Literacy Assessment Project Grade 3 2013-14 Mineola U.F.S.D

P-O-S-E©, F & P Benchmarks, NWEA Reading, ELA

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Introduction Grade 3 2013-14

Three Baseline Literacy-Related Measures + ELA Grade 3 Mineola U.F.S.D. 2013-14

* All available Grade 3 students were baseline-tested in 2013-14 on the P-O-S-E, F & P Benchmark, NWEA MAP RIT. Among Grade 3 students, 180 took all three baseline tests as well as the year-end NYS ELA. (Table 1)
* The mean Grade 3 2013-14 P-O-S-E baseline **error** score of 17.4% (n=180) exceeded slightly (1.1%) the 2012-13 Grade 3 baseline of 16.3% (n=196) and exceeded significantly the POB 2006-7 Grade 3 Baseline of 12.3% (n=275)
* The mean F & P Benchmark 2013-14 Grade 3 baseline score of 14.4 or N+ exceeds the F & P norm of N for beginning Grade 3. The 2012-13 Baseline Benchmark (n= 191) was 13.4 or M+ consistent with end of Grade 2.
* The mean baseline NWEA MAP RIT for Grade 3 2013-14 was 191.3. The same baseline score for 2012-13 (n=191) was 191.8, virtually identical. Baseline NWEA Reading scores for both years exceeded the NWEA Reading 2011 Grade 3 normative value of 189.9.

P·O·S·E

Observation: unrestricted population 2013-14 Grade 3 baseline Benchmark and NWEA Reading scores are grade-appropriate. P-O-S-E baseline scores are comparable to 2012-13 data.

Grade 3 Mineola U.F.S.D. Literacy Baseline Scores 2013-14 Descriptive Statistics (n=180)					
	% POSE	Benchmark	NWEA Read.	ELA	ELA raw
Mean	17.4%	14.4 N+	191.3	304.4	26.6
Standard Error	0.9%	0.2	2.0	2.3	0.6
Median	15.4%	15.0 O	192.0	305.5	26.5
Mode	40.0%	16.0 P	187.0	300.0	25.0
Standard Deviation	12.5%	2.9	26.3	31.2	8.1
Sample Variance	1.6%	8.5	693.1	973.3	65.3
Kurtosis	0.2	2.3	84.4	0.2	-0.7
Skewness	0.9	-0.9	7.5	-0.4	0.0
Range	51.7%	19	335	180	38
Minimum	0.8%	1 A	148	196	6
Maximum	52.5%	20 T	483	376	44
Sum	3133.3%	2588	34431	54784	4788
Count	180	180	180	180	180

Table 1

Takeaway 1 Baseline Data:

* Baseline scores on the P-O-S-E, F&P Benchmark and NWEA Reading for Grade 3 2013-14 were:
  * A. In agreement with beginning grade-appropriate norms for all three tests.
  * B. Consistent with data for Grade 3, 2012-13 with the exception that 2013-14 baseline Benchmark scores for ALL (180) Grade 3 students were a full letter grade **higher** than the prior year.

RTI Grade 3 2013-14, 2012-13

P-O-S-E, F & P Benchmark, NWEA Reading

Significant Grade 3 RTI Improvement in P-O-S-E, Benchmark and NWEA Reading scores for 2013-2014

- An administrative decision limited P-O-S-E RTI testing in 2013-14 to only those Grade 3 students with error scores having low, mid- and high intervention priorities. Consequently, the total n for inter-test, baseline-RTI comparison that year was reduced to n=96 creating a negative baseline bias.
- A statistically significant improvement in RTI for Grade 3 literacy 2013-2014 was measured on the P-O-S-E, Fountas & Pinnell Benchmarks and NWEA MAP RIT. Table 2 presents all 2013-14 matched student Baseline - RTI literacy scores (n=96).
- Table 3 shows comparable data from 2012-13 (n=191). Note the statistical artifact of better baseline scores on all tests.
- Relatively poorer scores in 2013-14 are an artifact of restricting the RTI database to students with P-O-S-E error scores >/= 12.5%

Observation: Average Baseline scores on P-O-S-E, Benchmark and NWEA Reading are lowered because the population for RTI was restricted to Baseline P-O-S-E scores >= 12.5%.

Grade 3 Mineola U.F.S.D. Literacy Baseline v. RTI Scores 2013-14 Matched student sets (Baseline P-O-S-E© >= 12.5% Decriptive statistics (n=96)								
Grade 3 2013-14	*POSE Base*	*POSE RTI*	*Benchmark Base*		*Benchmark RTI*		*NWEA Base*	*NWEA RTI*	*ELA*
Mean	24.8%	15.1%	13.3	M+	16.7	Q-	184.8	197.5	292.0
Standard Error	1.1%	0.9%	0.3		0.3		1.5	1.1	3.0
Median	20.8%	13.3%	13	M	17	Q	187	198	293
Mode	40.0%	8.3%	12	L	16	P	187	204	264
Standard Deviation	11.2%	9.3%	2.8		2.6		14.5	10.6	29.3
Sample Variance	1.3%	0.9%	7.7		6.7		210.4	111.9	855.9
Kurtosis	-0.12	0.52	0.84		0.90		-0.45	0.20	0.70
Skewness	0.86	1.07	-0.29		-0.32		-0.53	-0.41	-0.32
Range	47.5%	38.3%	16		13		62	51	167
Minimum	5.0%	2.5%	4	D	9	I	148	169	196
Maximum	52.5%	40.8%	20	T	22	V	210	220	363
Sum	2379.2%	1451.7%	1280		1606		17737	18957	28032
Count	96	96	96		96		96	96	96

Table 2

Observation: All improvements in performance on P-O-S-E, Benchmark and NWEA Reading are HIGHLY statistically significant.

