Phonological-Orthographic Substitution Evaluation©

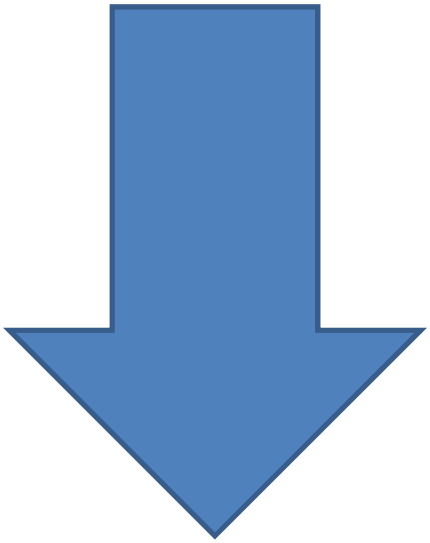
New for 2016: Excel–based scoring application processes raw P–O–S–E© Spelling and Reading data to produce instant Baseline or RTI student reports. Secure USB drive installation.

P-O-S-E

www.p-o-s-e.com ©

P-O-S-E© SCORING APPLICATION MANUAL

Roy F. Sullivan, Ph.D.



A. Phonological-Orthographic Substitution Evaluation (P-O-S-E©) Overview

1. SUMMARY

The P-O-S-E©: Phonological / Orthographic Substitution Evaluation © is a criterion-referenced assessment instrument, designed to probe for substitution errors in a primary grade 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.

2. PROCEDURE: *P-O-S-E© BASELINE*

a. Early in the school year, administer the BASELINE Spelling portion of the P-O-S-E© in any of the following contexts:

Figure A.1

P-O-S-E© Spelling in office

Figure A.2

P-O-S-E© Spelling in classroom

Figure A.3

P-O-S-E© Spelling multi-class

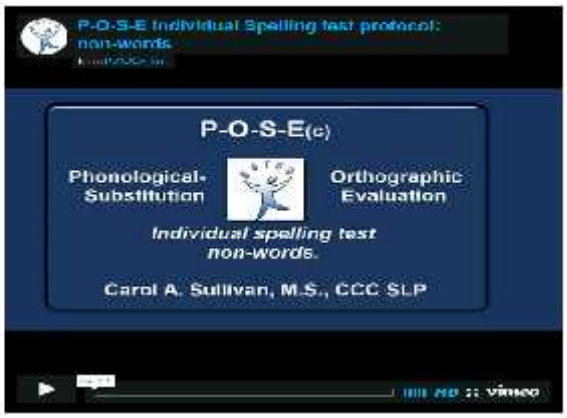
b. Training videos are available (http://www.p-o-s-e.net/#!training-videos/c1iy5) on the www.P-O-S-E.net website, demonstrating administration of the P-O-S-E© Spelling test in large group and individual student contexts. (Fig. A.4, A.5)

Figure A.4

B1. P-O-S-E large group spelling non-word test in real time

Figure A.5

C1. P-O-S-E INDIVIDUAL spelling non-word test in real time



c. One week later administer the BASELINE Reading portion of the P-O-S-E© in either of the following contexts:

Figure A.6

P-O-S-E Reading in office

Figure A.7

P-O-S-E Reading outside classroom

d. A training video is available (http://www.p-o-s-e.net/#!training-videos/c1iy5) on the www.P-O-S-E.net website, demonstrating administration of the P-O-S-E© Reading test in an individual student context. (Fig. A.8)

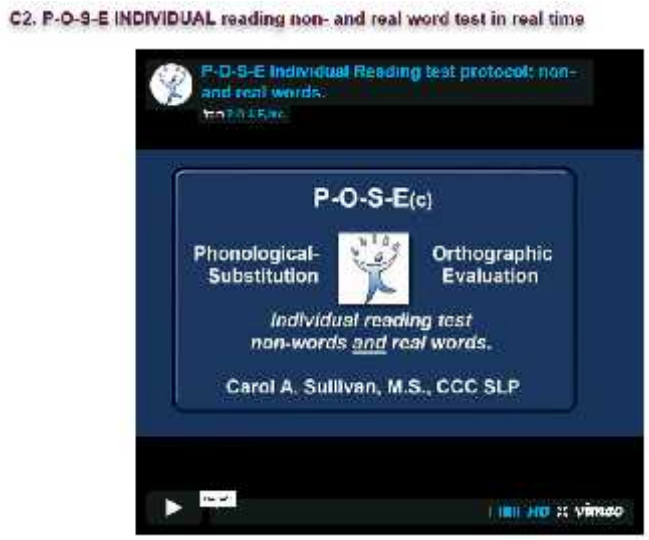


Figure A.8

e. Access the student's handwritten BASELINE Spelling non- and real word responses.

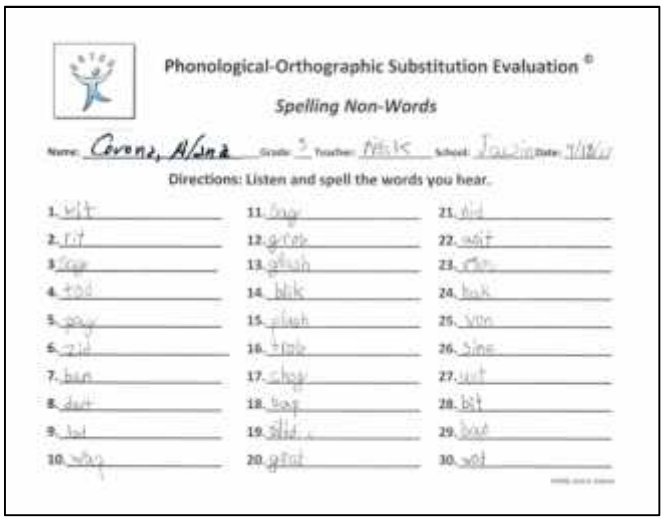


Figure A.9

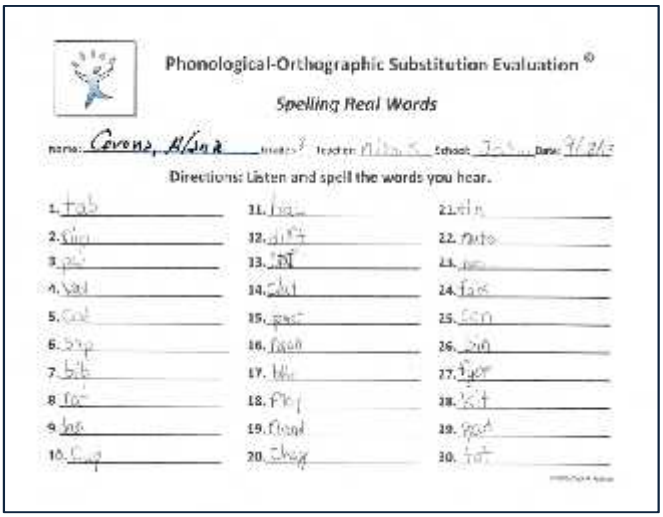


Figure A.10

f. Open the P-O-S-E© Scoring Application (Requires Microsoft Windows and Excel 2007 or later).

g. Complete the SDC (Student Data Coding) page required information.

h. Transfer Spelling non- and real word responses to the BASELINE portion of the P-O-S-E© Scoring Application (Requires Microsoft Windows and Excel 2007 or later).

Figure A.11

Figure A.12

i. Access the examiner's phonological transcriptions of the student's P-O-S-E© BASELINE Reading non- and real word responses:

Figure A.13

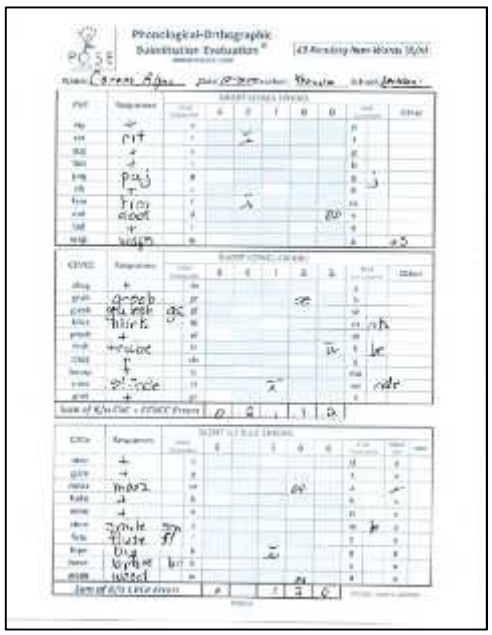
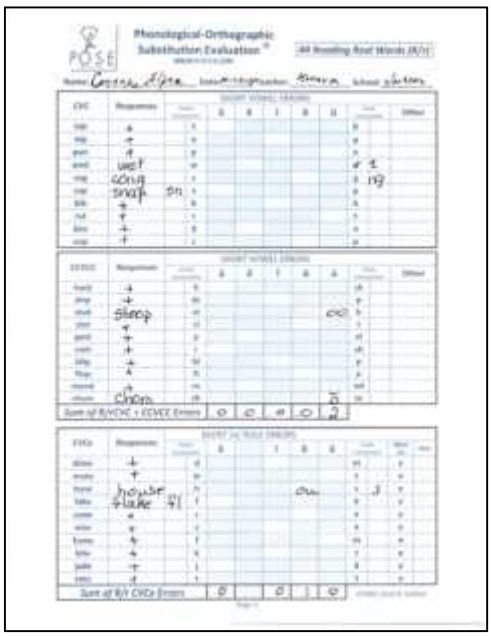


Figure A.14



j. Transfer non- and real word Reading responses to the BASELINE portion of the P-O-S-E© Scoring Application. (Figs. A.15, A.16)

Figure A.15

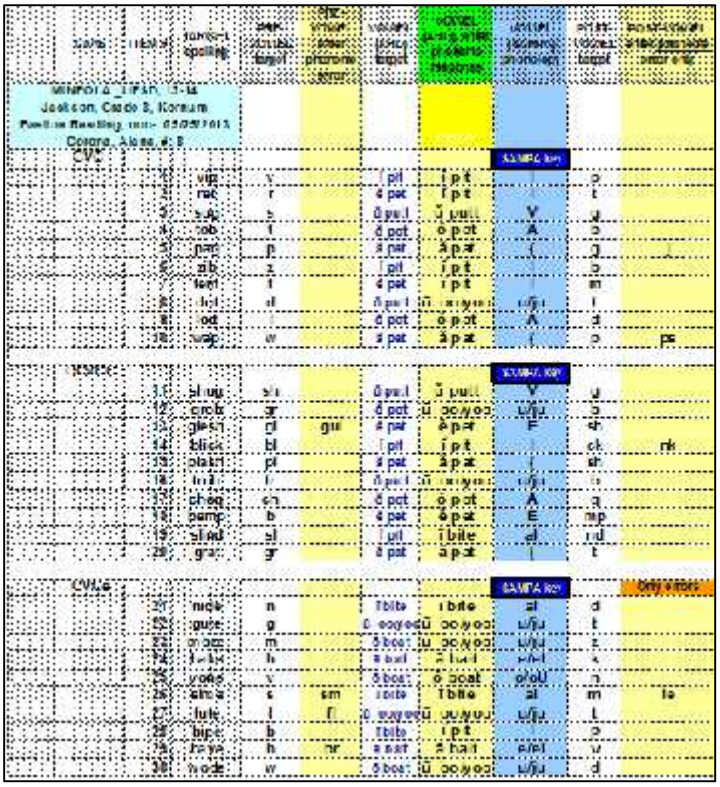


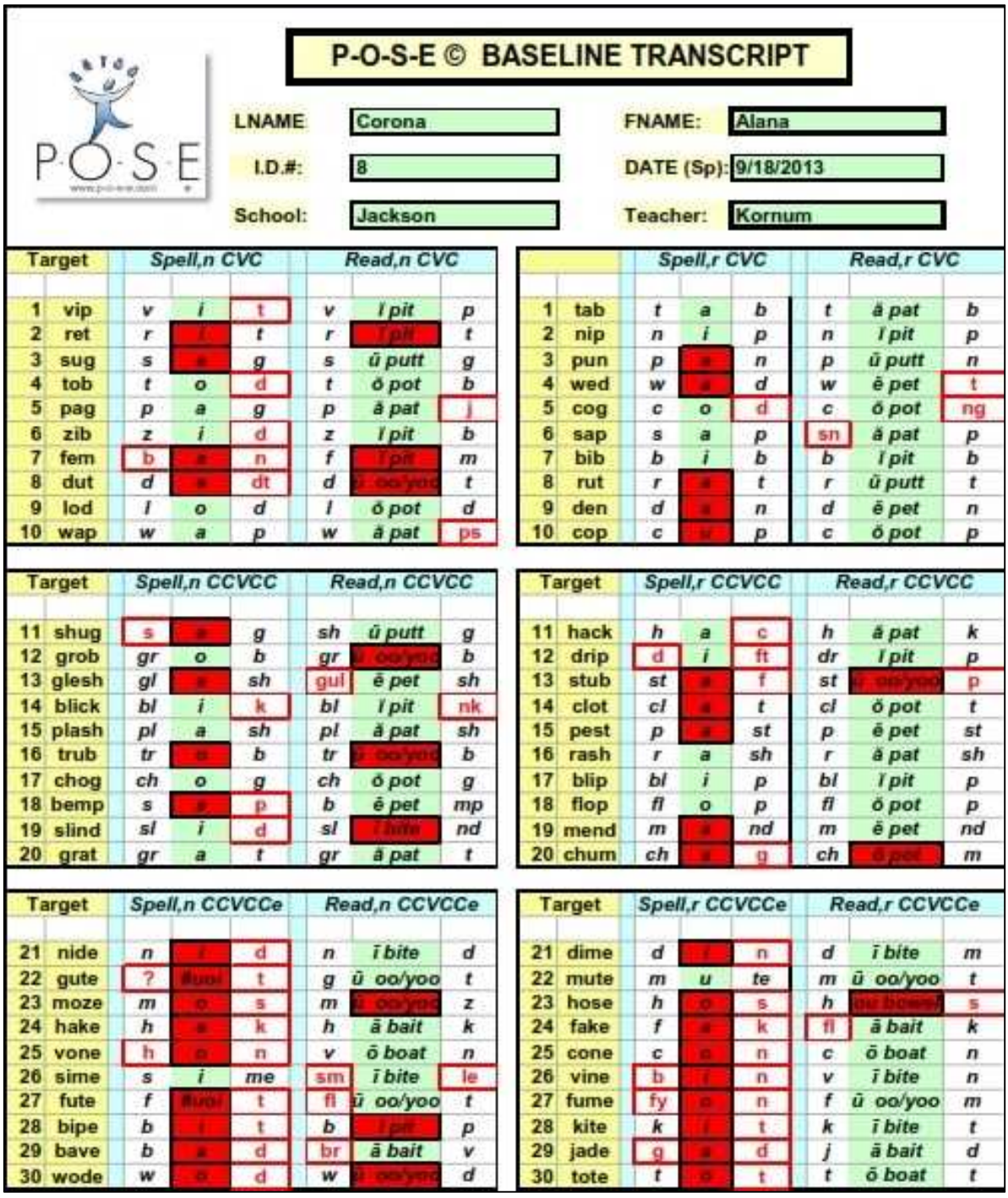
Figure A.16

k. From the right click menu, select Name/Save file to save and locate student's P-O-S-E© proficiency record in a retrievable, hierarchical directory structure. [THE P-O-S-E© SCORING USB DRIVE MUST BE INSERTED WHEN USING THE P-O-S-E© SCORING APPLICATION.] (Fig. A.17)

Figure A.17

l. From the right click menu, select Print BASELINE report (3 p) to print the three page P-O-S-E© student BASELINE report. [THE P-O-S-E© SCORING USB DRIVE MUST BE INSERTED WHEN USING THE P-O-S-E© SCORING APPLICATION.] (Figs. A18-A21)

Figure A.18



P-O-S-E © BASELINE TRANSCRIPT

LNAME: Corona FNAME: Alana
I.D.#: 8 DATE (Sp): 9/18/2013
School: Jackson Teacher: Kornum

Target	Spell,n CVC			Read,n CVC		
1 vip	v	i	t	v	ĭ pit	p
2 ret	r	[illegible]	t	r	[illegible]	t
3 sug	s	[illegible]	g	s	ŭ putt	g
4 tob	t	o	d	t	ŏ pot	b
5 pag	p	a	g	p	ă pat	j
6 zib	z	i	d	z	ĭ pit	b
7 fem	b	e	n	f	[illegible]	m
8 dut	d	[illegible]	dt	d	[illegible]	t
9 lod	l	o	d	l	ŏ pot	d
10 wap	w	a	p	w	ă pat	ps

	Spell,r CVC			Read,r CVC		
1 tab	t	a	b	t	ă pat	b
2 nip	n	i	p	n	ĭ pit	p
3 pun	p	[illegible]	n	p	ŭ putt	n
4 wed	w	[illegible]	d	w	ĕ pet	t
5 cog	c	o	d	c	ŏ pot	ng
6 sap	s	a	p	sn	ă pat	p
7 bib	b	i	b	b	ĭ pit	b
8 rut	r	[illegible]	t	r	ŭ putt	t
9 den	d	[illegible]	n	d	ĕ pet	n
10 cop	c	[illegible]	p	c	ŏ pot	p

Target	Spell,n CCVCC			Read,n CCVCC		
11 shug	s	[illegible]	g	sh	ŭ putt	g
12 grob	gr	o	b	gr	[illegible]	b
13 glesh	gl	[illegible]	sh	gul	ĕ pet	sh
14 blick	bl	i	k	bl	ĭ pit	nk
15 plash	pl	a	sh	pl	ă pat	sh
16 trub	tr	[illegible]	b	tr	[illegible]	b
17 chog	ch	o	g	ch	ŏ pot	g
18 bemp	s	[illegible]	p	b	ĕ pet	mp
19 slind	sl	i	d	sl	[illegible]	nd
20 grat	gr	a	t	gr	ă pat	t

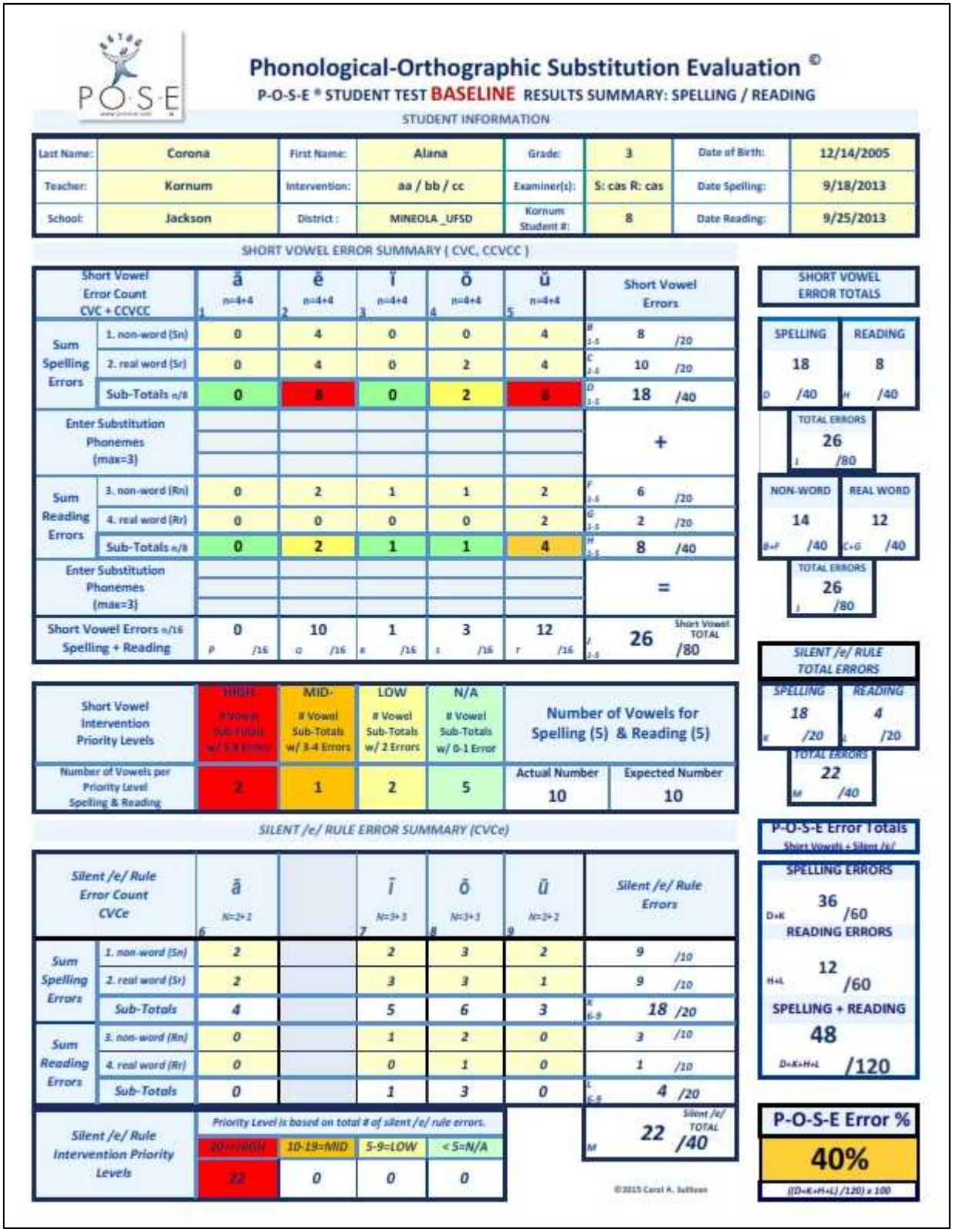
Target	Spell,r CCVCC			Read,r CCVCC		
11 hack	h	a	c	h	ă pat	k
12 drip	d	i	ft	dr	ĭ pit	p
13 stub	st	[illegible]	f	st	[illegible]	p
14 clot	cl	[illegible]	t	cl	ŏ pot	t
15 pest	p	[illegible]	st	p	ĕ pet	st
16 rash	r	a	sh	r	ă pat	sh
17 blip	bl	i	p	bl	ĭ pit	p
18 flop	fl	o	p	fl	ŏ pot	p
19 mend	m	[illegible]	nd	m	ĕ pet	nd
20 chum	ch	[illegible]	g	ch	[illegible]	m

Target	Spell,n CCVCCe			Read,n CCVCCe		
21 nide	n	[illegible]	d	n	ī bite	d
22 gute	?	[illegible]	t	g	ū oo/yoo	t
23 moze	m	o	s	m	[illegible]	z
24 hake	h	[illegible]	k	h	ā bait	k
25 vone	h	o	n	v	ō boat	n
26 sime	s	i	me	sm	ī bite	le
27 fute	f	[illegible]	t	fl	ū oo/yoo	t
28 bipe	b	i	t	b	[illegible]	p
29 bave	b	[illegible]	d	br	ā bait	v
30 wode	w	o	d	w	[illegible]	d

Target	Spell,r CCVCCe			Read,r CCVCCe		
21 dime	d	[illegible]	n	d	ī bite	m
22 mute	m	u	te	m	ū oo/yoo	t
23 hose	h	o	s	h	[illegible]	s
24 fake	f	[illegible]	k	fl	ā bait	k
25 cone	c	o	n	c	ō boat	n
26 vine	b	i	n	v	ī bite	n
27 fume	fy	o	n	f	ū oo/yoo	m
28 kite	k	i	t	k	ī bite	t
29 jade	g	[illegible]	d	j	ā bait	d
30 tote	t	o	t	t	ō boat	t

Page 1. Student's P-O-S-E© BASELINE Spelling and Reading responses, errors in red

Figure A.19



Phonological-Orthographic Substitution Evaluation ©

P-O-S-E ® STUDENT TEST BASELINE RESULTS SUMMARY: SPELLING / READING

STUDENT INFORMATION

Last Name:	Corona	First Name:	Alana	Grade:	3	Date of Birth:	12/14/2005
Teacher:	Kornum	Intervention:	aa / bb / cc	Examiner(s):	S: cas R: cas	Date Spelling:	9/18/2013
School:	Jackson	District :	MINEOLA_UFSD	Kornum Student #:	8	Date Reading:	9/25/2013

SHORT VOWEL ERROR SUMMARY (CVC, CCVCC)

Short Vowel Error Count CVC + CCVCC		ā n=4+4 (1)	ē n=4+4 (2)	ī n=4+4 (3)	ō n=4+4 (4)	ū n=4+4 (5)	Short Vowel Errors
Sum Spelling Errors	1. non-word (Sn)	0	4	0	0	4	B 8 /20
	2. real word (Sr)	0	4	0	2	4	C 10 /20
	Sub-Totals n/8	0	8	0	2	8	D 18 /40
Enter Substitution Phonemes (max=3)							+
Sum Reading Errors	3. non-word (Rn)	0	2	1	1	2	F 6 /20
	4. real word (Rr)	0	0	0	0	2	G 2 /20
	Sub-Totals n/8	0	2	1	1	4	H 8 /40
Enter Substitution Phonemes (max=3)							=
Short Vowel Errors n/16 Spelling + Reading		0 P /16	10 Q /16	1 R /16	3 S /16	12 T /16	J 26 Short Vowel TOTAL /80

SHORT VOWEL ERROR TOTALS

SPELLING	READING
18	8
D /40	H /40

TOTAL ERRORS 26 I /80

NON-WORD	REAL WORD
14	12
B+F /40	C+G /40

TOTAL ERRORS 26 J /80

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	Number of Vowels for Spelling (5) & Reading (5)	
Number of Vowels per Priority Level Spelling & Reading	2	1	2	5	Actual Number 10	Expected Number 10

SILENT /e/ RULE ERROR SUMMARY (CVCe)

Silent /e/ Rule Error Count CVCe		ā N=2+2 (6)		ī N=3+3 (7)	ō N=3+3 (8)	ū N=2+2 (9)	Silent /e/ Rule Errors
Sum Spelling Errors	1. non-word (Sn)	2		2	3	2	9 /10
	2. real word (Sr)	2		3	3	1	9 /10
	Sub-Totals	4		5	6	3	K 18 /20
Sum Reading Errors	3. non-word (Rn)	0		1	2	0	3 /10
	4. real word (Rr)	0		0	1	0	1 /10
	Sub-Totals	0		1	3	0	L 4 /20

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
	22	0	0	0

M 22 Silent /e/ TOTAL /40

SILENT /e/ RULE TOTAL ERRORS

SPELLING	READING
18	4
K /20	L /20

TOTAL ERRORS 22 M /40

P-O-S-E Error Totals

Short Vowels + Silent /e/

SPELLING ERRORS 36 D+K /60

READING ERRORS 12 H+L /60

SPELLING + READING 48 D+K+H+L /120

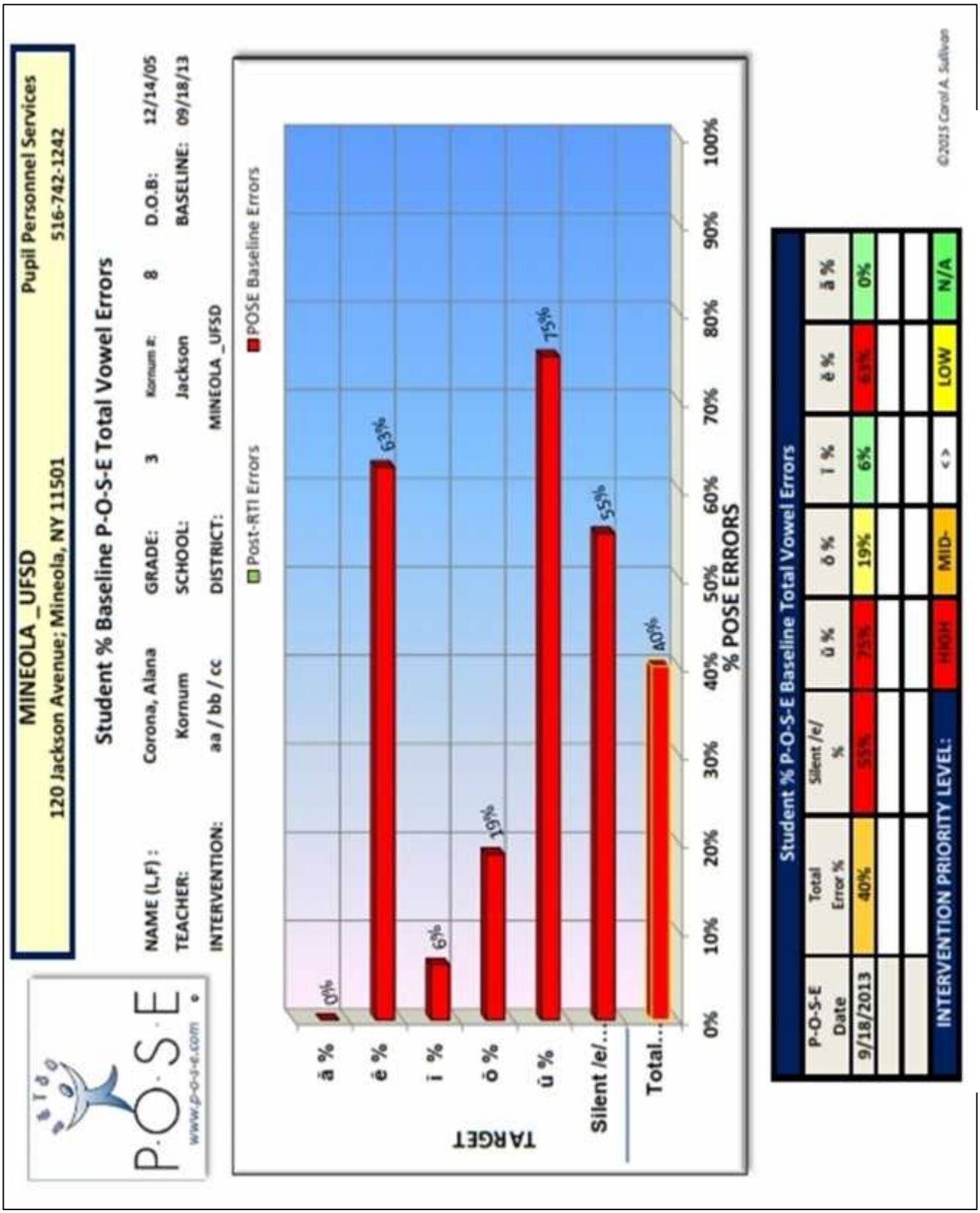
P-O-S-E Error % 40%

((D+K+H+L) /120) x 100

©2015 Carol A. Sullivan

Page 2. Table of P-O-S-E© BASELINE sub-test and total error scores

Figure A.20



Page 3. Bar chart of P-O-S-E© BASELINE sub-test and total error scores

Page 3. Bar chart of student P-O-S-E© BASELINE short vowel proficiency.

