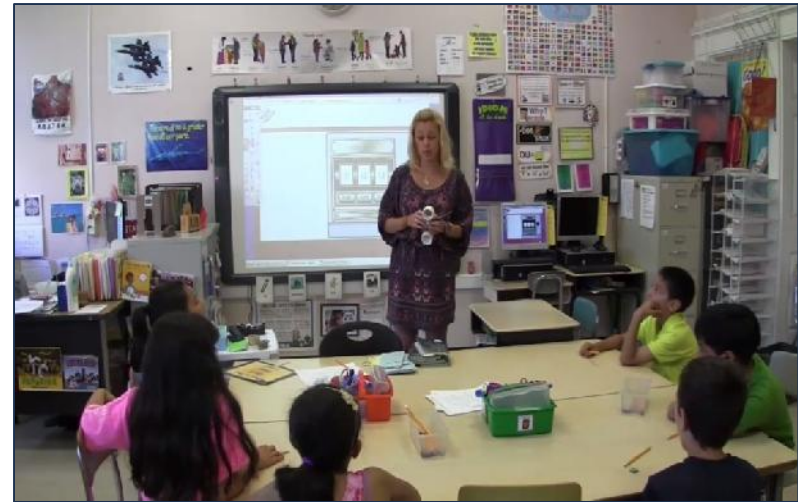


P-O-S-E© INTERVENTIONAL VOWEL TRAINING

INDIVIDUAL



GROUP



Integrating P-O-S-E[©] Findings with the Intervention Program

- Data on errors provide prescriptive information for targeted intervention in classroom, SLP, reading and special education instructional contexts.
- Students with high levels of errors receive targeted intervention by the speech-language pathologist, in areas of phonological knowledge to develop competencies foundational to the core curriculum.

P-O-S-E© Outcome Effectiveness

P-O-S-E© Baseline and RTI Reports

- All teachers receive a copy of the summary class results
- Teachers have a copy of the classroom summary and bar graph indicating students short vowel performance arrayed from the highest number of errors to the least number
- In-service training meetings are set up using the P-O-S-E© data for their students as a basis for planning targeted intervention
- Remediation manuals are distributed with referenced books including word lists to be used for targeted intervention
- A P-O-S-E© intervention team is established incorporating ESL, Reading, SLP, Special Education and Classroom teachers for students with mid- and high intervention priority levels of vowel errors.

Factors Contributing to Mid and High Intervention Priority Levels for P-O-S-E[©] Vowel Error Patterns

- ESL students
 - Spanish/Hispanic languages have five basic vowels.


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
ă *	pad (ă)	A	pod (ö)	pade	ö
ě *	pet (ě)	E	payt (ā)	pate	ā **
ĭ *	pip (ĭ)	I	peep (ē)	pep	ē
ö	top (ö)	O	toap (ō)	tap	ō
ŭ	cut	U	coot (ū)	cort	ōō
wĭ	quit (wĭ)		kweet (wē)	quet (?)	wē

*vowel not common in Spanish **| =short duration)

Factors Contributing to Mid and High Intervention Priority Levels for P-O-S-E© Vowel Error Patterns

- Learning Disabilities
- Speech and Language Disorders
- Hearing Loss
- Developmental issues requiring protracted teaching of basic phonics
- Teaching methodology

P-O-S-E© RTI Spelling Test Results for Grade 3 ESL Student in Her Own Handwriting



Phonological-Orthographic Substitution Evaluation®


Spelling Non-Words

Name: **Falana** Grade: 3 Teacher: K School: Jacksonville Date: May 13, 2012

Directions: Listen and spell the words you hear.

1. <u>vip</u>	11. <u>shug</u>	21. <u>nide</u>
2. <u>ret</u>	12. <u>grab</u>	22. <u>geute</u>
3. <u>lug</u>	13. <u>qlesh</u>	23. <u>moze</u>
4. <u>tab</u>	14. <u>blek</u>	24. <u>habe</u>
5. <u>pag</u>	15. <u>plash</u>	25. <u>vone</u>
6. <u>zib</u>	16. <u>trud</u>	26. <u>sime</u>
7. <u>fem</u>	17. <u>chog</u>	27. <u>faute</u>
8. <u>dut</u>	18. <u>bemp</u>	28. <u>bipe</u>
9. <u>lod</u>	19. <u>slend</u>	29. <u>bave</u>
10. <u>wap</u>	20. <u>grat</u>	30. <u>wode</u>

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Phonological-Orthographic Substitution Evaluation®

Spelling Real Words

Name: **Falana** Grade: 3 Teacher: Ms. Miller School: Jacksonville Date: May 13, 2012

Directions: Listen and spell the words you hear.

