



education
analytics

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

// October 2025

110 E Main Street, Ste. 1000
Madison, WI 53703

608.466.4966

edanalytics.org

CONTENTS

Introduction	3
Methods	3
Data	3
Post-Stratification Weighting.....	3
Equipercntile Linking	4
Classification Accuracy	4
Results	7
Study Sample	7
SC READY and i-Ready Cut-Score Equivalents	12
Classification Accuracy	16
Conclusions.....	17
References	19

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 Curriculum Associates' i-Ready 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 i-Ready 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 i-Ready Mathematics and Reading assessments administered in the fall, winter and spring of the 2024-25 school year. Only students who took the i-Ready 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 i-Ready 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.

Equipercentile Linking

The linking analyses between SC READY and i-Ready assessments were conducted using the equipercentile linking method (Kolen & Brennan, 2004). The equipercentile 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 i-Ready 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.

Equipercentile 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 i-Ready 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., i-Ready 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 i-Ready, which indicates the i-Ready scale score corresponding to a given percentile in the distribution.

Prior to the equipercentile 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 i-Ready 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.

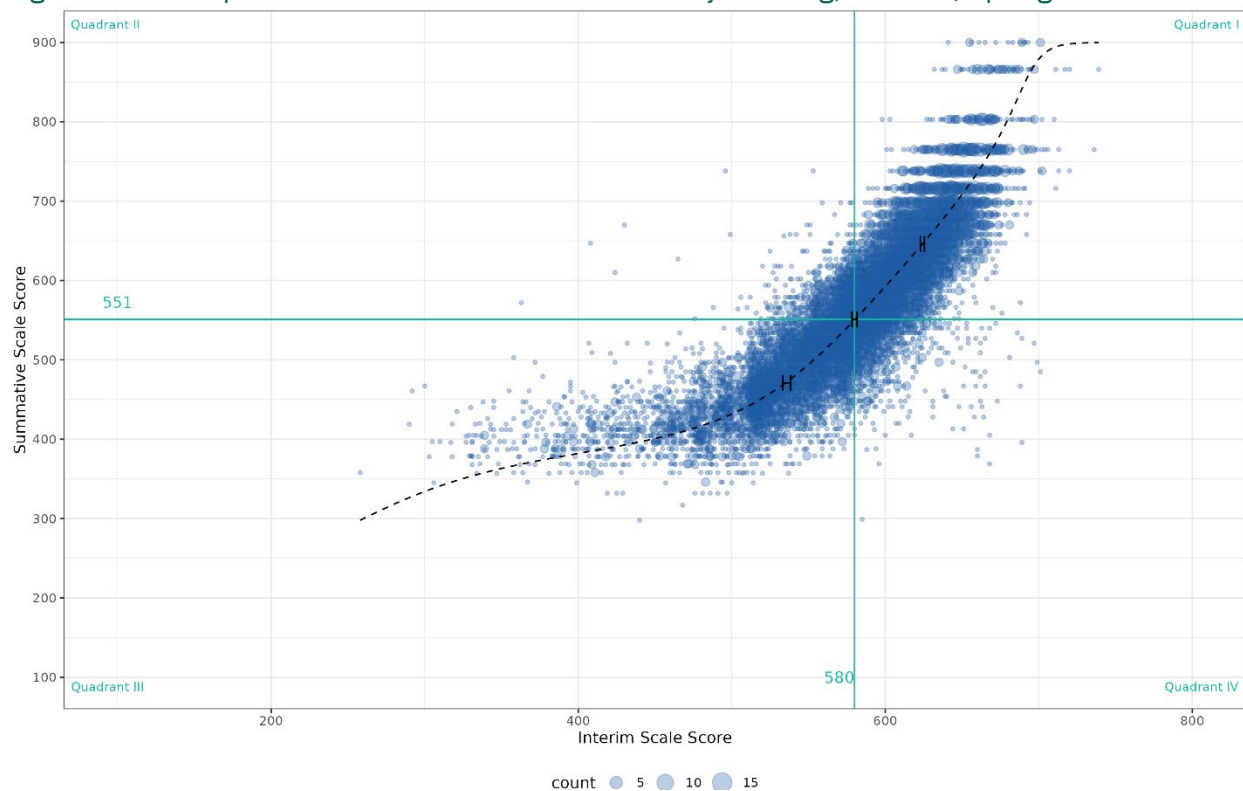
Table 1. Description of Classification Accuracy Summary Statistics