Grade 3 Mineola U.F.S.D. Literacy Baseline v. RTI Scores 2013-14 Matched student Sets (Baseline P-O-S-E© >= 12.5% t-Test of differences (n=96)						
Grade 3 2013-14	% POSE Base	% POSE RTI	Benchmark Base	Benchmark RTI	NWEA Base	NWEA RTI
Mean	24.8%	15.1%	13.3 M+	16.7 Q-	184.8	197.5
Variance	1.3%	0.9%	7.7	6.7	210.4	111.9
Net Change (Improvement)	9.7%		3.40		12.7	
Observations	96	96	96	96	96	96
Pearson Correlation	0.62		0.88		0.67	
Hypothesized Mean Difference	0		0		0	
df	95		95		95	
t Stat	10.4031		-24.9490		-11.4781	
P(T<=t) one-tail	1.1402E-17		8.5643E-44		6.0172E-20	
t Critical one-tail	1.6611		1.6611		1.6611	
P(T<=t) two-tail	2.2804E-17		1.7129E-43		1.2034E-19	
t Critical two-tail	1.9853		1.9853		1.9853	

Table 2

Grade 3 MIneola U.F.S.D. LIteracy BaselIne vs. RTI Scores 2012-13 191 matched sets of students						
Grade 3 2012-13	POSE Base	POSE rti	Ben Base#	Ben rti#	NWEA Base	NWEA RTI
Mean	**16.3%**	**9.3%**	**13.32**	**16.74**	**186.75**	**204.28**
Variance	2.1%	0.9%	7.24	10.87	109.33	115.38
Net Change (Improvement)	**7.0%**		**3.42**		**17.53**	
Observations	191	191	191	191	96	96
Pearson Correlation	**0.78**		**0.91**		**0.73**	
Hypothesized Mean Difference	0.0%		0.00		0.00	
df	190		190.00		95.00	
t Stat	10.53		-33.39		-21.86	
P(T<=t) one-tail	0.0000		0.0000		0.0000	
t Critical one-tail	1.65		1.65		1.66	
P(T<=t) two-tail	0.0000		0.0000		0.0000	
t Critical two-tail	1.97		1.97		1.99	

Table 3

Takeaway 2 P-O-S-E / Benchmark / NWEA:

* Baseline vs. scores on the P-O-S-E, F&P Benchmark and NWEA Reading for Grade 3, 2013-14 all demonstrated:
  * A. Significant improvement noted for all three tests achieving desired end-of-year performance levels (Table 2).
  * B. Direct comparison with 2012-13 outcomes (Table 3) is affected by elimination of students from P-O-S-E RTI measures from 2013-14 data if baseline error score >= 12.5%.

ELA Grade 3 2013-14, 2012-13

Significant Improvement in Literacy Conflicts With ELA Test Outcomes in 2013-2014

* In stark contrast to RTI gains in P-O-S-E, Benchmark and NWEA Reading, Grade 3, ELA performance scores declined precipitously in 2014 (lowest ELA % literacy-proficiency Grades 3-8) relative to 2013 (highest school ELA % literacy-proficiency Grades 3-8).
* In addition, Grade 4, scoring highest as Grade 3 in the prior year, tied in 2014 for the second lowest ELA literacy proficiency score. (Chart 1, Table 4)

Observation: NYS ELA Scores for 2014 Grades 3 and 4 are inconsistent with other valid metrics of literacy.