1. <u>tap</u>	11. <u>hace</u>	21. <u>lime</u>
2. <u>nap</u>	12. <u>step</u>	22. <u>cube</u>
3. <u>pan</u>	13. <u>stud</u>	23. <u>note</u>
4. <u>wed</u>	14. <u>clot</u>	24. <u>habe</u>
5. <u>clap</u>	15. <u>pat</u>	25. <u>cone</u>
6. <u>sup</u>	16. <u>dash</u>	26. <u>vine</u>
7. <u>bab</u>	17. <u>bes</u>	27. <u>Bwem</u>
8. <u>fat</u>	18. <u>did</u>	28. <u>kite</u>
9. <u>vene</u>	19. <u>rip</u>	29. <u>vide</u>
10. <u>cup</u>	20. <u>han</u>	30. <u>tote</u>

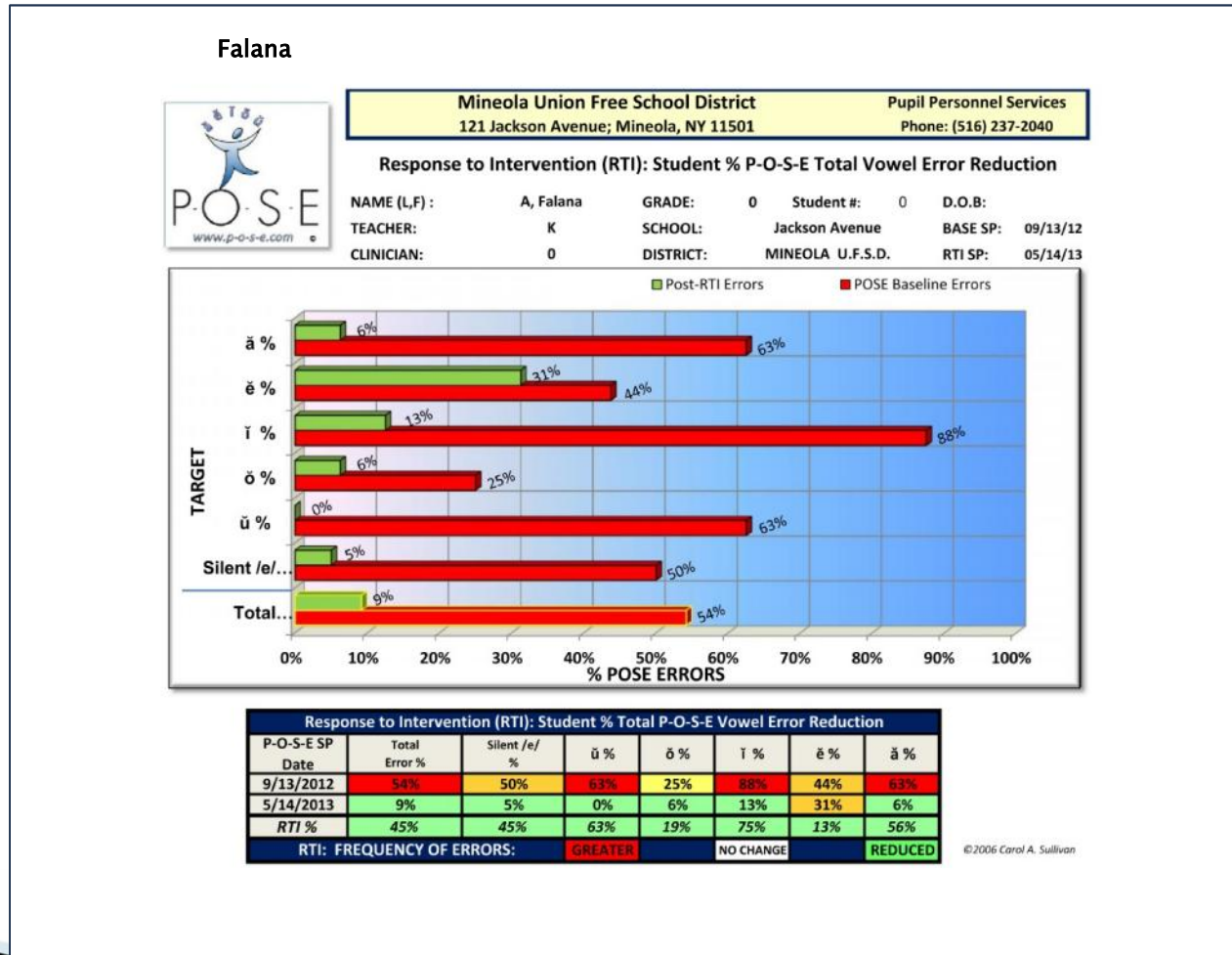
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Student RTI P-O-S-E© Test Results Analyzed Using Included Excel©-Based Scoring Application: Table Format