3. PROCEDURE: *P-O-S-E© evidence-based vowel training intervention priorities are based on BASELINE P-O-S-E© outcomes.*

a, Categorical sub-totals and totals are calculated automatically as data are entered. Color-coded intervention priority levels are given for individual short vowels in Spelling and Reading and for the Silent /e/ rule, aggregated across Spelling and Reading, non-words and real word test items. (Fig. A.21)

Figure A.21

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
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*

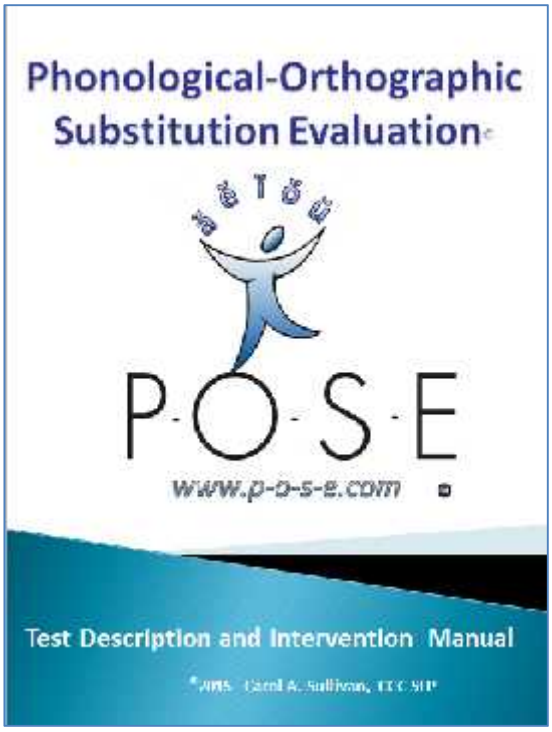
b. Intervention is applied as vowel training in an individual or group context (Figs. A.22, A.23)

Figure A.22

Figure A.23

c. P-O-S-E© vowel training is discussed in the P-O-S-E© Test Description and Intervention Manual. (Fig. A.24)

Figure A.24



4. PROCEDURE: *P-O-S-E© Response-to-Intervention (RTI) assessment*

a. At an appropriate time near the end of school year, administer the RTI Spelling portion of the P-O-S-E©. Use the same protocol and materials as used for BASELINE measures.

b. One week later administer the RTI Reading portion of the P-O-S-E©. (Use same protocol and materials as used for BASELINE measures.)

c. Use the right click menu command Open POSEDATA save/close to access, retrieve and re-open the intended student's P-O-S-E© file record from the hierarchical directory structure

d. Access the student's handwritten new RTI Spelling non- and real word responses.

e. Transfer RTI Spelling non- and real word responses to the RTI portion of the P-O-S-E© Scoring Application, Tabs 9/Sn_2 and 10/ Sr_2

f. Access the examiner's phonological transcriptions of the student's RTI Reading non- and real word responses.

g. Transfer non- and real word Reading responses to the RTI portion of the P-O-S-E© Scoring Application, tabs 11/Rn_2 and 12/ Rr_2.

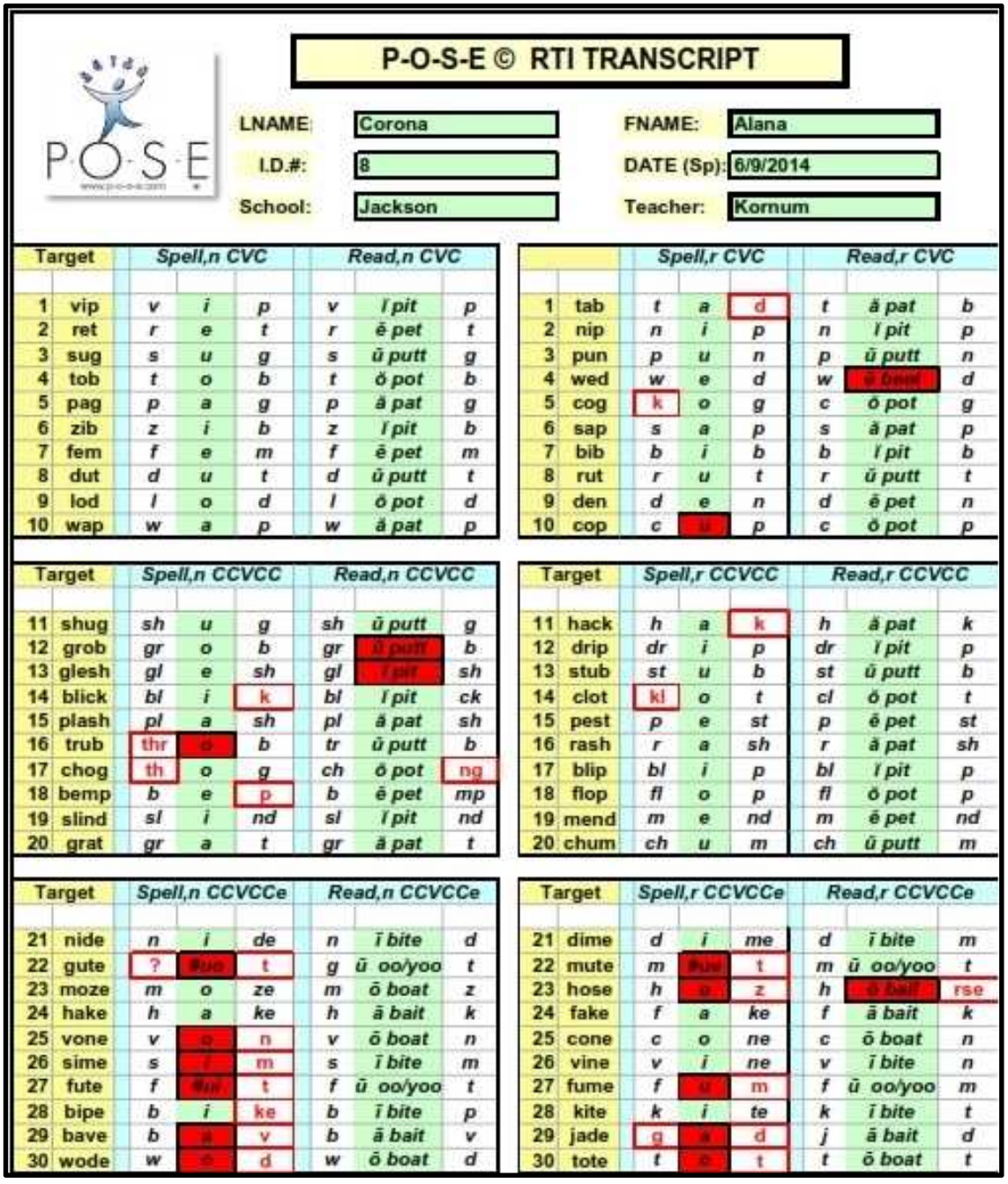
h. Use the right click menu command Print RTI Report (3pages FIG. a25-27) to print the three page P-O-S-E© student RTI report. [THE P-O-S-E© SCORING USB DRIVE MUST BE INSERTED WHEN USING THE P-O-S-E© SCORING APPLICATION.]

i. Use the right click menu command Name/Save file to re-save and locate student's P-O-S-E© BASELINE and RTI proficiency record in a retrievable, hierarchical directory structure. [THE P-O-S-E© SCORING USB DRIVE MUST BE INSERTED WHEN USING THE P-O-S-E© SCORING APPLICATION.]

j. Use P-O-S-E(c) data to validate and, as needed, modify intervention strategies.

k. Correlate P-O-S-E© outcomes with the School District's preferred metrics for literacy metrics.

Figure A.25



P-O-S-E © RTI TRANSCRIPT

LNAME: Corona FNAME: Alana
I.D.#: 8 DATE (Sp): 6/9/2014
School: Jackson Teacher: Kornum

Target		Spell,n CVC			Read,n CVC		
1	vip	v	i	p	v	ĭ pit	p
2	ret	r	e	t	r	ĕ pet	t
3	sug	s	u	g	s	ŭ putt	g
4	tob	t	o	b	t	ŏ pot	b
5	pag	p	a	g	p	ă pat	g
6	zib	z	i	b	z	ĭ pit	b
7	fem	f	e	m	f	ĕ pet	m
8	dut	d	u	t	d	ŭ putt	t
9	lod	l	o	d	l	ŏ pot	d
10	wap	w	a	p	w	ă pat	p

		Spell,r CVC			Read,r CVC		
1	tab	t	a	d	t	ă pat	b
2	nip	n	i	p	n	ĭ pit	p
3	pun	p	u	n	p	ŭ putt	n
4	wed	w	e	d	w	ĕ bed	d
5	cog	k	o	g	c	ŏ pot	g
6	sap	s	a	p	s	ă pat	p
7	bib	b	i	b	b	ĭ pit	b
8	rut	r	u	t	r	ŭ putt	t
9	den	d	e	n	d	ĕ pet	n
10	cop	c	u	p	c	ŏ pot	p

Target		Spell,n CCVCC			Read,n CCVCC		
11	shug	sh	u	g	sh	ŭ putt	g
12	grob	gr	o	b	gr	ŭ putt	b
13	glesh	gl	e	sh	gl	ĭ pit	sh
14	blick	bl	i	k	bl	ĭ pit	ck
15	plash	pl	a	sh	pl	ă pat	sh
16	trub	thr	o	b	tr	ŭ putt	b
17	chog	th	o	g	ch	ŏ pot	ng
18	bemp	b	e	p	b	ĕ pet	mp
19	slind	sl	i	nd	sl	ĭ pit	nd
20	grat	gr	a	t	gr	ă pat	t

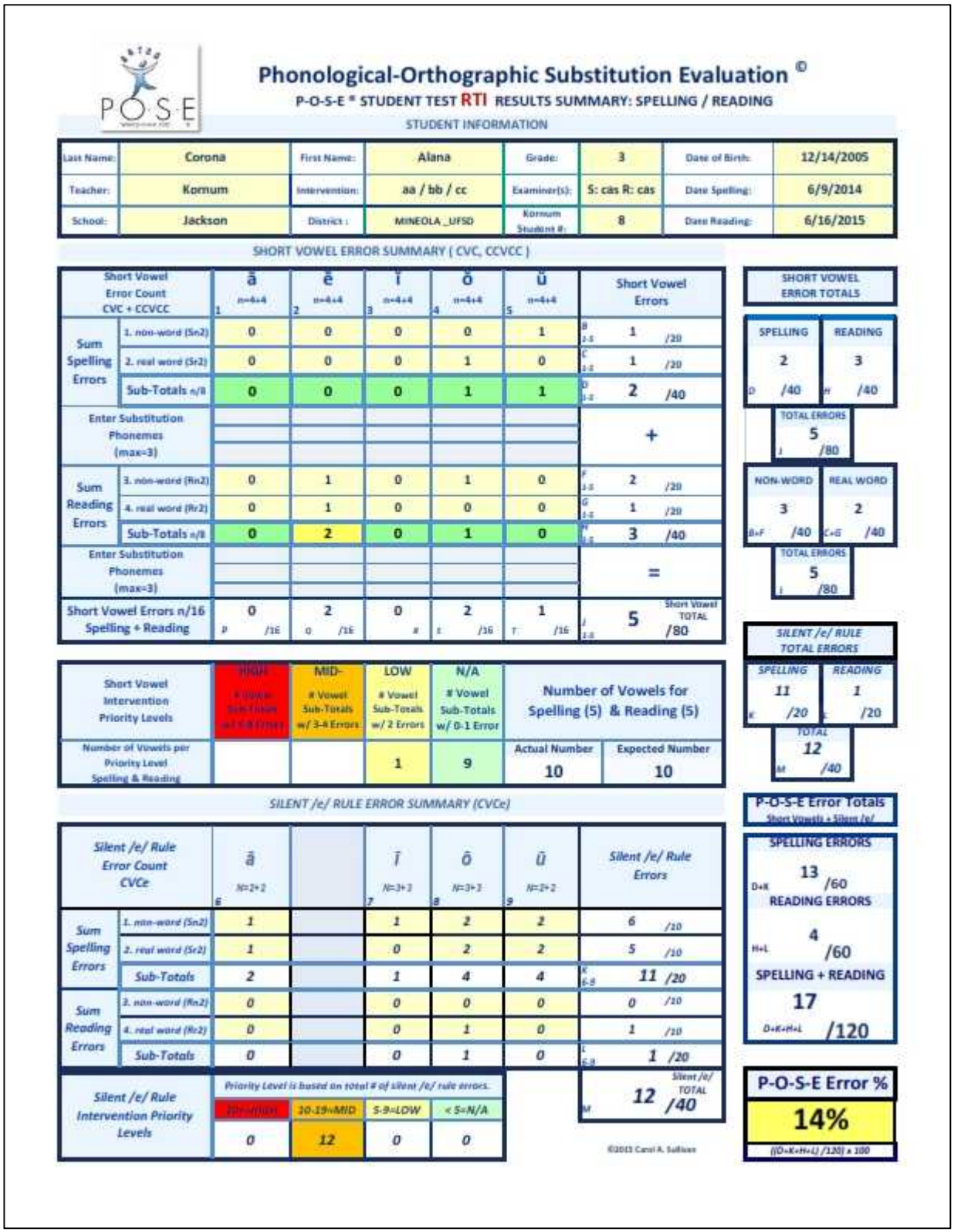
Target		Spell,r CCVCC			Read,r CCVCC		
11	hack	h	a	k	h	ă pat	k
12	drip	dr	i	p	dr	ĭ pit	p
13	stub	st	u	b	st	ŭ putt	b
14	clot	kl	o	t	cl	ŏ pot	t
15	pest	p	e	st	p	ĕ pet	st
16	rash	r	a	sh	r	ă pat	sh
17	blip	bl	i	p	bl	ĭ pit	p
18	flop	fl	o	p	fl	ŏ pot	p
19	mend	m	e	nd	m	ĕ pet	nd
20	chum	ch	u	m	ch	ŭ putt	m

Target		Spell,n CCVCCe			Read,n CCVCCe		
21	nide	n	i	de	n	ī bite	d
22	gute	?	#ue	t	g	ū oo/yoo	t
23	moze	m	o	ze	m	ō boat	z
24	hake	h	a	ke	h	ā bait	k
25	vone	v	o	n	v	ō boat	n
26	sime	s	i	m	s	ī bite	m
27	fute	f	#ue	t	f	ū oo/yoo	t
28	bipe	b	i	ke	b	ī bite	p
29	bave	b	a	v	b	ā bait	v
30	wode	w	o	d	w	ō boat	d

Target		Spell,r CCVCCe			Read,r CCVCCe		
21	dime	d	i	me	d	ī bite	m
22	mute	m	#ue	t	m	ū oo/yoo	t
23	hose	h	o	z	h	ō bait	rse
24	fake	f	a	ke	f	ā bait	k
25	cone	c	o	ne	c	ō boat	n
26	vine	v	i	ne	v	ī bite	n
27	fume	f	u	m	f	ū oo/yoo	m
28	kite	k	i	te	k	ī bite	t
29	jade	g	a	d	j	ā bait	d
30	tote	t	o	t	t	ō boat	t

Page 1. Student's P-O-S-E© RTI Spelling and Reading responses, errors in red

Figure A.26



Phonological-Orthographic Substitution Evaluation ©

P-O-S-E ® STUDENT TEST RTI RESULTS SUMMARY: SPELLING / READING

STUDENT INFORMATION

Last Name:	Corona	First Name:	Alana	Grade:	3	Date of Birth:	12/14/2005
Teacher:	Kornum	Intervention:	aa / bb / cc	Examiner(s):	S: cas R: cas	Date Spelling:	6/9/2014
School:	Jackson	District :	MINEOLA _UFSD	Kornum Student #:	8	Date Reading:	6/16/2015

SHORT VOWEL ERROR SUMMARY (CVC, CCVCC)

Short Vowel Error Count CVC + CCVCC		ā n=4+4	ē n=4+4	ī n=4+4	ō n=4+4	ū n=4+4	Short Vowel Errors
Sum Spelling Errors	1. non-word (Sn2)	0	0	0	0	1	1 /20
	2. real word (Sr2)	0	0	0	1	0	1 /20
	Sub-Totals n/8	0	0	0	1	1	2 /40
Enter Substitution Phonemes (max=3)							+
Sum Reading Errors	3. non-word (Rn2)	0	1	0	1	0	2 /20
	4. real word (Rr2)	0	1	0	0	0	1 /20
	Sub-Totals n/8	0	2	0	1	0	3 /40
Enter Substitution Phonemes (max=3)							=
Short Vowel Errors n/16 Spelling + Reading		0 /16	2 /16	0 /16	2 /16	1 /16	5 Short Vowel TOTAL /80

Short Vowel Intervention Priority Levels	HIGH	MID-	LOW	N/A	Number of Vowels for Spelling (5) & Reading (5)	
	# Vowel Sub-Totals w/ 5-8 Errors	# Vowel Sub-Totals w/ 3-4 Errors	# Vowel Sub-Totals w/ 2 Errors	# Vowel Sub-Totals w/ 0-1 Error	Actual Number	Expected Number
Number of Vowels per Priority Level Spelling & Reading			1	9	10	10

SILENT /e/ RULE ERROR SUMMARY (CVCe)

Silent /e/ Rule Error Count CVCe		ā N=2+2		ī N=3+3	ō N=3+3	ū N=2+2	Silent /e/ Rule Errors
Sum Spelling Errors	1. non-word (Sn2)	1		1	2	2	6 /10
	2. real word (Sr2)	1		0	2	2	5 /10
	Sub-Totals	2		1	4	4	11 /20
Sum Reading Errors	3. non-word (Rn2)	0		0	0	0	0 /10
	4. real word (Rr2)	0		0	1	0	1 /10
	Sub-Totals	0		0	1	0	1 /20

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
	0	12	0	0

Silent /e/ TOTAL 12 /40

©2013 Carol A. Sullivan

SHORT VOWEL ERROR TOTALS

SPELLING	READING
2 /40	3 /40

TOTAL ERRORS 5 /80

NON-WORD	REAL WORD
3 /40	2 /40

TOTAL ERRORS 5 /80

SILENT /e/ RULE TOTAL ERRORS

SPELLING	READING
11 /20	1 /20

TOTAL 12 /40

P-O-S-E Error Totals

Short Vowels + Silent /e/

SPELLING ERRORS 13 /60

READING ERRORS 4 /60

SPELLING + READING 17 /120

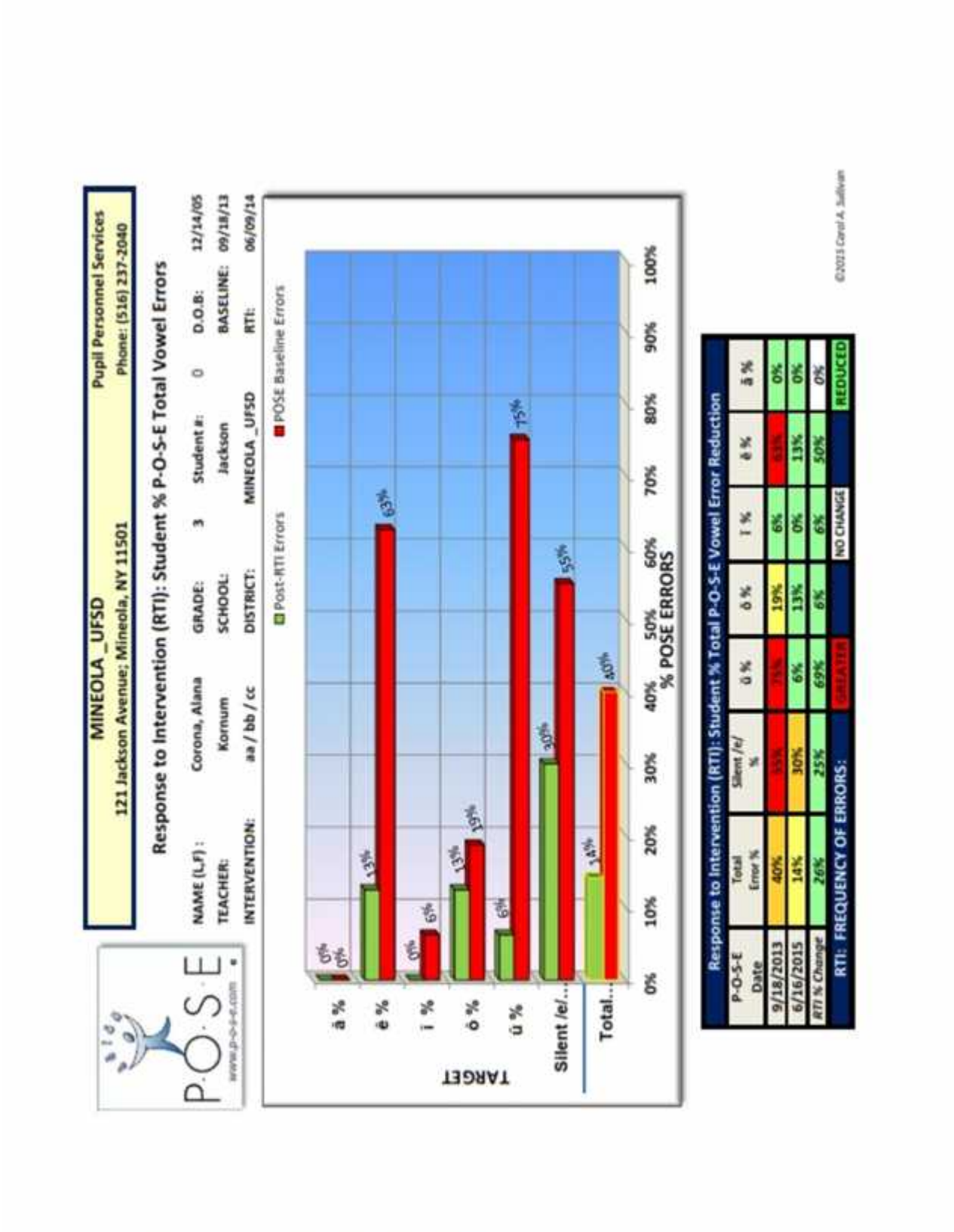
P-O-S-E Error %

14%

((D+K+H+L) /120) x 100

Page 2. Table of P-O-S-E© RTI sub-test and total error scores

Figure A.27



Page 3. Bar chart of P-O-S-E© RTI sub-test and total error scores

Page 3. Bar chart of student P-O-S-E© RTI short vowel proficiency.

B. HOW TO LOAD AND ACCESS THE *P-O-S-E© SCORING APPLICATION.*

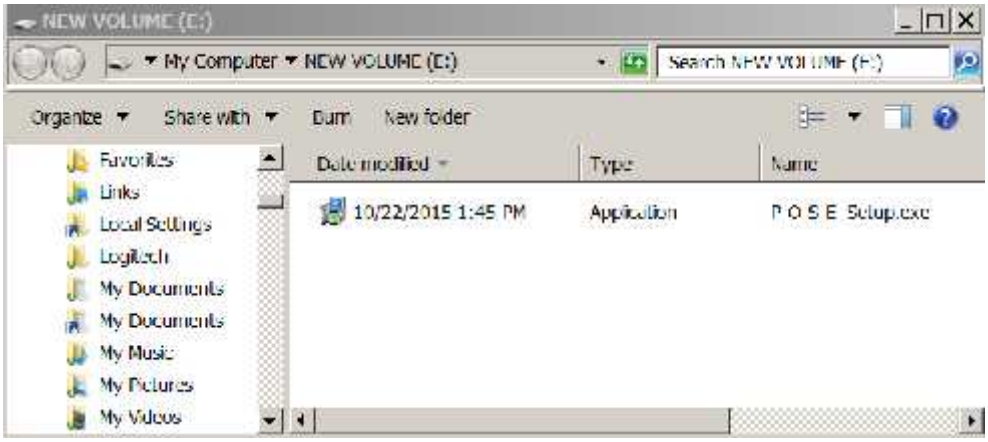
(Requires Microsoft Excel 2007 or later and Windows XP, 7 or later on the host computer.)

1. Insert P-O-S-E© SCORING USB Drive into a USB socket on your computer. [THE P-O-S-E© SCORING USB DRIVE MUST BE INSERTED WHEN USING THE P-O-S-E© SCORING APPLICATION.] When the computer recognizes the USB Drive, this pop-up screen (Fig. A.1) appears:

Figure B.1

2. Click "Open folder to view files". The following screen (Fig. A.2) appears displaying a single, P-O-S-E_Setup .exe file:

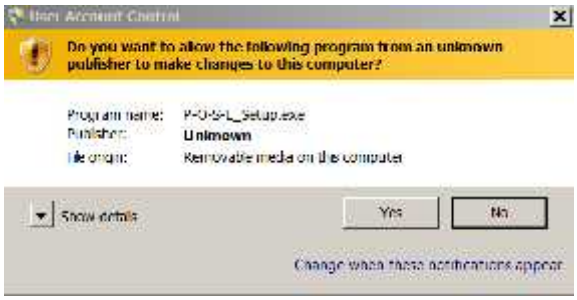
Figure B.2



Vb,

3. Next, a User Account Control pop-up (Fig. A.3) may appear. Select "Yes".

Figure B.3

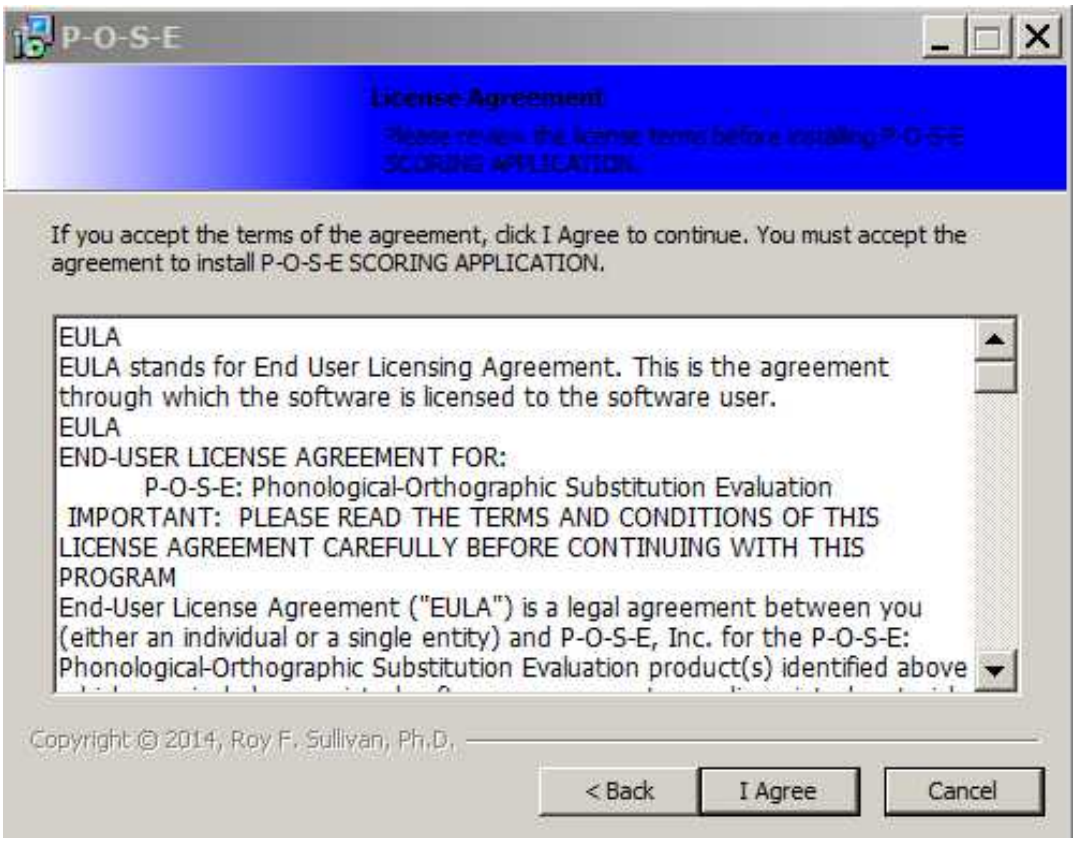


4. The P-O-S-E© Welcome screen appears (Fig. A.4). Click "Next.

Figure B.4

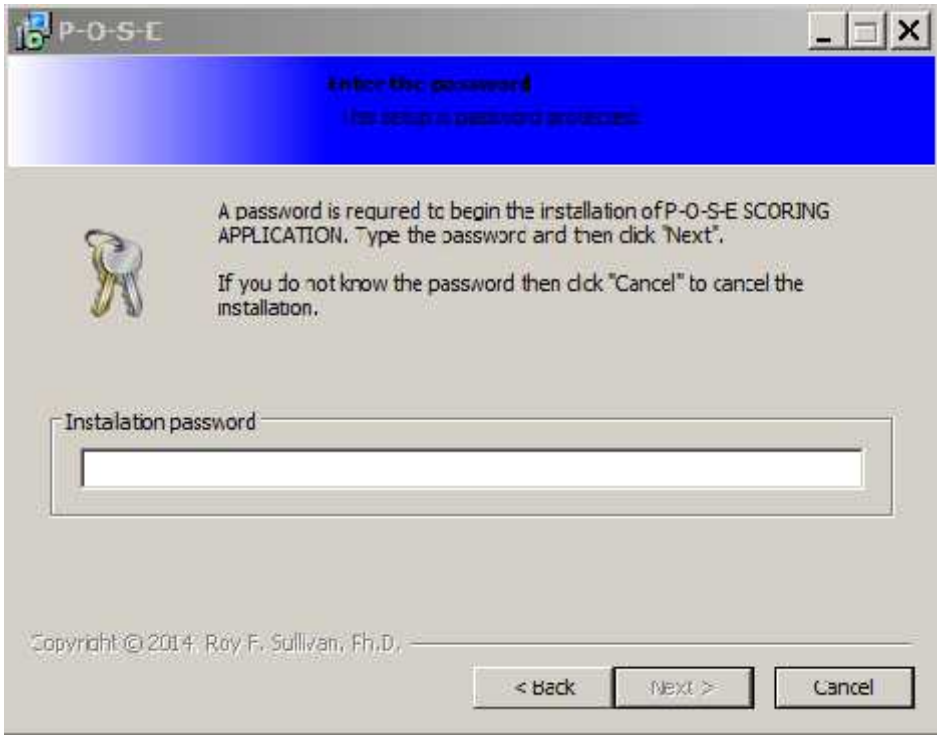
5. Read the End User's Licensing Agreement (EULA) and click "I Agree" (Fig. A.5).

