

The Relationship between *i-Ready Diagnostic* and the 2023 Tennessee Comprehensive Assessment Program (TCAP)

Curriculum Associates Research Brief | March 2024

Research Overview

i-Ready Diagnostic and the 2023 TCAP are highly correlated—with an average spring correlation of **.81** for English Language Arts (ELA) and **.82** for Mathematics.

About the Students Included in the Study

Curriculum Associates conducted a large-scale study on the relationship between the *i-Ready Diagnostic* and the 2023 TCAP for Grades 3–8 in ELA and Mathematics, the primary grades in which *i-Ready* is used in Tennessee for which there is a state summative assessment in place. Students came from a total of 11 school districts, one of which is a charter agency (see Table 1). The school districts were selected for participation in the study to represent a wide variety of sizes, urbanicity, and socioeconomic levels (using National School Lunch Program as a proxy). See the appendix for more information on the sample.

Table 1. Demographic Information for Tennessee Districts in Study

District	Schools Participating	Location	Total Enrollment	% National School Lunch Program	% English Language Learners ¹
1	119	City (105), Suburb (9), Rural (5)	60,000–64,999	55%	10%
2	13	City (11), Rural (2)	9,000–9,499	30%	5%
3	17	Town (17)	8,000–8,499	30%	5%
4	14	Suburb (7), Rural (4), City (3)	6,500–6,999	25%	<5%
5	3	Suburb (2), Rural (1)	2,500–2,999	40%	<5%
6	6	Town (6)	2,000–2,499	35%	<5%
7	6	Rural (4), Town (2)	2,000–2,499	45%	<5%
8	6	Rural (6)	2,000–2,499	40%	<5%
9	3	Town (3)	1,500–1,999	30%	10%
10	3	Rural (2), Town (1)	1,000–1,499	45%	<5%
11	5	City (5)	1,000–1,499	35%	10%
Average of Participating Districts²				47%	8%
Average across All Districts in the State²				29%	5%

Note: Demographic data are available at the school and district level and may not precisely describe the study sample. District-specific statistics are provided as ranges or rounded to the nearest five percent in order to ensure the anonymity of participating districts.

¹Data on English language learners is only available at the district level. Data from U.S. Department of Education, National Center for Education Statistics, ED*Facts* file 141, Data Group 678, 2020–2021, extracted May 10, 2023.

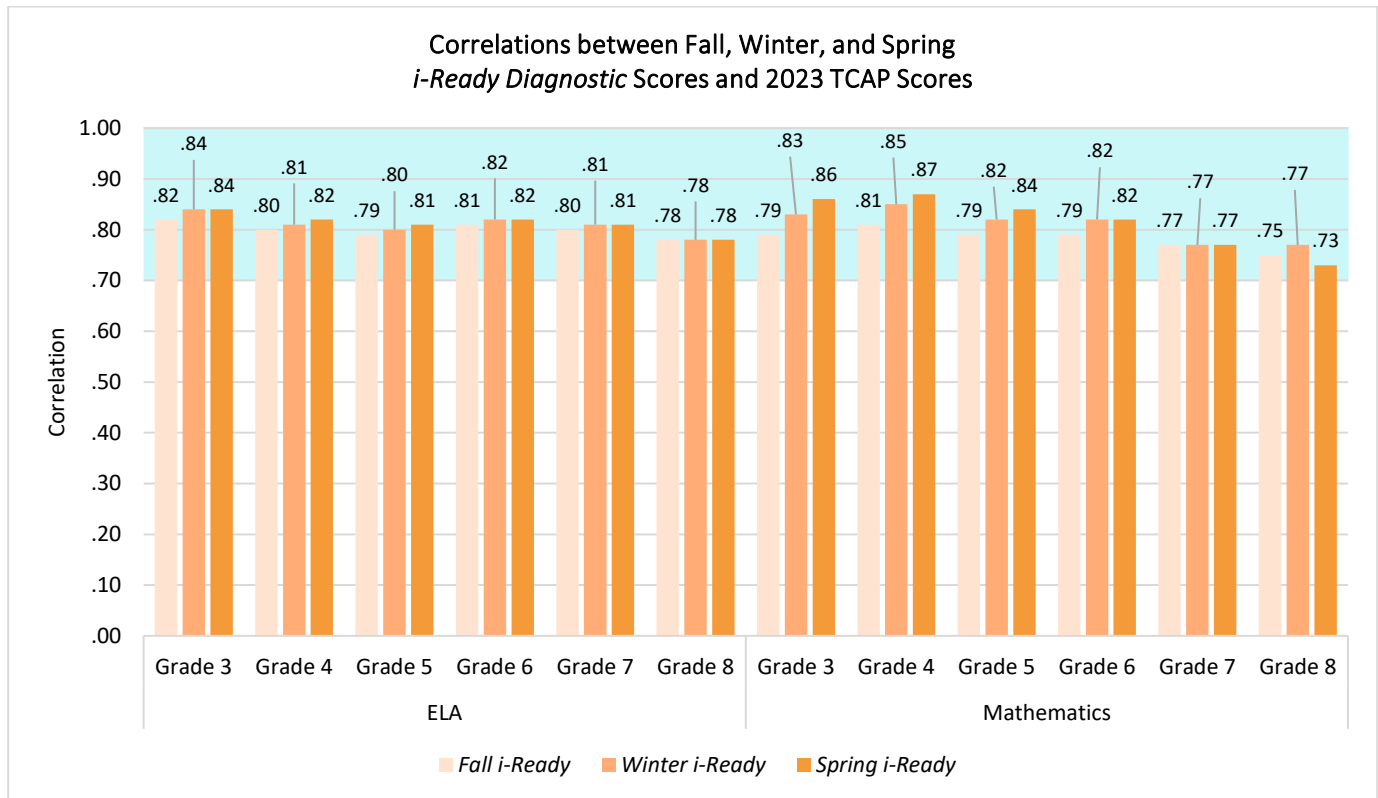
²Weighted averages.

