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**LINKING STUDY BETWEEN SOUTH
CAROLINA COLLEGE- AND CAREER-
READY ASSESSMENT (SC READY) AND
STAR ASSESSMENT, GRADES 3-8**

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INTRODUCTION

In the fall of 2025, the South Carolina Education Oversight Committee (SC EOC), in collaboration with the South Carolina Department of Education (SCDE), partnered with Education Analytics (EA) to complete a level-linking study between the South Carolina College- and Career-Ready Assessment (SC READY) in Mathematics and English Language Arts (ELA) and Renaissance Learning's Star interim assessments in Mathematics and Reading, respectively. This report outlines the methodology used by EA and the outcomes of the linking study. The goal of this report is to statistically connect the SC READY and Star assessments' scale scores in grades 3-8 to facilitate further comparisons of proficiency status on these two assessments.

METHODS

Data

This linking study used data from the spring 2025 SC READY Mathematics and ELA assessments and the Star Mathematics and Reading assessments administered in the fall, winter and spring of the 2024-25 school year. Only students who took the Star assessments within 30 days of SC Ready in spring 2025 were included in the spring analysis. For linkings with fall and winter interim assessments, the research sample includes students who took both SC READY and the fall or winter interim assessment. Students were matched through their state IDs or district IDs. Specifically, the study included students who completed the fall, winter, or spring Star along with the spring SC READY assessment.

Post-Stratification Weighting

To increase the generalizability of the linking results based on the matched student sample to South Carolina's student population, EA applied post-stratification weights to the calculations. The variables used in the weighting process include gender, race/ethnicity, English learner (EL) status, poverty status, disability status, and whether a student met or exceeded standards on the same subject SC READY assessment. Through post-stratification weighting, the weighted study sample provides a closer match with South Carolina state population on these key demographic and academic performance variables than the original sample.

Raking was used to calculate the post-stratification weights. Raking involves an iterative proportional fitting procedure, which introduces each demographic and academic variable in a sequence so that it ensures the sample accurately represents the population of all variables under consideration. The variables are introduced one at a time, which allows for the incorporation of more variables in the weighting procedure. The raking procedure includes the following steps:

1. Collect marginal distributions of each weighting variable from South Carolina's student population.
2. Calculate marginal distributions of each weighting variable from the matched sample.
3. Calibrate post-stratification weights using the raking procedure.
4. Trim the weight to be within the range of 0.3 and 3. This is done to minimize the impact of outlier cases which may carry extremely large or small weights.
5. Apply the weights to the matched sample before conducting the linking analyses.

Equipercntile Linking

The linking analyses between SC READY and Star assessments were conducted using the equipercntile linking method (Kolen & Brennan, 2004). The equipercntile linking function is determined by the cumulative distribution functions of the two assessments. In the linking process, the cumulative distribution function of scores on the Star assessment converted to the spring SC READY score scale is aligned to the cumulative distribution function of scores on SC READY. More specifically, this process utilizes percentile ranks, which indicates the percentage of scores in the frequency distribution that fall below a particular score.

Equipercntile linking then establishes the relationship between the two sets of test scores by identifying corresponding percentile ranks of the test scores. Thus, we can establish scores on the Star assessment that are aligned to the three SC READY achievement level cut scores (i.e., cut score between Does Not Meet Expectations and Approaches Expectations, cut score between Approaches Expectations and Meets Expectations, and cut score between Meets Expectations and Exceeds Expectations) at grades 3-8. The linking function can be written as:

$$e_Y(x) = G^{-1}[F(x)]$$

where x represent a score on test X (e.g., SC READY ELA), $e_Y(x)$ is its corresponding score on test Y (e.g., Star Reading), $F(x)$ is the cumulative distribution function of a given score on SC READY, and G^{-1} is the inverse of the cumulative distribution function for Star, which indicates the Star scale score corresponding to a given percentile in the distribution.

Prior to the equipercntile linking, the polynomial log-linear pre-smoothing method is applied to reduce irregularities of the test score distributions. This method fits polynomial functions to the log of the sample density to smooth the distributions of the assessments (Holland & Thayer, 1987, 2000; Rosenbaum & Thayer, 1987).

Classification Accuracy

Classification accuracy statistics are used to evaluate the degree to which the equivalent scores on the spring Star assessment to the SC READY achievement level cut scores can be used to accurately classify students' proficiency status. In this report, we summarize seven types of commonly used classification accuracy statistics (see Table 1) based on the cut score

between Approaches Expectations (i.e., not proficient) and Meets Expectations (i.e., proficient).