Phonological-Orthographic Substitution Evaluation ©										
P-O-S-E® STUDENT TEST RTI RESULTS SUMMARY: SPELLING / READING										
STUDENT INFORMATION										
Last Name:	First Name: Falana			Grade:	3	Date of Birth:				
Teacher:	Ka		Clinician:	0		Examiner(s):	S: cs R: cs		Date Spelling:	5/14/2013
School:	Jackson Avenue		District:	MINEOLA U.F.S.D.		Student #:	149		Date Reading:	5/28/2013
SHORT VOWEL ERROR SUMMARY (CVC, CCVCC)										
Short Vowel Error Count CVC + CCVCC		ä n=4+4	ë n=4+4	ï n=4+4	ö n=4+4	û n=4+4	Short Vowel Errors			
Sum Spelling Errors	1. non-word (Sn)	0	0	2	0	0	2	/20		
	2. real word (Sr)	0	0	0	0	0	0	/20		
	Sub-Totals w/8	0	0	2	0	0	2	/40		
Enter Substitution Phonemes (max=3)		ë pet					+			
Sum Reading Errors	3. non-word (Rn)	1	4	0	1	0	6	/20		
	4. real word (Rr)	0	1	0	0	0	1	/20		
	Sub-Totals w/8	1	5	0	1	0	7	/40		
Enter Substitution Phonemes (max=3)		ï pit					=			
Short Vowel Errors w/16 Spelling + Reading		1	5	2	1	0	9	Short Vowel TOTAL /80		
Short Vowel Intervention Priority Levels		HIGH # Vowel Sub-Totals w/ 3-5 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	Number of Vowels for Spelling (5) & Reading (5)				
Number of Vowels per Priority Level Spelling & Reading		5		1	8	Actual Number	Expected Number			
						10	10			
SILENT /e/ RULE ERROR SUMMARY (CVCe)										
Silent /e/ Rule Error Count CVCe		ä n=2+2		ï n=3+3	ö n=3+3	û n=2+2	Silent /e/ Rule Errors			
Sum Spelling Errors	1. non-word (Sn)	0		0	0	0	0 /20			
	2. real word (Sr)	0		0	0	0	0 /20			
	Sub-Totals	0		0	0	0	0 /20			
Sum Reading Errors	3. non-word (Rn)	0		1	1	0	2 /20			
	4. real word (Rr)	0		0	0	0	0 /20			
	Sub-Totals	0		1	1	0	2 /20			
Silent /e/ Rule Intervention Priority Levels		0	0	0	2	Silent /e/ TOTAL /40				
		Priority Level is based on total # of silent /e/ rule errors.				P-O-S-E Error %				
		0-9=HIGH	10-19=MID	20-29=LOW	> 30=N/A	9%				
						((2+0+1)/20) x 100				

P-O-S-E©, Inc
 www.P-O-S-E.net
 Carol A. Sullivan, CCC-SLP
 Roy F. Sullivan, PhD, CCC-A

Student RTI P-O-S-E© Test Results Analyzed Using Included Excel©-Based Scoring Application: Chart Format



Student RTI P-O-S-E© Test Transcript Using School District Forms-with-Processing Option



P-O-S-E © DIAGNOSTIC TRANSCRIPT

LNAME: _____ FNAME: **Falana**

I.D.#: **31040149213** DATE: **5/14/2013**

Target	Spell,n CVC	Read,n CVC	Target	Spell,r CVC	Read,r CVC
1 vip	v i p	z i pit p	1 tab	t a d	t a pat b
2 ret	r e t	r i pit t	2 nip	n i p	n i pit p
3 sug	s u g	s u putt g	3 pun	p u n	p u putt n
4 tob	t o b	t o pot b	4 wed	w e d	w e pet d
5 pag	p a g	p a pat g	5 cog	c o g	c o pot g
6 zib	z i b	z i pit p	6 sap	s a p	s a pat p
7 fem	f e m	f i pit m	7 bib	b i b	b i pit b
8 dut	d u t	d u putt t	8 rut	r u t	r u putt t
9 lod	l o d	l o pot d	9 den	d e n	d e pet n
10 wap	w a p	w i pit p	10 cop	c o p	c o pot p

Target	Spell,n CCVCC	Read,n CCVCC	Target	Spell,r CCVCC	Read,r CCVCC
11 shug	sh u g	sh u putt g	11 hack	h a ck	h a pat k
12 grob	gr o b	gr o pot b	12 drip	dr i p	dr i pit p
13 glesh	gl e sh	gl e putt sh	13 stub	st u b	st u putt d
14 blick	bl a k	bl i pit ck	14 clot	cl o t	cl o pot t
15 plash	pl a sh	pl a pat sh	15 pest	p e st	p i pit st
16 trub	tr u d	tr u putt b	16 rash	r a cg	r a pat sh
17 chog	ch o g	ch u putt g	17 blip	bl i p	bl i pit p
18 bemp	sh e mp	b i pit mp	18 flop	fl o p	fl o pot p
19 slind	sl e nd	sl i pit nd	19 mend	m e nd	m e pet nt
20 grat	gr a t	gr a pat t	20 chum	ch u m	ch u putt m