Statistic	Description
Overall Classification Accuracy	Proportion of the study sample with correct proficiency classifications on SC READY based on i-Ready cut scores. Calculated as $(TP+TN)/\text{Total Sample Size}$
False Positive (FP) Rate	Proportion of proficient students based on i-Ready 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 i-Ready cut scores among those observed as proficient on the SC READY test. Calculated as $FN/(FN+TP)$
Sensitivity	Proportion of proficient students based on i-Ready 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 i-Ready 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 i-Ready 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 i-Ready 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 i-Ready ELA/Reading scores from grade 6 in spring 2025. The best-fitting curve (i.e., the black dashed line) shows the i-Ready Reading scores that correspond to the SC READY ELA scores through the linking estimation. For example, the SC READY ELA score of 551 is the cut score for “Meets Expectations” at grade 6. This score corresponds to the i-Ready Reading score of 580 with a standard error of 0.88 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 ELA score of 551 and the i-Ready Reading score of 580 should not be used interchangeably. As shown in Figure 1, not all students who scored 580 and above on the i-Ready Reading test also scored 551 or higher on the SC READY ELA test in spring 2025. Specifically, students in Quadrant IV scored lower than 551. Similarly, students who met or exceeded expectations (i.e., scored 551 or above) on the SC READY ELA test, had a wide range of scores on the i-Ready Reading test, some of which were below 580 (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 ELA and i-Ready Reading, Grade 6, Spring 2025



RESULTS

Study Sample

The linking study sample described in tables 2 through 7 includes students who took both the SC READY and i-Ready Mathematics and ELA/Reading assessments in spring 2025 from 38 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	52.9	51.3	46.6	36	29.8	27.3
SC READY: Does Not Meet Expectations or Approaches Expectations	47.1	47.1	47.1	47.1	47.1	47.1

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	49.3	48.8	48.9	49.2
Male	51.3	51	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	54.7	59.2	59.2	52.9	55.2	53.1
SC READY: Does Not Meet Expectations or Approaches Expectations	45.3	40.8	40.8	47.1	44.8	46.9

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	49.0
Male	51.1	50.5	51.2	51.0	50.9	51.0
Black	29.2	29.4	29.6	30.2	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
Others	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 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	49.0	49.1	49.0
Male	51.1	50.5	51.2	51.0	50.9	51.0
Black	29.1	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	46.4	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	66.0	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	29.1	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	61.7	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 i-Ready 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 0.73 (grade 8, Mathematics) to 0.86 (grade 4, Mathematics) 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 i-Ready Mathematics and ELA/Reading tests.

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

		Grade					
		3	4	5	6	7	8
		Mathematics					
	N	15,797	14,870	15,277	12,010	11,802	11,804
	r	0.85	0.86	0.86	0.79	0.78	0.73
	Mean	456.0	495.8	537.8	520.4	537.7	565.9
	S.D.	115.7	118.5	110.5	107.1	103.9	92.8
SC READY	Min.	100	100	100	295	303	352
	Max.	825	850	875	900	925	950
i-Ready	Mean	447.2	465.8	480	484	490.1	499.1
	S.D.	30.4	33.4	35.2	38.5	41.0	44.4
	Min.	282	292	300	295	289	288
	Max.	594	596	657	636	640	648
		ELA					
	N	12,617	12,226	13,217	11,451	11,410	11,414
	r	0.85	0.84	0.83	0.82	0.80	0.78
SC READY	Mean	466.1	524.4	545.9	560.2	579.0	601.5
	S.D.	103.2	109.7	94.1	100.3	87.0	92.2
	Min.	100	100	241	298	355	361
	Max.	825	850	875	900	925	950
i-Ready	Mean	517.5	545.4	567.9	575.7	587.1	598.7
	S.D.	57.8	59.8	58.9	60.3	61.6	62.0
	Min.	266	273	276	258	235	239
	Max.	693	715	724	739	735	760

SC READY and i-Ready 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 i-Ready. Tables 9 and 10 present the linking results between SC READY summative assessment and i-Ready fall, winter, and spring tests for mathematics and ELA, 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 i-Ready scores.