To facilitate appropriate interpretations of the linking results, a bootstrap analysis was also conducted whereby each linking analysis was replicated 1000 times through iterative resampling of each study sample with replacement. The bootstrap standard errors help us understand the amount of error associated with the estimates. The bootstrap standard errors associated with the test cut scores are reported in Tables 11-12.

Table 1. Description of Classification Accuracy Summary Statistics

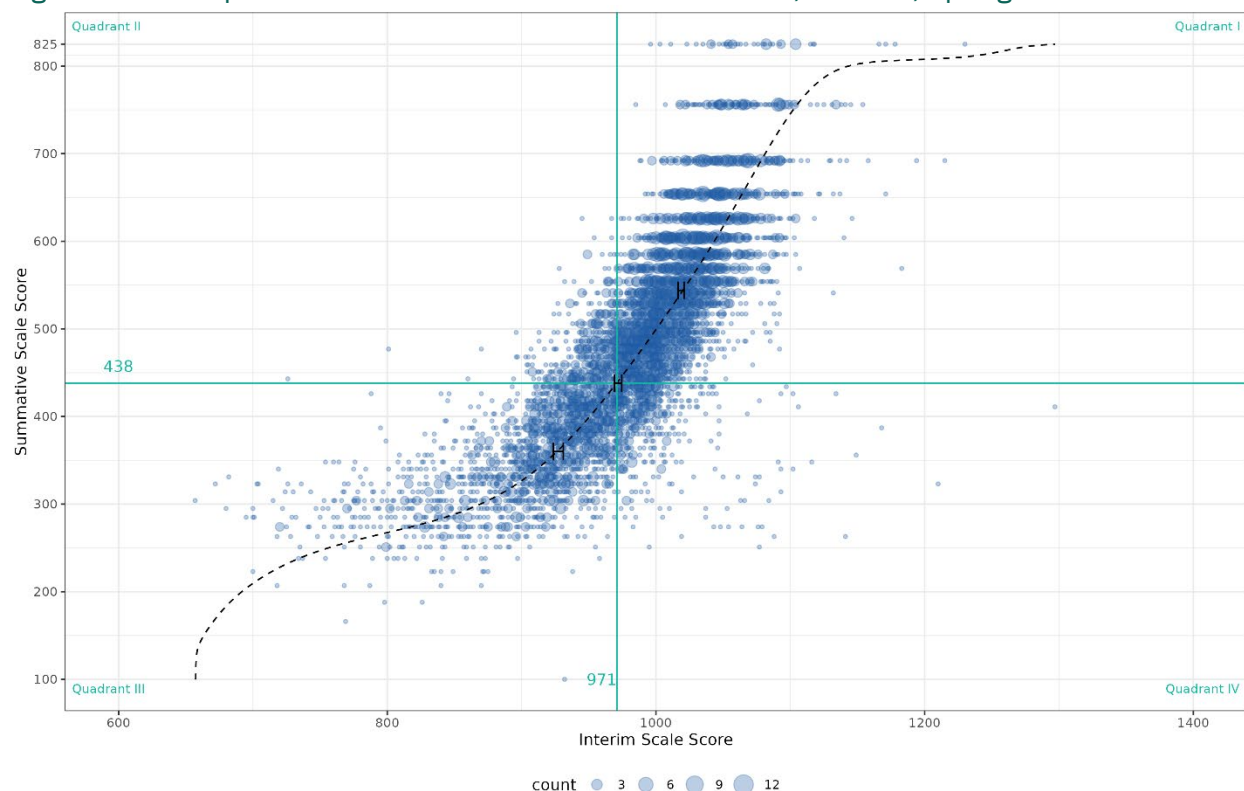
Statistic	Description
Overall Classification Accuracy	Proportion of the study sample with correct proficiency classifications on SC READY based on Star cut scores. Calculated as $(TP+TN)/\text{Total Sample Size}$
False Positive (FP) Rate	Proportion of proficient students based on Star cut scores among those observed as not proficient on the SC READY test. Calculated as $FP/(FP+TN)$
False Negative (FN) Rate	Proportion of students who were not proficient based on Star cut scores among those observed as proficient on the SC READY test. Calculated as $FN/(FN+TP)$
Sensitivity	Proportion of proficient students based on Star cut scores among those observed as proficient on the SC READY test. Calculated as $TP/(TP+FN)$
Specificity	Proportion of students who were not proficient based on Star cut scores among those observed as not proficient on the SC READY test. Calculated as $TN/(TN+FP)$
Precision	Proportion of observed proficient students on the SC READY test among those classified as proficient based on Star cut scores. Calculated as $TP/(TP+FP)$
Area Under the Curve (AUC)	An overall indication of the diagnostic accuracy of a Receiver Operating Characteristic (ROC) curve. AUC tells us how well the Star cut score separates the study sample as proficient and not proficient in accordance with the SC READY ELA test cut score. An AUC above 0.80 is considered “convincing evidence” of classification accuracy.