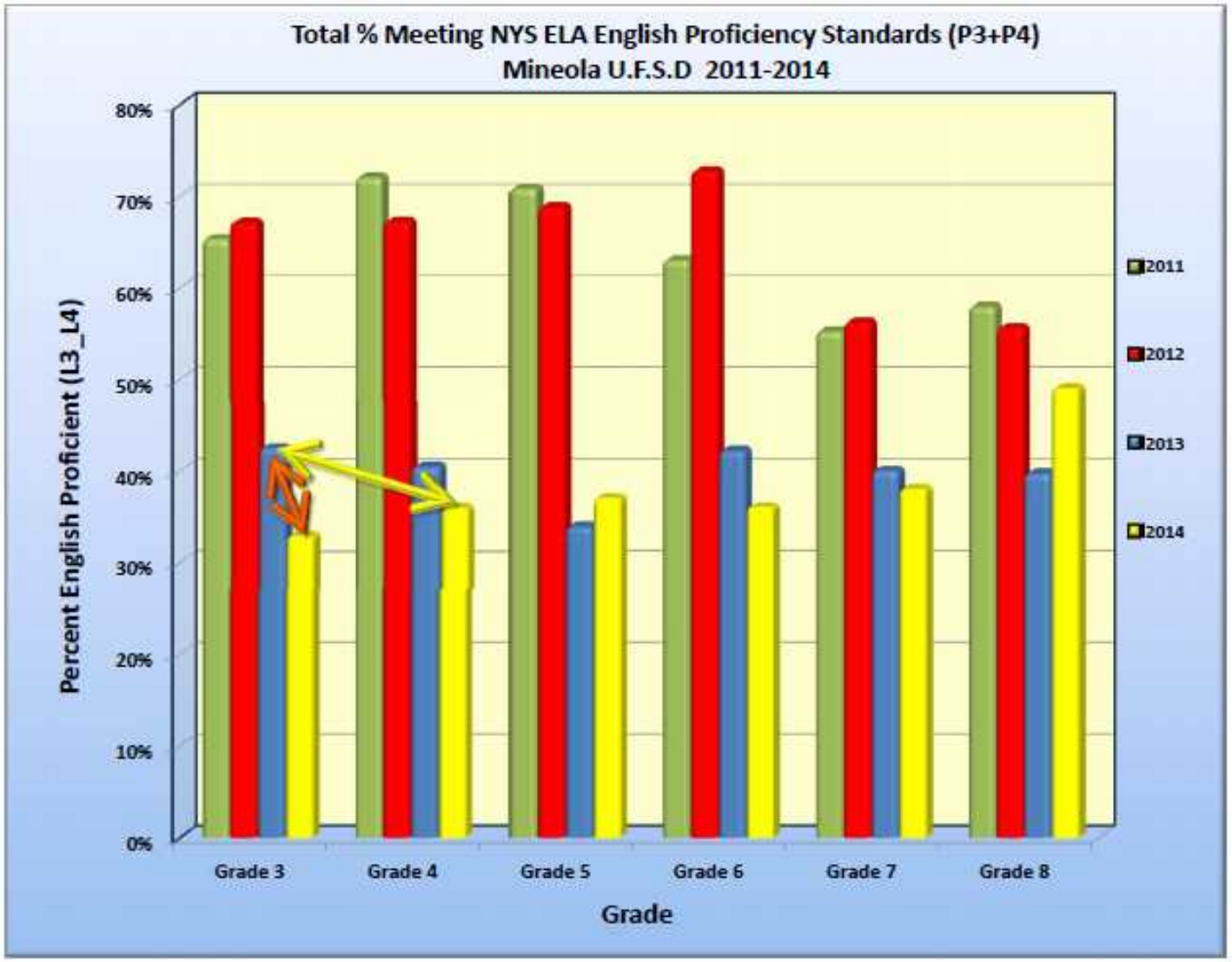


Chart 1

Observation: NYS ELA Scores for 2014 Grades 3 and 4 are inconsistent with other valid metrics of literacy.

Mineola U.F.S.D Total % Meeting ELA English Proficiency Standards 2011-2014						
	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
2014	33.0%	36.0%	37.0%	36.0%	38.0%	49.0%
2013	42.5%	40.5%	33.9%	42.2%	40.0%	39.7%
2012	67.1%	67.2%	68.8%	72.7%	56.2%	55.6%
2011	65.3%	72.0%	70.8%	63.0%	55.2%	57.9%

Table 4

Takeaway 3 NYS ELA:

* Grade 3 NYS ELA literacy proficiency data for 2013-14 are discrepant from findings on the P-O-S-E, F & P Benchmarks and NWEA Reading assessment instruments for the same year.
* Grade 4 NYS ELA literacy proficiency data for 2013-14 are discrepant from findings on the P-O-S-E, F & P Benchmarks and NWEA Reading tests for the prior year.

F & P Benchmarks Grade 3
2012-13; 2013-14

Chart 2 Benchmark- Grade 3 2012-2013 w/ 191 students paired data

* On the X axis ⟷ are the letter grades used in presenting a *baseline* benchmark score
* On the Y axis ↕ are the number of students per level
* Read the chart by coordinating the letter grade with the number of students achieving that score
* The blue line —— designates the 2012-2013 population of students *baseline* benchmark scores
* The red line —— designates the 2012-2013 population of student *RTI* benchmark scores

Observation: Full poplation 2012-13 Grade 3 benchmark scores achieved grade appropriate levels for both Baseline and year-end RTI.