Data from U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), “Local Education Agency (School District) Universe Survey”, 2021–2022 v.1a. (obtained from <https://nces.ed.gov/ccd/pubagency.asp>), represent 2021–2022 data, which was the most recent full dataset available from NCES at the time of the study.

Correlation Results

Across all grades and in both subjects, results provide evidence for the strong correlation between *i-Ready Diagnostic* and the TCAP (see Figure 1). Specifically, spring correlations for ELA ranged from .78 for Grade 8 to .84 for Grade 3, and spring correlations for Mathematics ranged from .73 for Grade 8 to .87 for Grade 4. These correlations, **all surpassing the .70 standard generally considered to be strong in education research**, provide evidence of a substantial relationship between *i-Ready Diagnostic* and the TCAP.

Figure 1



Note: To improve sample representativeness, select districts have been sampled down in the final study sample.

Why Correlations Matter

Correlations are one of the most commonly used and widely accepted forms of validity evidence. Correlations demonstrate that when students score high on one assessment, they also tend to score high on the other, and similarly, when students score low on one assessment, they also tend to score low on the other. A high correlation between two assessments provides evidence that the two assessments are measuring related constructs.

Appendix

The sample included more than 36,000 students, with between 3,472 and 5,802 students per grade for ELA for the spring *i-Ready* assessment and between 3,584 and 5,987 students per grade for Mathematics for the spring *i-Ready* assessment (see Table 2). These students took both the *i-Ready Diagnostic* and the TCAP during the 2022–2023 school year.

Table 2. Sample Sizes for Correlations

	ELA			Mathematics		
	Fall	Winter	Spring	Fall	Winter	Spring
Grade 3	4,942	5,066	5,802	5,741	5,884	5,987
Grade 4	5,489	5,613	5,752	5,685	5,819	5,948
Grade 5	5,468	5,581	5,717	5,691	5,811	5,917
Grade 6	4,308	4,393	4,594	4,532	4,597	4,762
Grade 7	3,298	3,413	3,622	3,522	3,625	3,755
Grade 8	3,160	3,247	3,472	3,370	3,414	3,584

Note: To improve sample representativeness, select districts have been sampled down in the final study sample.

Table 3 shows the percentage of students in each race/ethnicity group from the study samples. In both the ELA and Mathematics samples, we have strong representation from students of different racial/ethnic groups.

Table 3. Race/Ethnicity Information for Sample of Tennessee Students in this Study

	American Indian or Alaska Native	Asian	Black	Hawaiian or Pacific Islander	Hispanic	Two or More Races	White
ELA	.3%	1.7%	32.5%	.2%	15.8%	1.0%	48.5%
Mathematics	.2%	1.7%	32.8%	.2%	16.2%	1.1%	47.8%