Note: TP = true positive; TN = true negative; FP = false positive; FN = false negative.

Figure 1 is a scatterplot of the SC READY and Star Mathematics scores from grade 3 in spring 2025. The best-fitting curve (i.e., the black dashed line) shows the Star Mathematics scores that correspond to the SC READY Mathematics scores through the linking estimation. For

example, the SC READY Mathematics score of 438 is the cut score for “Meets Expectations” at grade 3. This score corresponds to the Star Mathematics score of 971 with a standard error of 1.32 in the linking results. The narrow black bands plotted around the dashed curve show the 95% confidence interval. The small standard errors provide evidence of the accuracy of the linking model. However, the SC READY Mathematics score of 438 and the Star Mathematics score of 971 should not be used interchangeably. As shown in Figure 1, not all students who scored 971 and above on the Star Mathematics test also scored 438 or higher on the SC READY Mathematics test in spring 2025. Specifically, students in Quadrant IV scored lower than 438. Similarly, students who met or exceeded expectations (i.e., scored 438 or above) on the SC READY Mathematics test, had a wide range of scores on the Star Mathematics test, some of which were below 971 (i.e., students in Quadrant II). We recommend users examine the scatterplot of observed test scores and bootstrap standard errors to gain a more complete understanding of the linking results and associated limitations.

Figure 1. Scatterplot of the SC READY and Star Mathematics, Grade 3, Spring 2025



RESULTS

Study Sample

The linking study sample described in Tables 2 through 7 includes students who took both the SC READY and Star Mathematics and ELA/Reading assessments in spring 2025 from 6 school districts in South Carolina. Tables 2 and 3 summarize the sample characteristics, including student demographic subgroups (i.e., gender, race/ethnicity, poverty, EL, and disability status) and percent of students who met or exceeded standards on the SC READY Mathematics and ELA assessments at each grade in the original sample before post-stratification weighting.

Table 2. Unweighted Linking Study Sample Characteristics: Mathematics (Spring)

Subgroup	Percent of Students by Grade					
	3	4	5	6	7	8
Female	48.8	49.5	49.2	48.7	48.9	48.9
Male	51.2	50.5	50.8	51.3	51.1	51.1
Black	27.4	28.9	28.6	30.5	30.6	31.7
Hispanic	13.1	12.9	12.4	12.3	12.6	12.8
White	51.1	49.7	50.5	48.2	47.7	47.5
Other	8.4	8.5	8.5	8.9	9.0	8.0
Pupil in Poverty	62.8	63.1	61.6	66.3	65.3	64.1
English Learner	10.8	9.0	8.8	7.9	8.1	8.2
Student with Disabilities	13.9	14.3	13.6	13.4	13.3	12.7
SC READY: Meets Expectations or Exceeds Expectations	59.9	56.3	49.2	41.1	37.7	38.3
SC READY: Does Not Meet Expectations or Approaches Expectations	40.1	43.7	50.8	58.9	62.3	61.7

Table 3. Unweighted Linking Study Sample Characteristics: ELA (Spring)

Subgroup	Percent of Students by Grade					
	3	4	5	6	7	8
Female	48.7	49.0	49.3	48.8	48.9	49.2
Male	51.3	51.0	50.7	51.2	51.1	50.8
Black	30.5	31.4	30.4	30.7	31.1	32.0
Hispanic	13.1	13.1	12.7	11.5	11.9	12.4
White	48.1	47.1	48.6	48.6	47.8	47.6
Other	8.3	8.3	8.3	9.2	9.1	8.0
Pupil in Poverty	67.4	66.2	64.4	66.4	65.7	64.4
English Learner	11.5	9.7	8.8	7.3	7.6	7.8
Student with Disabilities	14.3	14.7	13.9	13.8	13.5	12.8
SC READY: Meets Expectations or Exceeds Expectations	67.6	68	67.7	60.9	60.6	60.1
SC READY: Does Not Meet Expectations or Approaches Expectations	32.4	32	32.3	39.1	39.4	39.9

Distributions of the weighting variables in the South Carolina student population are listed in Table 4. After adjusting for post-stratification weights, the sample characteristics were recalculated. They are shown in Tables 5 and 6 at each grade level for mathematics and ELA, respectively. After weighting, the sample distributions are almost identical to the population distributions.