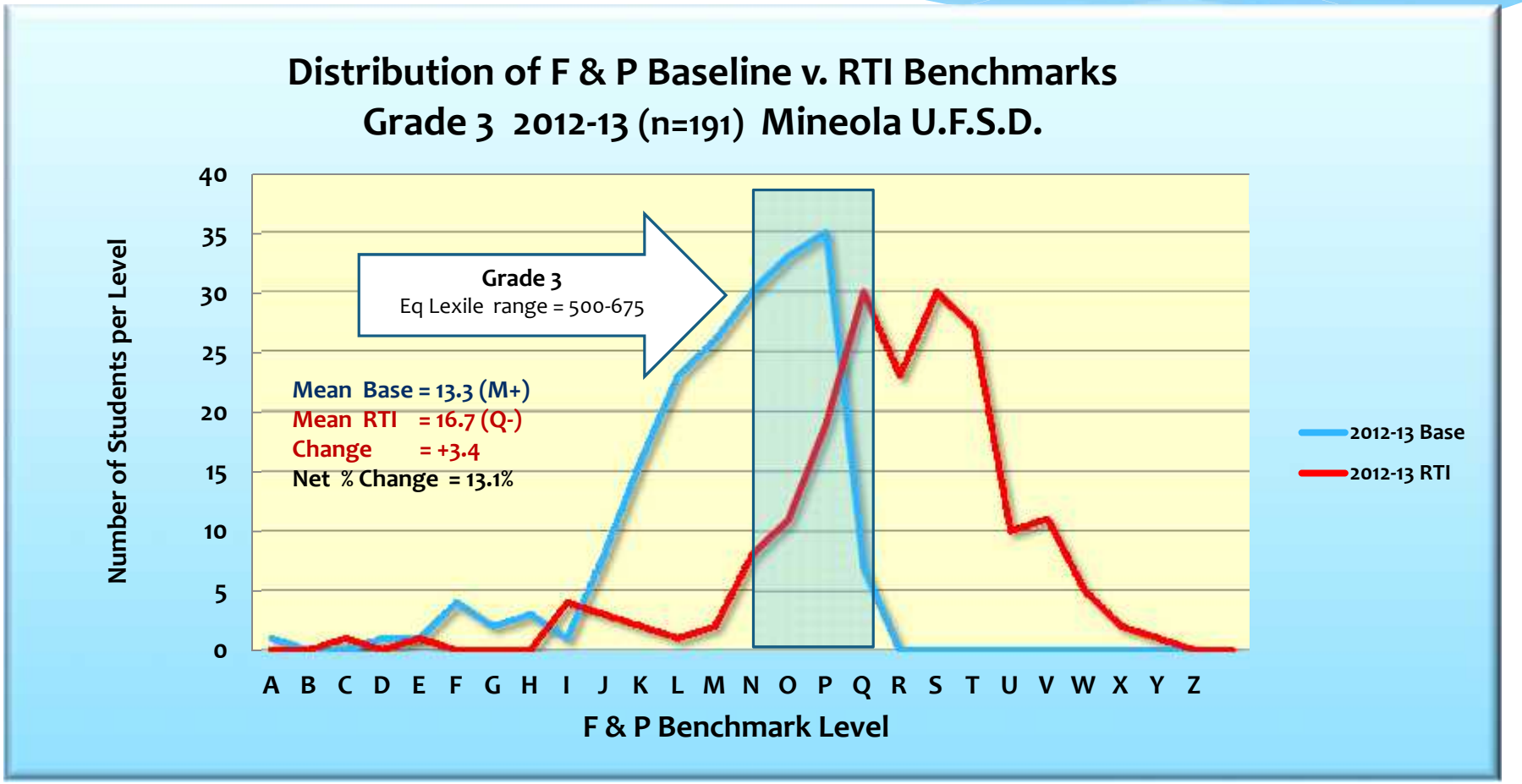


Chart 3 Benchmark- Grade 3 2013-2014 w/ 186 students paired data

* On the X axis ⟺ of Chart 3 are the letter grades used in determining a ***baseline*** benchmark
* On the Y axis ⇕ are the number of students per level
* Read the chart by coordinating the letter grade with the number of students achieving that score
* The blue line —— designates the 2012-2013 distribution of students *baseline* benchmark scores
* The red line —— designates the 2012-2013 distribution of student *RTI* benchmark scores

Observation: Full poplation 2013-14 Grade 3 benchmark scores achieved grade appropriate levels for both Baseline and year-end RTI –ONE LETTER GRADE HIGHER THAN THE PRIOR YEAR.

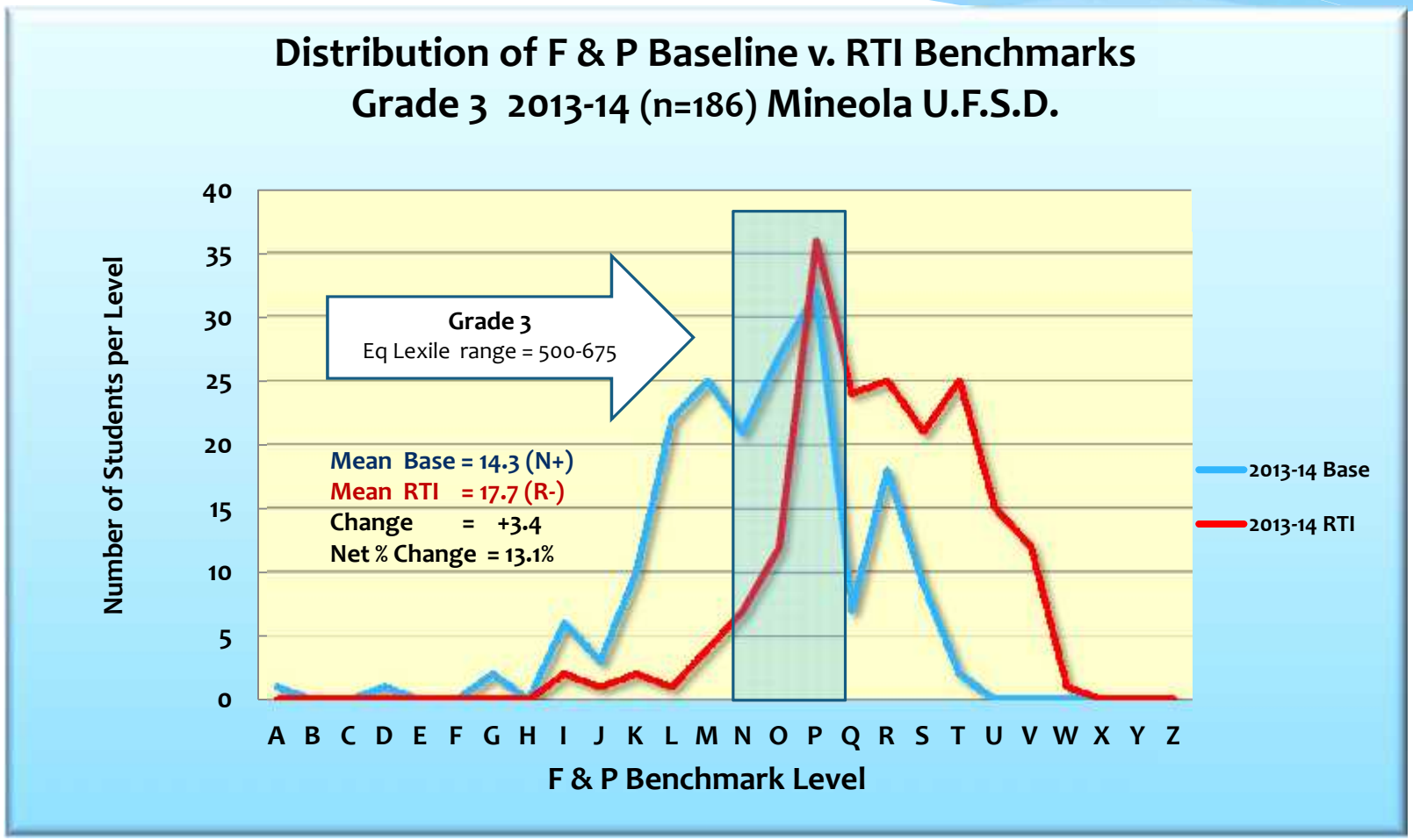


Chart 3

Observation: Baseline and RTI Benchmark scores are on-target for both years, one letter grade higher for 2013-14

Grade 3 F&P Benchmark Baseline vs. RTI Scores 2012-13 & 2013-14 Mineola U.F.S.D.