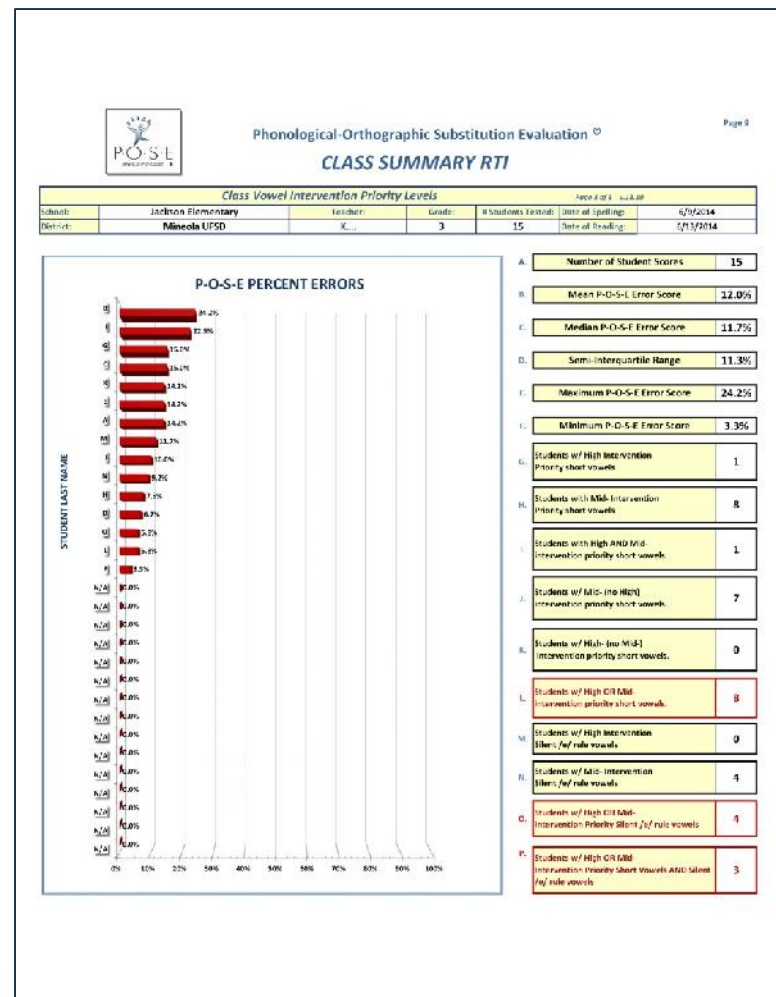
Target	Spell,n CCVCCe	Read,n CCVCCe	Target	Spell,r CCVCCe	Read,r CCVCCe
21 nide	n i de	n i bite d	21 dime	d i me	d i bite m
22 gute	g u te	g u oo/yo t	22 mute	m u te	m u oo/yo t
23 moze	m o ze	m o boat z	23 hose	h o se	h o boat z
24 hake	h a ke	h a bait k	24 fake	f a ke	f a bait k
25 vone	v o ne	v o boat n	25 cone	c o ne	c o boat n
26 sime	s i me	s i bite m	26 vine	v i ne	v i bite n
27 fute	f u te	f u oo/yo t	27 fume	f u me	f u oo/yo m
28 bipe	b i pe	b i pit p	28 kite	k i te	k i bite t
29 bave	b a ve	b a bait v	29 jade	j a de	j a bait d
30 wode	w o de	w o oo/yo d	30 tote	t o te	t o boat t

P-O-S-E© Forms-with-Processing RTI Class Summary Report: Table Format

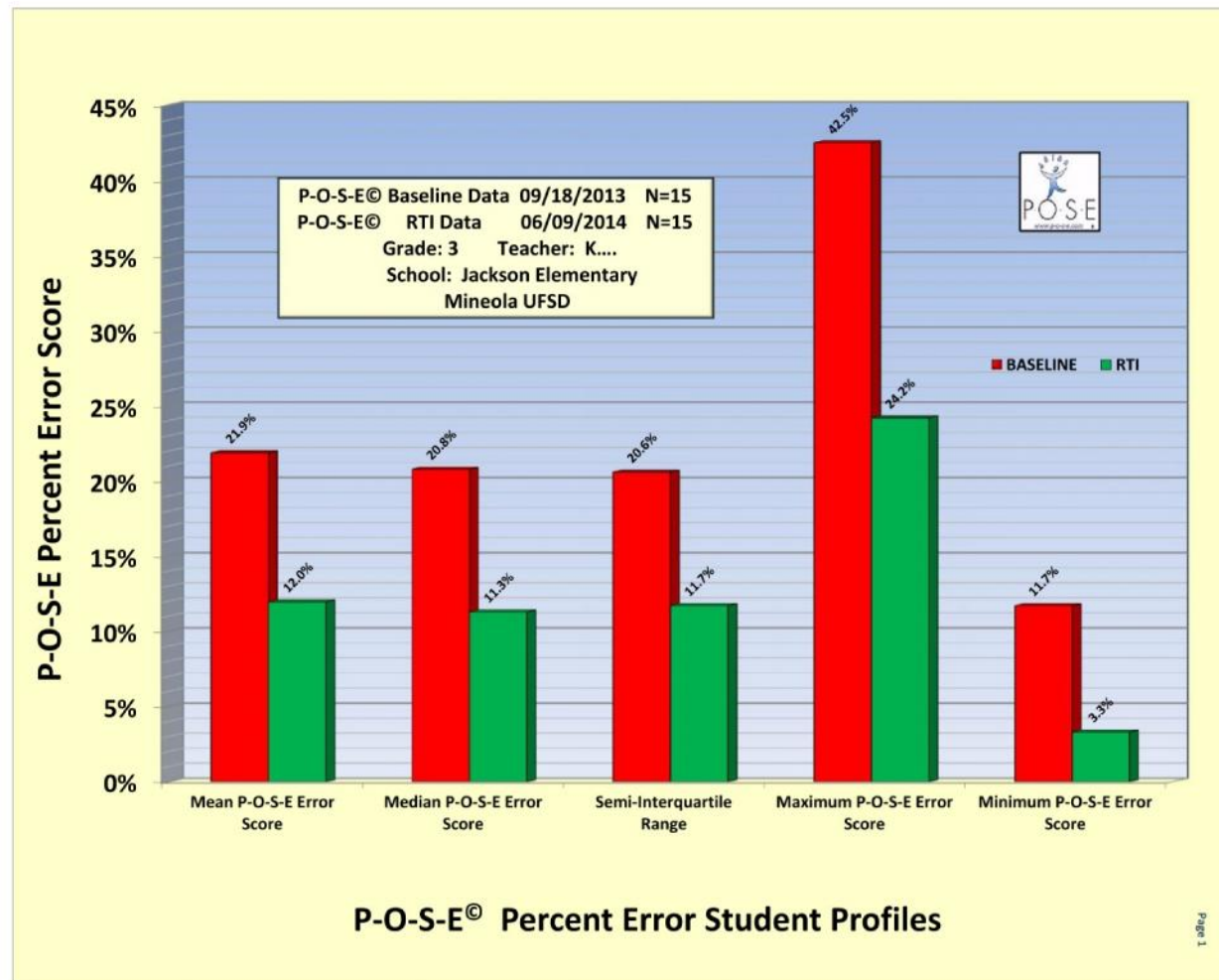
Phonological-Orthographic Substitution Evaluation ©
CLASS SUMMARY RTI