Table 4. South Carolina Student Population Characteristics

Subgroup	Percent of Students by Grade					
	3	4	5	6	7	8
Female	48.9	49.5	48.8	49.0	49.1	49.1
Male	51.1	50.5	51.2	51.0	50.9	50.9
Black	29.2	29.4	29.6	30.1	30.5	30.5
Hispanic	15.1	14.8	14.2	14.3	14.5	14.5
White	46.8	46.8	47.4	46.9	46.5	46.9
Others	9.0	9.0	8.8	8.7	8.5	8.1
Pupil in Poverty	62.9	62.3	61.8	61.7	61.1	60.2
English Learner	13.5	10.6	10.1	10.1	10.0	9.9
Student with Disabilities	15.3	15.5	15.2	14.2	13.4	13.1
SC READY Math: Meets Expectations or Exceeds Expectations	56.3	53.7	48.1	39.4	34.0	32.4
SC READY Math: Does Not Meet Expectations or Approaches Expectations	43.7	46.3	51.9	60.6	66.0	67.6
SC READY ELA: Meets Expectations or Exceeds Expectations	61.7	63.5	62.5	56.0	58.2	55.7
SC READY ELA: Does Not Meet Expectations or Approaches Expectations	38.3	36.5	37.5	44.0	41.8	44.3

Sources: <https://ed.sc.gov/data/test-scores/state-assessments/sc-ready/2025/state-scores-by-grade-level-and-demographic/?districtCode=9999&schoolCode=1001>

Note: Information in this table is based on students who took the 2025 SC READY Mathematics and ELA statewide tests. In the few cases where students' race/ethnicity and poverty status differ by 0.1%, numbers shown are the average of percentages from mathematics and ELA.

Table 5. Weighted Linking Study Sample Characteristics: Mathematics (Spring)

Subgroup	Percent of Students by Grade					
	3	4	5	6	7	8
Female	48.9	49.5	48.8	49	49.1	49
Male	51.1	50.5	51.2	51	50.9	51
Black	29.2	29.4	29.6	30.1	30.5	30.5
Hispanic	15.1	14.8	14.2	14.3	14.5	14.5
White	46.8	46.8	47.4	46.8	46.5	46.9
Other	9.0	9.0	8.8	8.7	8.5	8.1
Pupil in Poverty	62.9	62.3	61.8	61.8	61.1	60.3
English Learner	13.5	10.6	10.1	10.1	10.0	9.9
Student with Disabilities	15.3	15.5	15.2	14.2	13.4	13.1
SC READY: Meets Expectations or Exceeds Expectations	56.3	53.7	48.1	39.4	34.0	32.4
SC READY: Does Not Meet Expectations or Approaches Expectations	43.7	46.3	51.9	60.6	66	67.6

Table 6. Weighted Linking Study Sample Characteristics: ELA (Spring)

Subgroup	Percent of Students by Grade					
	3	4	5	6	7	8
Female	48.9	49.5	48.8	49.0	49.1	49.1
Male	51.1	50.5	51.2	51.0	50.9	50.9
Black	29.2	29.4	29.6	30.1	30.5	30.5
Hispanic	15.1	14.8	14.2	14.3	14.5	14.5
White	46.8	46.8	47.4	46.9	46.5	46.9
Other	9.0	9.0	8.8	8.7	8.5	8.1
Pupil in Poverty	62.9	62.3	61.8	61.7	61.1	60.2
English Learner	13.5	10.6	10.1	10.1	10.0	9.9
Student with Disabilities	15.3	15.5	15.2	14.2	13.4	13.1
SC READY: Meets Expectations or Exceeds Expectations	61.7	63.5	62.5	56.0	58.2	55.7
SC READY: Does Not Meet Expectations or Approaches Expectations	38.3	36.5	37.5	44.0	41.8	44.3

Descriptive Statistics of Test Scores

Table 7 presents summary statistics of the SC READY and Star Mathematics and ELA/Reading scores using the unweighted linking sample, which include the sample size, mean and standard deviation, and correlation (r) between the tests at each grade level. The correlations range from 0.62 (grade 8, Mathematics) to 0.80 (grade 3, ELA) which indicate moderate to strong associations between the two tests. This provides a good foundation for conducting a linking study between the SC Ready and Star Mathematics and ELA/Reading tests.