Figure B.5



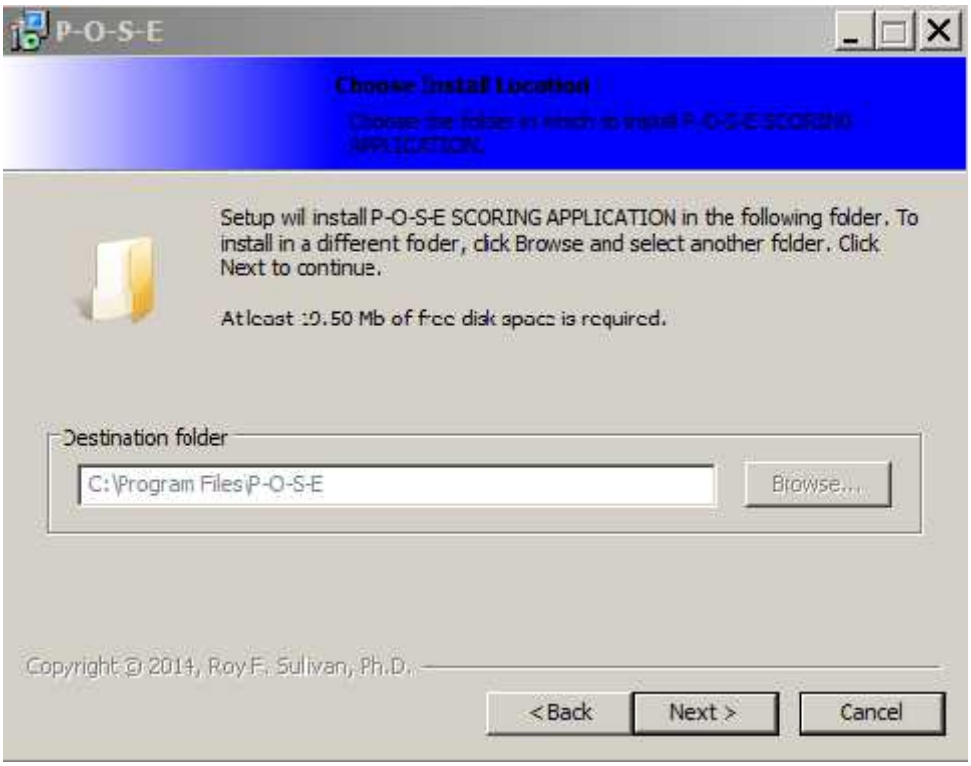
6. Enter the installation password from your P-O-S-E© license. If the password is correct, the "Next" button will become active. Click "Next" (Fig. A.6).

Figure B.6



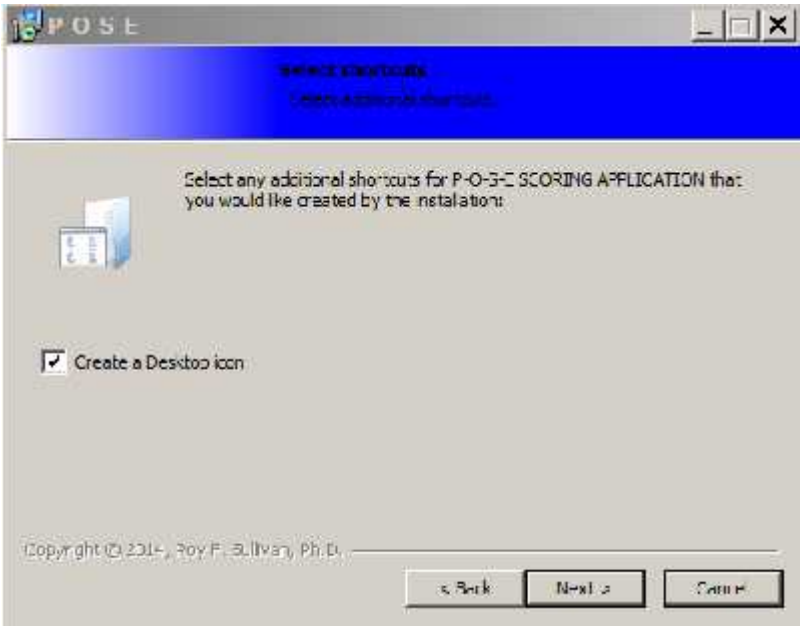
7. Click "next" to accept the default location for the P-O-S-E© SCORING APPLICATION program (Fig. A.7).

Figure B.7



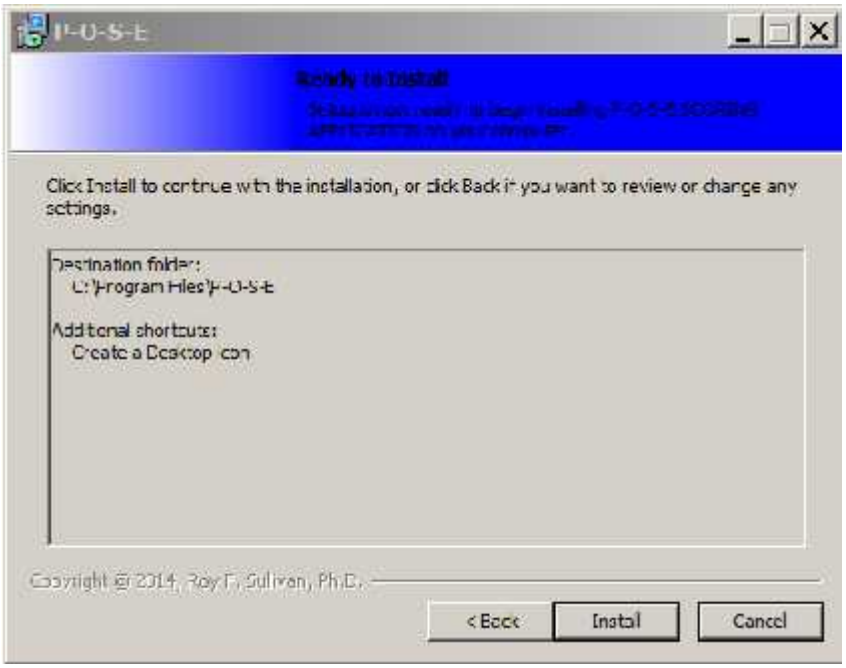
8. Check the "Create a Desktop icon box. A P-O-S-E shortcut icon will be placed on your desktop for easy access. Click "next". (Fig. A.8)

Figure B.8



9. The "Ready to Install" pop-up screen verifies installation directory (typically C:\Program Files\P-O-S-E) and the desktop shortcut location, click "Install". (Fig. A.9)

Figure B.9

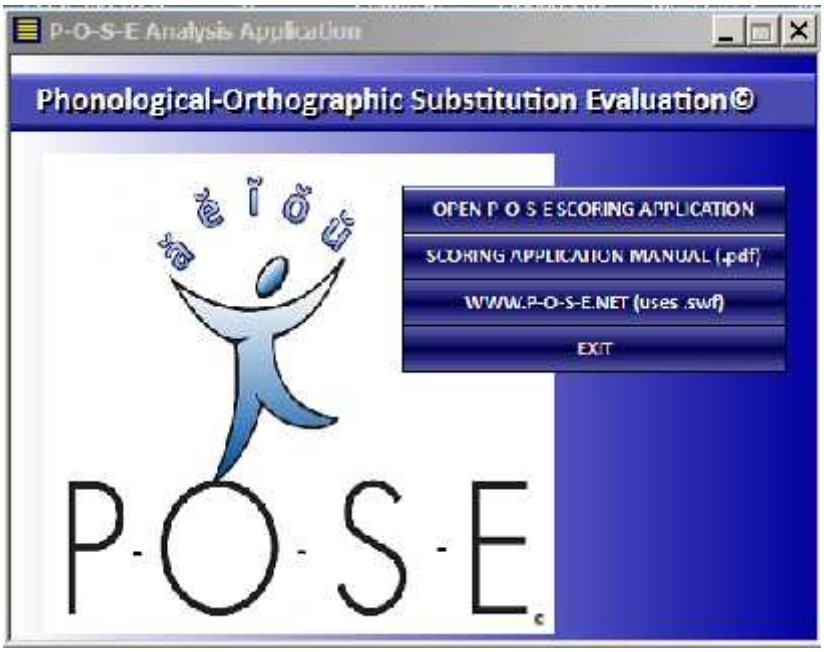


10. Check "Launch P-O-S-E Scoring Application" and select "Finish" (Fig. A.10).

Figure B.10

11. The P-O-S-E © logo icon is located on your desktop and the P-O-S-E© Scoring Application menu appears (Fig. A.11):

Figure B.11



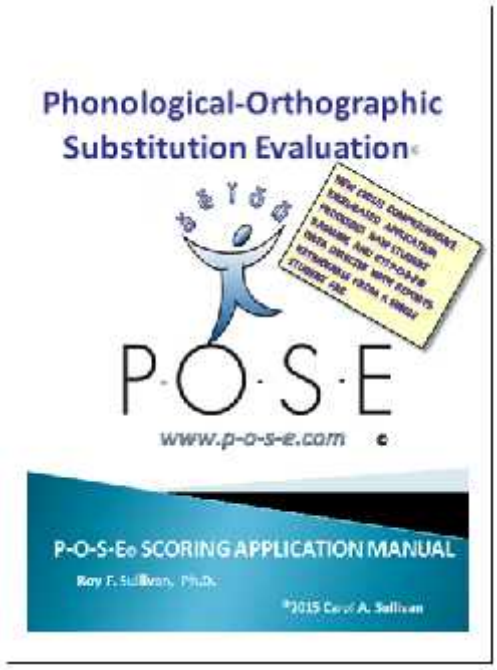
12. Click "OPEN P-O-S-E© SCORING APPLICATION" to explore, enter, review or recall data in the MS Excel-based application framework. MS Excel 2007 or later is required. Earlier versions of Excel will produce a notification window requiring conversion from MS Excel .xltm format to an earlier Excel .xls format. Some features of the scoring application will be limited.

The application opens to the Student Data Coding (SDC) page. If you see a message bar or pop-up (Fig B.12) requesting you to allow macros, you must select "yes" or the application will not run correctly.

Figure B.12

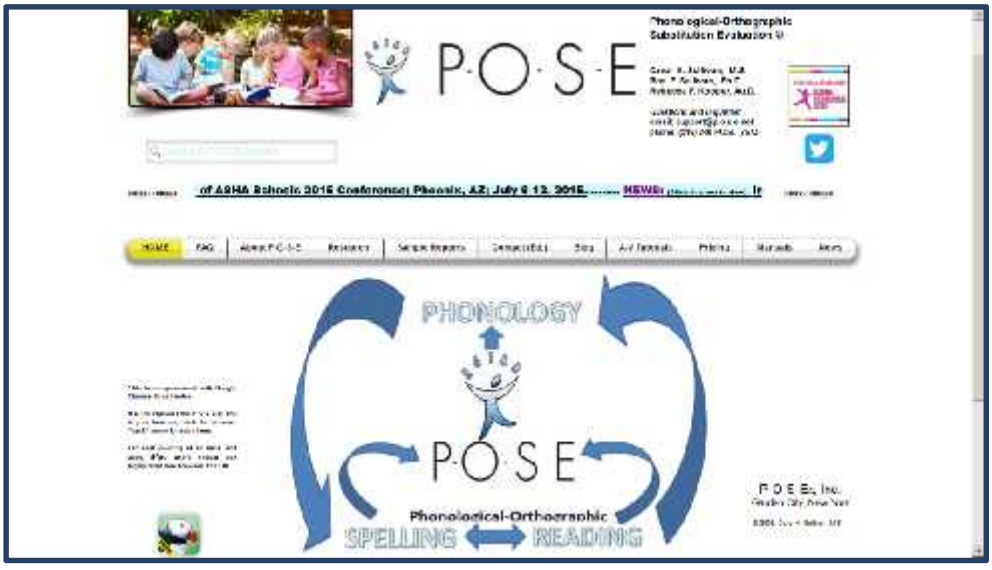
13. The Scoring Application Manual (Fig. A.13) includes detailed instructions on the new, comprehensive application that takes raw data directly for BASELINE and RTI spelling and Reading results and creates 3 page BASELINE and RTI reports stored in a single student .xlsm file.

Figure B13



14. The P-O-S-E© website, www.P-O-S-E.org (Fig. A.14) includes background data, videos, blogs and an opportunity to purchase form refill kits and supplies. This website is easily accessible through the P-O-S-E© SCORING APPLICATION menu.

Figure B.14

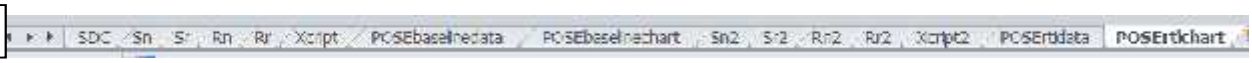


15. To uninstall the P-O-S-E© SCORING APPLICATION, go to Windows Control Panel. Select "Programs and Features", Scroll down to" P-O-S-E" and select "uninstall".

C. Overview of the P-O-S-E© Scoring Application.

There are 15 Excel spreadsheet tabs located at the bottom of your Scoring Application screen. Each is associated with a different worksheet or page (Fig B.1).

Figure C.1



1. Student Data Coding (SDC): enter general data specific to the identification each student within the context of district, year, school, grade, teacher, dates of P-O-S-E© BASELINE and RTI Spelling and Reading tests, etc. Right click and select name/save to store student results hierarchically. [THE P-O-S-E© SCORING USB DRIVE MUST BE INSERTED WHEN USING THE P-O-S-E© SCORING APPLICATION.] Data may be entered in non-protected fields.

2. Sn2: Enter 30 self-scoring raw BASELINE non-word Spelling responses for CVC (10), CCVCC (10) and Silent /e/ rule (10) test items. Data may be entered in non-protected fields.

3. Sr: Enter 30 self-scoring raw BASELINE real word Spelling responses for CVC (10), CCVCC (10) and Silent /e/ rule (10) test items. Data may be entered in non-protected fields.

4. Rn: Enter 30 self-scoring raw BASELINE non-word Reading responses for CVC (10), CCVCC (10) and Silent /e/ rule (10) test items. Data may be entered in non-protected fields.

5. Rr: Enter 30 self-scoring raw BASELINE real word Reading responses for CVC (10), CCVCC (10) and Silent /e/ rule (10) test items. Data may be entered in non-protected fields.

6. Xcript: Comprehensive literal table of all P-O-S-E© BASELINE vowel responses, including pre-vowel and post-vowel consonants. Error responses are highlighted in red. This entire page/worksheet is protected with no direct data entry possible.

7. POSEBASELINEdata: A detailed color-coded tabular summary of the BASELINE P-O-S-E© outcome. This entire page/worksheet is protected with no direct data entry possible.

8. POSEBASELINEchart: A detailed color-coded bar chart summary of the BASELINE P-O-S-E© outcome. This entire page/worksheet is protected with no direct data entry possible.

9. Sn2: Enter 30 self-scoring raw RTI non-word Spelling responses for CVC (10), CCVCC (10) and Silent /e/ rule (10) test items. Data may be entered in non-protected fields.

10. Sr2: Enter 30 self-scoring raw RTI real word Spelling responses for CVC (10), CCVCC (10) and Silent /e/ rule (10) test items. Data may be entered in non-protected fields.

11. Rn2: Enter 30 self-scoring raw RTI non-word Reading responses for CVC (10), CCVCC (10) and Silent /e/ rule (10) test items. Data may be entered in non-protected fields.

12. Rr2: Enter 30 self-scoring raw RTI real word Reading responses for CVC (10), CCVCC (10) and Silent /e/ rule (10) test items. Data may be entered in non-protected fields.

13. Xcript2: Comprehensive literal table of all P-O-S-E© RTI vowel responses, including pre-vowel and post-vowel consonants. Error responses are highlighted in red. This entire page/worksheet is protected with no direct data entry possible.

14. POSEBASELINEdata2: A detailed color-coded tabular summary of the RTI P-O-S-E© outcome. This entire page/worksheet is protected with no direct data entry possible.

15. POSEBASELINEchart2: A detailed color-coded bar chart summary of the BASELINE AND RTI P-O-S-E© outcomes with an evidence-based table of interventional improvements. This entire page/worksheet is protected with no direct data entry possible.

D. *USING THE P-O-S-E© SCORING APPLICATION*

1. The P-O-S-E© SCORING APPLICATION presents a computer-based alternative to manual scoring of the Phonological-Orthographic Substitution Evaluation© (P-O-S-E©). When learning the P-O-S-E© Scoring Application, it is suggested that one or two cases be scored manually in order to better understand computerized scoring procedure.

2. This application provides the opportunity to enter directly RAW P-O-S-E© student (literal) Spelling and (phonologically transcribed) Reading responses. Student outcomes are calculated immediately and summarized in three page printable, full-color tabular and graphic format delineating those specific aspects of short vowel proficiency in spelling and reading that may require intervention. Separate reports are produced from the same file for BASELINE and RTI P-O-S-E© data.

3. Four pages (worksheets) are assigned to BASELINE student responses for Spelling non-words (Sn / 30 items), Spelling real words (Sr / 30 items), Reading non-words (Rn / 30 items) and Reading real words (Rr / 30 items).

4. Four additional pages (worksheets) are assigned to RTI student responses for Spelling non-words (Sn_2 30 items), Spelling real words (Sr_2 30 items), Reading non-words (Rn_2 30 items) and Reading real words (Rr_2 30 items).

5. The right-click menu (Fig. C.1) provides a resource for naming and saving the student file, printing BASELINE and RTI reports and restoring default conditions to enter a new students P-O-S-E© data.

Figure D.1

5a. Clear Contents deletes the entire contents of a single cell.

POSE-SPECIFIC COMANDS:

5b. Name/Save This File [THE P-O-S-E© SCORING USB DRIVE MUST BE INSERTED WHEN USING THE P-O-S-E© SCORING APPLICATION.] is selected from the right click menu, after BASELINE Spelling and Reading test dates have been entered on the SDC (Student Data Coding) sheet, the BASELINE student file is named and stored in a hierarchical subdirectory with a file name ending in 1200 (1= BASELINE Spelling completed; 2 = BASELINE Reading completed).When both RTI Spelling and Reading test dates are entered, the NAME/SAVE file will end in 1234

(3 = RTI Spelling completed; 4 = RTI Reading completed). This allows identification by filename of student records with complete BASELINE data only, complete BASELINE and RTI data or missing data. It is suggested that, once the test dates have been entered, Name/Save This File should be accessed periodically throughout the data entry process, minimally once for each page: Sn, Sr, Rn and Rr.

5c. Open C:\POSEDATA + Save/Name is used to retrieve previous student P-O-S-E© data files, typically for entering RTI data on a student. This command opens the C:\POSEDATA hierarchical directory facilitating drill-down to a specific student file name. Clicking on the file name will open it in the Excel P-O-S-E© Scoring Application where RTI data may be entered. The most recent, previously accessed student file is saved and closed.

5d. Print BASELINE Report (3p) [THE P-O-S-E© SCORING USB DRIVE MUST BE INSERTED WHEN USING THE P-O-S-E© SCORING APPLICATION.] prints a literal transcript of BASELINE pre-vowel, vowel and post-vowel responses, a table of P-O-S-E© outcome scores and a bar chart displaying error percentages for each short vowel, silent /e/ rule long vowels and total P-O-S-E© error score. Intervention priorities are color coded for each vowel and Silent /e/ Rule items. While color printing is recommended, black and white output can be used if needed. (See Appendix 2 for B&W sample.)

5e. Print RTI Report (3p) [THE P-O-S-E© SCORING USB DRIVE MUST BE INSERTED WHEN USING THE P-O-S-E© SCORING APPLICATION.] prints a literal transcript of RTI pre-vowel, vowel and post-vowel responses, a table of P-O-S-E© outcome scores and a comparative bar chart displaying error percentages for each short vowel, silent /e/ rule long vowels and total P-O-S-E© error score for both BASELINE and RTI P-O-S-E© data with highlighted and calculated score differences.

5f. Print Cover Page [THE P-O-S-E© SCORING USB DRIVE MUST BE INSERTED WHEN USING THE P-O-S-E© SCORING APPLICATION.] prints an option student report cover page. If only BASELINE data are present (file name ends in 1200), the cover reflects BASELINE report status. If both BASELINE and RTI data are present (file name ends in 1234), the cover reflects RTI report status.

5g. Erase P-O-S-E BASELINE Data clears all vowel and consonant data entered in BASELINE Sn, Sr, Rn and Rr worksheets/pages (tabs 2-5). This restores tabs 2-8 to their default/blank status. It does not affect the SDC sheet/page. This command is used after completing each record when sequentially scoring data from an entire class.

5h. Erase P-O-S-E RTI Data clears all vowel and consonant data entered in RTI Sn, Sr, Rn and Rr worksheets/pages (tabs 2-5). This restores tabs 9-15 to their default/blank status. It does not affect the SDC sheet/page. This command is used after completing each record when sequentially scoring data from an entire class.

5h. Restore SDC District Defaults: the SDC page reverts to its full default status comparable to selecting the Scoring Application item from main P-O-S-E© program menu.

5i. Restore SDC Student Defaults SDC: User-entered unique student variables are deleted. Repeatable variables such as Academic Year (8), School (9), Grade (10), Teacher lname (10), testing dates (11-15) and examiners (20-23) retained. Date of birth -optional (16), (Student) Last_Name (17), (Student) First_Name (18) and Class Student # 1-30 (19) are reset to default status. This feature is useful when processing BASELINE for an entire class.

E. *USING THE P-O-S-E© SCORING APPLICATION: SDC Page*

1. Student Data Coding (SDC): enter general data specific to the identification each student within the context of district, year, school, grade, teacher, dates of P-O-S-E© BASELINE and RTI Spelling and Reading tests, etc. Right click and select name/save to store student results hierarchically. Data may be entered only in non-protected fields.

2. The SDC page (tab 1) is divided into 4 basic areas.

a. When the district license is issued, fixed details provided by the school district are inserted into every instance of the scoring application by P-O-S-E©, Inc. (Variables 1-7) (Fig D.1)

Figure E.1

1	School District	Black_Lake_CSD	Black_Lake_CSD
2	District Address	12 Spell Road	12 Spell Road
3	District City	Black Lake	Black Lake
4	District State	NY	NY
5	District ZIP	54321	54321
6	District Phone	123-456-7890	123-456-7890
7	District Contact Name	Armando Dippett	Armando Dippett

b. Variables 8-19 are unique to the P-O-S-E© test event and the individual student. Variables 8-11 are selected from drop-down menus for Academic Year (8), School Name (9), Grade (10) and Teacher last name (11). These variables persist if the right click *Restore SDC Student Defaults* is selected. If *Restore SDC District Defaults* is selected, these variable revert to the dropdown list default state. If a new file is opened from the P-O-S-E© menu screen, dropdown lists for school and teacher are also cleared. Test dates must be entered when completed (variables 12-15).

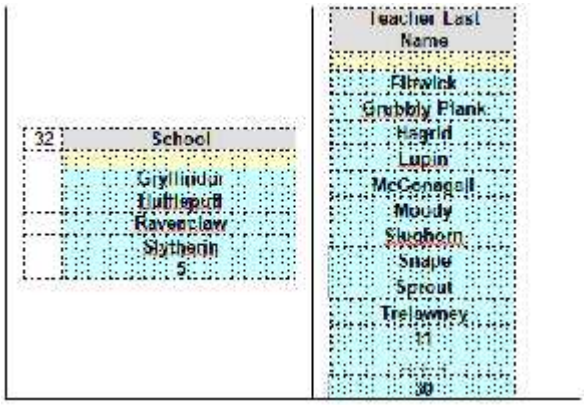
c. Student last and first names must be entered (variables 17 – 18). Each Teacher/Class roster of students to be P-O-S-E©-tested should be arranged in alphabetical order and then pre-numbered sequentially from 1-30. That number must be entered as variable 19. Examiner initials (20-23) and intervention provider initials are optional and will appear on the BASELINE and RTI summary pages. (Fig. D.2)

Figure E.2

8	Academic Year	Click cell and select year from dropdown menu>	15-16
9	School	School Name	Hogworts
10	Grade	2 – 2nd grade; 3 – 3rd grade...12 – 12th Grade	3
11	Teacher lname	Teacher last name	Hagrid
12	Date of POSE Base Spell	Baseline Spelling Date: mm/dd/yyyy	10/22/2015
	Done=1		1
13	Date of POSE Base Read	Baseline Reading Date: mm/dd/yyyy	10/27/2015
	Done=2		2
14	Date of POSE RTI Spell	RTI Spelling Date: mm/dd/yyyy	
	Done=3		0
15	Date of POSE RTI Read	RTI Reading Date: mm/dd/yyyy	
	Done=4		0
16	DOB	Date of Birth (Optional)	4/7/2007
17	Student last name	Student Last Name [alphameric 16 characters max]	Weasley
18	Student first name	Student First Name [alphameric 12 characters max]	Ron
19	Class Student #	Class Student # (1-30)	18
20	Examiner: Base Spelling	Group/individual spelling test examiner/scorer (initials)	cas
21	Examiner: Base Reading	Individual reading test examiner/scorer (initials)	cas
22	Examiner: RTI Spelling	Group / Individual spelling test examiner/scorer (initials)	1
23	Examiner: RTI Reading	Individual reading test examiner/scorer (initials)	2
24	Clinician /Intervention 1	Intervention 1 (initials)	abc
25	Clinician /Intervention 2	Intervention 2 (initials)	def
26	Clinician /Intervention 3	Intervention 3 (initials)	ghi

d. User-entered variables <u>not</u> replaced by either *<u>Restore SDC Default</u>*** command include the list of up to five Schools (variable 32 left column, 1-5) and the list of up to thirty Teacher Last Names (variable 32 right column, 1-30). Once entered, preferably in alphabetical order, these listed names will remain active in the respective dropdown lists (Variables unless a new, default P-O-S-E© scoring application is opened from the main P-O-S-E© program menu. (Fig D.3)**

Figure D.3



e. When Sn, Sr, Rn and Rr data have been entered (120 responses), right-click menu selection of Name/Save This File creates a hierarchically retraceable file location. For the prior student record, the file would be named:

Class/Student#(1-30), lname, fname, Grade, Teacher lname, School, District, Academic Year, Code for BASELINE Spelling and Reading dates entered.

f. File structure of subdirectories automatically created for this record is as follows:

C:\POSEDATA

Black_Lake_CSD (District)

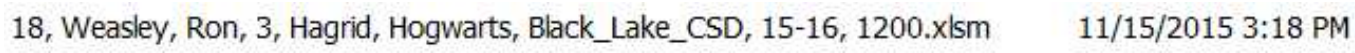
15-16 (Academic Year)

Hogwarts (School)

3 (Grade)

Hagrid (Teacher lname)

Student file (located here with classmate's files)



g. The optionally printable BASELINE or RTI cover page (Fig D.4) is populated with data from the SDC sheet and the relevant P-0-S-E© % error score calculated from data entry. The right-click menu item *Print Cover Page* will print the BASELINE report cover if the filename ends in *1200* or the RTI report cover if the filename ends in 1234.

Figure E.4

F. *USING THE P-O-S-E© SCORING APPLICATION: BASELINE & RTI Spelling Data Entry*

1. Four pages or tabs in the scoring application are assigned to entry of P-O-S-E© Spelling data. Data entry procedure is identical among all four. Data may be entered only in non-protected fields. . The codes Sn, Sr, Sn_2 and Sr_2 are used to designate Spelling responses, non-words or real words, BASELINE or RTI.

a. Tab 2 Sn (BASELINE Spelling non-words)

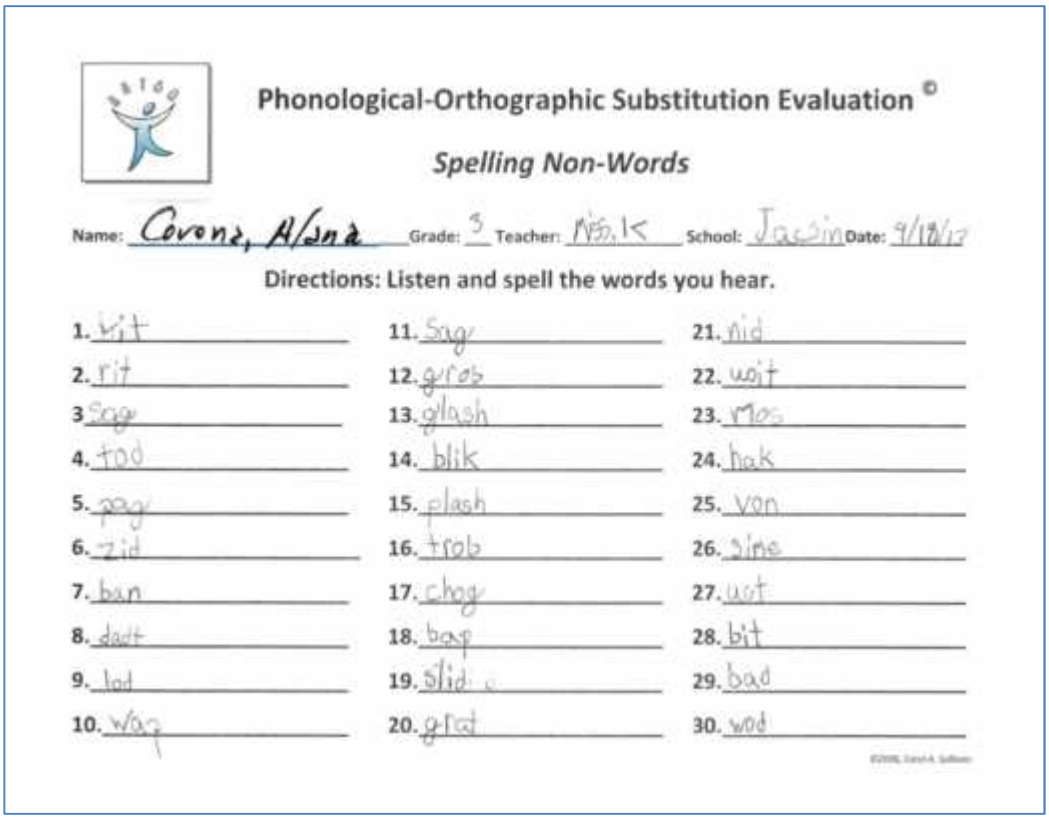
b. Tab 3 Sr (BASELINE Spelling real words)

c. Tab 9 Sn_2 (RTI Spelling non-words)

d. Tab 10 Sr_2 (RTI Spelling real words).