	2012-13 Baseline		*2012-13 RTI*		*2013-14 Baseline*		*2013-14 RTI*	
Mean	13.32	M+	16.74	Q-	14.34	N+	17.70	R-
Standard Error	0.19		0.24		0.21		0.19	
Median	14	N	17		15	O	18	
Mode	16	P	16		16	P	16	
Standard Deviation	2.69		3.31		2.89		2.64	
Sample Variance	7.24		10.97		8.38		6.97	
Kurtosis	2.94		2.98		2.28		0.55	
Skewness	-1.43		-1.18		-0.83		-0.51	
Range	16		22		19		14	
Minimum	1	A	2	B	1	A	9	I
Maximum	17	Q	24	X	20	T	23	W
Sum	2545		3148		2667		3327	
Count	191		188		186		188	

Table 5

Takeaway 4 F & P Benchmark:

* F & P Benchmarks demonstrated improvement of 3+ letter grades (13.1% n/26) in each of the two years 2014-4, 2012-13.

* Baseline – RTI P-O-S-E, F & P Benchmarks, and NWEA Reading shows progress on all 3 measures in the year 2013-2014

* This validated progress stands in contrast to the NYS ELA performance scores which fell significantly between 2013 and 2014.

NWEA Reading Grade 3
2013-14; 2012-13

Comparison of Baseline and RTI NWEA Reading in Grade 3 for 2013-14; 2012-13 (Tables 6,7)

* Grade 3 NWEA Reading scores improved over Baseline testing results in both 2013-14 and 2012-13. (Table 6)
* Grade 3 NWEA Baseline scores do not differ from 13-14 to 12-13. (Table 7)
* Grade 3 2012-13 NWEA RTI scores are statistically significantly higher than 2013-14 (209 vs. 201). (Table 7)

Observation: For both years, NWEA Baseline and RTI scores meet or exceed grade-appropriate norms.

Mineola U.F.S.D. Grade 3	NWEA RIT Reading Baseline vs. RTI			
	2013-14 N=186		2012-13 N=191	
Parameters	Base (Fall)	RTI (Spring)	Base (Fall)	RTI (Spring)
Mean	190.8	201.3	191.8	209.3
2011 NWEA Norm	*189.9*	*199.2*	*189.9*	*199.3*
Standard Error	1.9	0.8	0.8	0.9
Median	191	202.5	192	208
Mode	187	204	188	203
Standard Deviation	26.31	11.63	11.02	12.00
Sample Variance	692.40	135.25	121.39	143.93
Kurtosis	82.62	0.34	0.64	-0.17
Skewness	7.37	-0.17	-0.30	0.10
Range	335	67	65	66
Minimum	148	169	151	179
Maximum	483	236	216	245
Sum	35305	37842	36630	39970
Count	185	188	191	191

Table 6

Observation: For both years, NWEA Baseline scores are statistically identical. RTI scores for 2012-13 are significantly higher than 2013-14.

Mineola U.F.S.D. Grade 3	Mineola U.F.S.D. Grade 3 NWEA Reading Baseline 2013 vs 2014; RTI 2013-14 t-Test: Two-Sample Assuming Equal Variances			
Parameters	***Base 2013-14***	***Base 2012-13***	***RTI 2013-14***	***RTI 2012-13***
Mean	**190.84**	**191.78**	**201.29**	**209.27**
Variance	692.40	121.39	135.25	143.93
Observations	185	191	188	191
Pooled Variance	402.32		139.63	
Hypothesized Mean Difference	0		0	
Obtained Mean Difference		**0.94**		**7.98**
df	374		377	
t Stat	-0.46		-6.57	
P(T<=t) one-tail	0.32 **(NS)**		0.0000	
t Critical one-tail	1.65		1.65	
P(T<=t) two-tail	0.65 **(NS)**		0.0000	
t Critical two-tail	1.97		1.97	

Table 7

Takeaway 5 NWEA:

* NWEA MAP Reading scores for Grade 3 demonstrated significant improvement in each of the two years 2014-4 and 2012-13.
* The NWEA 2011 Grade 3 end-of-year norm, is 199.2. The Grade 2 end-of-year norm is 189.6.
* Both Baseline & RTI NWEA MAP Reading scores exceeded NWEA 2011 norms for both beginning and end of Grade 3.
* This validated progress stands in contrast to the Grade 3 NYS ELA scores which fell significantly between 2013 and 2014.

P-O-S-E© Grade 3 2013-14

(RTI testing limited by intervention priority status.)

P-O-S-E Analysis 2013-2014 Grade 3

* Table 8 shows average baseline P-O-S-E results of all 3rd grade students in 9 classes by teacher and total .
* Table 9 presents average RTI results analysis for the same students.
* Table 10 gives average differences (improvements) between Baseline and RTI for Grade 3 and individual classes.
* Table 11 lists average categorical differences (improvements) between Baseline and RTI for Grade 3 and individual classes.
* Special attention should be given to the numbers in red which are actionable variables.
* Restricting P-O-S-E RTI testing to Grade 3 students scoring =< 12.5% resulted in the loss of data on 70 students, creating a negative score bias.

Observation: Average % 2013-14 P-O-S-E error scores are higher than 2012-13 because students with Baseline error scores below 12.5% were eliminated from RTI testing.

P-O-S-E© Baseline Testing Jackson Avenue Elementary Grade 3
(Selected student paired data Mineola UFSD 2013-14 (9/18, 9/25)

Teacher:	1	2	3	4	5	6	7	8	9	MEAN	SUM
Baseline Descriptive Statistics											
Number of Student Scores	14	12	11	15	12	14	16	11	11	12.9	116
Mean P-O-S-E Error Score	25.2%	25.1%	19.8%	21.9%	20.0%	26.4%	29.0%	25.6%	20.2%	23.7%	
Median P-O-S-E Error Score	18.3%	21.7%	16.1%	20.6%	12.3%	25.0%	29.8%	16.7%	15.8%	19.6%	
Semi-Interquartile Range	22.1%	25.4%	17.5%	20.8%	14.2%	27.1%	28.0%	25.8%	17.5%	22.0%	
Maximum P-O-S-E Error Score	50.0%	45.8%	52.5%	42.5%	46.7%	50.8%	50.8%	40.0%	39.2%	46.5%	
Minimum P-O-S-E Error Score	10.0%	10.0%	11.7%	11.7%	10.8%	10.8%	10.8%	12.5%	11.7%	11.1%	

Table 8

Observation: Average % 2013-14 RTI P-O-S-E error scores are higher than 2012-13 because students with Baseline error scores below 12.5% were eliminated from RTI testing.