Table 8. i-Ready “Meets Expectations” Cut Score Equivalents Summary

Grade	Mathematics			ELA		
	Fall	Winter	Spring	Fall	Winter	Spring
3	420	434	446	481	501	518
4	444	455	467	511	526	541
5	465	475	484	541	554	566
6	485	492	498	566	575	580
7	497	505	514	572	582	587
8	509	520	526	588	597	603

Table 9. SC READY and i-Ready 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
		i-Ready			
Season	Grade	Does Not Meet Expectations	Approaches Expectations	Meets Expectations	Exceeds Expectations
Fall	3	100-399	400-419	420-441	442-800
	4	100-423	424-443	444-460	461-800
	5	100-437	438-464	465-484	485-800
	6	100-455	456-484	485-502	503-800
	7	100-467	468-496	497-514	515-800
	8	100-475	476-508	509-529	530-800
Winter	3	100-415	416-433	434-454	455-800
	4	100-434	435-454	455-471	472-800
	5	100-447	448-474	475-495	496-800
	6	100-461	462-491	492-511	512-800
	7	100-474	475-504	505-523	524-800
	8	100-480	481-519	520-541	542-800
Spring	3	100-426	427-445	446-498	469-800
	4	100-444	445-466	467-485	486-800
	5	100-455	456-483	484-506	507-800
	6	100-466	467-497	498-519	520-800
	7	100-476	477-513	514-532	533-800
	8	100-487	488-525	526-548	549-800

Table 10. SC READY and i-Ready 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
		i-Ready			
Season	Grade	Does Not Meet Expectations	Approaches Expectations	Meets Expectations	Exceeds Expectations
Fall	3	100-427	428-480	481-524	525-800
	4	100-467	468-510	511-562	563-800
	5	100-500	501-540	541-597	598-800
	6	100-517	518-565	566-611	612-800
	7	100-534	535-571	572-628	629-800
	8	100-546	547-587	588-637	638-800
Winter	3	100-447	448-500	501-543	544-800
	4	100-484	485-525	526-575	576-800
	5	100-516	517-553	554-607	608-800
	6	100-527	528-574	575-618	619-800
	7	100-545	546-581	582-635	636-800
	8	100-557	558-596	597-644	645-800
Spring	3	100-466	467-517	518-558	559-800
	4	100-498	499-540	541-587	588-800
	5	100-529	530-565	566-617	618-800
	6	100-534	535-579	580-623	624-800
	7	100-552	553-586	587-641	642-800
	8	100-563	564-602	603-650	651-800

The bootstrap standard errors of each equivalent i-Ready cut scores are listed in Tables 11 and 12 for Mathematics and ELA, 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 i-Ready Cut Score Bootstrap Standard Errors: Mathematics

Season	Grade	i-Ready Scores Reaching Performance Level...					
		Approaches Expectations		Meets Expectations		Exceeds Expectations	
		Cut Score	S.E.	Cut Score	S.E.	Cut Score	S.E.
Fall	3	400	0.42	420	0.30	442	0.26
	4	424	0.41	444	0.30	461	0.28
	5	438	0.47	465	0.32	485	0.32
	6	456	0.48	485	0.39	503	0.36
	7	468	0.44	497	0.38	515	0.40
	8	476	0.47	509	0.41	530	0.47
Winter	3	416	0.39	434	0.29	455	0.27
	4	435	0.41	455	0.32	472	0.31
	5	448	0.47	475	0.34	496	0.34
	6	462	0.48	492	0.40	512	0.42
	7	475	0.47	505	0.40	524	0.43
	8	481	0.50	520	0.47	542	0.51
Spring	3	427	0.47	446	0.34	469	0.34
	4	445	0.55	467	0.43	486	0.40
	5	456	0.57	484	0.42	507	0.42
	6	467	0.58	498	0.51	520	0.55
	7	477	0.59	514	0.56	533	0.62
	8	488	0.67	526	0.62	549	0.72