2. Student P-O-S-E© Spelling orthographic data is to be transcribed directly from the handwritten P-O-S-E© Spelling response sheets into corresponding Scoring Application tabs 2,3,9 and 10, listed above. The data entry technique is identical across all four Spelling response pages. The example below (Fig F.1) represents an actual grade 3 student BASELINE Spelling non-word (Sn) response sheet. On the following page is the corresponding PAGE (Sn) from a manually scored P-O-S-E© Spelling scoring sheet. While it is helpful at the outset to enter data from a few BASELINE cases completely by hand, routine use of the new comprehensive P-O-S-E© Scoring Application is preferable.

Figure F.1



Phonological-Orthographic Substitution Evaluation ©

Spelling Non-Words

Name: Corona, Alana Grade: 3 Teacher: Mrs. K School: Jasmin Date: 9/18/13

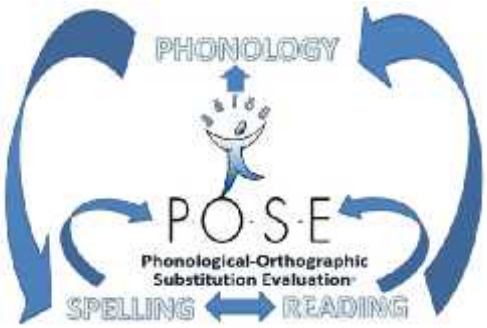
Directions: Listen and spell the words you hear.

1. vit	11. Sag	21. nid
2. rit	12. grob	22. woit
3. Sag	13. glash	23. mos
4. tod	14. blik	24. hak
5. pag	15. plash	25. von
6. zid	16. trob	26. sine
7. ban	17. chag	27. wot
8. dadt	18. bap	28. bit
9. lad	19. slid	29. bad
10. wag	20. grat	30. wod

RAW STUDENT SPELLING NON-WORD RESPONSES

3. The P-O-S-E© is designed to aggregate measures of short vowel proficiency in both Spelling and Reading by converting Spelling responses to equivalent phonology in General American English. Reading responses are enumerated directly as phonology, providing face validity to an integration of Spelling and Reading errors into a single Phonological-Orthographic Substitution Evaluation© error score. (Fig F.2)

Figure F.2



4. The P-O-S-E© Scoring Application applies a series of algorithms to convert and score orthographic Spelling errors as equivalent phonology. In order for the examiner to understand this transformation, practice in manually scoring P-O-S-E© Spelling errors is recommended.

a. The www.P-O-S-E.net website presents a scored tutorial exercise (Fig F.3) in processing raw P-O-S-E© Spelling responses (http://www.p-o-s-e.net/#!scoring-spelling-1/cygf .)

Figure F.3

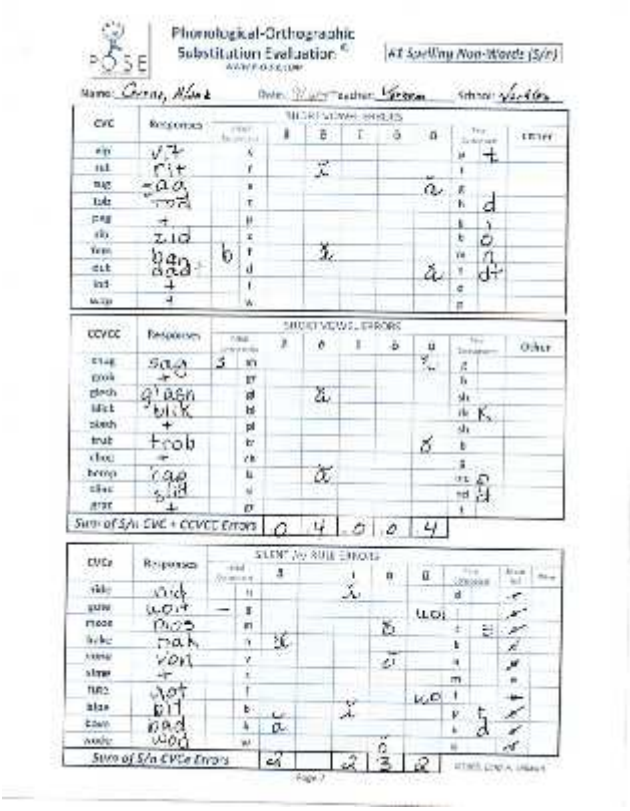
b. For practice scoring or to complete the four page Spelling/Reading test form, Spelling responses may be entered on the inner Spelling pages (#1 Sn, #2 Sr) of the P-O-S-E© scoring form (Fig F.4).

c. The examiner should become familiar with POTENTIAL SOURCES OF P-O-S-E© SCORING RESPONSE BIAS found in APPENDIX 5.

d. Compare the manually scored Spelling phonology with the P-O-S-E© Scoring Application phonology (Fig. F.5).

e. Once the examiner is familiar with the P-O-S-E© Spelling error phonological transformation process through manual scoring practice, routine use of the P-O-S-E© Scoring Application for raw Spelling response processing is recommended.

Figure F.4



MANUAL ENTRY OF STUDENT P-O-S-E© SPELLING NON-WORD RESPONSES

Figure F.5

ENTRY OF STUDENT P-O-S-E© SPELLING NON-WORD RESPONSES USING P-O-S-E© SCORING APPLICATION

6. Each of the four P-O-S-E© scoring Application Spelling response pages (BASELINE Sn, BASELINE SR, RTI Sn and RTI Sr) is structured identically (Fig. F.6)

Figure F.6

	1	2	3	4	5	6	7	8	9	11
	C/V/E	ITEM #	TARGET spelling	PRE-VOWEL target	PRE-VOWEL enter spelling error	VOWEL target	VOWEL enter spelled response	VOWEL (SAMPA) phonology	POST-VOWEL target	POST-VOWEL enter error
	MINEOLA _UFSD, 15-16 Jackson, Grade 3, Kornum Baseline Spelling, non-: 09/18/2013									
	CVC							SAMPA key		
		1	vip	v		i	i	I	p	t
		2	ret	r		e	i	I	t	
		3	sug	s		u	a	{	g	
		4	tob	t		o	o	A	b	d
		5	pag	p		a	a	{	g	
		6	zib	z		i	i	I	b	d
		7	fem	f	b	e	a	{	m	n
		8	dut	d		u	a	{	t	dt
		9	lod	l		o	o	A	d	
		10	wap	w		a	a	{	p	
	CCVCC							SAMPA key		
		11	shug	sh	s	u	a	{	g	
		12	grob	gr		o	o	A	b	
		13	glesh	gl		e	a	{	sh	
		14	blick	bl		i	i	I	ck	k
		15	plash	pl		a	a	{	sh	
		16	trub	tr		u	o	A	b	
		17	chog	ch		o	o	A	g	
		18	bemp	b		e	a	{	mp	p
		19	slind	sl		i	i	I	nd	d
		20	grat	gr		a	a	{	t	
	CVCe							SAMPA key		Enter ALL
		21	nide	n		i	i	I	de	d
		22	gute	g	?	u	#uoi	Exception	te	t
		23	moze	m		o	o	A	ze	s

SCORING APPLICATION ENTRY/ SCORING OF STUDENT P-O-S-E© BASELINE SPELLING NON-WORD RESPONSES

7. Description of the P-O-S-E© Scoring Application Spelling error pages (Sn, Sr, Sr_2 ,Sr_2).

a. The data in columns 1-4, 6 and 9 contain fixed information. (Table F.1)

b. The data in columns 5,7,10 are entered from the Spelling response sheet.

c. Column 5 displays the automatically calculated phonologically equivalent vowel in SAMPA notation based on the total word construction.

Table F.1

COLUMN	FUNCTION
1	Test item format: CVC, CCVCC, CVCe
2	Sub-test item # 1-10 = CVC; 11-20 = CCVCC; 21-30 = CVCe
3	Target spelling non-word or real word
4	Pre-vowel target
5	Pre-vowel spelling errors are entered here
6	Vowel target
7	All vowel responses are entered here
8	Calculated phonological equivalent of the spelled vowel in morphological context. Phonology is displayed in ASCII compatible SAMPA (Speech Assessment Methods Phonetic Alphabet) notation. Final scored outcomes (Tabs 6-8, 11-13) are presented in AHD (American Heritage Dictionary) notation.
9	Post-vowel target
10	Post-vowel spelling errors are entered here.
11	

8. Prior to scoring P-O-S-E© Spelling results, it is suggested that the examiner review the contents of Appendix I, *Potential Sources of Response Scoring Bias*.

9. As an example, Sn item VIP is spelled "v-i-t". The prevowel (consonant) is correct with no entry necessary in column 5. The vowel i is correct and may be entered directly in column 7 or using ctrl-z which is a convenient alternative. The post-vowel (consonant) t is in error and is entered in column 10. The calculated equivalent vowel (SAMPA) phoneme I appears in column 8, indicating a short I sound. If the post-vowel response was "v-i-t-e", the calculated phoneme would be ai with is the SAMPA equivalent of long i.

10. It is helpful, for learning the scoring proves, to enter various spelling permutation to view the outcome.

11. There are pop-up informational windows associated with columns 4-10 explaining data entry contingencies and protocols.

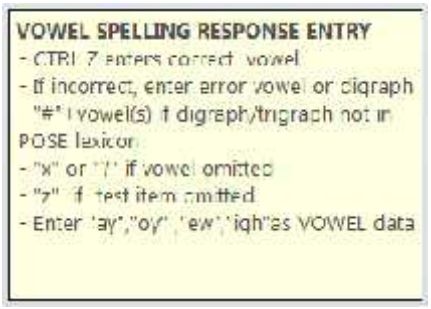
12. The spelling data entry protocol is consistent across tabs 2,3, 9 and 10 (Sn, Sr, Sr_2 ,Sr_2).

13. When the Spelling and Reading data are entered, the BASELINE or RTI summary data forms (tabs 6-8 or 13-15) immediately reflect the scoring entry consequences on respective BASELINE or RTI P-O-S-E© sub-scores and total (error) scores.

14. As stated above, the scoring protocol is identical for BASELINE and RTI Spelling non-words and spelling real words tabs (tabs 2,3, 9,10).

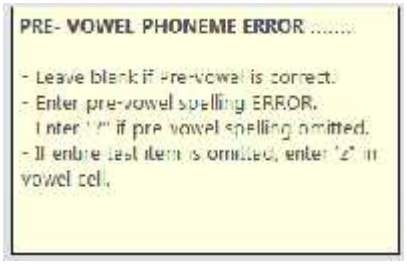
15. All P-O-S-E© *vowel* Spelling responses are entered in Column 7. Cursor contact with each data entry cell produces a pop-up guide (Fig. F.7):

Figure F.7



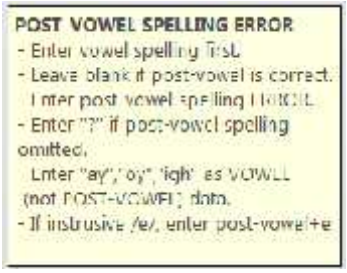
16. P-O-S-E© pre-*vowel* Spelling *error* responses, typically consonants, are entered literally in Column 5. Cursor contact with each data entry cell produces a pop-up guide (Fig. F.8):

Figure F.8



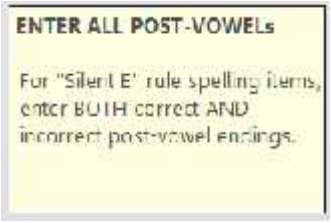
17. P-O-S-E© post-*vowel* Spelling *error* responses, either consonants or misapplied silent /e/, are entered literally in Column 10. urson contact with each data entry cell produces a pop-up guide (Fig. F.9):

Figure F.9



18. All P-O-S-E© silent /e/ post-*vowel* Spelling responses, either consonants or missed silent /e/, are entered literally in Column 10. Mouse contact with each data entry cell produces a pop-up guide (Fig. F.10):

Figure F.10



G. *USING THE P-O-S-E© SCORING APPLICATION: BASELINE Reading Data Entry.*

1. Four pages or tabs in the scoring application are assigned to entry of P-O-S-E© Spelling data. Data entry procedure is identical among all four. Data may be entered only in non-protected fields. The codes Rn, Rr, Rn_2 and Rr_2 are used to designate Reading responses, non-words or real words, BASELINE or RTI.

a. Tab 4 Rn (BASELINE Reading non-words)

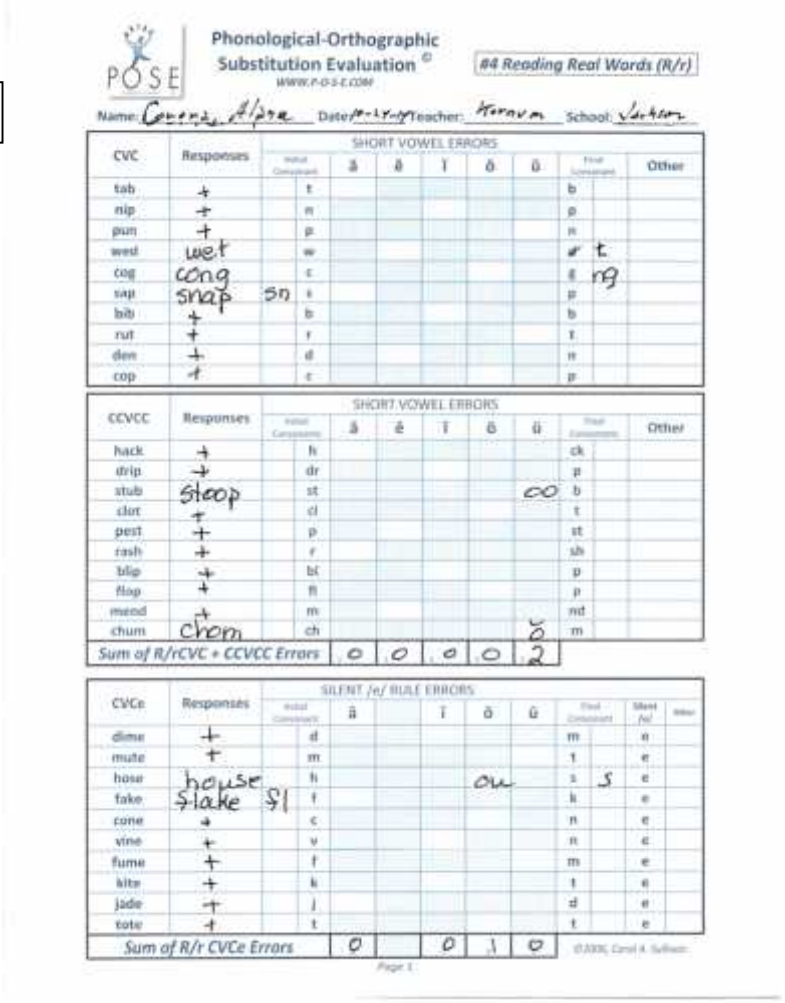
b. Tab 5 Rr (BASELINE Reading real words)

c. Tab 11 Rn_2 (RTI Reading non-words)

d. Tab 12 Rr_2 (RTI Reading real words).

2. Student Reading phonological data are transcribed directly from page 1 (test #4, Reading real words) and page 4 (test #3, Reading non-words) of the four page scoring sheet manually entered at the time of testing. Scoring Application tabs 4 and 5 are used for BASELINE Reading data entry and tabs 11 and 12 are used for RTI Reading data entry. The figure below (Fig. G.1) is an actual grade 3 student BASELINE Reading real (Rr) words page (Rn) from the phonologically (AHD) transcribed P-O-S-E© scoring sheet.

Figure G.1



Phonological-Orthographic Substitution Evaluation ©

#4 Reading Real Words (R/r)

CVC	Responses	Initial Consonant	ă	ĕ	ĭ	ŏ	ŭ	Final Consonant	Other
tab	+	t						b	
nip	+	n						p	
pun	+	p						n	
wed	wet	w						d	t
cog	cong	c						g	ng
sap	snap	s						p	
bib	+	b						b	
rut	+	r						t	
den	+	d						n	
cop	+	c						p	

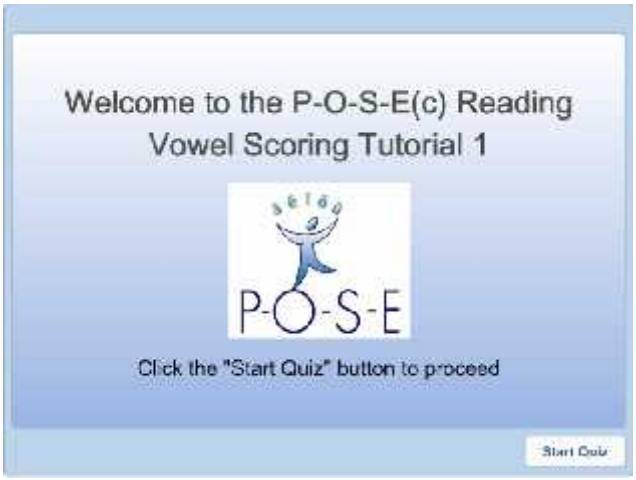
CCVCC	Responses	Initial Consonants	ă	ĕ	ĭ	ŏ	ŭ	Final Consonants	Other
hack	+	h						ck	
drip	+	dr						p	
stub	stoop	st					oo	b	
clot	+	cl						t	
pest	+	p						st	
rash	+	r						sh	
blip	+	bl						p	
flop	+	fl						p	
mood	+	m						nd	
chum	chom	ch					ŏ	m	
Sum of R/rCVC + CCVCC Errors		0	0	0	0	2			

CVCe	Responses	Initial Consonant	ā		ī	ō	ū	Final Consonant	Silent /e/	Other
dime	+	d						m	e	
mute	+	m						t	e	
hose	house	h				ou		s	e	
fake	flake	f						k	e	
cone	+	c						n	e	
vine	+	v						n	e	
fume	+	f						m	e	
kite	+	k						t	e	
jade	+	j						d	e	
tote	+	t						t	e	
Sum of R/r CVCe Errors		0			0	1	0			

3. The P-O-S-E© Scoring Application processes phonological Reading errors directly as entered. In order for the examiner to understand this transformation, practice in manually scoring P-O-S-E© Reading errors is recommended.

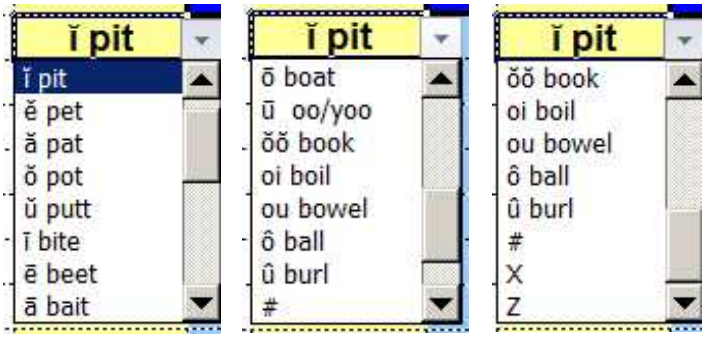
5. The www.P-O-S-E.net website presents a scored tutorial exercise in processing P-O-S-E© acoustically sampled Reading responses (http://www.p-o-s-e.net/#!scoring/cabb) (Fig. G.2).

Figure G.2



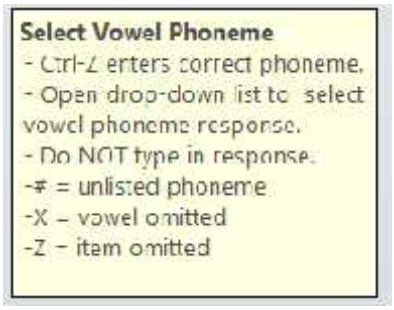
6. The phonological transcriptions of P-O-S-E© Reading responses obtained at time of testing are entered into the P-O-S-E© Scoring Application using AHD notation for pre- and post-vowel consonant errors with a drop-down menu selection of the appropriate AHD vowel phoneme for each test item. The figures below illustrate the drop-down, scrolling vowel phoneme selection menu (Fig. G.3):

Figure G.3



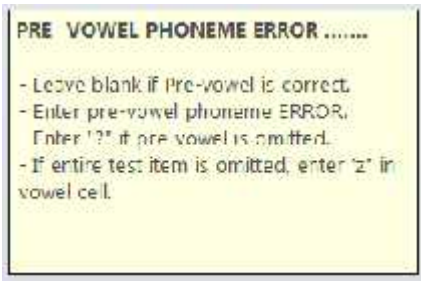
7. Cursor contact with the P-O-S-E© Reading vowel entry cell opens a pop-up help window(Fig G.4):

Figure G.4



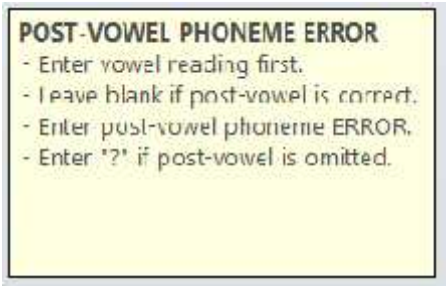
8. P-O-S-E© pre-*vowel* Reading *error* responses, typically consonants, are entered literally in Column 5. Mouse contact with each data entry cell produces a pop-up guide (fig G.5):

Figure G.5



9. P-O-S-E© post-*vowel* Reading *error* responses, either consonants or misapplied silent /e/, are entered literally in Column 10. Mouse contact with each data entry cell produces a pop-up guide (Fig G.6):

Figure G.6



10. Only phonological errors in P-O-S-E© silent /e/ post-*vowel* Reading responses, either consonants or missed silent /e/, are entered literally in Column 10. Mouse contact with each data entry cell produces the same pop-up guide, above.

11. The Reading data entry process is identical for Rn (BASELINE Reading, non-words, tab4), Rr (BASELINE Reading, real words, tab5), Rn_2 (RTI Reading, non-words, tab 11), Rr_2 (RTI Reading, real words, tab 12).

12. The figure below illustrates the same manually transcribed Reading response phonology as entered on the Rr (BASELINE) tab/page of the P-O-S-E© Scoring Application (Fig. F.7). Figure G.8 shows all four (Sn, Sr, Rn, Rr) completed P-O-S-E© Scoring Application data entry pages

Figure G.7

	C/V/E	ITEM #	TARGET spelling	PRE-VOWEL target	PRE-VOWEL enter phoneme error	VOWEL (AHD) target	VOWEL (AHD) enter phoneme response	VOWEL (SAMPA) phonology	POST-VOWEL target	POST-VOWEL enter phoneme error only
MINEOLA _UFSD, 13-14 Jackson, Grade 3, Kornum Baseline Reading, real: 09/18/2013 Corona, Alana, #: 8										
	CVC							SAMPA key		
		1	tab	t		ă pat	ă pat	{	b	
		2	nip	n		ĭ pit	ĭ pit	I	p	
		3	pun	p		ŭ putt	ŭ putt	V	n	
		4	wed	w		ĕ pet	ĕ pet	E	d	t
		5	cog	c		ŏ pot	ŏ pot	A	g	ng
		6	sap	s	sn	ă pat	ă pat	{	p	
		7	bib	b		ĭ pit	ĭ pit	I	b	
		8	rut	r		ŭ putt	ŭ putt	V	t	
		9	den	d		ĕ pet	ĕ pet	E	n	
		10	cop	c		ŏ pot	ŏ pot	A	p	
	CCVCC							SAMPA key		
		11	hack	h		ă pat	ă pat	{	k	
		12	drip	dr		ĭ pit	ĭ pit	I	p	
		13	stub	st		ŭ putt	ū oo/yoo	u/ju	b	p
		14	clot	cl		ŏ pot	ŏ pot	A	t	
		15	pest	p		ĕ pet	ĕ pet	E	st	
		16	rash	r		ă pat	ă pat	{	sh	
		17	blip	bl		ĭ pit	ĭ pit	I	p	
		18	flop	fl		ŏ pot	ŏ pot	A	p	
		19	mend	m		ĕ pet	ĕ pet	E	nd	
		20	chum	ch		ŭ putt	ŏ pot	A	m	
	CVCe							SAMPA key		Only errors
		21	dime	d		ī bite	ī bite	aI	m	
		22	mute	m		ū oo/yoo	ū oo/yoo	u/ju	t	
		23	hose	h		ō boat	ou bowel	aU	z	s
		24	fake	f	fl	ā bait	ā bait	e/eI	k	
		25	cone	c		ō boat	ō boat	o/oU	n	
		26	vine	v		ī bite	ī bite	aI	n	
		27	fume	f		ū oo/yoo	ū oo/yoo	u/ju	m	
		28	kite	k		ī bite	ī bite	aI	t	
		29	jade	j		ā bait	ā bait	e/eI	d	
		30	tote	t		ō boat	ō boat	o/oU	t	

SCORING APPLICATION ENTRY/ SCORING OF STUDENT P-O-S-E© BASELINE READING REAL WORD RESPONSES

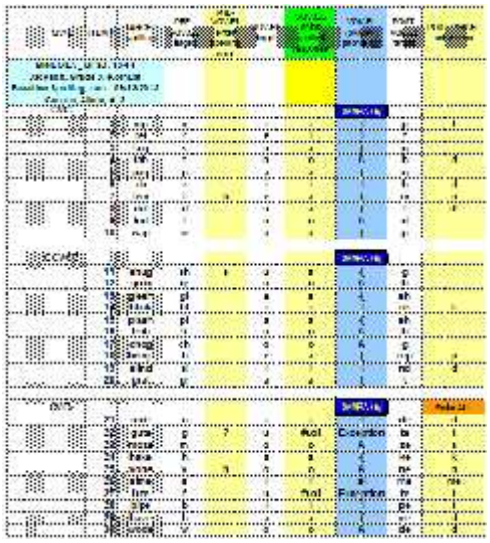
H. CREATING THE P-O-S-E© SCORING APPLICATION BASELINE REPORT.

1. When all BASELINE Sn, Sr, Rn and Rr responses have been entered (Figs. H.1-H.4), use the right click context menu to select *Name/Save This File.* The student data file is then saved to an appropriate location in the C:POSEDATA sub-directory hierarchy.