Table 7. Descriptive Statistics of SC READY and Star Mathematics and ELA/Reading Scores (Spring)

		Grade					
		3	4	5	6	7	8
		Mathematics					
SC READY	N	5701	5549	5730	5128	5183	5178
	r	0.77	0.77	0.76	0.72	0.72	0.62
	Mean	474.6	507.8	544.7	532.8	555.8	592.8
	S.D.	118.8	119	108.9	112.8	111.5	106.5
	Min.	100	100	274	255	217	313
	Max.	825	850	875	900	925	950
Star	Mean	977.6	1023.6	1051.9	1066.9	1085.2	1103.9
	S.D.	67.4	73.8	78.1	86.1	90.8	92.9
	Min.	657	600	689	666	689	682
	Max.	1297	1351	1319	1400	1400	1400
		ELA					
SC READY	N	5712	5567	5720	5115	5152	5191
	r	0.80	0.77	0.77	0.76	0.73	0.70
	Mean	499.7	552.1	567.2	580.6	593.4	620.1
	S.D.	105.5	114.4	97.1	103.6	91.1	95.1
	Min.	236	283	314	298	355	361
	Max.	825	850	875	900	925	950
Star	Mean	982.2	1017.5	1043.1	1056.5	1071.9	1095.2
	S.D.	84.3	82.0	80.1	87.6	90.2	86.9
	Min.	615	615	615	615	615	615
	Max.	1203	1272	1302	1336	1341	1400

SC READY and Star Cut-Score Equivalents

The section below summarizes the linking results by subject, grade level, and term. Table 8 summarizes the SC READY cut score equivalents for the “Meets Expectations” proficiency level on Star. Tables 9 and 10 present the linking results between SC READY summative assessment and Star fall, winter, and spring tests for mathematics and ELA/Reading, respectively. The top panel shows the ranges of SC READY scale scores at each proficiency level and each grade in 2024-25. The bottom panel shows the corresponding Star scores.

Table 8. Star “Meets Expectations” Cut Score Equivalents Summary

Grade	Mathematics			ELA		
	Fall	Winter	Spring	Fall	Winter	Spring
3	919	951	971	920	947	967
4	980	1005	1024	969	984	998
5	1027	1048	1062	1004	1017	1029
6	1069	1086	1096	1035	1046	1055
7	1092	1112	1126	1044	1055	1067
8	1113	1129	1141	1067	1080	1091

Table 9. SC READY and Star Cut Score Equivalents: Mathematics

		SC READY			
	Grade	Does Not Meet Expectations	Approaches Expectations	Meets Expectations	Exceeds Expectations
	3	100–359	360–437	438–542	543–825
	4	100–400	401–480	481–562	563–850
	5	100–447	448–534	535–621	622–875
	6	100–452	453–542	543–626	627–900
	7	100–487	488–576	577–648	649–925
	8	100–526	527–614	615–682	683–950
		Star			
Season	Grade	Does Not Meet Expectations	Approaches Expectations	Meets Expectations	Exceeds Expectations
Fall	3	600–872	873–918	919–966	967–1400
	4	600–932	933–979	980–1016	1017–1400
	5	600–961	962–1026	1027–1070	1071–1400
	6	600–1006	1007–1068	1069–1104	1105–1400
	7	600–1029	1030–1091	1092–1125	1126–1400
	8	600–1045	1046–1112	1113–1150	1151–1400
Winter	3	600–905	906–950	951–996	997–1400
	4	600–956	957–1004	1005–1042	1043–1400
	5	600–982	983–1047	1048–1091	1092–1400
	6	600–1018	1019–1085	1086–1125	1126–1400
	7	600–1043	1044–1111	1112–1148	1149–1400
	8	600–1059	1060–1128	1129–1168	1169–1400
Spring	3	600–925	926–970	971–1019	1020–1400
	4	600–970	971–1023	1024–1065	1066–1400
	5	600–995	996–1061	1062–1110	1111–1400
	6	600–1023	1024–1095	1096–1139	1140–1400
	7	600–1046	1047–1125	1126–1165	1166–1400
	8	600–1066	1067–1140	1141–1187	1188–1400

