

Aligning the NWEA RIT Scale with the Maryland School Assessment (MSA)

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Recently NWEA completed a project to connect the scale of the Maryland School Assessment (MSA) with NWEA's RIT scale. One large school system participated in the study, using test information from a group of over 24,000 students enrolled in third, fourth and fifth grade who took both the MSA and NWEA reading tests in the spring of 2005. Information from these tests were used in a comprehensive study to identify the capacity of the RIT scale to predict success on the MSA and to identify performance level scores on the RIT scale that would indicate a good chance of success on this test.

Three methodologies, linear regression, second order regression, and Rasch status on standards (called Rasch SOS) were used to derive estimates of cut scores. In each case the most accurate of the three estimates was used to arrive at the recommended cut score you see in this report. We estimated cut scores for each of the performance levels at grades three, four and five for reading.

The primary findings of the study are as follows.

- MSA and RIT scores generally correlate well. Pearson correlations were .82 in grade 3, .77 in grade 4 and .80 in grade 5 for spring NWEA assessments. For fall NWEA assessments, the Pearson correlations were .82 in grade 3, .76 in grade 4 and .80 in grade 5
- MSA "proficient" performance was predicted from RIT scores with approximately 89 to 95% accuracy in reading depending on grade and methodology employed.

Tables 1 and 2 summarize the RIT equivalent to each MSA performance level for both the fall and spring seasons. The table may be used to identify students who may need additional help to pass this assessment.

The remaining tables and graphs show the proportion of students achieving various RIT score ranges who also achieved "proficient" performance on the MSA. These tables can be used to assist in identifying students who are not likely to pass MSA, thereby increasing the probability that intervention strategies will be planned and implemented.

Contact Branin Bowe (503) 624-1951 at Northwest Evaluation Association if you wish further information or have questions about this study.

Table 1 – Best estimate of fall RIT scores linked to the performance levels on the spring MSA – Reading

Reading to MSA Reading			
Grade	Basic	Proficient	Advanced
3	<184	184 (30)	212 (95)
4	<189	189 (21)	220 (96)
5	<200	200 (28)	217 (78)

* associated fall percentile score from the 2005 NWEA norms is in parentheses

Table 2 – Best estimate of spring RIT scores linked to the performance levels on the spring MSA – Reading

Reading to MSA Reading			
Grade	Basic	Proficient	Advanced
3	<189	189 (24)	216 (92)
4	<191	191 (15)	224 (93)
5	<202	202 (22)	220 (74)

* associated spring percentile score from 2005 NWEA norms is in parentheses

Table 3 – Proportion of students who were “proficient” on the MSA Reading based on fall RIT score - Reading

	Grade 3	Grade 4	Grade 5
170	9.16%		
175	22.38%	12.28%	
180	34.00%	30.40%	2.44%
185	58.62%	41.45%	15.66%
190	79.65%	62.60%	20.00%
195	92.20%	82.38%	33.63%
200	97.99%	92.77%	60.79%
205	99.41%	97.92%	80.67%
210	99.81%	99.22%	92.97%
215	99.85%	99.85%	98.30%
220	100.00%	99.89%	99.52%
225		99.91%	99.60%
230		100.00%	99.74%
235			100.00%

Figure 1 - Proportion of students who were “proficient” on the MSA Reading based on fall RIT score - Reading

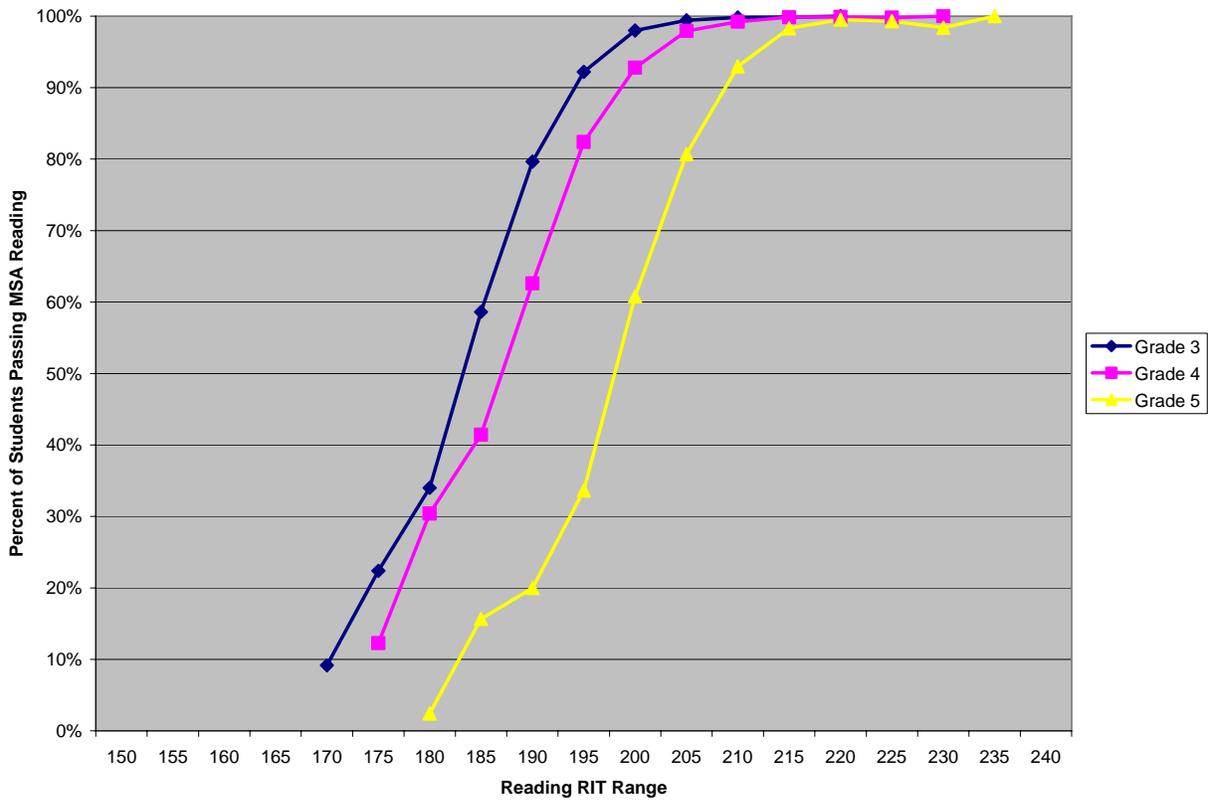


Table 4 – Proportion of students who were “proficient” on the MSA Reading based on spring RIT score – Reading

	Grade 3	Grade 4	Grade 5
170	2.74%	14.29%	
175	13.48%	19.57%	
180	18.37%	21.95%	
185	41.71%	35.44%	8.33%
190	57.12%	53.57%	13.04%
195	75.85%	69.98%	32.10%
200	90.99%	84.09%	43.38%
205	97.98%	95.34%	71.41%
210	99.31%	98.73%	86.95%
215	99.91%	99.50%	95.68%
220	100.00%	99.84%	98.74%
225		99.89%	98.86%
230		100.00%	99.73%
235			99.83%
240			100.00%

Figure 2 - Proportion of students who were “proficient” on the MSA Reading based on spring RIT score – Reading