2. Right click and select *Print BASELINE report (3p)* to print the 3 page BASELINE P-O-S-E© scoring report. (Figs. H.5-H.7)

3. Right click and select *Print Cover Page* to print the optional BASELINE P-O-S-E© scoring report cover page (Fig. H.8)

Figure H.1



Spelling, non-words (Sn)

Figure H.2

Spelling, real words (Sr)

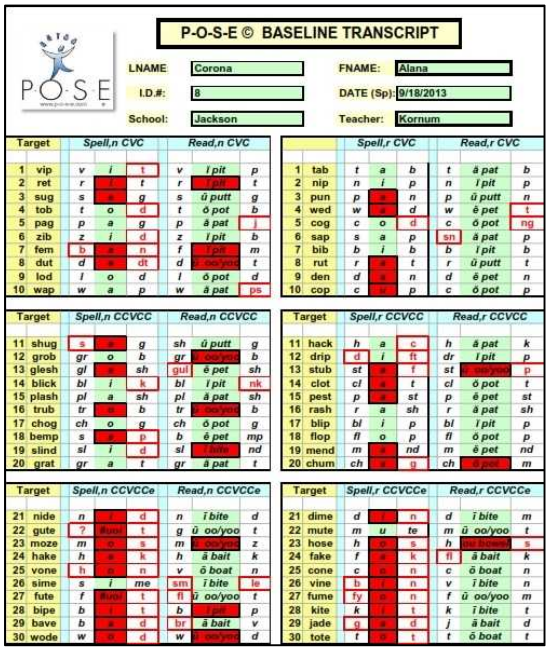
Figure H.3

Reading, non-words (Rn)

Figure H.4

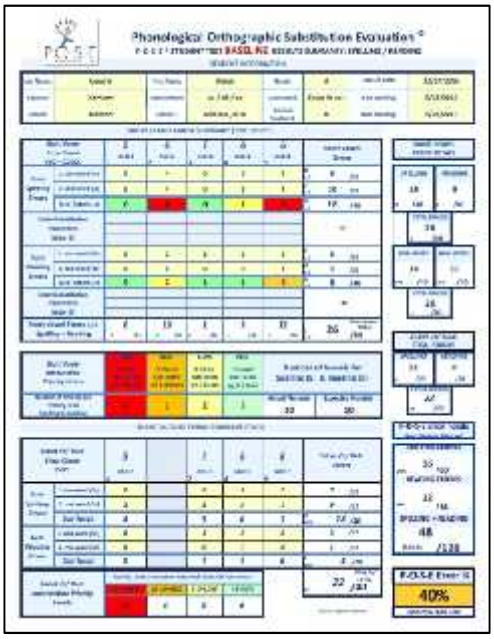
Reading, real words (Rr)

Figure H.5



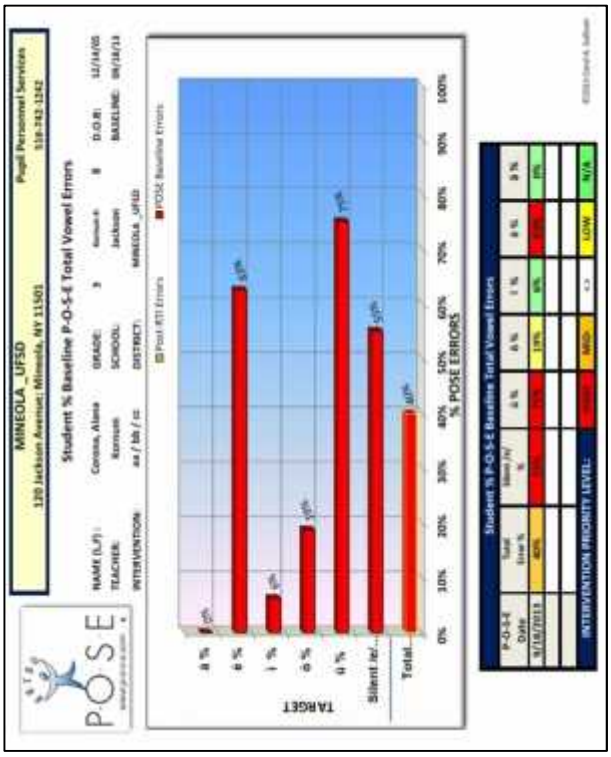
BASELINE ERROR TRANSCRIPT

Figure H.6



BASELINE SUMMARY TABLE

Figure H.7



BASELINE SUMMARY CHART

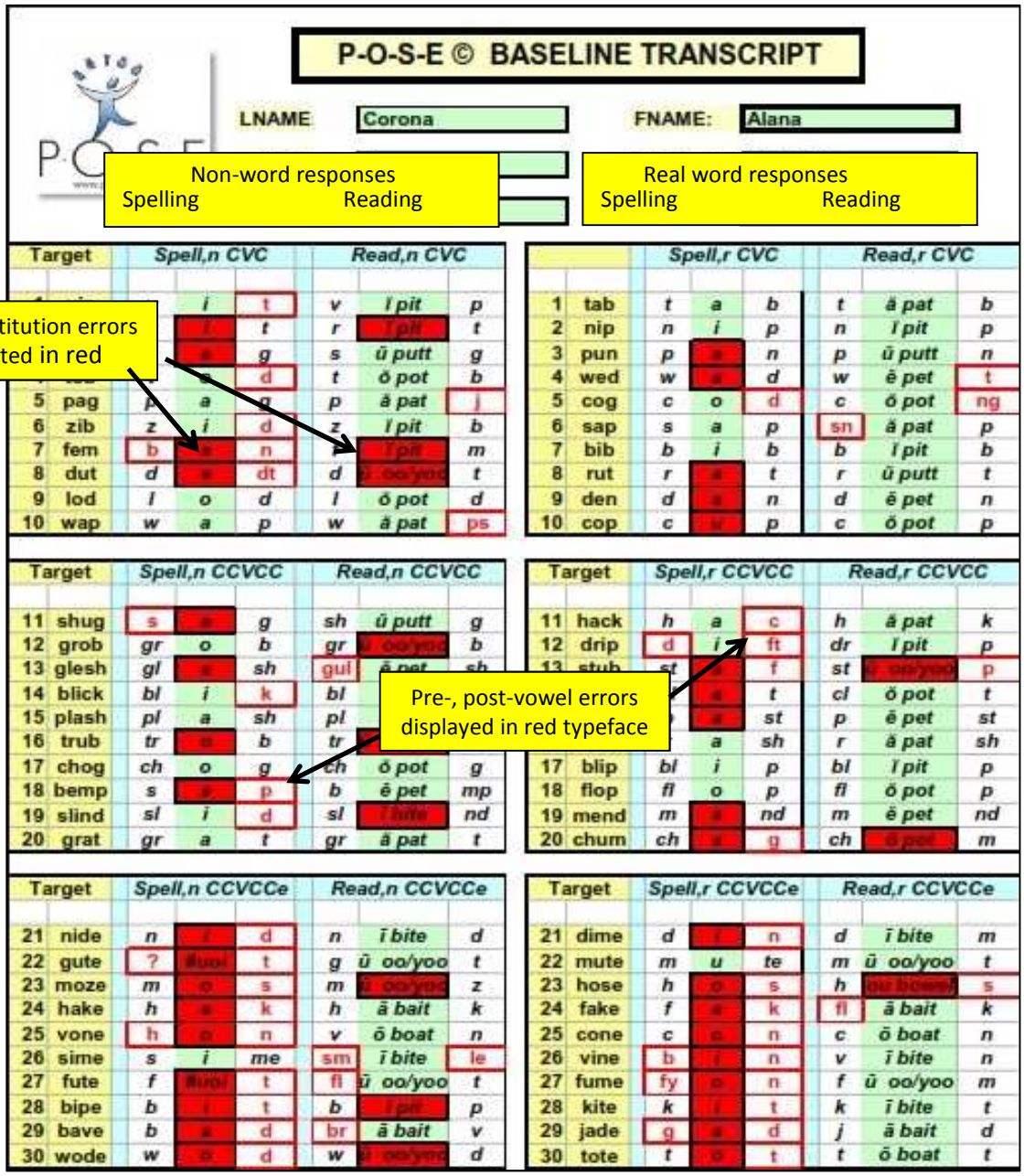
Figure H.8

BASELINE REPORT COVER PAGE

I. INTERPRETING THE P-O-S-E© SCORING APPLICATION BASELINE REPORT

1. Baseline Error Transcript

Figure I.1



Target	Spell,n CVC			Read,n CVC		
1		i	t	v	ĭ pit	p
2		i	t	r	ĭ pit	t
3		e	g	s	ŭ putt	g
4		o	d	t	ŏ pot	b
5	pag	p	a	p	ă pat	j
6	zib	z	i	d	z	ĭ pit
7	fem	b	e	n	ĭ pit	m
8	dut	d	e	dt	d	ū oo/yoo
9	lod	l	o	d	l	ŏ pot
10	wap	w	a	p	w	ă pat

	Spell,r CVC			Read,r CVC		
1	tab	t	a	b	t	ă pat
2	nip	n	i	p	n	ĭ pit
3	pun	p	e	n	p	ŭ putt
4	wed	w	e	d	w	ĕ pet
5	cog	c	o	d	c	ŏ pot
6	sap	s	a	p	sn	ă pat
7	bib	b	i	b	b	ĭ pit
8	rut	r	e	t	r	ŭ putt
9	den	d	e	n	d	ĕ pet
10	cop	c	o	p	c	ŏ pot

Target	Spell,n CCVCC			Read,n CCVCC		
11	shug	s	e	g	sh	ŭ putt
12	grob	gr	o	b	gr	ū oo/yoo
13	glesh	gl	e	sh	gul	ĕ pet
14	blick	bl	i	k	bl	
15	plash	pl	a	sh	pl	
16	trub	tr	e	b	tr	
17	chog	ch	o	g	ch	ŏ pot
18	bemp	s	e	p	b	ĕ pet
19	slind	sl	i	d	sl	ĭ bite
20	grat	gr	a	t	gr	ă pat

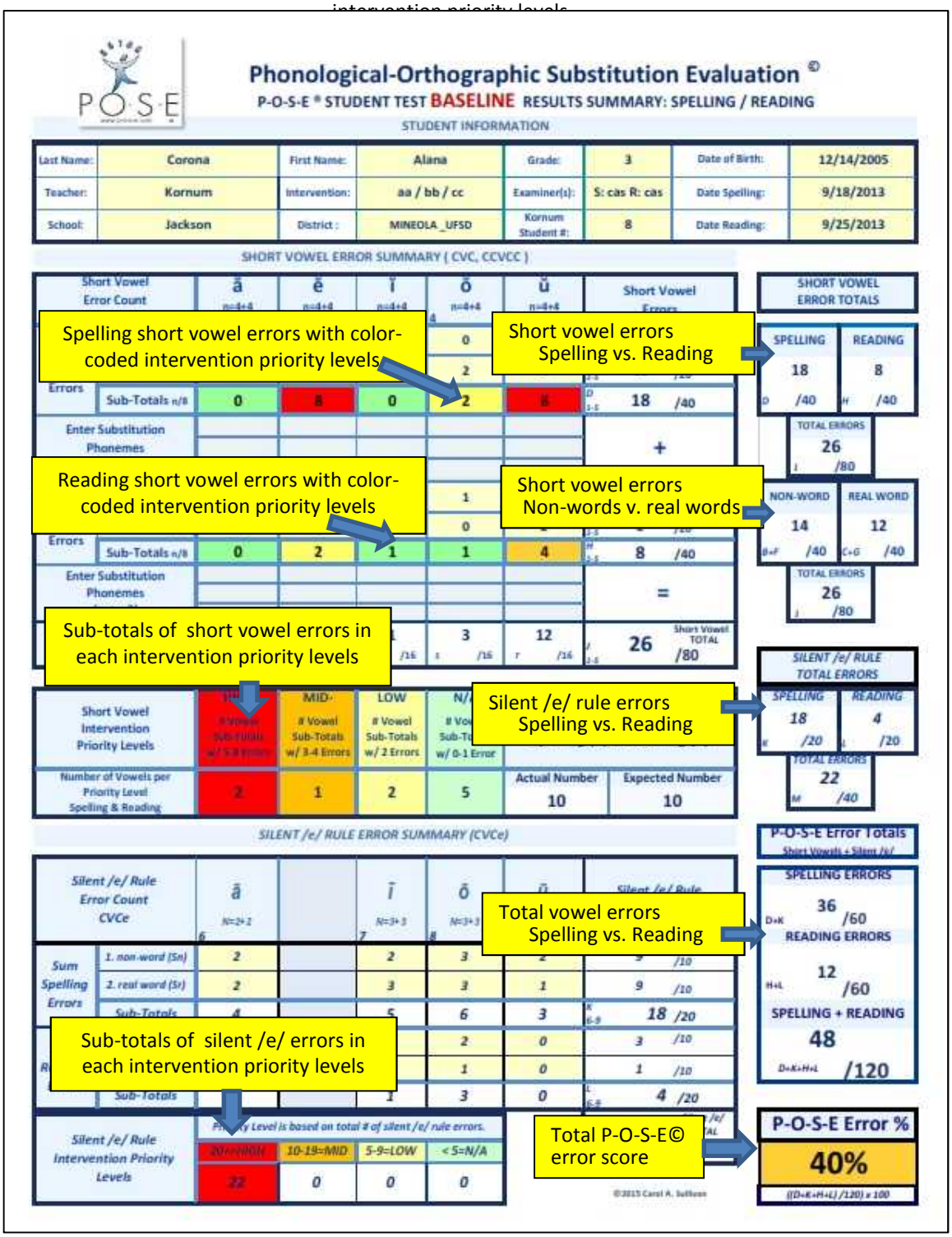
Target	Spell,r CCVCC			Read,r CCVCC		
11	hack	h	a	c	h	ă pat
12	drip	d	i	ft	dr	ĭ pit
13	stub	st	e	f	st	ū oo/yoo
14			a	t	cl	ŏ pot
15			e	st	p	ĕ pet
16			a	sh	r	ă pat
17	blip	bl	i	p	bl	ĭ pit
18	flop	fl	o	p	fl	ŏ pot
19	mend	m	e	nd	m	ĕ pet
20	chum	ch	e	g	ch	ŏ pot

Target	Spell,n CCVCCe			Read,n CCVCCe		
21	nide	n	i	d	n	ī bite
22	gute	?	[illegible]	t	g	ū oo/yoo
23	moze	m	o	s	m	ū oo/yoo
24	hake	h	a	k	h	ā bait
25	vone	h	o	n	v	ō boat
26	sime	s	i	me	sm	ī bite
27	fute	f	[illegible]	t	fl	ū oo/yoo
28	bipe	b	i	t	b	ĭ pit
29	bave	b	a	d	br	ā bait
30	wode	w	o	d	w	ō boat

Target	Spell,r CCVCCe			Read,r CCVCCe		
21	dime	d	i	n	d	ī bite
22	mute	m	u	te	m	ū oo/yoo
23	hose	h	o	s	h	[illegible]
24	fake	f	a	k	fl	ā bait
25	cone	c	o	n	c	ō boat
26	vine	b	i	n	v	ī bite
27	fume	fy	o	n	f	ū oo/yoo
28	kite	k	i	t	k	ī bite
29	jade	g	a	d	j	ā bait
30	tote	t	o	t	t	ō boat

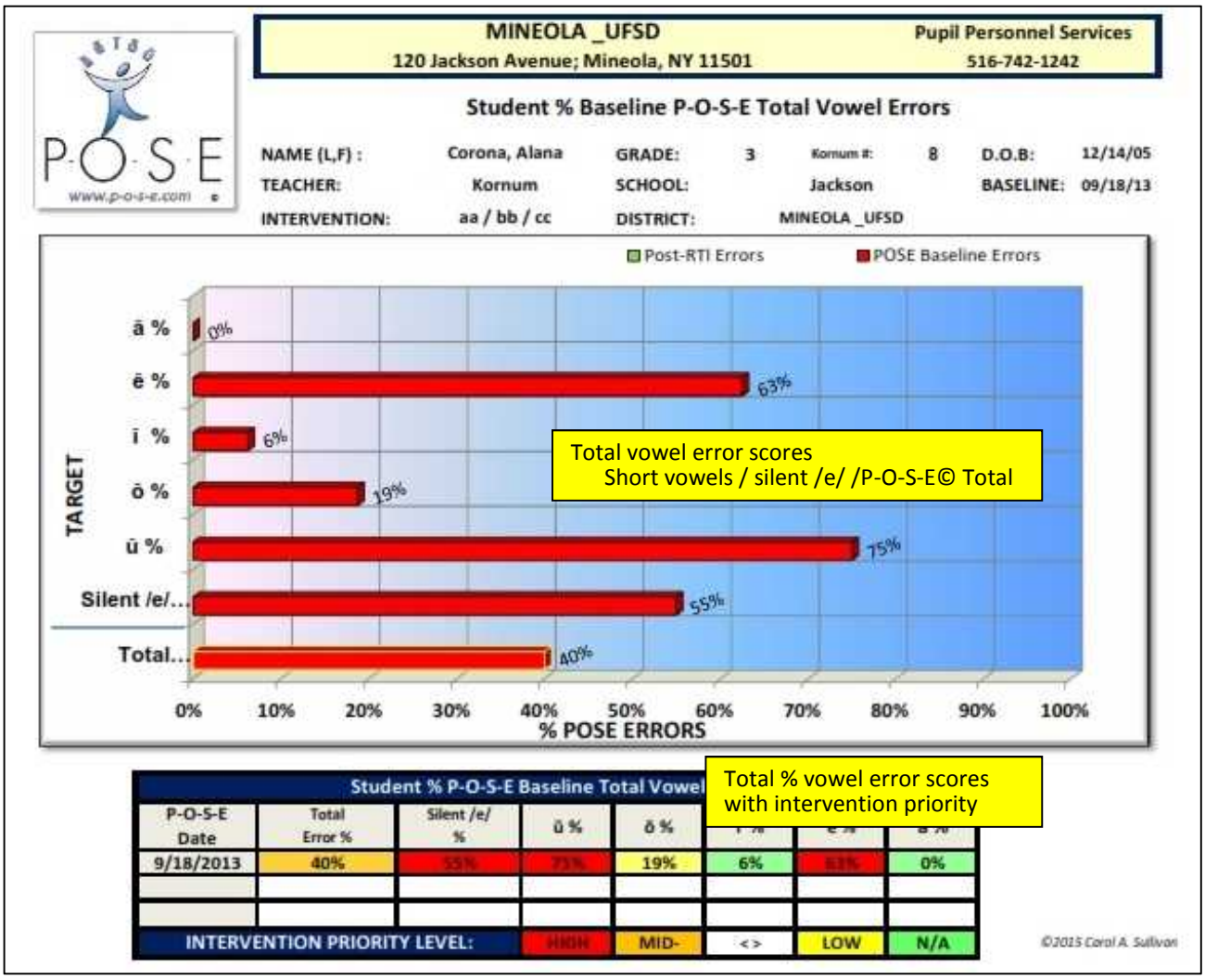
2. Baseline Error Summary Table

Figure I.2



3. Baseline Error Bar Chart

Figure I.3



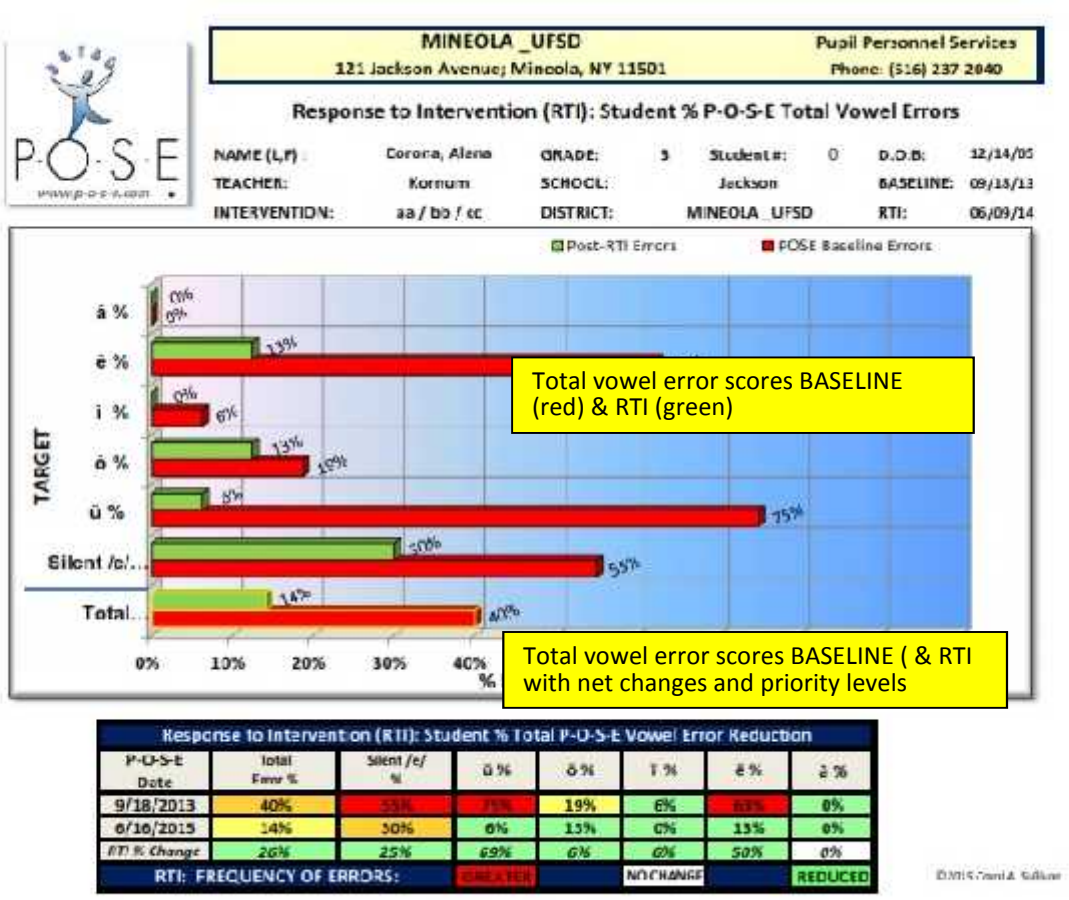
J. INTERPRETING THE P-O-S-E© SCORING APPLICATION RTI REPORT

1. RTI Error Transcript is interpreted exactly like BASELINE Error Transcript (Fig I.1)

2. RTI Error Summary Table is interpreted exactly like BASELINE Error Summary Table (Fig I.2)

3. RTI Error Bar Chart includes BOTH BASELINE and RTI P-O-S-E© error scores with tabled differences and intervention priority levels.

Figure J.1

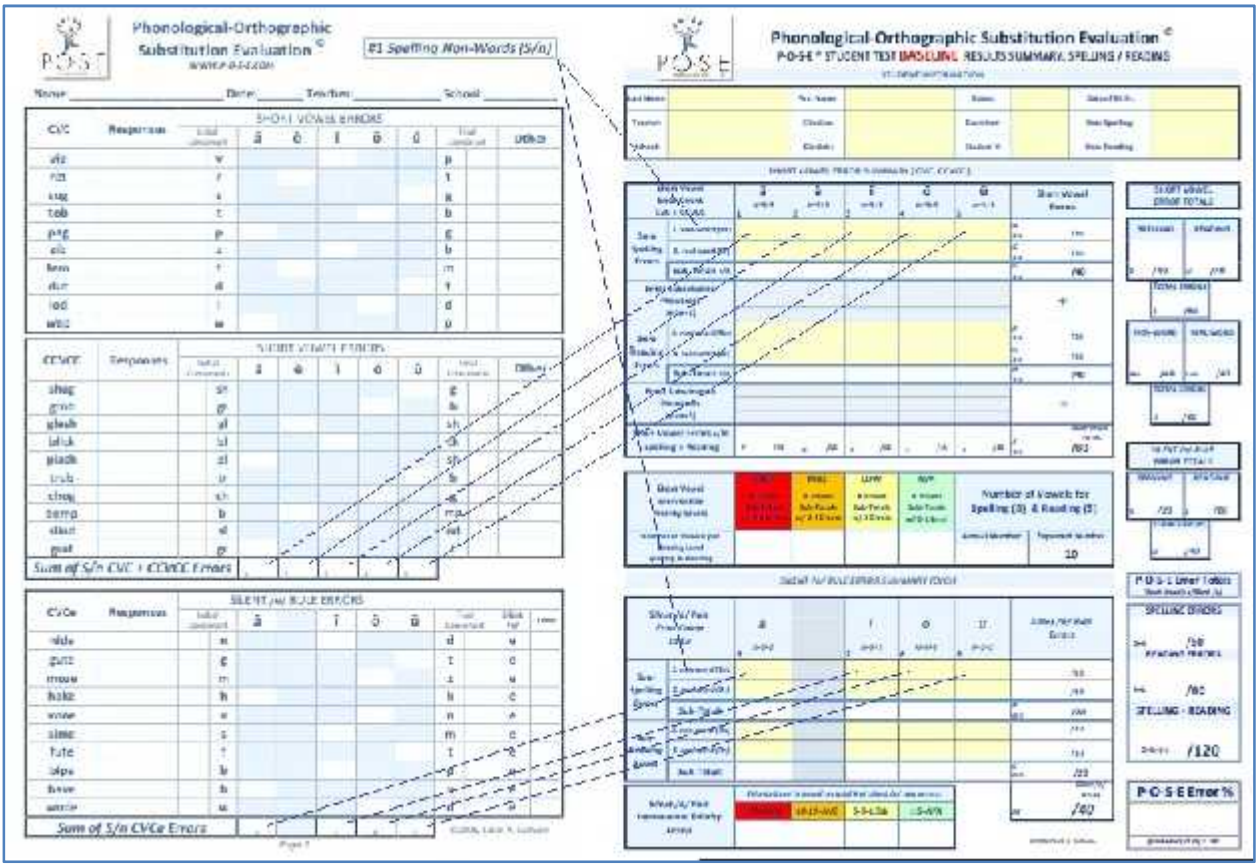


2. Two identical report forms with associated bar charts provide for input, processing and display of BASELINE P-O-S-E© data and post-interventional RTI P-O-S-E© data.

3. The P-O-S-E© SCORING APPLICATION is an executable formatting of an Excel (.xlsm) spreadsheet consisting of four pages. The application, once closed, may be re-opened using the desktop  **icon or by selecting it on your list of program files.**

4. Each displayed page is accessed by clicking one of the four tabs located at the bottom left of the Excel 2010/2007 computer screen.

"*P-O-S-E© BASELINE Data Results Summary*" accepts input in the yellow highlighted cells. The top 12 cells are reserved for student-centered information. The bottom 36 cells are used to enter P-O-S-E© error counts for short vowel and silent /e/ rule test items. Data entry cell headers are numerically coded 1-9 (1=ă, 2=ĕ, 3=ĭ, 4=ŏ, 5=ŭ, 6=ā, 7=ī, 8=ō, 9=ū) coinciding with summed vowel error cells on the four subtests of the physical P-O-S-E© (paper) test form: #1 Spelling, non-word (Sn); #2 Spelling, real word (Sr); #3 Reading, non-word (Rn); #4 Reading, real word (Rr). The next illustration outlines data transfer paths from the P-O-S-E© test form to this scoring application. Categorical sub-totals and totals are calculated automatically as data are entered. When data entry is complete, intervention priority levels are given for individual short vowels and for the silent /e/ rule, aggregated across Spelling and Reading, non-word and real word test items. P;;



Categorical sub-totals and totals are calculated automatically as data are entered. Color-coded intervention priority levels are given for individual short vowels in Spelling and Reading and for the Silent /e/ rule, aggregated across Spelling and Reading, non-words and real word test items.

HIGH	MID-	LOW	N/A

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

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*

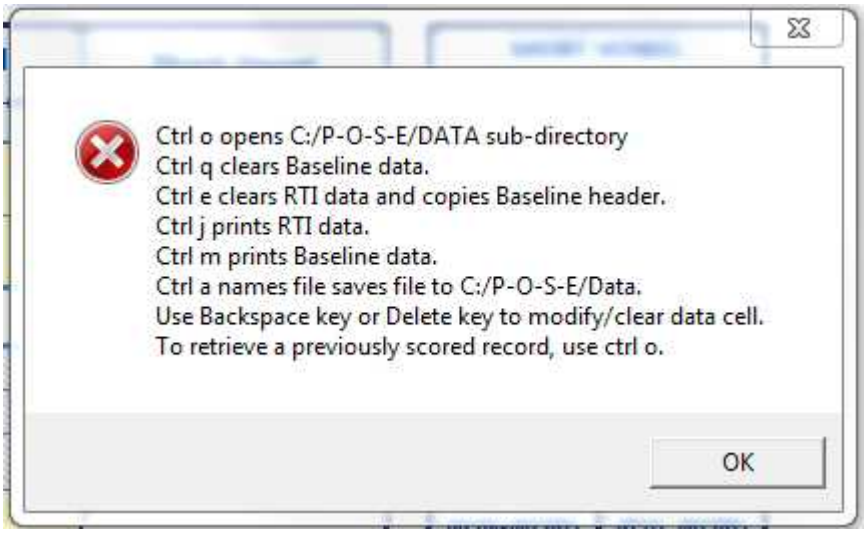
Page Two: "*P-O-S-E© BASELINE Chart*" is generated automatically as the "*P-O-S-E© BASELINE Data*" form is completed. The bar chart indicates, in vivid graphic form, the error percentages and intervention priority levels for each of the five short vowels (ă, ĕ, ĭ, ŏ, ŭ), the silent /e/ rule (based on an aggregate of ā, ī, ō, ū) and a total P-O-S-E© error score weighted 2/3 short vowels content and 1/3 silent /e/ rule content.

Page Three: "*P-O-S-E© RTI Data*" duplicates the format of page one, "*P-O-S-E© BASELINE Data*". The saved, individual P-O-S-E© SCORING APPLICATION may be recalled and opened from the C:/POSE/Data/ directory. Subsequent to intervention, the P-O-S-E© RTI (Response to Intervention) data are entered following the same procedure described above for BASELINE data entry. Basic student information is carried over from Page One but may be over-written if needed. The new information will be reflected in the *"P-O-S-E© RTI Chart".*

Page Four: *"P-O-S-E© RTI Chart" "*is generated automatically as the "*P-O-S-E© RTI Data*" form is completed. The resulting bar chart indicates the BASELINE error percentages, intervention priority levels as well as the RTI percentage of errors, intervention priority levels for each of the five short vowels (ă, ĕ, ĭ, ŏ, ŭ), the silent /e/ rule (based on an aggregate of ā, ī, ō, ū) and a total P-O-S-E© error score, weighted 2/3 short vowels content and 1/3 silent /e/ rule content. A color-coded tabular array of these BASELINE and RTI percent error values is presented, calculating net changes in percent P-O-S-E© errors, post-intervention.

GREATER	UNCHANGED	REDUCED

5. Each time the P-O-S-E© SCORING APPLICATION is opened from the on-screen menu, a blank set of four pages is presented for data entry. Concurrent with the open application, six essential control key (ctrl-key) functions are available to the user. They are listed in a right mouse-click pop-up window.