P-O-S-E© RTI Testing Jackson Avenue Elementary Grade 3 (Selected student paired data Mineola UFSD 2013-14 (9/18, 9/25)											
Teacher:	1	2	3	4	5	6	7	8	9	MEAN	SUM
RTI Descriptive Statistics											
Number of Student Scores	14	12	11	15	12	14	16	11	11	12.9	116
Mean P-O-S-E Error Score	13.7%	13.9%	11.5%	12.0%	12.3%	17.9%	18.3%	15.4%	13.9%	14.3%	
Median P-O-S-E Error Score	12.5%	11.3%	8.4%	11.7%	8.8%	16.3%	14.6%	13.3%	15.8%	12.5%	
Semi-Interquartile Range	11.3%	9.0%	6.3%	11.3%	7.7%	14.6%	14.8%	8.1%	10.3%	10.4%	
Maximum P-O-S-E Error Score	35.0%	31.7%	38.3%	24.2%	30.0%	36.7%	40.8%	37.5%	39.2%	34.8%	
Minimum P-O-S-E Error Score	3.3%	4.2%	4.2%	3.3%	5.0%	5.0%	7.5%	2.5%	0.8%	4.0%	

Observation: A net reduction in P-O-S-E error score of ~10% was achieved with the limited Grade 3 sample, greater than the unrestricted 2012-13 Grade 3 sample.

P-O-S-E© Net % Change Jackson Avenue Elementary
Grade 3 Students (n=116)
Mineola UFSD 2013-14 (9/14/13; 6/25/14)

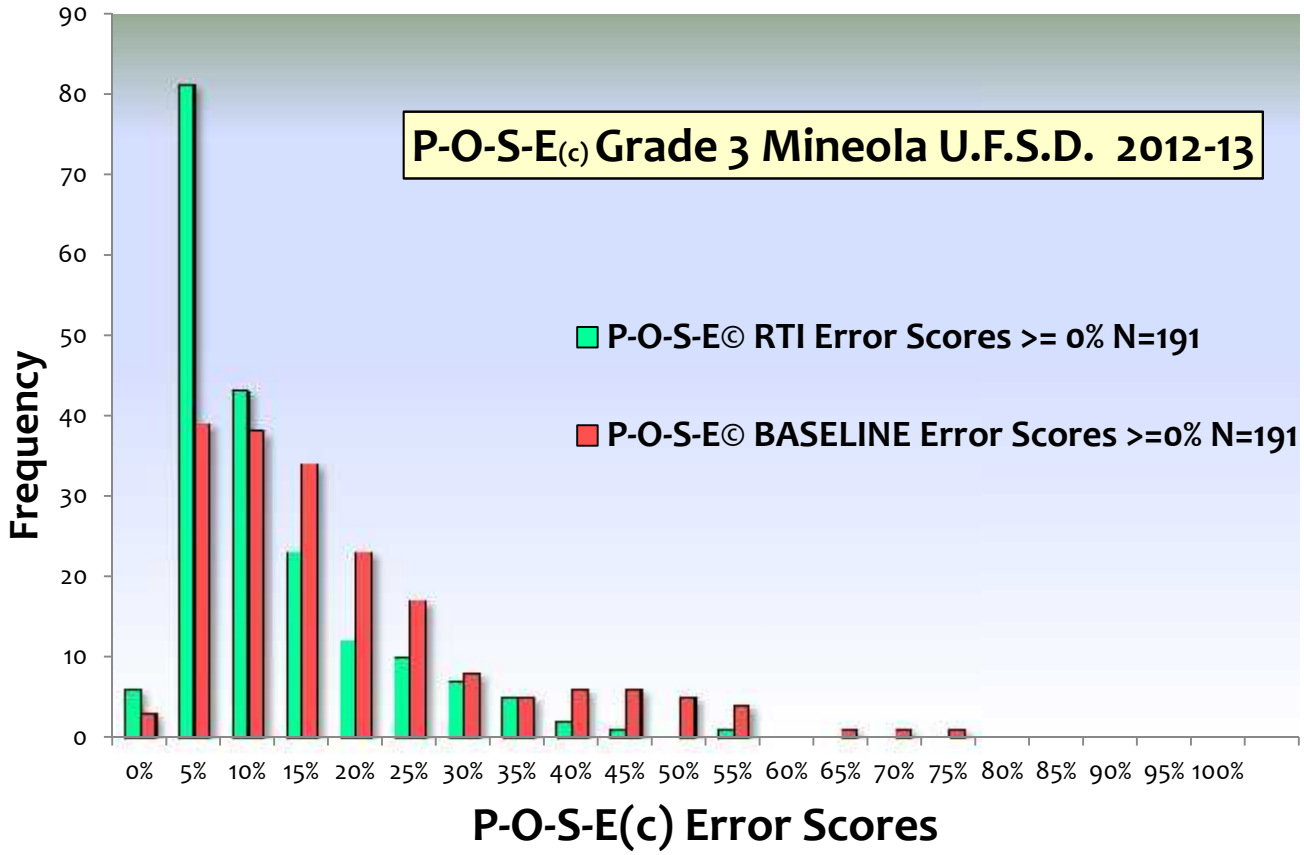
Teacher:	1	2	3	4	5	6	7	8	9	MEAN % Diff	n pairs	
Descriptive Statistics NET CHANGE (Base-RTI)												
Number of Paired Student Scores	14	12	11	15	12	14	16	11	11	12.9	116	
Mean P-O-S-E Error Score	-11.6%	-11.2%	-8.3%	-9.9%	-7.7%	-8.5%	-10.7%	-10.2%	-11.1%	-9.9%		
Median P-O-S-E Error Score	-5.8%	-16.4%	-7.8%	-9.5%	-3.6%	-8.8%	-15.2%	-3.4%	-8.3%	-8.8%		
Semi-Interquartile Range	-10.8%	-10.4%	-11.2%	-8.9%	-6.5%	-12.5%	-13.2%	-17.7%	-11.7%	-11.4%		
Maximum P-O-S-E Error Score	-15.0%	-14.1%	-14.2%	-18.3%	-16.7%	-14.1%	-10.0%	-2.5%	-18.4%	-13.7%		
Minimum P-O-S-E Error Score	-6.7%	-5.8%	-7.5%	-8.4%	-5.8%	-5.8%	-3.3%	-10.0%	-7.5%	-6.8%		