Page 7

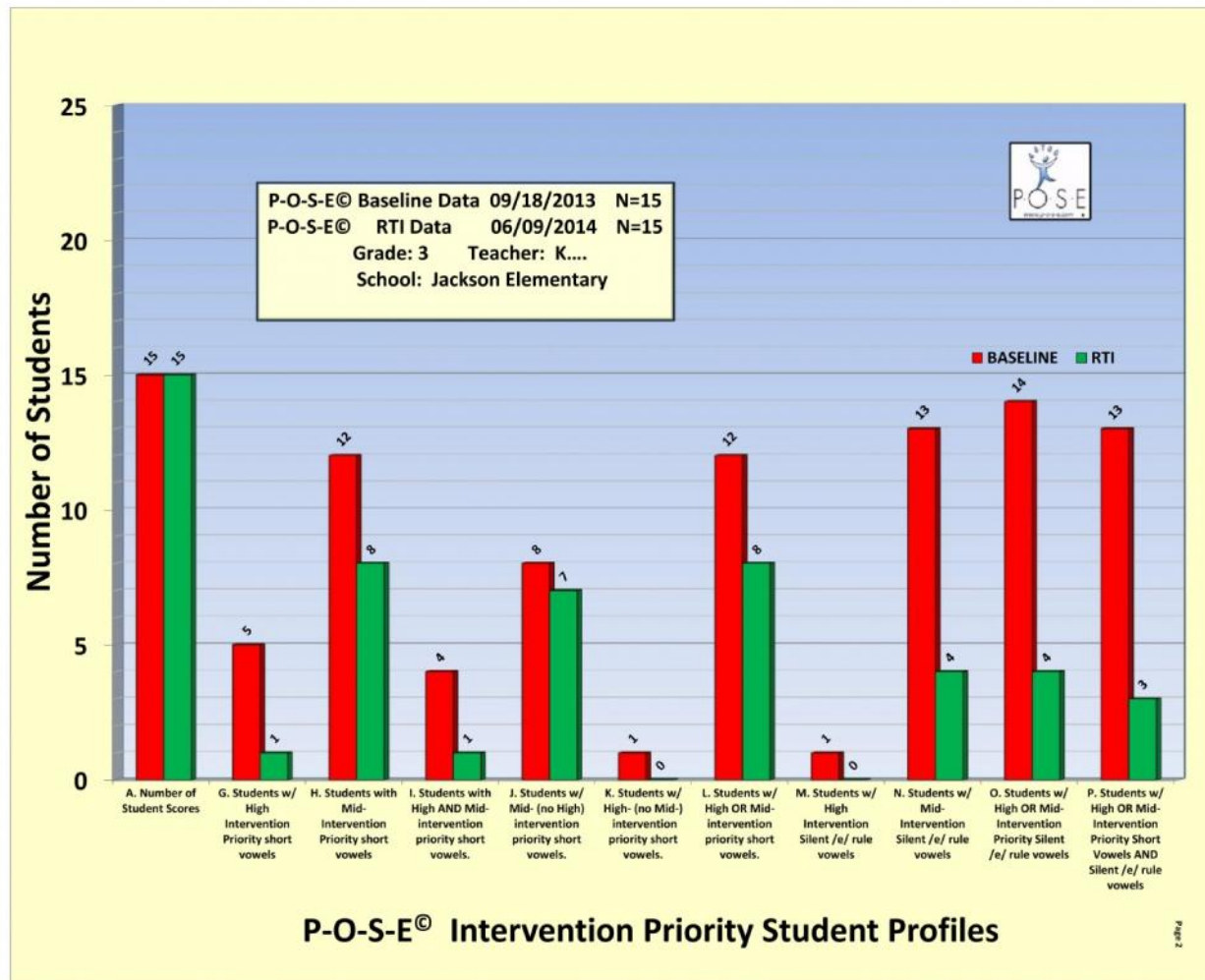
Class Vowel Intervention Priority Levels														
Page 7 of 8 - 12/13														
School:		Teacher:		Grade:	# Students Tested:	Date of Spelling:								
Jackson Elementary		K...		3	15	6/9/2014								
District:		Class:		Date of Reading:										
Mineola UFSD				5/13/2014										
GRADE	P-O-S-E	LEVEl NAME (IF APPLICABLE) SCORE IN WORD	First name	Short Vowels: Spelling (P, E, I, O, U)			Long Vowels: Spelling (A, E, I, O, U)			P-O-S-E TEST TIMES IN ERROR			TOTAL MADE IN 100%	
				NO. CORRECT	NO. ERRORS	PERCENT	NO. CORRECT	NO. ERRORS	PERCENT	S	O	E		I
1	1	A	Adrianna	0	0	1	9				42		S 0 0 0 1 1 11 R 0 2 0 1 0 1	14.2%
2	2	B	Andy	0	4	0	6				13		S 0 4 0 3 1 7 R 0 3 1 4 0 6	24.2%
3	3	C	Nicole	0	3	0	7				7		S 0 4 0 3 1 4 R 0 0 0 3 0 3	15.0%
4	4	D	Vasilios	0	0	0	10				6		S 0 1 0 0 1 3 R 0 0 0 0 0 3	6.7%
5	5	E	Nicholas	0	1	1	8				10		S 0 1 0 0 2 7 R 0 0 0 4 0 3	14.2%
6	6	F	Oleska	0	0	1	9				6		S 1 2 0 0 1 0 R 0 0 0 0 0 0	3.3%
7	7	G	Sarah	0	1	1	8				4		S 3 1 2 0 1 5 R 0 1 1 0 0 4	15.0%
8	8	H	Arman	0	0	0	10				6		S 1 0 1 1 0 5 R 0 0 0 0 0 1	7.5%
9	9	I	Thomas	1	1	1	7				12		S 1 3 1 2 1 1 R 0 1 1 3 0 11	22.5%
10	10	J	Jack	0	1	1	8				7		S 0 3 0 0 2 4 R 0 0 0 0 0 3	10.0%
11	11	K	Rahul	0	1	1	8				8		S 1 3 1 1 1 6 R 0 0 0 2 0 2	14.2%
12	12	L	Della	0	0	1	9				4		S 0 1 0 2 0 4 R 0 0 0 0 0 0	5.8%
13	13	M	James	0	1	2	7				6		S 0 0 3 0 2 6 R 0 1 0 2 0 0	11.7%
14	14	N	Meriane	0	0	0	10				7		S 1 1 0 1 0 5 R 0 0 0 1 0 2	9.2%
15	15	O	Luke	0	0	1	9				5		S 0 2 0 0 0 5 R 0 0 0 0 0 0	5.8%