Ctrl-o **opens the C:/P-O-S-E/DATA sub-directory. This key code is is used when you wish to recall or review previously saved (using *C*) BASELINE/RTI summary data file on a specific student. The *Ctrl-a* key code not only saves your student data but also names it in the format: "*Smith, John, 3, Teacher.xlsm.*"**

Ctrl-q **clears all entered and calculated data from the *P-O-S-E© BASELINE Data and BASELINE Chart* pages and restores them to the pre-scoring (default) state. Individual cell entries may be corrected on the *P-O-S-E© BASELINE Data* page using *backspace* or *delete* keys. Changes are automatically reflected on the *P-O-S-E© BASELINE Chart* page. Header data are also cleared from the *P-O-S-E© RTI Data and RTI Chart pages*.**

Ctrl-e **clears all entered and calculated data from the *P-O-S-E© RTI Data and RTI Chart pages* and copies the *P-O-S-E© BASELINE Data header*. Individual cell entries may be corrected on the *P-O-S-E© BASELINE Data* page using *backspace* or *delete* keys. Changes are automatically reflected on the *P-O-S-E© RTI Chart* page.**

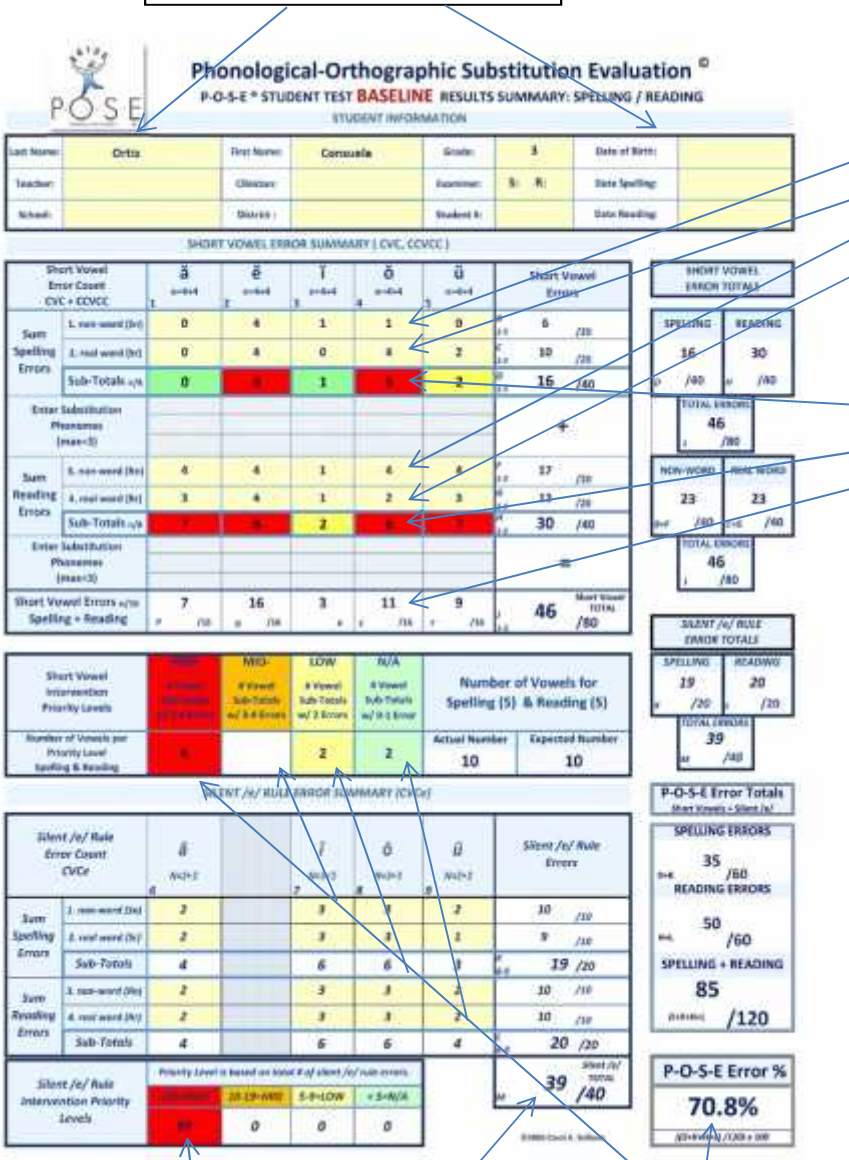
Ctrl-j **prints two-page, full color copies of the completed *P-O-S-E© RTI Data* and *P-O-S-E© RTI Chart* pages. (Black and white printouts will preserve the essential features of each page.)**

Ctrl-m **prints two-page, full color copies of the completed *P-O-S-E© BASELINE Data* and *P-O-S-E© BASELINE Chart* pages. (Black and white printouts will preserve the essential features of each page.)**

Ctrl-a **renames and saves the new data file based on entries in selected cells among the top 12 that are reserved for student-centered information: Last Name, First Name, Grade, Teacher last name, Date of P-O-S-E Spelling sub-test. An example of the resulting file name would appear as follows: "*Smith, John, 3, Teacher.xlsm.*" The first file saved will create the directory C:/P-O-S-E/Data/. Each file is stored and may be recalled by accessing "file > open" from the basic Excel menu. The data may be saved as frequently as necessary during the course of entry. The stored file will be updated each time.**

C1. *UNDERSTANDING THE P-O-S-E© SCORING APPLICATION BASELINE DATA PAGE*

Enter student-specific information



Enter number of errors per short vowel for each of the four P-O-S-E© test conditions.
For example, short o (ŏ):
Sn 1 error
Sr 4 errors
Rn 4 errors
Rr 2 errors

The application automatically sums the short vowel errors:
Sn + Sr = 5 (ŏ) errors
Rn + Rr = 6 (ŏ) errors
Total = 11 (ŏ) errors
Intervention priority levels for Reading and Spelling are color coded as follows:

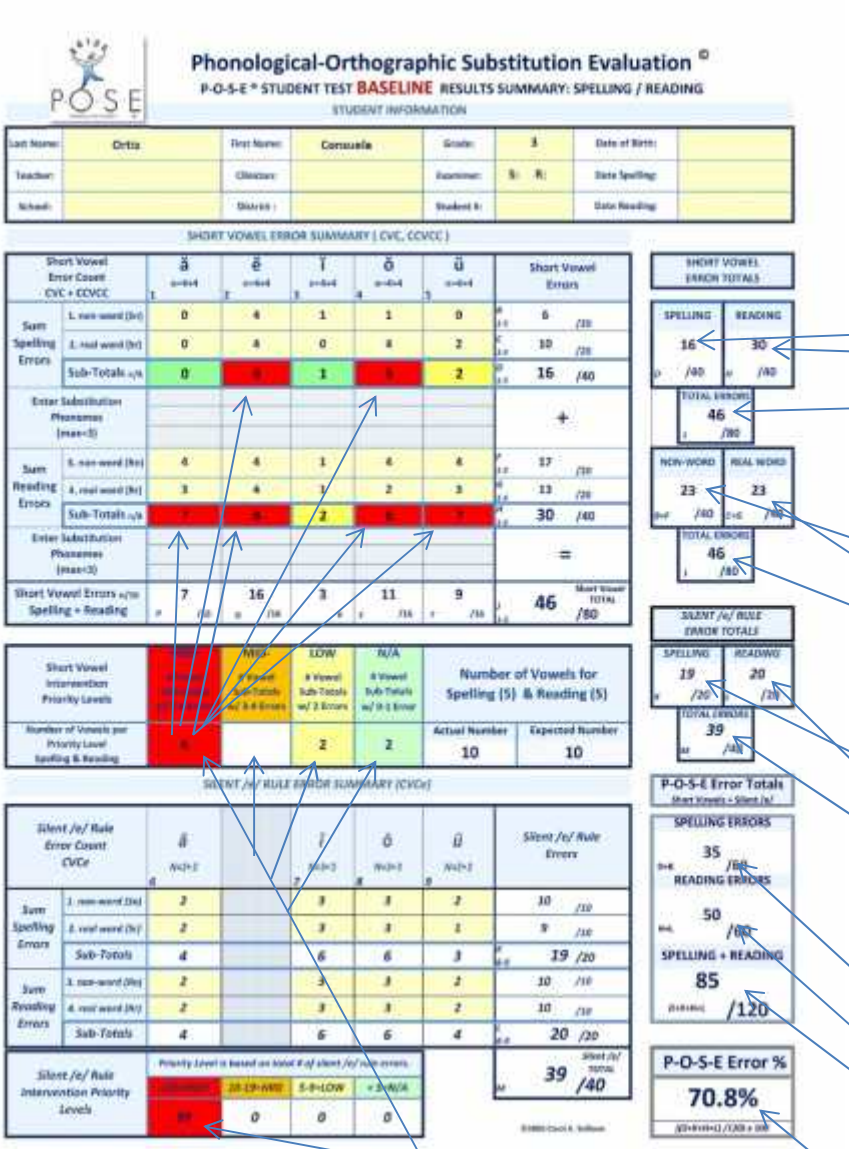
HIGH	MID-	LOW	N/A
5-8 errors	3-4 errors	2 errors	0-1 errors

There are 8 test items (4 CVC and 4 CCVCC) for each of the five short vowels in Spelling (non-words and real words) and five short vowels in Reading (non-words and real words).
Among other errors, this student missed all
8 items for (ĕ) in Spelling and
8 items for (ĕ) for Reading.
This represents 2 of 10 possible short vowel error instances, five instances in Spelling + five instances in Reading. Spelling errors and Reading errors are weighted equally.
This student has 6 instances of short vowels with 5 or more errors in Reading or Spelling, no instances of 3-4 errors, 2 instances of 2 errors and 2 instances of 0 or 1 error.

Of 120 P-O-S-E© test items, 40 probe the "silent /e/" rule for long vowels ā, ī, ō and ū in a CVCe format. All "silent /e/" rule errors are aggregated into a single error count. In this case, the student missed 39 of 40 "silent /e/" rule test items with a HIGH intervention priority level.

The total percentage of all P-O-S-E© errors is based on 120 items, 80 probe the five short vowels and 40 probe the "silent /e/" rule.

C2. *UNDERSTANDING THE P-O-S-E© SCORING APPLICATION BASELINE DATA PAGE*



P-O-S-E© categorical sub-totals and totals are calculated automatically throughout the BASELINE Data page and displayed in summary boxes to the right.

Short vowel error totals:
Spelling (n=40)
Reading (n=40)
Both Spelling & Reading (n=80)

Short vowel error totals:
Non-Words (n=40)
Real Words (n=40)
Both Non- & Real words. (n=80)

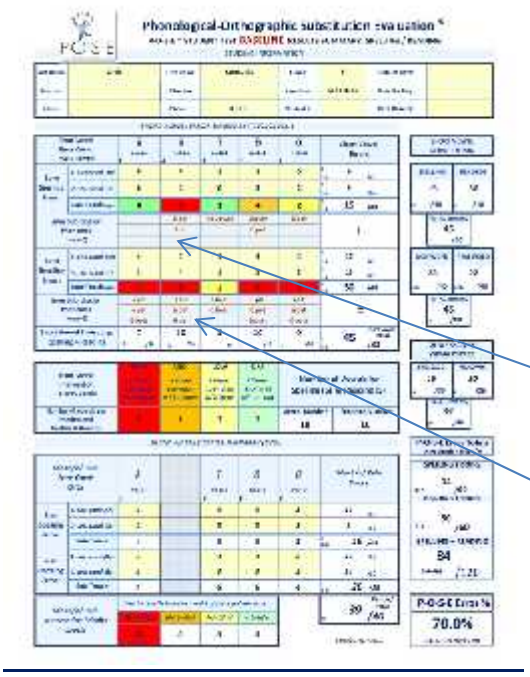
Silent /e/ rule error totals:
Spelling (n=20)
Reading (n=20)
Both Spelling & Reading (n=40)

P-O-S-E© error totals:
(Short Vowels + Silent /e/ Rule)
Spelling (n=60)
Reading (n=60)
Both Spelling & Reading (n=120)

Intervention Priority Levels for short vowels and Silent /e/ rule error Patterns are indicated by color codes. Both red (High) and orange (Mid-) suggest a strong need for corrective therapy in the form of vowel training.

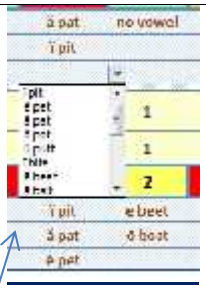
P-O-S-E© total error %:
(Short Vowels + Silent /e/ Rule)
Both Spelling & Reading (n=120)

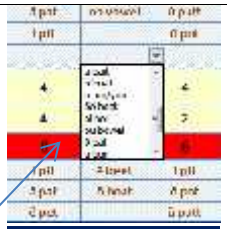
C3. *UNDERSTANDING THE P-O-S-E© SCORING APPLICATION BASELINE DATA PAGE*

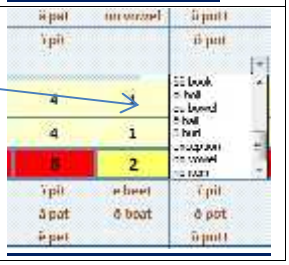


Up to three P-O-S-E© substitution errors can be listed for each of the five short vowels in Spelling and in Reading.

A dropdown menu presents 18 possible error responses. These substitution errors are derived from the basic P-O-S-E© test form responses.

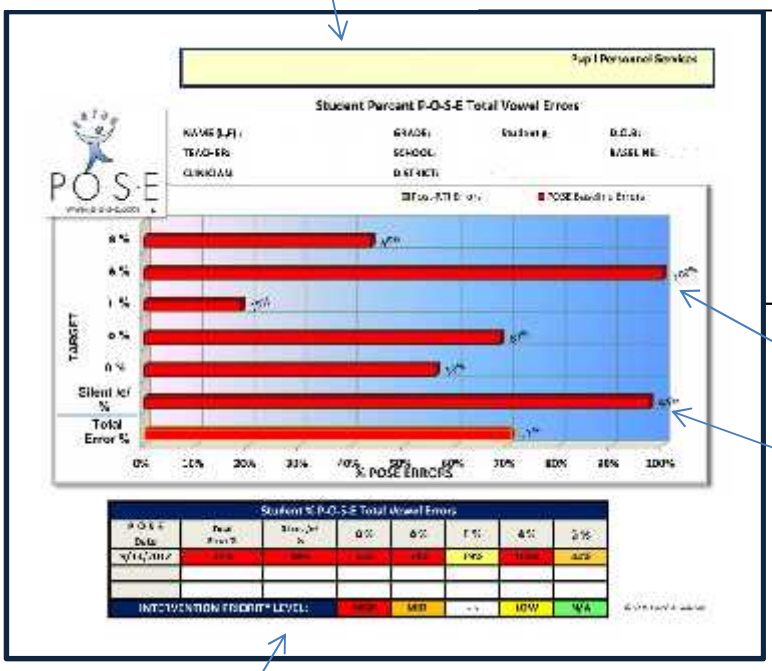






C4. UNDERSTANDING THE P-O-S-E© SCORING APPLICATION BASELINE CHART PAGE

Contents of the header for the P-O-S-E© BASELINE bar chart and the P-O-S-E© RTI bar chart are customized for the School District or individual licensee.



This P-O-S-E© BASELINE bar chart is drawn automatically when data are entered on the BASELINE data page. Error counts are converted to a combined percentage of errors in Reading and Spelling for each of the five short vowels (ă, ĕ, ĭ, ŏ, ŭ), the aggregate silent /e/ rule and total error percent.

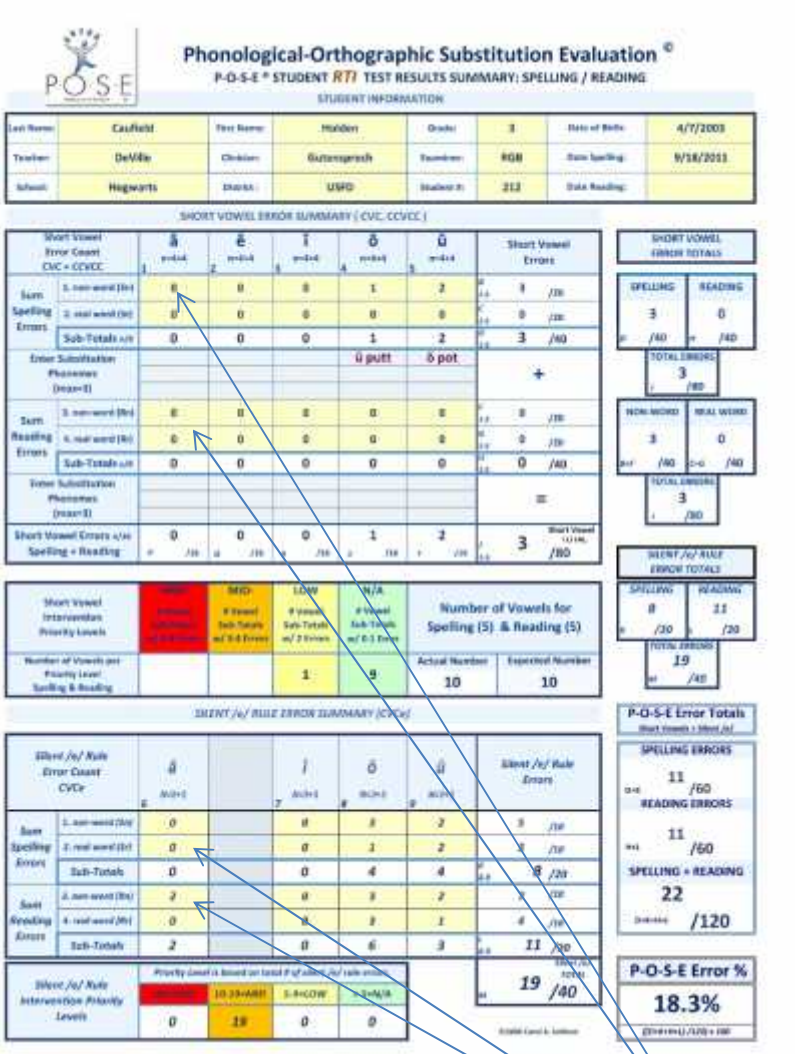
For example, this student missed 16 instances of the short vowel ĕ, 8/8 in Spelling + 8/8 in Reading (100% error score). There were 39 errors among 40 instances of the silent /e/ rule (98%) sampled among the long vowels ā, ī, ō, ū.

The table presents percent error scores color-coded for intervention priority level:

HIGH	MID-	LOW	N/A

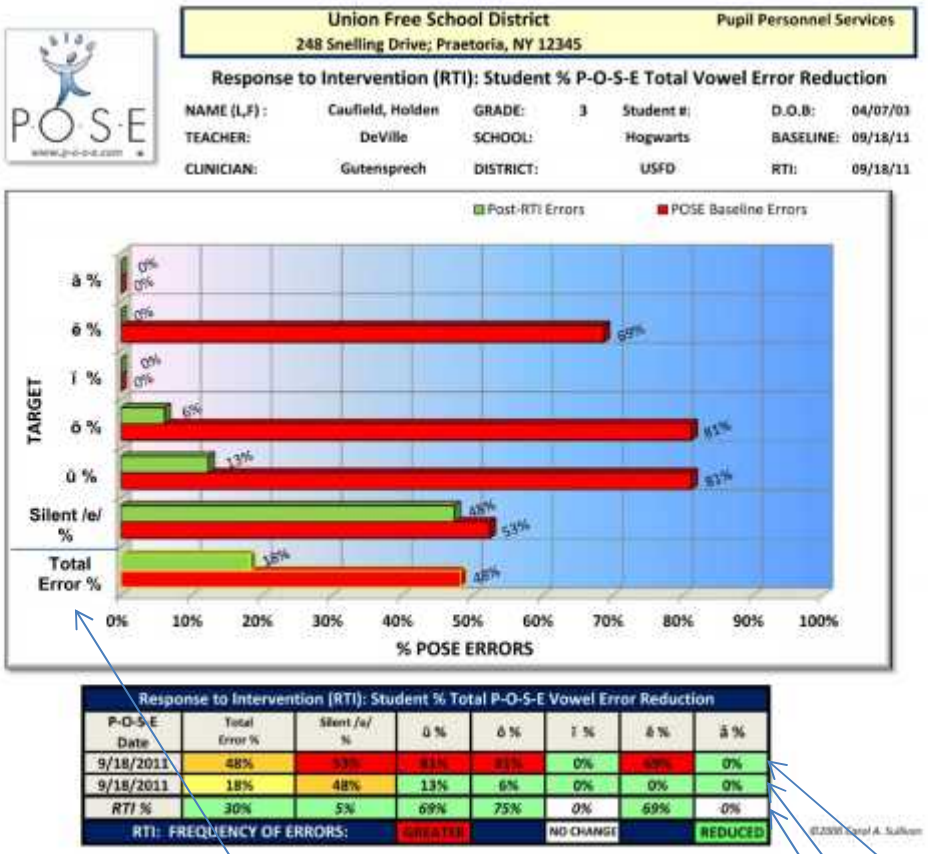
These data are also entered automatically in the P-O-S-E© RTI chart.

C5. *UNDERSTANDING THE P-O-S-E© SCORING APPLICATION RTI DATA PAGE*



The RTI Data page is identical in structure to the BASELINE Data page (C1-C3, above). After intervention, P-O-S-E© retest scores are entered here, automatically generating an RTI chart, adding post-treatment scores (green bars) to the BASELINE data bar (red bars) chart for comparison. Percent vowel error and vowel error reduction is automatically calculated for each short vowel, for the silent /e/ rule

C6. *UNDERSTANDING THE P-O-S-E© SCORING APPLICATION RTI CHART PAGE*



The RTI chart page integrates student scores from the P-O-S-E© BASELINE test and the post-intervention P-O-S-E© test. Findings for the five short vowels, silent /e/ rule and total score are calculated and displayed in tabular and graphic formats in the form of percentage error scores. In the chart, BASELINE percent error scores are shown as red bars, RTI percent error scores are displayed in green.

The first tabular line presents P-O-S-E© BASELINE scores as percentage of errors with color-coded interventional priorities. The second tabular line similarly displays P-O-S-E© RTI scores. The third line shows the relative change in P-O-S-E© score. Percentage error reduction is coded in green, no change in white and increased errors noted in red.

D. INTERVENTION

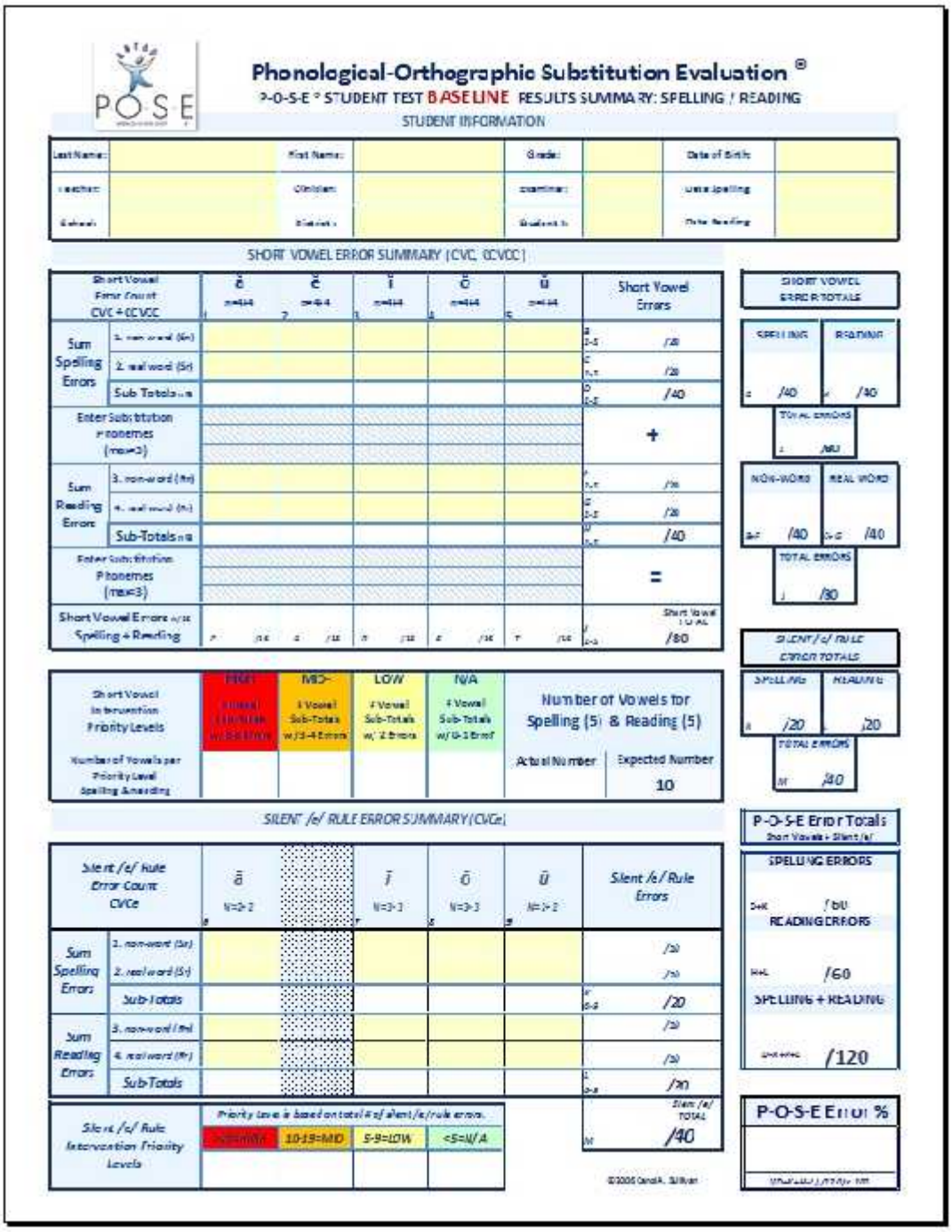
For details on test administration, scoring, interpretation and therapy, consult the P-O-S-E© TEACHER'S MANUAL.

E. TECHNICAL SUPPORT

Any questions concerning the P-O-S-E© SCORING APPLICATION should be addressed to your district P-O-S-E© consultant or e-mailed to support@p-o-s-e.com.

APPENDIX 1: P-O-S-E© STUDENT TEST RESULTS SUMMARY FORM.

The manual scoring procedure, using the P-O-S-E© pocket calculator, is described in the basic P-O-S-E© manual. One test result summary form is included with each test set (see below). The form may be used, with the aid of the P-O-S-E© calculator, for manual scoring or it may serve as an intermediate step toward entering data in this P-O-S-E© SCORING APPLICATION.



Phonological-Orthographic Substitution Evaluation ©

P-O-S-E © STUDENT TEST BASELINE RESULTS SUMMARY: SPELLING / READING

STUDENT INFORMATION

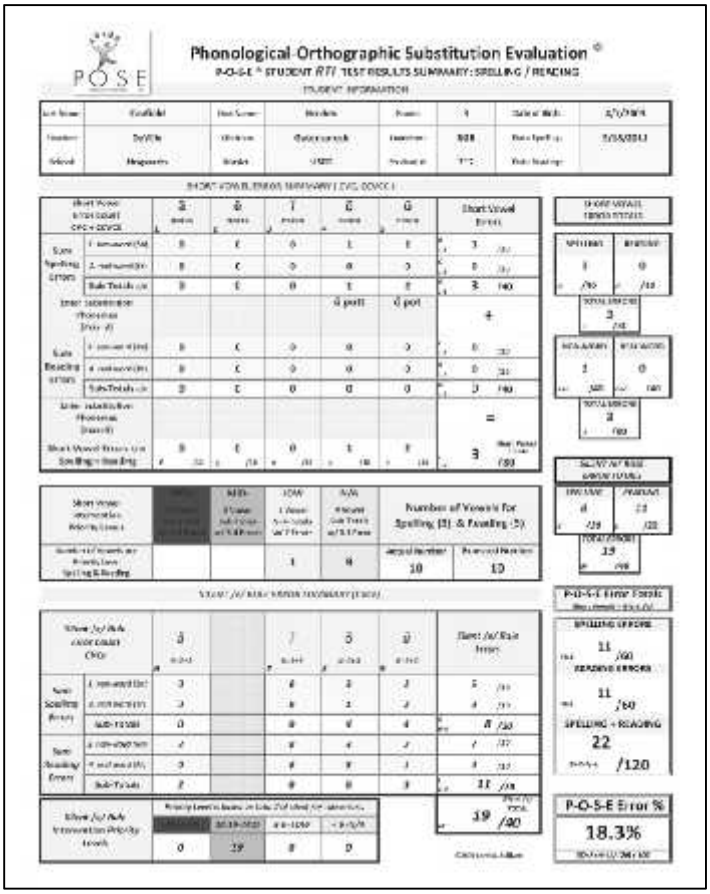
SHORT VOWEL ERROR SUMMARY (CVC, CCVCC)

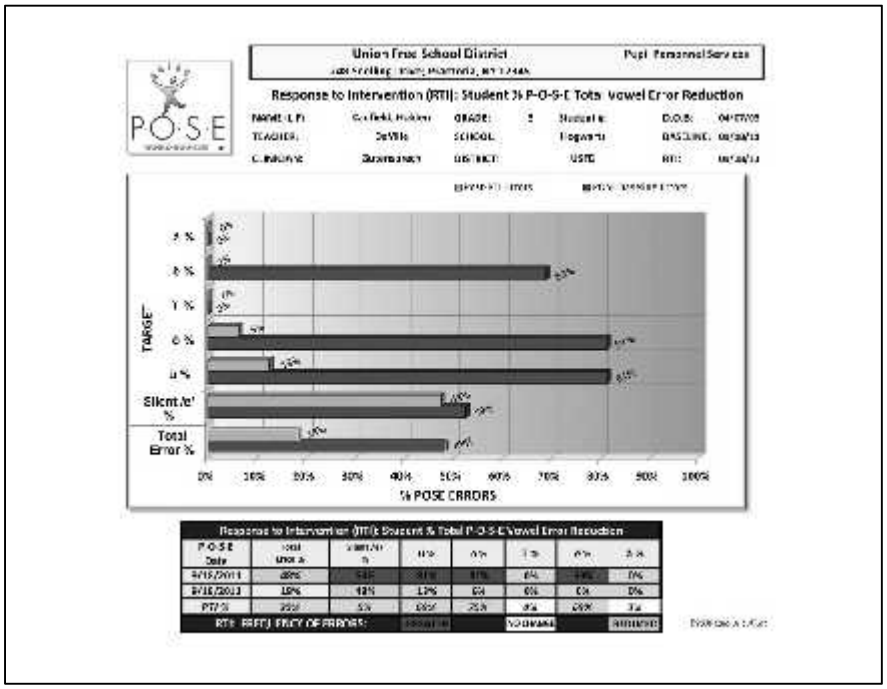
SILENT /e/ RULE ERROR SUMMARY (CVCe)

P-O-S-E Error Totals

P-O-S-E Error %

APPENDIX 2: P-O-S-E© SCORING APPLICATION PAGES PRINTED IN B & W.





APPENDIX 3: OPTIONAL P-O-S-E© DATA-PROCESSING STUDENT SCORING SERVICE WITH CLASSROOM SUMMARY REPORT.