Table 10. SC READY and Star Cut Score Equivalents: ELA

		SC READY			
	Grade	Does Not Meet Expectations	Approaches Expectations	Meets Expectations	Exceeds Expectations
	3	100-359	360-453	454-540	541-825
	4	100-419	420-490	491-602	603-850
	5	100-464	465-524	525-631	632-875
	6	100-470	471-550	551-645	646-900
	7	100-509	510-567	568-663	664-925
	8	100-526	527-593	594-686	687-950
		Star			
Season	Grade	Does Not Meet Expectations	Approaches Expectations	Meets Expectations	Exceeds Expectations
Fall	3	600-829	830-919	920-984	985-1400
	4	600-901	902-968	969-1033	1034-1400
	5	600-952	953-1003	1004-1071	1072-1400
	6	600-970	971-1034	1035-1090	1091-1400
	7	600-998	999-1043	1044-1113	1114-1400
	8	600-1011	1012-1066	1067-1133	1134-1400
Winter	3	600-856	857-946	947-1006	1007-1400
	4	600-928	929-983	984-1046	1047-1400
	5	600-967	968-1016	1017-1084	1085-1400
	6	600-981	982-1045	1046-1102	1103-1400
	7	600-1012	1013-1054	1055-1123	1124-1400
	8	600-1015	1016-1079	1080-1146	1147-1400
Spring	3	600-875	876-966	967-1024	1025-1400
	4	600-928	929-997	998-1063	1064-1400
	5	600-969	970-1028	1029-1098	1099-1400
	6	600-976	977-1054	1055-1115	1116-1400
	7	600-1007	1008-1066	1067-1138	1139-1400
	8	600-1022	1023-1090	1091-1157	1158-1400

The bootstrap standard errors of each equivalent Star cut scores are listed in Tables 11 and 12 for Mathematics and Reading, respectively. They are relatively small across all linking studies conducted across grades 3-8, test subjects, and performance levels. This gives us evidence supporting the accuracy of the linking results. However, it is also important to keep in mind that linking is a statistical procedure to estimate the equivalence between two sets of test scores and, therefore, linking results contain estimation error.

Table 11. Equivalent Star Cut Score Bootstrap Standard Errors: Mathematics

Season	Grade	Star Scores Reaching Performance Level...					
		Approaches Expectations		Meets Expectations		Exceeds Expectations	
		Cut Score	S.E.	Cut Score	S.E.	Cut Score	S.E.
Fall	3	873	1.99	919	1.42	967	1.23
	4	933	1.88	980	1.35	1017	1.20
	5	962	2.11	1027	1.39	1071	1.27
	6	1007	1.98	1069	1.44	1105	1.42
	7	1030	2.01	1092	1.60	1126	1.55
	8	1046	1.99	1113	1.59	1151	1.59
Winter	3	906	1.90	951	1.28	997	1.09
	4	957	1.83	1005	1.27	1043	1.11
	5	983	2.27	1048	1.35	1092	1.14
	6	1019	1.94	1086	1.49	1126	1.46
	7	1044	1.94	1112	1.59	1149	1.60
	8	1060	1.96	1129	1.62	1169	1.68
Spring	3	926	1.89	971	1.32	1020	1.16
	4	971	2.12	1024	1.46	1066	1.22
	5	996	2.14	1062	1.39	1111	1.31
	6	1024	2.10	1096	1.62	1140	1.63
	7	1047	1.96	1126	1.80	1166	1.95
	8	1067	2.06	1141	1.79	1188	2.14