P-O-S-E© Forms-with-Processing RTI Class Summary Report: Chart Statistics



P-O-S-E© Forms-with-Processing RTI Class Summary Report: Chart Statistics



P-O-S-E© Forms-with-Processing RTI Class Summary Report: Table Format



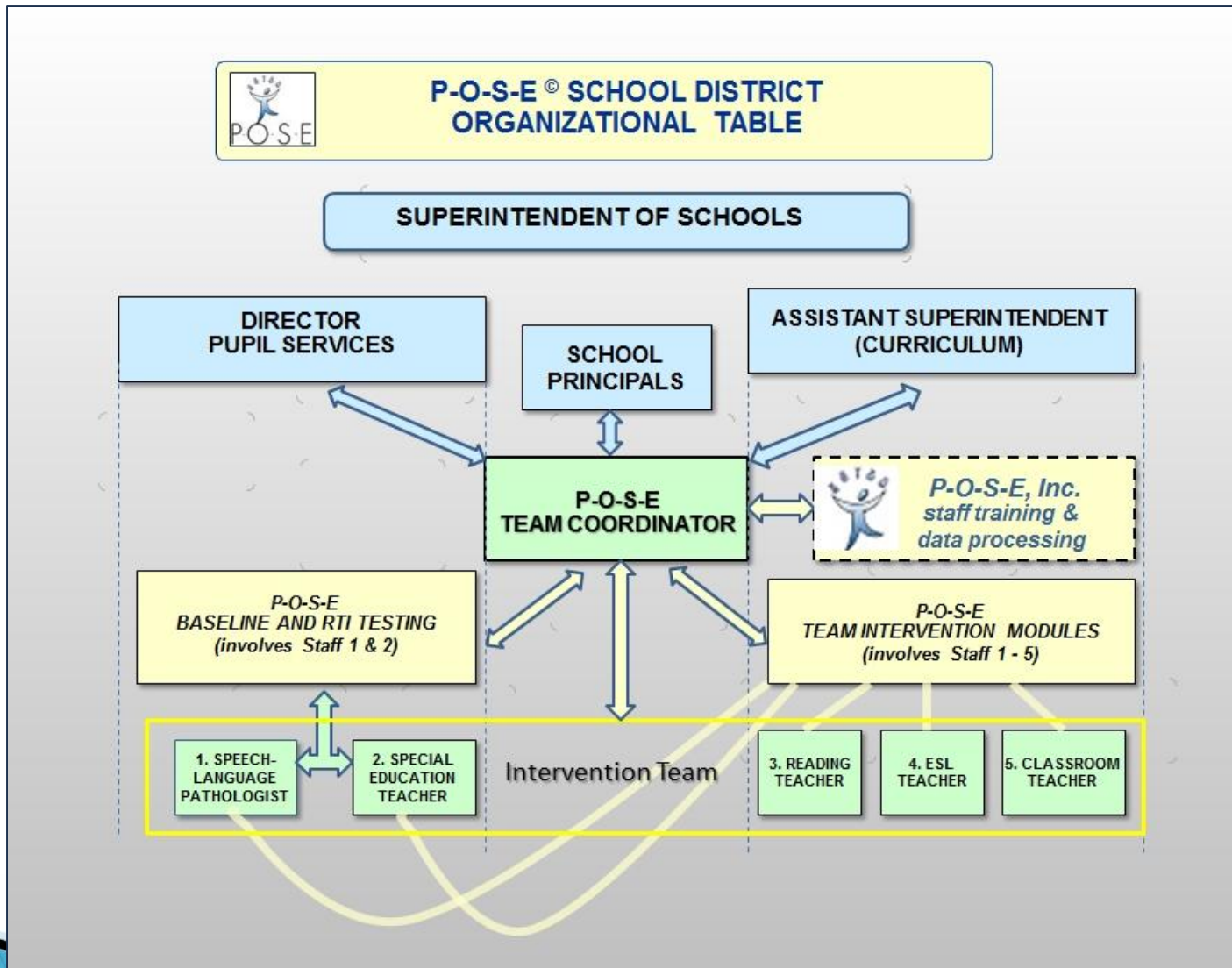
Phonological-Orthographic Substitution Evaluation ©