Table 12. Equivalent i-Ready Cut Score Bootstrap Standard Errors: ELA

Season	Grade	i-Ready Scores Reaching Performance Level...					
		Approaches Expectations		Meets Expectations		Exceeds Expectations	
		Cut Score	S.E.	Cut Score	S.E.	Cut Score	S.E.
Fall	3	428	1.03	481	0.73	525	0.56
	4	468	1.29	511	0.79	563	0.60
	5	501	0.96	541	0.68	598	0.57
	6	518	0.95	566	0.68	612	0.55
	7	535	0.96	572	0.72	629	0.56
	8	547	0.98	588	0.70	638	0.53
Winter	3	448	1.21	501	0.70	544	0.54
	4	485	1.32	526	0.78	576	0.57
	5	517	0.98	554	0.69	608	0.54
	6	528	0.96	575	0.69	619	0.55
	7	546	0.97	582	0.71	636	0.55
	8	558	0.93	597	0.68	645	0.53
Spring	3	467	1.46	518	0.80	559	0.65
	4	499	1.75	541	0.97	588	0.74
	5	530	1.15	566	0.77	618	0.66
	6	535	1.28	580	0.88	624	0.70
	7	553	1.26	587	0.93	642	0.70
	8	564	1.23	603	0.85	651	0.68

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 Curriculum Associates i-Ready 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 0.83 to 0.88, and the AUC statistics are above 0.88 at all grade levels. These diagnostics provide convincing evidence of good classification accuracy for using the linked i-Ready 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	0.87	0.16	0.10	0.90	0.84	0.86	0.94
4	0.88	0.14	0.09	0.91	0.86	0.87	0.95
5	0.87	0.13	0.12	0.88	0.87	0.85	0.95
6	0.88	0.11	0.12	0.88	0.89	0.81	0.94
7	0.88	0.07	0.25	0.75	0.93	0.83	0.92
8	0.85	0.09	0.29	0.71	0.91	0.75	0.88
ELA							
3	0.87	0.15	0.11	0.89	0.85	0.88	0.94
4	0.88	0.14	0.11	0.89	0.86	0.90	0.94
5	0.87	0.16	0.12	0.88	0.84	0.89	0.94
6	0.86	0.16	0.13	0.87	0.84	0.86	0.93
7	0.84	0.20	0.13	0.87	0.80	0.84	0.91
8	0.83	0.20	0.14	0.86	0.80	0.83	0.90

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 Curriculum Associates i-Ready 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 i-Ready Diagnostic Reading test measures students' reading strategies and skills in the following domains – “High-Frequency Words, Phonics, Phonological Awareness, Reading Comprehension: Literature, Reading Comprehension: Informational Text, and Vocabulary” (Curriculum Associates, 2019, p.11). 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 Curriculum Associates i-Ready 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 i-Ready will necessarily reach the associated score on SC READY. For example, as we saw in Figure 1 above, while the SC READY 551 cut score for “Meets Expectations” in grade 6 corresponds to the i-Ready Reading score of 580 on average, there is a wide range of i-Ready scores among students who reached a 551 on SC READY. The interpretation of the estimated 580 i-Ready Reading score is that 6th grade students with this i-Ready score have a 50% probability of scoring 551 or higher (i.e., reaching “Meets Expectations”) on the SC READY ELA test. The results are more accurate for students on average than as associated with individual students.

REFERENCES

- Curriculum Associates. (2019). *i-Ready Assessments Technical Manual*. North Billerica, MA: Author.
- Kolen, M. J., & Brennan, R. L. (2014). *Test equating, scaling, and linking: Methods and practices* (3rd ed.). Springer Science + Business Media. <https://doi.org/10.1007/978-1-4939-0317-7>
- Holland, P. W., & Thayer, D. T. (1987). *Notes on the use of log-linear models for fitting discrete probability distributions* (Technical Report 87-79). Princeton, NJ: ETS.
- Holland, P. W., & Thayer, D. T. (2000). Univariate and bivariate loglinear models for discrete test score distributions. *Journal of Educational and Behavioral Statistics*, 25, 133–183.
- Rosenbaum, P. R., & Thayer, D. (1987). Smoothing the joint and marginal distributions of scored two-way contingency tables in test equating. *British Journal of Mathematical and Statistical Psychology*, 40, 43–49.
- South Carolina Department of Education. (2025). *SC READY Score Report User's Guide: For Use with Spring 2025 Score Reports*. Columbia, SC: Author.