Table 12. Equivalent Star Cut Score Bootstrap Standard Errors: ELA

Season	Grade	Star Scores Reaching Performance Level...					
		Approaches Expectations		Meets Expectations		Exceeds Expectations	
		Cut Score	S.E.	Cut Score	S.E.	Cut Score	S.E.
Fall	3	830	2.49	920	1.98	985	1.47
	4	902	3.31	969	1.99	1034	1.32
	5	953	2.43	1004	1.65	1072	1.30
	6	971	2.56	1035	1.69	1091	1.42
	7	999	2.26	1044	1.74	1114	1.55
	8	1012	2.44	1067	1.77	1134	1.54
Winter	3	857	2.92	947	1.89	1007	1.35
	4	929	2.90	984	1.74	1047	1.31
	5	968	2.47	1017	1.61	1085	1.33
	6	982	2.52	1046	1.63	1103	1.47
	7	1013	2.12	1055	1.60	1124	1.46
	8	1016	2.47	1080	1.79	1147	1.45
Spring	3	876	2.35	967	1.56	1025	1.36
	4	929	2.26	998	1.69	1064	1.41
	5	970	2.42	1029	1.56	1099	1.27
	6	977	2.30	1055	1.71	1116	1.57
	7	1008	2.18	1067	1.76	1139	1.60
	8	1023	2.17	1091	1.72	1158	1.62

Classification Accuracy

Table 13 summarizes results from the classification accuracy statistics described in Table 1 for the spring linking studies. These are diagnostics used to evaluate the accuracy of using the Renaissance Learning Star test scores to classify students as proficient (Meets Expectations and Exceeds Expectations) or not proficient (Does Not Meet Expectations and Approaches Expectations) on the SC READY Mathematics and ELA summative assessments. The overall classification accuracy statistics range from 0.80 to 0.87, and the AUC statistics are above 0.84 at all grade levels. These diagnostics provide convincing evidence of good classification accuracy for using the linked Star scores to estimate students' proficiency status on the SC READY assessments at grades 3-8.

Table 13. Classification Accuracy Results (Spring)

Grade	Overall Classification Accuracy	False Positive Rate	False Negative Rate	Sensitivity	Specificity	Precision	AUC
Mathematics							
3	0.84	0.21	0.12	0.88	0.79	0.86	0.91
4	0.86	0.17	0.12	0.88	0.83	0.87	0.93
5	0.83	0.19	0.16	0.84	0.81	0.81	0.90
6	0.85	0.14	0.16	0.84	0.86	0.81	0.91
7	0.84	0.11	0.25	0.76	0.89	0.81	0.89
8	0.80	0.15	0.28	0.72	0.85	0.75	0.84
ELA							
3	0.87	0.17	0.11	0.89	0.83	0.92	0.93
4	0.87	0.20	0.09	0.91	0.80	0.90	0.93
5	0.86	0.19	0.12	0.88	0.81	0.91	0.92
6	0.85	0.16	0.15	0.85	0.84	0.89	0.92
7	0.84	0.19	0.14	0.86	0.81	0.87	0.91
8	0.82	0.20	0.16	0.84	0.80	0.86	0.89

CONCLUSIONS

It is important to note that equipercentile linking is a statistical procedure used to facilitate interpretation of scores on the SC READY Mathematics and ELA assessments and the Renaissance Star Mathematics and Reading assessments. Despite good classification accuracy results from this study, there are still important notes of caution to call out in interpreting and using the linked scores.

First, the two tests are constructed differently with regard to test content specifications, test design, and test purpose. For example, the Star Reading test measures students' reading strategies and skills in five domains – “Word Knowledge and Skills, Comprehension Strategies and Constructing Meaning, Analyzing Literary Text, Understanding Author’s Craft, and Analyzing Argument and Evaluating Text” (Renaissance Learning, 2023, p.16). The SC READY ELA assessment is composed of two subtests – writing and reading, and measures student performance on Reading Literary Text, Reading Informational Text, Reading (vocabulary) Across Genres, Writing, and Research and Evaluation Ideas (SCDE, 2025). The statistical adjustments in linking do not adjust for differences in content. Therefore, scores on the SC READY and Renaissance Star assessments should not be used interchangeably. The linked scores facilitate comparisons of proficiency status between two assessments, but do not imply equivalence.

Second, while there is a high level of confidence associated with the models, the linked scores are based on a 50% likelihood estimation. This means that not all students who reach a proficiency cut score on Star will necessarily reach the associated score on SC READY. For example, as we saw in Figure 1 above, while the SC READY 438 cut score for “Meets Expectations” in grade 3 corresponds to the Star Mathematics score of 971 on average, there is a wide range of Star scores among students who reached a 438 on SC READY. The interpretation of the estimated 971 Star Mathematics score is that 3rd grade students with this Star score have a 50% probability of scoring 438 or higher (i.e., reaching “Meets Expectations”) on the SC READY Mathematics test. The results are more accurate for students on average than as associated with individual students.

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