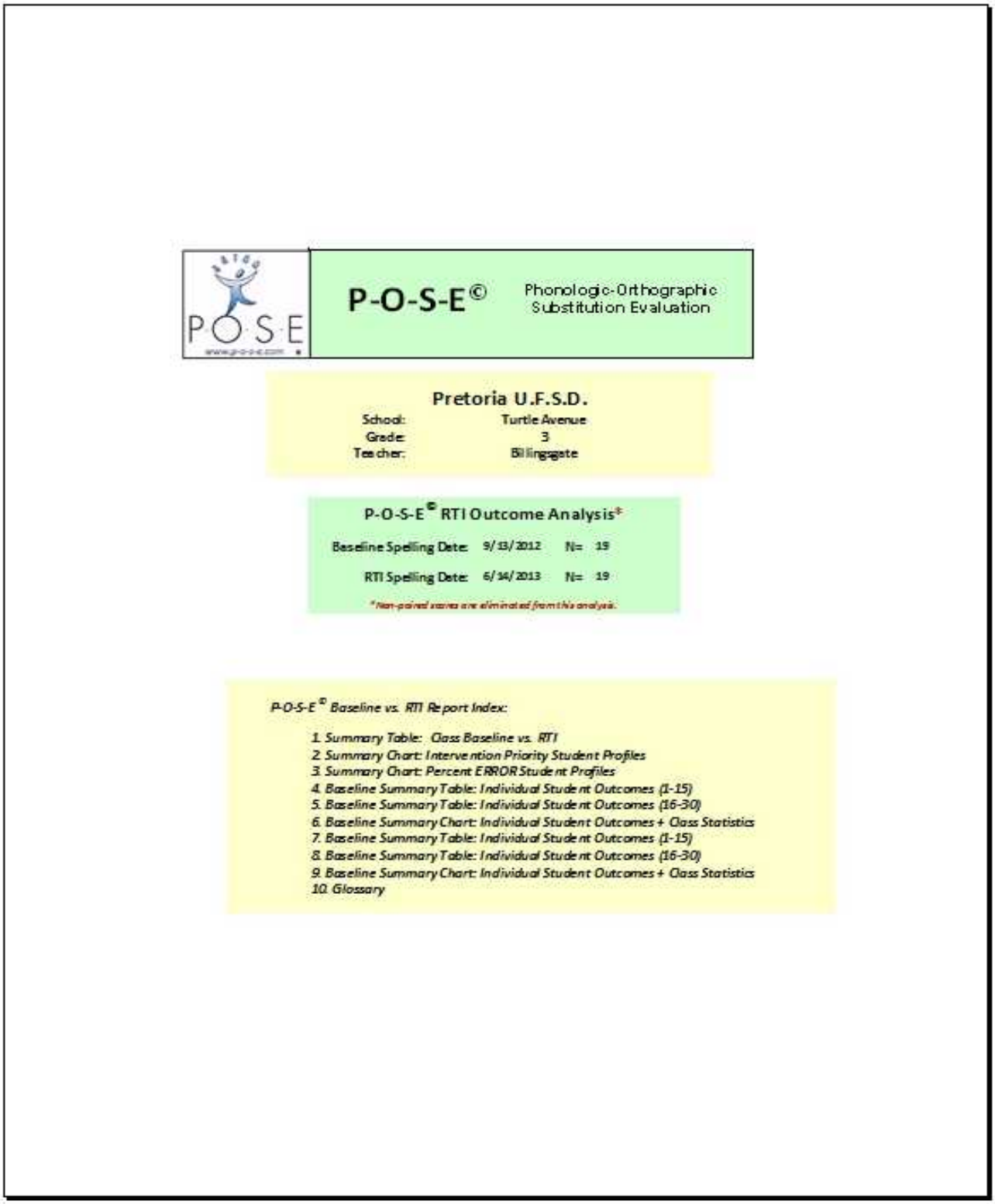
For school districts that prefer to administer the P-O-S-E© and contract for all or part of the scoring and test data processing, two tracks of services are available from P-O-S-E©, Inc. Specified as "P-O-S-E© test forms including BASELINE data processing, the cost may be applicable to the "supplies/materials" category, for example, under Title One, etc.

P-O-S-E© SCORING / DATA PROCESSING / BASELINE REPORT PREPARATION SERVICE TRACK I	
P-O-S-E© SCORING TASK	**ESTIMATED SCHOOL PROFESSIONAL STAFF TIME**
• Transfer raw spelling data (Sn, Sn) from the student spelling sheets to pages 2, 3 of the P-O-S-E© 4-page test form. Responses are converted by the transcriber to phonological representations of the student's orthography. (Reading data are entered at time of testing.)	~10 minutes per student or 250 minutes (4hours, 10minutes) for a class of 25 students.
• Total the completed 4-page test form data (Sn, Sr, Rn, Rr : Short Vowel / Silent /e/ rule) by category.	~3 minutes per student or 75 minutes (1 hour, 15 minutes) for a class of 25 students.
• Enter the category totals into the P-O-S-E© Computer Scoring Application	~5 minutes per student or 125 minutes (2 hours, 5 minutes) for a class of 25 students.
• Print three page, color, tabular/graphic BASELINE outcome summary for each child (See Sections C & D + Figure 5a, p35).	~1 minute per child per copy or 25 minutes per class of 25 students
• Collate and print aggregated class data into three page, color class summary tables and bar charts. (See sample report on the following pages.) All class reports are bound into a single document for administrators.	(Available only as a part of the Track I data processing service)
TOTAL PROJECTED STAFF TIME SAVED IF P-O-S-E TEST FORMS FOR BASELINE AND RTI P-O-S-E TESTING ARE PURCHASED INCLUDING TRACK I DATA PROCESSING:	***~19 minutes per student or 475 minutes (7 hours, 55 minutes) per class of 25 students.***
Custom pricing for this forms-with-processing service is calculated based upon number of grade 3 students per class and total number of grade 3 classes. Separate charges apply to BASELINE and end-of-year RTI forms-with-processing services. RTI services include BASELINE-RTI comparison reports for individual students and for classes.	

APPENDIX 4: SAMPLE OF THE OPTIONAL, 13-PAGE, P-O-S-E© SCORING APPLICATION CLASSROOM BASELINE-RTI SUMMARY REPORT SERVICE.

Figure 4a: P-O-S-E© Class summary, page one. BASELINE and RTI Vowel Substitution error counts are tallied for each student for Spelling (Snr) and Reading (Rnr) across short vowels and silent /e/ rule items. Findings are alphabetically arranged by student last name, color-coded intervention priority levels and a calculated total percent P-O-S-E© error score is presented for each student with a maximum class size of 30.

APPENDIX 4: Optional Class RTI Report Cover with index:



P-O-S-E© Phonologic-Orthographic Substitution Evaluation

Pretoria U.F.S.D.

School: Turtle Avenue
Grade: 3
Teacher: Billingsgate

P-O-S-E© RTI Outcome Analysis*

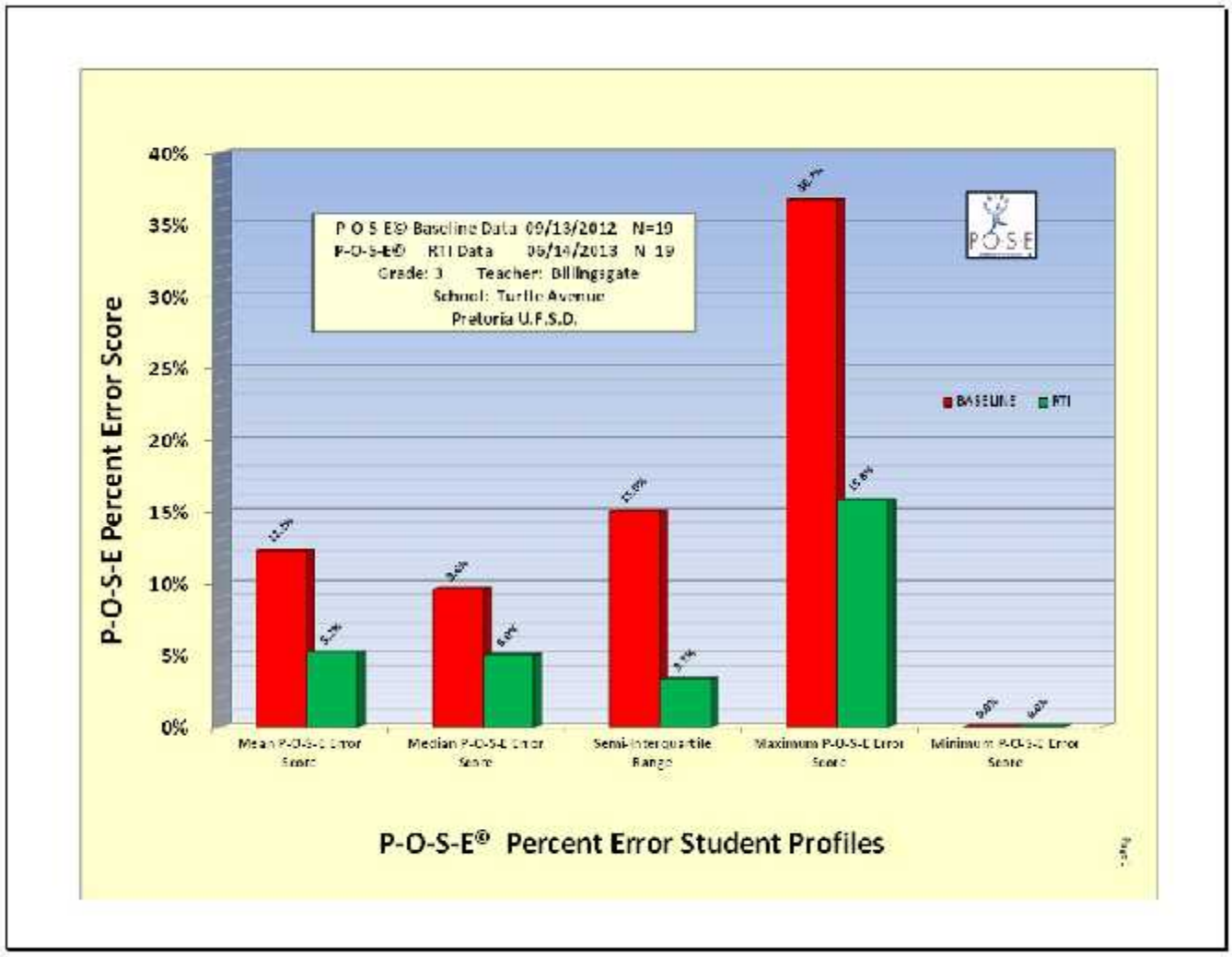
Baseline Spelling Date: 9/13/2012 N= 19

RTI Spelling Date: 6/14/2013 N= 19

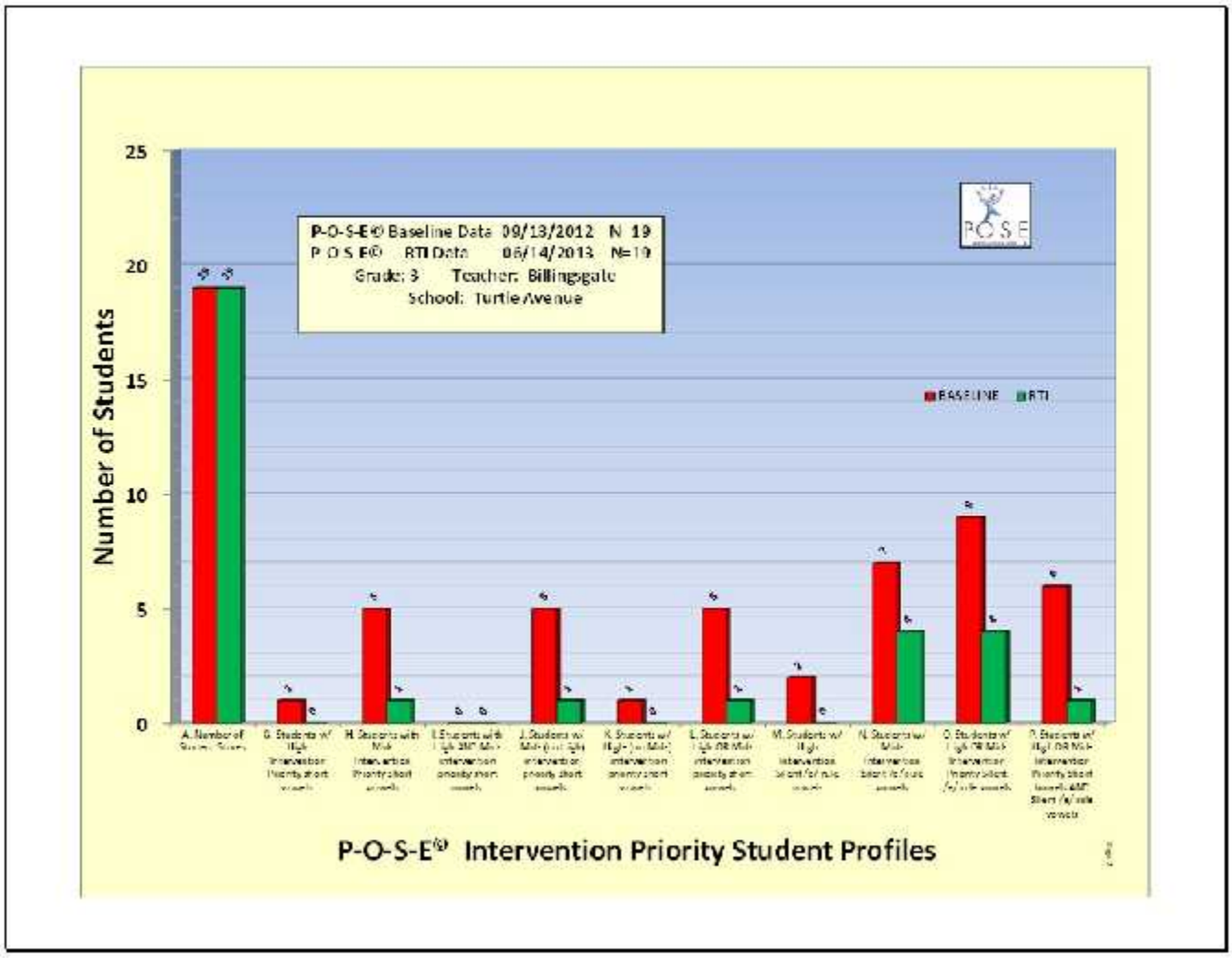
*Non-paired scores are eliminated from this analysis.

P-O-S-E© Baseline vs. RTI Report Index:

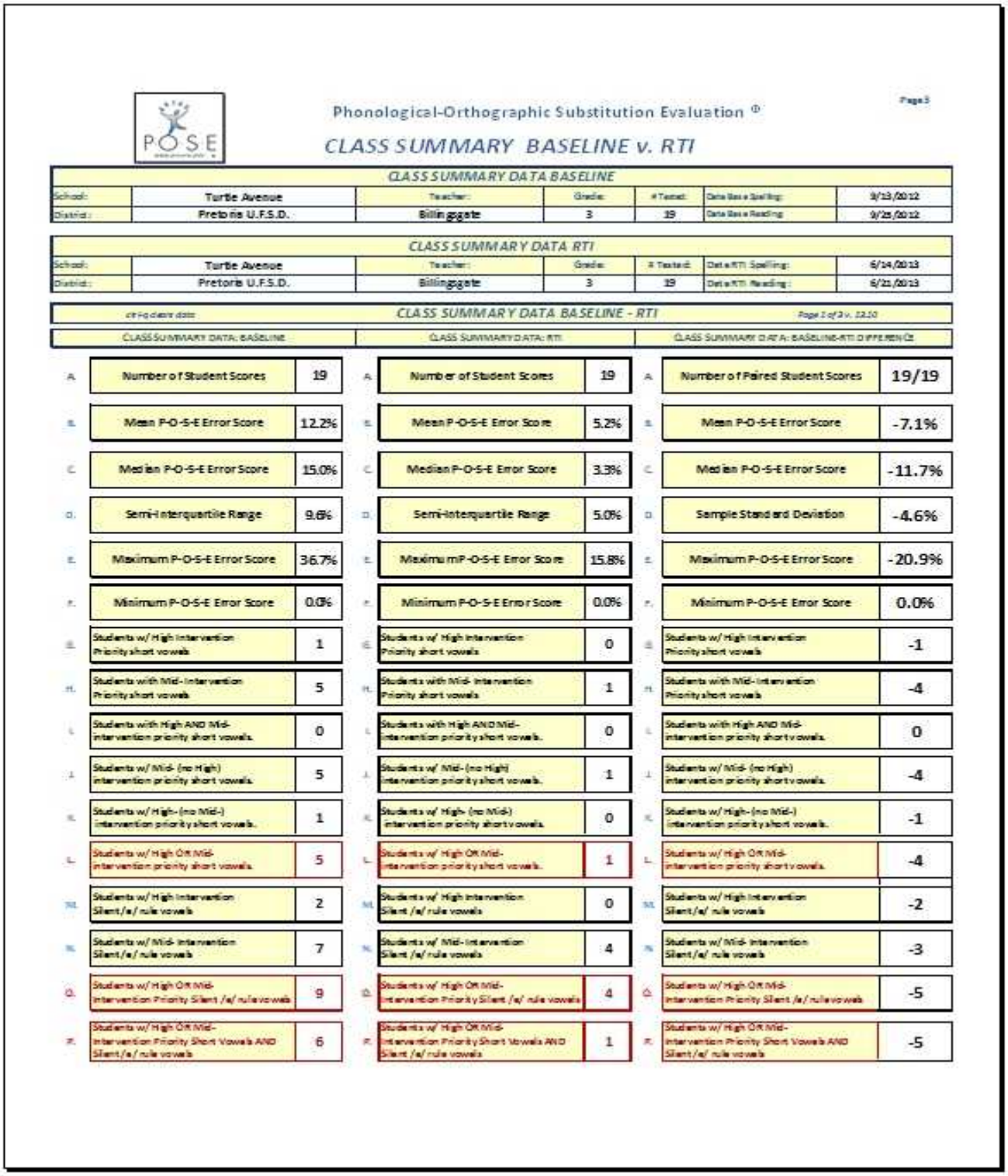
APPENDIX 4: Optional Class RTI Report p.1: BASELINE and RTI Bar Charts for Mean, Median, SIQ Range, Max, Min Class P-O-S-E© scores (See Appendix for definitions)



APPENDIX 4: Optional Class RTI Report p.2 BASELINE and RTI Bar Charts: Mid and High intervention priority permutations. (See appendix for definitions)



APPENDIX 4: Optional Class RTI Report p.3 Table of BASELINE, RTI Class P-O-S-E© class variables and differences for matched pairs of students.



Phonological-Orthographic Substitution Evaluation ©

Page 3

CLASS SUMMARY BASELINE v. RTI

CLASS SUMMARY DATA BASELINE

School:	Turtle Avenue	Teacher:	Grade:	# Tested:	Data Base Spelling:	9/13/2012
District:	Pretoria U.F.S.D.	Billingsgate	3	19	Data Base Reading:	9/25/2012

CLASS SUMMARY DATA RTI

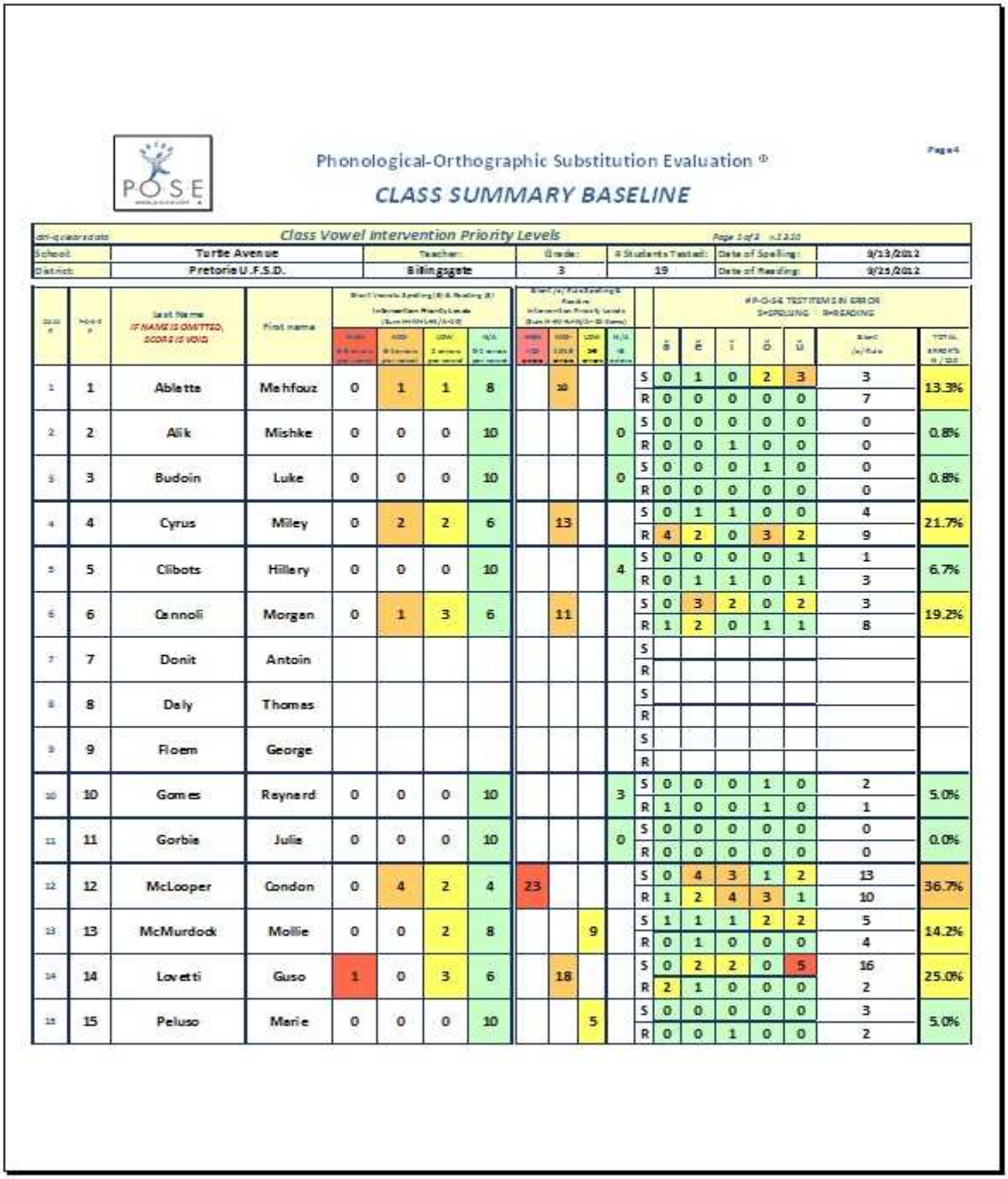
School:	Turtle Avenue	Teacher:	Grade:	# Tested:	Data RTI Spelling:	6/14/2013
District:	Pretoria U.F.S.D.	Billingsgate	3	19	Data RTI Reading:	6/21/2013

CLASS SUMMARY DATA BASELINE - RTI

Page 3 of 3 v. 12.10

	CLASS SUMMARY DATA: BASELINE			CLASS SUMMARY DATA: RTI			CLASS SUMMARY DATA: BASELINE-RTI DIFFERENCE	
A.	Number of Student Scores	19	A.	Number of Student Scores	19	A.	Number of Paired Student Scores	19/19
B.	Mean P-O-S-E Error Score	12.2%	B.	Mean P-O-S-E Error Score	5.2%	B.	Mean P-O-S-E Error Score	-7.1%
C.	Median P-O-S-E Error Score	15.0%	C.	Median P-O-S-E Error Score	3.3%	C.	Median P-O-S-E Error Score	-11.7%
D.	Semi-Interquartile Range	9.6%	D.	Semi-Interquartile Range	5.0%	D.	Sample Standard Deviation	-4.6%
E.	Maximum P-O-S-E Error Score	36.7%	E.	Maximum P-O-S-E Error Score	15.8%	E.	Maximum P-O-S-E Error Score	-20.9%
F.	Minimum P-O-S-E Error Score	0.0%	F.	Minimum P-O-S-E Error Score	0.0%	F.	Minimum P-O-S-E Error Score	0.0%
G.	Students w/ High Intervention Priority short vowels	1	G.	Students w/ High Intervention Priority short vowels	0	G.	Students w/ High Intervention Priority short vowels	-1
H.	Students with Mid- Intervention Priority short vowels	5	H.	Students with Mid- Intervention Priority short vowels	1	H.	Students with Mid- Intervention Priority short vowels	-4
I.	Students with High AND Mid- intervention priority short vowels.	0	I.	Students with High AND Mid- intervention priority short vowels.	0	I.	Students with High AND Mid- intervention priority short vowels.	0
J.	Students w/ Mid- (no High) intervention priority short vowels.	5	J.	Students w/ Mid- (no High) intervention priority short vowels.	1	J.	Students w/ Mid- (no High) intervention priority short vowels.	-4
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.	5	L.	Students w/ High OR Mid- intervention priority short vowels.	1	L.	Students w/ High OR Mid- intervention priority short vowels.	-4
M.	Students w/ High Intervention Silent /e/ rule vowels	2	M.	Students w/ High Intervention Silent /e/ rule vowels	0	M.	Students w/ High Intervention Silent /e/ rule vowels	-2
N.	Students w/ Mid- Intervention Silent /e/ rule vowels	7	N.	Students w/ Mid- Intervention Silent /e/ rule vowels	4	N.	Students w/ Mid- Intervention Silent /e/ rule vowels	-3
O.	Students w/ High OR Mid- Intervention Priority Silent /e/ rule vowels	9	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	-5
P.	Students w/ High OR Mid- Intervention Priority Short Vowels AND Silent /e/ rule vowels	6	P.	Students w/ High OR Mid- Intervention Priority Short Vowels AND Silent /e/ rule vowels	1	P.	Students w/ High OR Mid- Intervention Priority Short Vowels AND Silent /e/ rule vowels	-5

APPENDIX 4: Optional Class RTI Report p.4 BASELINE individual P-O-S-E© results students 1-15



Phonological-Orthographic Substitution Evaluation ®

CLASS SUMMARY BASELINE

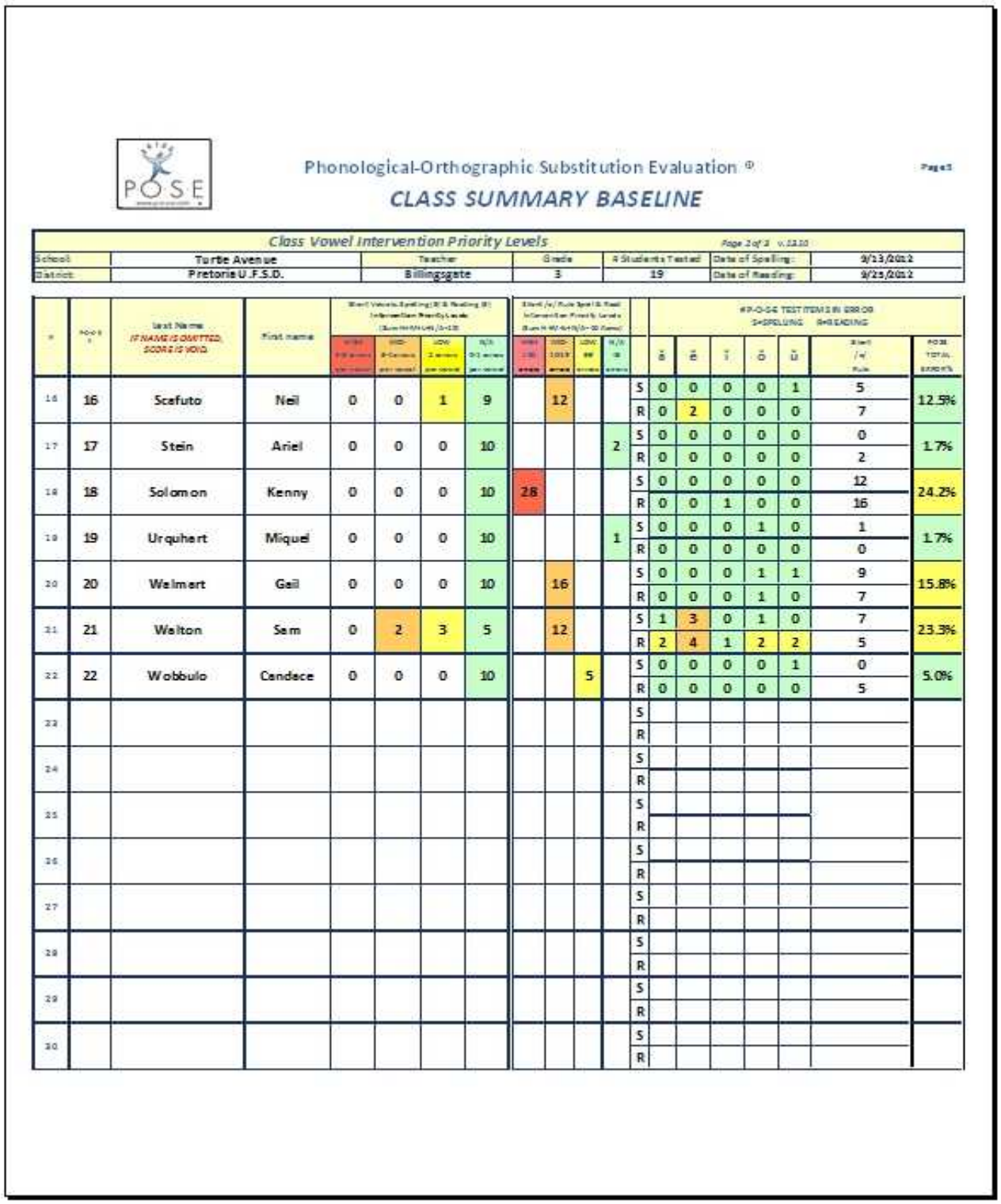
Page 4

Class Vowel Intervention Priority Levels

School:	Turtle Avenue	Teacher:	Billingsgate	Grade:	3	# Students Tested:	19	Date of Spelling:	9/13/2012
District:	Pretoria U.F.S.D.							Date of Reading:	9/25/2012