P-O-S-E© Net Change # Students Jackson Avenue Elementary
Grade 3 Students (n=116)
Mineola UFSD 2013-14 (9/14/13; 6/25/14)

Observation: A notable reduction in NUMBERS of high risk P-O-S-E students was achieved.

Tacher:	1	2	3	4	5	6	7	8	9	MEAN Per class	SUM Of students	% Diff. (improved)
Number of students with RTI Improvements in:												
High IP Short Vowels	-4	-2	-2	-4	-2	-7	-6	-2	0	-3.2	-29	-25.0%
Mid- IP Short Vowels	-4	-6	-7	-4	-4	-4	-3	-2	-5	-4.3	-39	-33.6%
High AND Mid- IP Short Vowels	-4	-2	-1	-3	-2	-7	-5	-2	0	-2.9	-26	-22.4%
Mid- (no High) IP Short Vowels	-2	-4	-6	-1	-2	-3	-2	0	-5	-2.8	-25	-21.6%
High (no Mid-) IP Short Vowels	0	0	-1	-1	0	0	-1	0	0	-0.3	-3	-2.6%
High OR Mid- IP Short Vowels	-5	-4	-7	-4	-5	-4	-4	-3	-4	-4.4	-40	-34.5%
High IP Silent /e/ rule vowels	-4	0	0	-1	-1	-2	-3	-2	-1	-1.6	-14	-12.1%
Mid- IP Silent /e/ rule vowels	0	-6	-4	-9	-2	0	-1	-2	-4	-3.1	-28	-24.1%
High OR Mid- IP Silent /e/ rule vowels	-4	0	-4	-10	-3	-2	-4	-4	-5	-4.0	-36	-31.0%
High OR Mid- IP Short AND Silent /e/ vowels	-6	-5	-4	-10	-3	-3	-7	-3	-3	-4.9	-44	-37.9%

Observation: Successful reduction in 2012-13 Grade 3 P-O-S-E error scores was achieved with a population including ALL baseline P-O-S-E-tested students resulting in a lower mean baseline error score.



P-O-S-E © 2012-13	BASELINE	RTI
Mean	16.3%	9.3%
Standard Error	1.0%	0.7%
Median	11.7%	5.9%
Mode	6.7%	0.8%
Standard Deviation	14.4%	9.6%
Sample Variance	2.1%	0.9%
Kurtosis	183.2%	267.2%
Skewness	143.1%	160.9%
Range	70.8%	52.5%
Minimum	0.0%	0.0%
Maximum	70.8%	52.5%
Sum	31.20	17.83
Count	191.00	191.00
Confidence Level (95%	0.02	0.01

Chart 4

Statistics 101

* What is a statistical correlation ?
  * A research strategy whereby variables are measured as they occur in the individuals studied. It looks at the relationship of one measure to another. Correlations range from 0 to +/- 1.00.
    * For example:

      P-o-s-e vs. F & P Benchmark

      P-o-s-e vs NWEA

      P-o-s-e vs ELA

      NWEA vs Benchmark

A statistical correlation does not imply causality however it does indicate the presence of common factors influencing the compared scores.

Interpreting Correlations

* Correlations range from -1.00 through 0.00 to +1.00.
* A correlation of 1.00 indicates that one variable can be perfectly predicted from another.
* If the correlation is positive it means the scores move in the same direction.
* If the correlation is negative, it means the scores move in opposite directions.
  * For example: The P-O-S-E correlates negatively with Benchmarks, NWEA and ELA because the P-O-S-E presents a % error score. The other tests are measures of items correct.
  * The correlation may be interpreted by multiplying it by itself. I.e., if the correlation between 2 tests is 0.70 multiply .7 X .7= 0.49. This is called the coefficient of determination. It means 49% of the variance on test 1 is associated with the variance on test 2.

Observation: P-O-S-E Baseline 2013-14 Grade 3 correlates moderately well with Benchmark Baseline and ELA

Grade 3 Mineola U.F.S.D. Literacy Baseline Scores 2013-14 Correlations (n=180)					
	% POSE Base	Benchmark Base	NWEA Base	ELA	ELA raw
% POSE Base	1.00				
Benchmark Base	-0.62	1.00			
NWEA Base	-0.33	0.32	1.00		
ELA	-0.57	0.67	0.44	1.00	
ELA raw	-0.58	0.67	0.45	0.99	1.00

Table 11

Observation.: The restricted sample of Grade 3 2013-14 correlates moderately well with Benchmark Baseline on the same students.