Page 3

CLASS SUMMARY BASELINE v. RTI

CLASS SUMMARY DATA BASELINE								
School:	Jackson Elementary	Teacher:	Grade:	# Tested:	Date Base Spelling:			
District:	Mineola UFSD	K...	3	15	Date Base Reading:			
9/18/2013								
9/25/2013								
CLASS SUMMARY DATA RTI								
School:	Jackson Elementary	Teacher:	Grade:	# Tested:	Date RTI Spelling:			
District:	Mineola UFSD	K...	3	15	Date RTI Reading:			
6/9/2014								
6/13/2014								
CLASS SUMMARY DATA BASELINE - RTI								
CLASS SUMMARY DATA: BASELINE		CLASS SUMMARY DATA: RTI		CLASS SUMMARY DATA: BASELINE-RTI DIFFERENCE				
A.	Number of Student Scores	15	A.	Number of Student Scores	15	A.	Number of Paired Student Scores	15/15
B.	Mean P-O-S-E Error Score	21.9%	B.	Mean P-O-S-E Error Score	12.0%	B.	Mean P-O-S-E Error Score	-9.9%
C.	Median P-O-S-E Error Score	20.6%	C.	Median P-O-S-E Error Score	11.7%	C.	Median P-O-S-E Error Score	-8.9%
D.	Semi-Interquartile Range	20.8%	D.	Semi-Interquartile Range	11.3%	D.	Sample Standard Deviation	-9.5%
E.	Maximum P-O-S-E Error Score	42.5%	E.	Maximum P-O-S-E Error Score	24.2%	E.	Maximum P-O-S-E Error Score	-18.3%
F.	Minimum P-O-S-E Error Score	11.7%	F.	Minimum P-O-S-E Error Score	3.3%	F.	Minimum P-O-S-E Error Score	-8.4%
G.	Students w/ High Intervention Priority short vowels	5	G.	Students w/ High Intervention Priority short vowels	1	G.	Students w/ High Intervention Priority short vowels	-4
H.	Students with Mid- Intervention Priority short vowels	12	H.	Students with Mid- Intervention Priority short vowels	8	H.	Students with Mid- Intervention Priority short vowels	-4
I.	Students with High AND Mid- Intervention priority short vowels.	4	I.	Students with High AND Mid- Intervention priority short vowels.	1	I.	Students with High AND Mid- Intervention priority short vowels.	-3
J.	Students w/ Mid- (no High) Intervention priority short vowels.	8	J.	Students w/ Mid- (no High) Intervention priority short vowels.	7	J.	Students w/ Mid- (no High) Intervention priority short vowels.	-1
K.	Students w/ High- (no Mid-) Intervention priority short vowels.	1	K.	Students w/ High- (no Mid-) Intervention priority short vowels.	0	K.	Students w/ High- (no Mid-) Intervention priority short vowels.	-1
L.	Students w/ High OR Mid- Intervention priority short vowels.	12	L.	Students w/ High OR Mid- Intervention priority short vowels.	8	L.	Students w/ High OR Mid- Intervention priority short vowels.	-4
M.	Students w/ High Intervention Silent /e/ rule vowels	1	M.	Students w/ High Intervention Silent /e/ rule vowels	0	M.	Students w/ High Intervention Silent /e/ rule vowels	-1
N.	Students w/ Mid- Intervention Silent /e/ rule vowels	13	N.	Students w/ Mid- Intervention Silent /e/ rule vowels	4	N.	Students w/ Mid- Intervention Silent /e/ rule vowels	-9
O.	Students w/ High OR Mid- Intervention Priority Silent /e/ rule vowels	14	O.	Students w/ High OR Mid- Intervention Priority Silent /e/ rule vowels	4	O.	Students w/ High OR Mid- Intervention Priority Silent /e/ rule vowels	-10
P.	Students w/ High OR Mid- Intervention Priority Short Vowels AND Silent /e/ rule vowels	13	P.	Students w/ High OR Mid- Intervention Priority Short Vowels AND Silent /e/ rule vowels	3	P.	Students w/ High OR Mid- Intervention Priority Short Vowels AND Silent /e/ rule vowels	-10

Working Model for Integration of the P-O-S-E[©] Program into School Curriculum





The P-O-S-E© and Your School District: I

- Review the P-O-S-E© school district operational flow chart.
- Designate a member of the school district staff to serve as P-O-S-E© coordinator.
- Experience has demonstrated that a credential in Speech-Language Pathology is to be valued in the role of P-O-S-E© coordinator, given the foundational nature of short and long vowel phonology in literacy.
- Secure a P-O-S-E© test kit with license for the school district.



The P-O-S-E© and Your School District: II

- Contract with P-O-S-E©, Inc. for in-district service training of key personnel assigned to the P-O-S-E© project

or

- Enroll key personnel in a two-segment offsite P-O-S-E© tutorial course offered on demand in the Summer interval.
 - Part I: Administering scoring the P-O-S-E©; Interpreting the findings; evidence-based structure of modular P-O-S-E© vowel intervention.
 - PART II: Organization and management of a comprehensive Grade 3 P-O-S-E© assessment and intervention program.



