A Study of the Alignment of the NWEA RIT Scale with the Maryland Assessment System

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Recently, NWEA completed a project to connect the scale of the test used for Maryland reading assessment with NWEA's RIT scale. Information from the Maryland assessment was used in a study to establish performance-level scores on the RIT scale that would indicate a good chance of success on this test.

To perform the analysis, we linked aggregate state test results with NWEA test results for all schools whose NWEA test count for a grade and subject was between 95% and 105% of the count tested on the state assessment. This provided assurance that only schools that had tested a very similar population on both tests were included.

The Maryland state test is administered in spring. For the spring season, an equipercentile method was used to estimate the RIT score equivalent to each state performance level. For spring, we determined the percentage of the population within the selected study group that performed at each level on the state test and found the equivalent percentile ranges within the NWEA dataset to estimate the cut scores. For example, if 40% of the study group population in grade 3 reading performed below the proficient level on the state test, we would find the RIT score that would be equivalent to the 40th percentile for the study population (this would not be the same as the 40th percentile in the NWEA norms). This RIT score would be the estimated point on the NWEA RIT scale that would be equivalent to the minimum score for proficiency on the state test.

More complete documentation about this method can be found on our website.

Tables 1 and 2 show the best estimate of the RIT equivalent to each Maryland performance level for same-season (spring) and prior-season (fall) RIT scores. These tables may be used to identify students who may need additional help to perform well on these tests.

Tables 3 and 4 show the proportion of students achieving various RIT score ranges whom we estimate would achieve a proficient score on the state assessment. These tables can be used to assist in identifying students who are not likely to pass these assessments, thereby increasing the probability that intervention strategies will be planned and implemented.

Table 1 – Recommended same-season (spring) RIT cut scores for Maryland performance levels – Reading

Grade	Basic	Proficient		Advanced	
	Cut score	Cut score	Percentile	Cut score	Percentile
3	<190	190	26	217	94
4	<194	194	20	220	88
5	<202	202	23	220	76
6	<206	206	23	222	68
7	<211	211	27	230	80
8	<216	216	31	233	80

Table 2 – Recommended prior-season (fall) RIT cut scores for Maryland performance levels – Reading

Grade	Basic	Proficient		Advanced	
	Cut score	Cut score	Percentile	Cut score	Percentile
3	<182	182	27	211	94
4	<188	188	20	215	89
5	<197	197	23	216	77
6	<202	202	23	218	68
7	<208	208	27	227	81
8	<213	213	31	230	80

Table 3 – Proportion of students passing the Maryland state reading assessment based on same-season (spring) reading RIT range

RIT Range	Percent in this range who pass					
	3	4	5	6	7	8
160	6%	4%	2%	1%	1%	0%
165	9%	6%	3%	2%	1%	1%
170	14%	10%	5%	3%	2%	1%
175	22%	16%	8%	5%	3%	2%
180	31%	23%	12%	8%	5%	3%
185	43%	33%	18%	13%	8%	5%
190	55%	45%	27%	20%	13%	8%
195	67%	57%	38%	29%	20%	13%
200	77%	69%	50%	40%	29%	20%
205	84%	78%	62%	52%	40%	29%
210	90%	86%	73%	64%	52%	40%
215	94%	91%	82%	75%	64%	52%
220	96%	94%	88%	83%	75%	64%
225	98%	96%	92%	89%	83%	75%
230	99%	98%	95%	93%	89%	83%
235	99%	99%	97%	96%	93%	89%
240	99%	99%	98%	97%	96%	93%
245	100%	99%	99%	98%	97%	96%

Table 4 – Proportion of students passing the Maryland state reading assessment based on prior-season (fall) reading RIT range

RIT Range	Percent in this range who pass					
	3	4	5	6	7	8
150	5%	3%	1%	1%	0%	0%
155	8%	4%	2%	1%	1%	0%
160	12%	7%	3%	2%	1%	1%
165	18%	11%	5%	3%	2%	1%
170	27%	17%	8%	5%	3%	2%
175	38%	25%	12%	8%	4%	3%
180	50%	36%	18%	12%	7%	4%
185	62%	48%	27%	18%	11%	7%
190	73%	60%	38%	27%	17%	11%
195	82%	71%	50%	38%	25%	17%
200	88%	80%	62%	50%	36%	25%
205	92%	87%	73%	62%	48%	36%
210	95%	92%	82%	73%	60%	48%
215	97%	95%	88%	82%	71%	60%
220	98%	97%	92%	88%	80%	71%
225	99%	98%	95%	92%	87%	80%
230	99%	99%	97%	95%	92%	87%
235	100%	99%	98%	97%	95%	92%
240	100%	100%	99%	98%	97%	95%