Grade 3 Mineola U.F.S.D. Literacy Baseline v. RTI Scores 2013-14 Matched pair (Baseline P-O-S-E© >= 12.5%)Multiple Correlations (n=96)							
	POSE Base	POSE RTI	Benchmark Base	Benchmark RTI	NWEA Base	NWEA RTI	ELA
POSE Base	1.00						
POSE RTI	0.62	1.00					
Benchmark Base	-0.62	-0.38	1.00				
Benchmark RTI	-0.52	-0.37	0.88	1.00			
NWEA Base	-0.44	-0.28	0.68	0.53	1.00		
NWEA RTI	-0.44	-0.29	0.66	0.60	0.67	1.00	
ELA	-0.43	-0.29	0.65	0.62	0.64	0.67	1.00

Observation: When the top 12.5% of P-O-S-E scores are extracted from 2012-13 data, P-O-S-E correlations with Benchmark and ELA are comparable to Grade 3 2013-14 data.

Grade 3 POSE(c) ALL 2012-13 (N=191)	*POSE Base*	*POSE RTI*	*Ben Base*	*Ben RTI*	*NWEA Base*	*NWEA RTI*	*ELA*
POSE Baseline	1.00						
POSE RTI	0.78	1.00					
Benchmark Baseline	-0.69	-0.64	1.00				
Benchmark RTI	-0.65	-0.61	0.91	1.00			
NWEA Baseline	-0.57	-0.48	0.69	0.64	1.00		
NWEA RTI	-0.47	-0.46	0.64	0.63	0.80	1.00	
ELA Scale Score	-0.57	-0.54	0.69	0.66	0.72	0.69	1.00

Grade 3 2012-13 POSE >= 12.5% (N=96)	*POSE Base*	*POSE RTI*	*Ben Base*	*Ben RTI*	*NWEA Base*	*NWEA RTI*	*ELA*
POSE Baseline	1.00						
POSE RTI	0.66	1.00					
Benchmark Baseline	-0.60	-0.50	1.00				
Benchmark RTI	-0.60	-0.53	0.93	1.00			
NWEA Baseline	-0.49	-0.36	0.62	0.61	1.00		
NWEA RTI	-0.37	-0.36	0.61	0.63	0.73	1.00	
ELA Scale Score	-0.60	-0.50	0.66	0.65	0.66	0.67	1.00

Takeaway 6 P-O-S-E:

* P-O-S-E RTI scores demonstrated an average 9.9% overall Grade 3 error reduction in 2013-14 (n=116 pairs).
* This compares with an average 7.0% Grade 3 P-O-S-E error reduction in 2012-13 (n=191 pairs).
* The P-O-S-E test of short vowel proficiency, a CCSS-designated foundational element of literacy, demonstrates moderately significant correlations with F & P Benchmark and NYS ELA scores, somewhat lower correlations with NWEA MAP Reading.
* This validated progress stands in contrast to the Grade 3, 4 NYS ELA scores which diminished significantly between 2013 and 2014.

Grade 3 2013-14 Baseline vs RTI, matched pairs P-O-S-E, Benchmark, NWEA

* On all Grade 3 Baseline-RTI tests (P-O-S-E, Benchmark, NWEA Reading) improvements were noted on RTI.
* Mean P-O-S-E errors were reduced (10% growth) .
* Mean Benchmarks rose from M to P (13% growth)
* Mean NWEA Reading baseline gained from 185 to 198
* The NWEA 2011 Grade 3 end-of-year norm, is 199.2. The Grade 2 end-of-year norm is 189.6.
* NWEA growth is on-target. Using Grade 11 end-of-year norm 223.7 as RIT norm scale maximum: 13/224 = 6% growth.

Observation: Grade level performance was achieved RTI on 2013-14 P-O-S-E, benchmarks and NWEA MAP Reading metrics.

Grade 3 Mineola U.F.S.D. Literacy Baseline v. RTI Scores 2013-14 Matched student Sets (Baseline P-O-S-E© >= 12.5% t-Test of differences (n=96)						
	% POSE Base	*% POSE RTI*	*Benchmark Base*	*Benchmark RTI*	*NWEA Base*	*NWEA RTI*
Mean	**24.8%**	**15.1%**	**13.3 M+**	**16.7 Q-**	**184.8**	**197.5**
Variance	**1.3%**	**0.9%**	**7.7**	**6.7**	**210.4**	**111.9**
Net Change (Improvement)	**9.7%**		**3.40**		**12.7**	
Observations	96	96	96	96	96	96
Pearson Correlation	0.62		0.88		0.67	
Hypothesized Mean Difference	0		0		0	
df	95		95		95	
t Stat	10.4031		-24.9490		-11.4781	
P(T<=t) one-tail	1.1402E-17		8.5643E-44		6.0172E-20	
t Critical one-tail	1.6611		1.6611		1.6611	
P(T<=t) two-tail	2.2804E-17		1.7129E-43		1.2034E-19	
t Critical two-tail	1.9853		1.9853		1.9853	

Table 12

Conclusions
&
Recommendations

Conclusions and Recommendations 1

* **The P-O-S-E, F&P Benchmark and NWEA Reading tests for Grade 3 demonstrate consistent, grade-apppropriate progress in response to intervention both within year 2013-14 and between years 2012-13 & 2013-14.**
* **NYS ELA findings for Grade 3 and Grade 4 2013-14 appear inconsistent when contrasted with these findings for 2012-13.**
* **Reconsider hierarchical importance of the NYS ELA in both curriculum development and teacher-effectiveness rating.**

Conclusions and Recommendations 2

* **In order to provide maximum value in outcome analysis, P-O-S-E testing should not be selective within grade. I.e. The entire grade should be given both baseline and RTI tests.**
* **Intervention should be based upon information derived from P-O-S-E Baseline measures using outcome results provided from group testing.**
* **Data-based planning includes: team decision making, intervention block design consistent with the degree of severity and RTI testing to verify continuance or completion of intervention.**
* **Intervention strategies should consider the compendium of test results on individual students in order to design the most efficacious course of remediation.**