The P-O-S-E© and Your School District: **III**

- Administer P-O-S-E© baseline tests to a select sample of Grade 3 students.
- Use the P-O-S-E© computer scoring application to score and process in-district the individual student results.
- Make a data-based determination to proceed with a curriculum-integrated application of the P-O-S-E© program across the entire Grade 3 level.



The P-O-S-E© and Your School District: IV

- The nature and range of individual Grade 3 student error scores will provide evidence for the projected extent of school district commitment to incorporating the P-O-S-E© into its literacy armamentarium.
- Options for district use of the P-O-S-E© include:
 - A. Continue with use as a diagnostic test, selectively applied to preselected students
or
 - B. Commit to programmatic P-O-S-E© testing and intervention with the entire Grade 3 population for both Baseline (Fall) and RTI (Spring).



The P-O-S-E© and Your School District: V

- The comprehensive P-O-S-E© program requires the forms-with-testing (Title I-eligible) option which includes full scoring of handwritten P-O-S-E© Spelling responses and transcribed P-O-S-E© Reading responses.
- Individual student reports of P-O-S-E© performance are provided as well as class summaries that facilitate modular intervention strategies.
- At year end, a P-O-S-E© RTI report is provided for individual students as well as for each Grade 3 class.

P-O-S-E[©] Data-Based Website

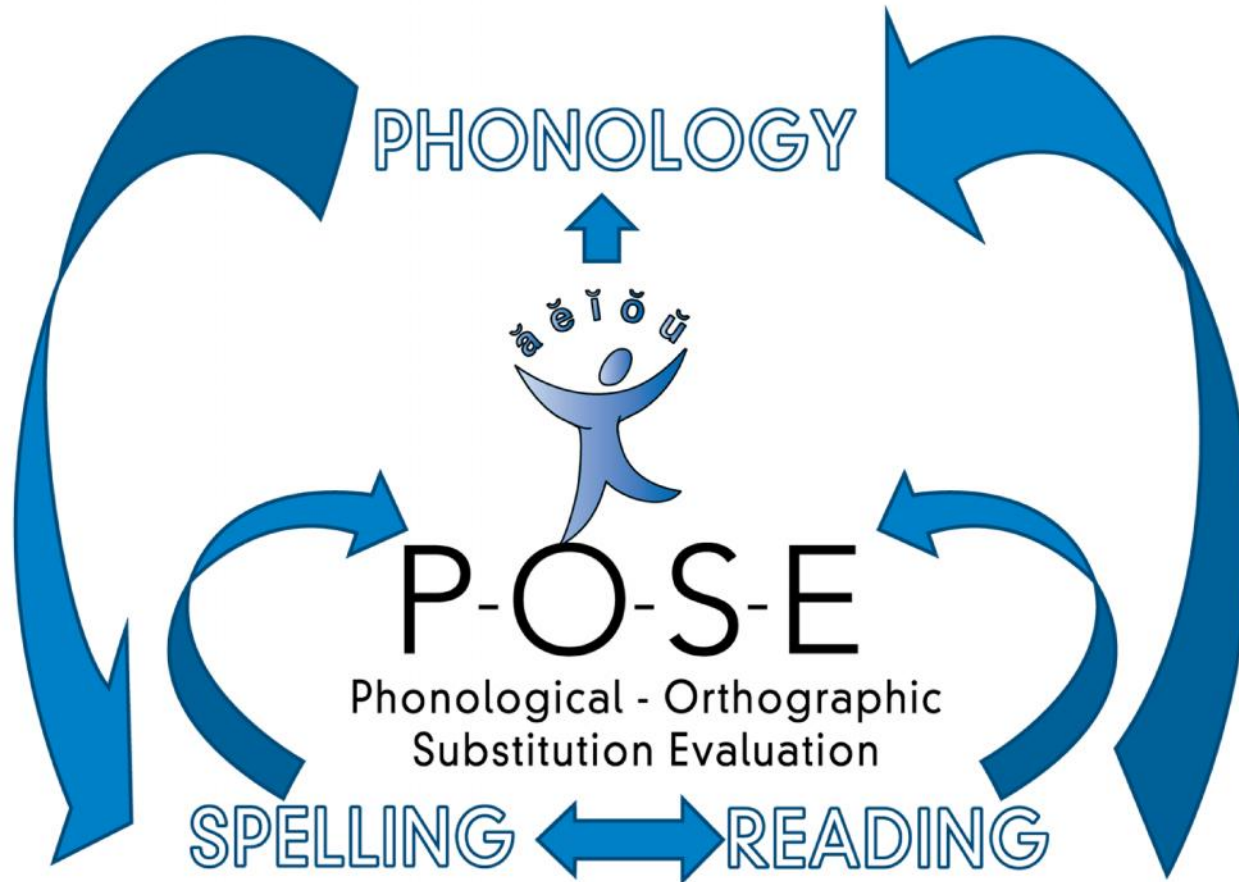
For additional information including validation studies, sample reports, online-instructional videos demonstrating group and individual P-O-S-E[©] testing procedures and intervention, visit:



www.P-O-S-E.net

E-mail: c@p-o-s-e.net

Phone: 516-248-POSE (7673)



www.P-O-S-E.net