		Last Name IF NAME IS OMITTED, SCORE IS VOID	First name	Short Vowels Spelling (S) & Reading (R) Intervention Priority Levels				Short /o/ Vowel Spelling & Reading Priorities					# P-O-S-E TEST ITEMS IN ERROR SPELLING · READING						
				HIGH	ADD-ITIONAL	LOW	N/A	HIGH	ADD-ITIONAL	LOW	N/A			a	e	i	o	u	Short /o/ Vowels	TOTAL ERRORS in / 120
1	1	Ablette	Mehfouz	0	1	1	8		10			S	0	1	0	2	3	3	13.3%
												R	0	0	0	0	0	7	
2	2	Alik	Mishke	0	0	0	10				0	S	0	0	0	0	0	0	0.8%
												R	0	0	1	0	0	0	
3	3	Budoin	Luke	0	0	0	10				0	S	0	0	0	1	0	0	0.8%
												R	0	0	0	0	0	0	
4	4	Cyrus	Miley	0	2	2	6		13			S	0	1	1	0	0	4	21.7%
												R	4	2	0	3	2	9	
5	5	Clibots	Hillery	0	0	0	10				4	S	0	0	0	0	1	1	6.7%
												R	0	1	1	0	1	3	
6	6	Cannoli	Morgan	0	1	3	6		11			S	0	3	2	0	2	3	19.2%
												R	1	2	0	1	1	8	
7	7	Donit	Antoin									S							
												R							
8	8	Daly	Thomas									S							
												R							
9	9	Floem	George									S							
												R							
10	10	Gomes	Reynerd	0	0	0	10				3	S	0	0	0	1	0	2	5.0%
												R	1	0	0	1	0	1	
11	11	Gorbie	Julie	0	0	0	10				0	S	0	0	0	0	0	0	0.0%
												R	0	0	0	0	0	0	
12	12	McLooper	Condon	0	4	2	4	23				S	0	4	3	1	2	13	36.7%
												R	1	2	4	3	1	10	
13	13	McMurdock	Mollie	0	0	2	8			9		S	1	1	1	2	2	5	14.2%
												R	0	1	0	0	0	4	
14	14	Lovetti	Guso	1	0	3	6		18			S	0	2	2	0	5	16	25.0%
												R	2	1	0	0	0	2	
15	15	Peluso	Merie	0	0	0	10			5		S	0	0	0	0	0	3	5.0%
												R	0	0	1	0	0	2	

APPENDIX 4: Optional Class RTI Report p.5 BASELINE individual P-O-S-E© results students 16-30



Phonological-Orthographic Substitution Evaluation ®

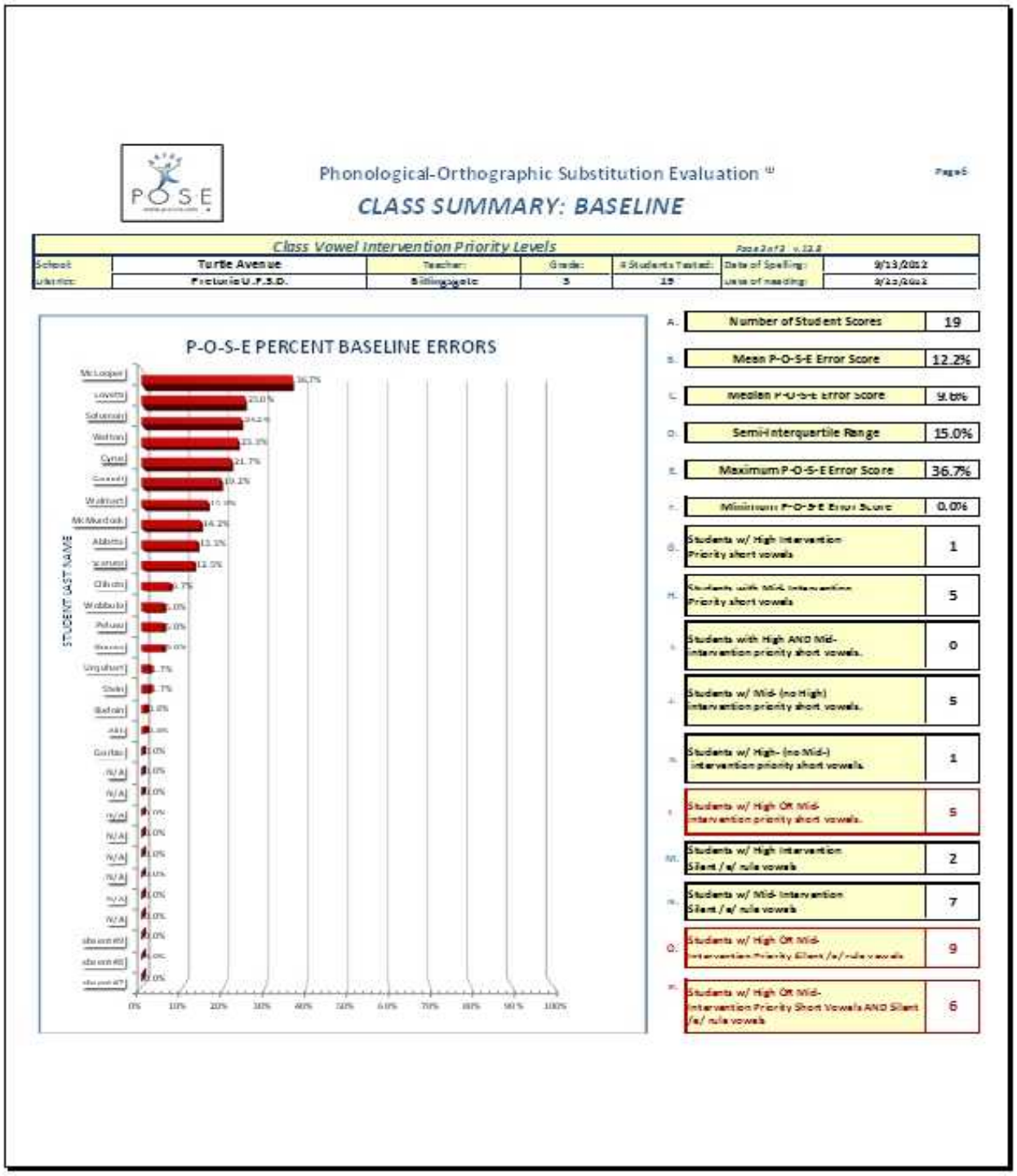
CLASS SUMMARY BASELINE

Class Vowel Intervention Priority Levels

School:	Turtle Avenue	Teacher:	Grade:	# Students Tested:	Date of Spelling:	9/13/2012
District:	Pretoria U.F.S.D.	Billingsgate	3	19	Date of Reading:	9/25/2012

#		Last Name	First name																
		IF NAME IS OMITTED, SCORE IS VOID												ă	ĕ	ĭ	ŏ	ŭ	
16	16	Scafuto	Neil	0	0	1	9		12			S	0	0	0	0	1	5	12.5%
												R	0	2	0	0	0	7	
17	17	Stein	Ariel	0	0	0	10				2	S	0	0	0	0	0	0	1.7%
												R	0	0	0	0	0	2	
18	18	Solomon	Kenny	0	0	0	10	28				S	0	0	0	0	0	12	24.2%
												R	0	0	1	0	0	16	
19	19	Urquhart	Miquel	0	0	0	10				1	S	0	0	0	1	0	1	1.7%
												R	0	0	0	0	0	0	
20	20	Welmart	Gail	0	0	0	10		16			S	0	0	0	1	1	9	15.8%
												R	0	0	0	1	0	7	
21	21	Welton	Sam	0	2	3	5		12			S	1	3	0	1	0	7	23.3%
												R	2	4	1	2	2	5	
22	22	Wobbulo	Candace	0	0	0	10			5		S	0	0	0	0	1	0	5.0%
												R	0	0	0	0	0	5	
23												S							
												R							
24												S							
												R							
25												S							
												R							
26												S							
												R							
27												S							
												R							
28												S							
												R							
29												S							
												R							
30												S							
												R							

APPENDIX 4: Optional Class RTI Report p.6 BASELINE individual P-O-S-E© results bar graph in decreasing order of severity.



Phonological-Orthographic Substitution Evaluation ©

Page 6

CLASS SUMMARY: BASELINE

Class Vowel Intervention Priority Levels

School:	Turtle Avenue	Teacher:	Grade:	# Students Tested:	Date of Spelling:	9/13/2012
District:	Fictoria U.F.S.D.	Bilingual	5	19	Date of reading:	9/22/2012

P-O-S-E PERCENT BASELINE ERRORS

STUDENT LAST NAME

A.	Number of Student Scores	19
B.	Mean P-O-S-E Error Score	12.2%
C.	Median P-O-S-E Error Score	9.8%
D.	Semi-Interquartile Range	15.0%
E.	Maximum P-O-S-E Error Score	36.7%
F.	Minimum P-O-S-E Error Score	0.0%
G.	Students w/ High Intervention Priority short vowels	1
H.	Students with Mid-Intervention Priority short vowels	5
I.	Students with High AND Mid-Intervention priority short vowels.	0
J.	Students w/ Mid- (no High) intervention priority short vowels.	5
K.	Students w/ High- (no Mid-) intervention priority short vowels.	1
L.	Students w/ High OR Mid-intervention priority short vowels.	5
M.	Students w/ High Intervention Silent /e/ rule vowels	2
N.	Students w/ Mid- Intervention Silent /e/ rule vowels	7
O.	Students w/ High OR Mid-Intervention Priority Silent /e/ rule vowels	9
P.	Students w/ High OR Mid-Intervention Priority Short Vowels AND Silent /e/ rule vowels	6

APPENDIX 4: Optional Class RTI Report p.7 RTI individual P-O-S-E© results students 1-15

Page 7

Phonological-Orthographic Substitution Evaluation ©

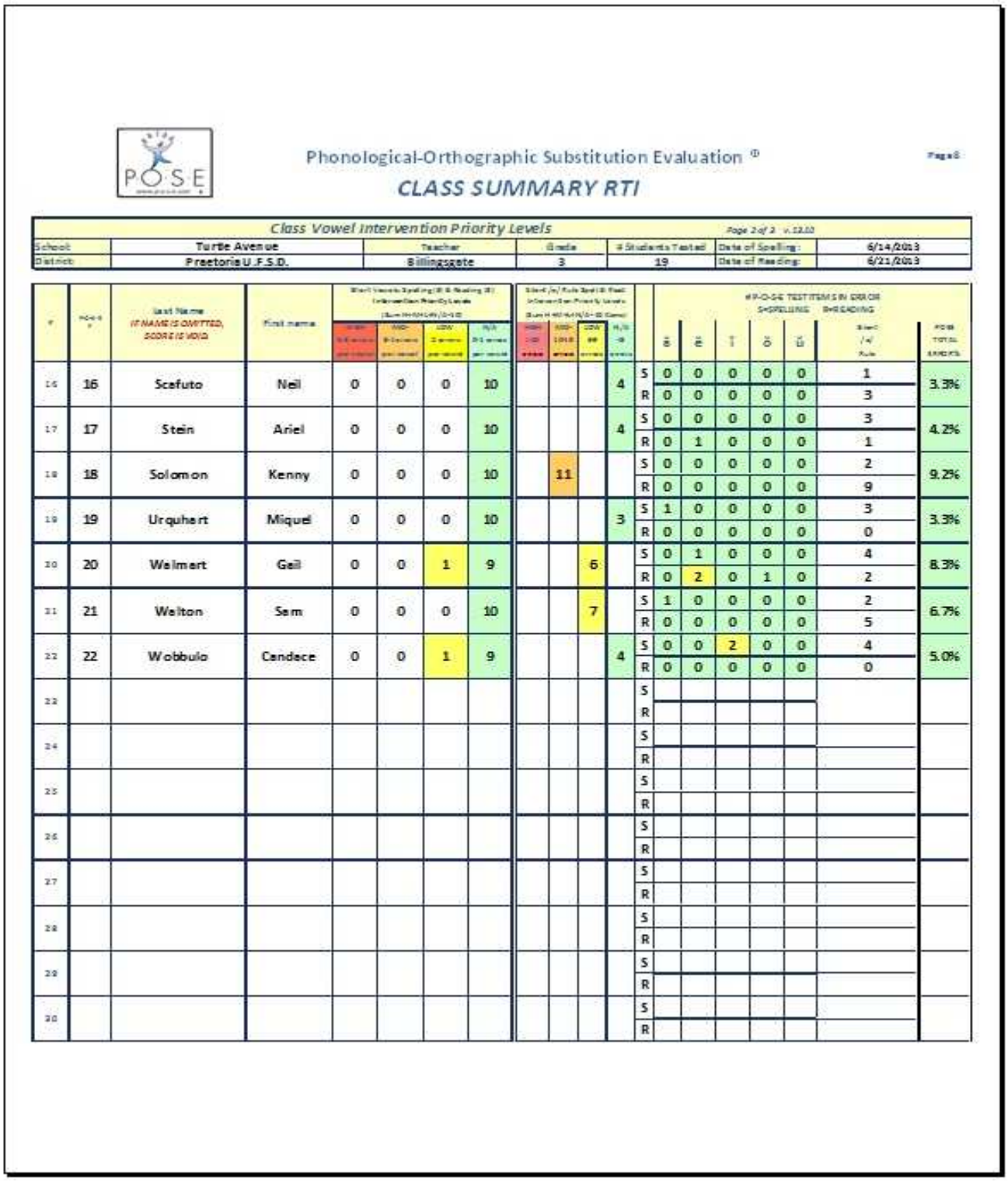
CLASS SUMMARY RTI

Class Vowel Intervention Priority Levels — Page 1 of 2

School:	Turtle Avenue	Teacher:	Grade:	# Students Tested:	Date of Spelling: 6/14/2013
District:	Preetoria U.F.S.D.	Billingsgate	3	19	Date of Reading: 6/21/2013

Class #	POSE #	Last Name IF NAME IS OMITTED, SCORE IS VOID	First name	Vowel HIGH	Vowel MED	Vowel LOW	Vowel N/A	Rule HIGH	Rule MED	Rule LOW	Rule N/A		ă	ĕ	ĭ	ŏ	ŭ	Short [illegible]	TOTAL ERRORS
1	1	Ablette	Mahfouz	0	0	1	9				4	S	0	0	0	2	0	4	5.0%
												R	0	0	0	0	0	0	
2	2	Alik	Mishke	0	0	0	10				1	S	0	0	0	0	0	0	0.8%
												R	0	0	0	0	0	1	
3	3	Budoin	Luke	0	0	0	10				1	S	0	0	0	0	0	1	0.8%
												R	0	0	0	0	0	0	
4	4	Cyrus	Miley	0	0	0	10				1	S	0	0	0	0	0	0	1.7%
												R	0	1	0	0	0	1	
5	1	Clibots	Hillary	0	0	0	10				2	S	0	0	0	0	0	1	1.7%
												R	0	0	0	0	0	1	
6	6	Cannoli	Morgan	0	0	0	10				3	S	0	0	0	0	0	3	2.5%
												R	0	0	0	0	0	0	
7	7	Donit	Antoin									S							
												R							
8	8	Daly	Thomas									S							
												R							
9	9	Floem	George									S							
												R							
10	10	Gomes	Reynard	0	0	0	10		10			S	0	0	0	0	0	7	8.3%
												R	0	0	0	0	0	3	
11	11	Gorbie	Julie	0	0	0	10				0	S	0	0	0	0	0	0	0.0%
												R	0	0	0	0	0	0	
12	12	McLooper	Condon	0	0	0	10		18			S	0	0	0	0	0	12	15.0%
												R	0	0	0	0	0	6	
13	13	McMurdock	Mollie	0	0	0	10				4	S	0	0	0	0	0	2	3.3%
												R	0	0	0	0	0	2	
14	14	Lovetti	Guso	0	1	0	9		14			S	0	0	1	1	3	9	15.8%
												R	0	0	0	0	0	5	
15	15	Peluso	Marie	0	0	0	10				4	S	0	0	0	0	0	2	3.3%
												R	0	0	0	0	0	2	

APPENDIX 4: Optional Class RTI Report p.8 RTI individual P-O-S-E© results students 16-30



Phonological-Orthographic Substitution Evaluation ®

CLASS SUMMARY RTI

Class Vowel Intervention Priority Levels

School:	Turtle Avenue	Teacher		Grade	3	# Students Tested	19	Date of Spelling:	6/14/2013
District:	Preetoria U.F.S.D.		Billingsgate					Date of Reading:	6/21/2013

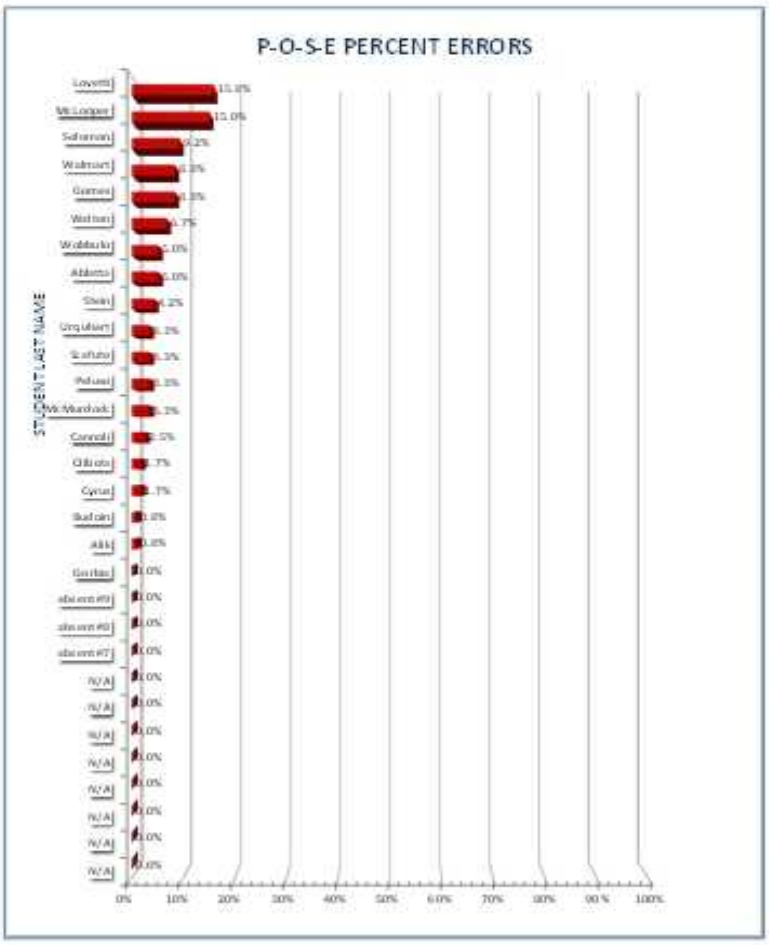
#	Last Name (IF NAME IS OMITTED, SCORE IS VOID)	First name												P-O-S-E TEST ITEMS IN ERROR SPELLING						
														ă	ĕ	ĭ	ŏ	ŭ	Short /a/ Rule	
16	16	Scefuto	Neil	0	0	0	10				4	S	0	0	0	0	0	1	3.3%
												R	0	0	0	0	0	3	
17	17	Stein	Ariel	0	0	0	10				4	S	0	0	0	0	0	3	4.2%
												R	0	1	0	0	0	1	
18	18	Solomon	Kenny	0	0	0	10		11			S	0	0	0	0	0	2	9.2%
												R	0	0	0	0	0	9	
19	19	Urquhart	Miquel	0	0	0	10				3	S	1	0	0	0	0	3	3.3%
												R	0	0	0	0	0	0	
20	20	Welmart	Gail	0	0	1	9			6		S	0	1	0	0	0	4	8.3%
												R	0	2	0	1	0	2	
21	21	Welton	Sam	0	0	0	10			7		S	1	0	0	0	0	2	6.7%
												R	0	0	0	0	0	5	
22	22	Wobbulo	Candece	0	0	1	9				4	S	0	0	2	0	0	4	5.0%
												R	0	0	0	0	0	0	
23												S							
												R							
24												S							
												R							
25												S							
												R							
26												S							
												R							
27												S							
												R							
28												S							
												R							
29												S							
												R							
30												S							
												R							

APPENDIX 4: Optional Class RTI Report p.9 RTI individual P-O-S-E© results bar graph in order of severity.

Phonological-Orthographic Substitution Evaluation ®

CLASS SUMMARY RTI

Class Vowel Intervention Priority Levels						
School:	Turtle Avenue	Teacher:	Grade:	# Students Tested:	Date of Spelling:	6/14/2013
District:	Pretoria U.F.S.D.	Billingsgate	3	19	Date of Reading:	6/21/2013



A.	Number of Student Scores	19
B.	Mean P-O-S-E Error Score	5.2%
C.	Median P-O-S-E Error Score	3.3%
D.	Semi-Interquartile Range	5.0%
E.	Maximum P-O-S-E Error Score	15.8%
F.	Minimum P-O-S-E Error Score	0.0%
G.	Students w/ High Intervention Priority short vowels	0
H.	Students with Mid- Intervention Priority short vowels	1
I.	Students with High AND Mid-intervention priority short vowels.	0
J.	Students w/ Mid- (no High) intervention priority short vowels.	1
K.	Students w/ High- (no Mid-) intervention priority short vowels.	0
L.	Students w/ High OR Mid-intervention priority short vowels.	1
M.	Students w/ High Intervention Silent /e/ rule vowels	0
N.	Students w/ Mid- Intervention Silent /e/ rule vowels	4
O.	Students w/ High OR Mid-intervention Priority Silent /e/ rule vowels	4
P.	Students w/ High OR Mid-intervention Priority Short Vowels AND Silent /e/ rule vowels	1

APPENDIX 4: Optional Class RTI Report *Glossary: Class Report Variables A-F*

P-O-S-E© GLOSSARY

P-O-S-E© CLASS REPORT DEFINITIONS

A. **Number of Student Scores**

Number of students who have completed BOTH the P-O-S-E Baseline Test and the P-O-S-E RTI Test. Students absent from either P-O-S-E test have been extracted from the comparison data report (balanced). The number of students is then the same for both Baseline and RTI data.

B. **Mean P-O-S-E Error Score**

This is the AVERAGE P-O-S-E Percent Error score for the edited class data. Half the SUM of the scores is above the mean and half the SUM of the scores is below the mean. The mean can be elevated by relatively large numbers of extreme scores

C. **Median P-O-S-E Error Score**

The median is a practical measure of central tendency that describes the MIDDLE SCORE in a class. One-half of the STUDENTS had P-O-S-E error scores above the median and one-half of the STUDENTS had P-O-S-E scores below the median. This is a more practical descriptor for school settings.

D. **Semi-Interquartile Range**

This measure of data dispersion describes the difference between the P-O-S-E error scores of students at the 25th percentile and at the 75th percentile.

E. **Maximum P-O-S-E Error Score**

This is the highest P-O-S-E percent error score obtained by any student in the class. More than one student can achieve maximum P-O-S-E error scores.

APPENDIX 4: Optional Class RTI Report *Glossary: Class Report Variables F-J*

F. **Minimum P-O-S-E Error Score**

This is the lowest P-O-S-E percent error score obtained by any student in the class. More than one student can achieve minimum P-O-S-E error scores.

G. **Students w/ High Intervention Priority short vowels**

The number of students with one or more short vowels in reading or in spelling in the HIGH intervention priority level category.

H. **Students with Mid- Intervention Priority short vowels**

The number of students with one or more short vowels in reading or in spelling in the MID- intervention priority level category.

I. **Students with High AND Mid- intervention priority short vowels.**

The number of students with one or more short vowels in reading or in spelling in BOTH the MID- AND in the HIGH intervention priority level category.

J. **Students w/ Mid- (no High) intervention priority short vowels.**

The number of students with one or more short vowels in reading or in spelling in the MID- intervention priority level category with NO HIGH intervention priority level category errors.

APPENDIX 4: Optional Class RTI Report *Glossary : Class Report Variables K-P*

K. **Students w/ High- (no Mid-) intervention priority short vowels.**

The number of students with one or more short vowels in reading or in spelling in the HIGH intervention priority level category with NO MID- intervention priority level category errors.

L. **Students w/ High OR Mid- intervention priority short vowels. ***

The number of students with one or more short vowels in reading or in spelling in EITHER the MID- OR in the HIGH intervention priority level category.

M. **Students w/ High Intervention Silent /e/ rule vowels**

The number of students with one or more Silent /e/ rule vowels in reading or in spelling in the HIGH intervention priority level category.

N. **Students w/ Mid- Intervention Silent /e/ rule vowels**

The number of students with one or more Silent /e/ rule vowels in reading or in spelling in the MID- intervention priority level category.

O. **Students w/ High OR Mid- Intervention Priority Silent /e/ rule vowels. ***

The number of students with one or more Silent /e/ rule vowels in reading or in spelling in EITHER the MID- OR in the HIGH intervention priority level category.

P. **Students w/ High OR Mid- Intervention Priority Short Vowels AND Silent /e/ rule vowels ***

The number of students with one or more BOTH Short Vowel AND Silent /e/ rule vowels in reading or in spelling in EITHER the MID- OR in the HIGH intervention priority level category

*** Students in significant need of attention.**

APPENDIX 5: POTENTIAL SOURCES OF P-O-S-E© SCORING RESPONSE BIAS

The examiner should be apprised that there are several potential sources of response bias in the processes of administration and scoring of the P-O-S-E ©

1. TALKER ORAL VARIABLES.

The basic P-O-S-E © non-word and real word Spelling class data were obtained using the live voice of a single female talker (senior author) with a General American speech characteristic enhanced through a consistent system of classroom amplification. The effects of examiner fundamental vocal frequency and articulation, regional and cultural accents in examiner or student sample populations, talker gender differences, alternative room acoustics and non-amplified group delivery have not been examined systematically.

2. CONVERTING THE CHILD'S ORTHOGRAPHIC SPELLING RESPONSE TO IMPLIED PHONOLOGY IN AHD FORMAT.

Spelling responses to both non-word and real word stimuli are transcribed in the individual child's own hand on prepared forms. It is the examiner's role to convert the child's orthographic representation of the orally dictated non- and real CVC, CCVCC and Silent /e/ words into equivalent General American English phonology using AHD (American Heritage Dictionary) phonetic symbols generically employed in elementary education. All scoring in the original study was performed by the authors, all of whom are proficient in both AHD and IPA (International Phonetic Alphabet) transcription. Competence of the examiner in AHD transcription is a requirement for valid administration and scoring of the P-O-S-E© A specialized computer application was written (available as an optional service) for the initial validation study to translate the child's spelled vowel response to a consistent phonetic equivalent.

The irregular nature of English spelling results in occasional alternative vowel transcriptions, most often digraphs. If the exceptional spelling effectively replicated the target vowel phoneme, it was scored "correct". Other exceptions were rejected, scored as either incorrect or "exception" (also incorrect). The table below describes suggested vowel digraph scorings.

Another possible source of scoring error arises in the examiner misreading the child's own orthographic representations in his or her handwriting. It is helpful, when

spelling is graphically in doubt, to seek other examples of that letter elsewhere on the Spelling response sheets.

Omitted whole word and vowel responses are scored as errors. To reduce missed identification of alternative vowel spellings, a list of acceptable exceptions is included in the P-O-S-E© clinical test manual.

3. TRANSCRIBING THE CHILD'S ORAL READING RESPONSE TO AHD FORMAT.

In a school setting, the Spelling portion of the P-O-S-E© is administered to an entire class/group and is scored subsequently by the examiner on an individual basis. The Reading portion of the P-O-S-E©, given at least one week later, is administered to each child, individually with spoken responses transcribed contemporaneously in AHD by the examiner. A possible source of Reading scoring error can arise from mishearing or an inconsistent phonetic vowel representation by the examiner. For ESL (English as Second Language) students, the examiner is encouraged to transcribe the perceived spoken vowel phoneme as the nearest General American English equivalent in the phonological neighborhood.

Practice P-O-S-E© Spelling and Reading transcription experience is provided for P-O-S-E© examiners on the website www.P-O-S-E.net.

P-O-S-E© SUGGESTED SCORING FOR SPELLING VOWEL DIGRAPH SUBSTITUTION ERRORS						
DIGRAPH TYPE	DESCRIPTION	ORTHOGRAPHY	CONTEXT	CVVC EXAMPLE	PHONEME	**P-O-S-E© SCORED AS**
Doubled vowel	consistent	ee	all	feed	ē	**ē**
	context-driven	oo	oo + k	took, look	ŏŏ	**ŏŏ**
	context-driven+ambiguous	oo	oo + t,d	foot, good	ŏŏ	**(ū)**
	"	oo		boot, mood	ū	**ū**
	invalid	aa				**exception**
	"	ii				**exception**
	"	uu				**exception**
2 different vowels	invalid	ae				**exception**
	ambiguous+likelihood	ai		bait, raid,rain	ā	**ā**
	ambiguous+likelihood	ai		said, lair	ĕ	**(ā)**
	invalid	ao				**exception**
	consistent	au		laud,	ô	**ô**
	ambiguous	ea		read	ĕ	**exception**
	ambiguous	ea		read	ē	**exception**
	ambiguous	ei		rein	ā	**exception**
	invalid	eo				**exception**
	consistent (dipthong)	eu		feud	ĭŭ	**exception**
	consistent (dipthong)	ia		liar	ŏĭr	**exception**
	ambiguous	ie		lied	ī	**exception**
	ambiguous (dipthong)	ie		view	ĭū	**exception**
	diphthong	io		lion	ĭŭ	**exception**
	invalid	iu				**exception**
	ambiguous+likelihood	oa		road	ō	**ō**
	ambiguous+likelihood	oa		(br)oad	ô	**ô**
	ambiguous+likelihood	oe		roe, doe	ō	**ō**
	ambiguous+likelihood (diphthong)	oe		poem	ōĕ	**ō**
	consistent (dipthong)	oi		boil	ôĭ	**exception**
	ambiguous (/diphthong)	ou		loud	ăŭ	**exception**
	ambiguous	ou		soul	ō	**exception**
	ambiguous	ou		four	ô	**exception**
	diphthong	ua		dual	ūŭ	**exception**
	ambiguous (/diphthong)	ue		duet	ūĕ	**ū**
	"	ue		cued	ū	**ū**
	ambiguous (+ /e/)	ui		suit, (fr)uit	ū	**exception**
	"	ui		suite	ŭĭ	**exception**
	invalid	uo				**exception**
Vowel + Consonant	consistent	ay		ray	ā	**ā**
	"	aw		raw, raw	ô	ô
	ambiguous	ew		new	ū	exception
	ambiguous	ew		sew	ō	exception
	ambiguous	ow		low	ō	exception
	ambiguous	ow		now, how	ăŭ	exception
	consistent	oy		Boy, toy	ôĭ	ôĭ
(Trigraph)	consistent	igh		high, sigh	ī	ī