

The Relationship between *i-Ready Diagnostic* and the 2023 West Virginia General Summative Assessment (WVGSA)

Curriculum Associates Research Brief | October 2023

Research Overview

i-Ready Diagnostic and the 2023 WVGSA are highly correlated—with an average spring correlation of **.84** for English Language Arts (ELA) and **.89** 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 WVGSA for Grades 3–8 in ELA and Mathematics, the primary grades in which *i-Ready* is used in West Virginia for which there is a state summative assessment in place. Students came from a total of 24 school districts, all public and none of which were charter agencies (see Table 1). The school districts were selected for participation in the study specifically to be representative of the state in terms of factors such as urbanicity, race/ethnicity, and socioeconomic status (using National School Lunch Program as a proxy). See the appendix for more information on the sample.

Table 1. Demographic Information for West Virginia Districts in Study

District	Schools Participating	Location	Total Enrollment	% BIPOC ¹	% National School Lunch Program	% English Language Learners ²
1	22	City (15), Suburb (4), Town (2), Rural (1)	8,500–8,999	5%	50%	<5%
2	23	City (10), Suburb (10), Rural (3)	8,000–8,499	20%	50%	<5%
3	15	City (6), Rural (6), Suburb (3)	7,500–7,999	15%	35%	<5%
4	18	Suburb (14), Rural (4)	6,000–6,499	5%	35%	<5%
5	16	Town (10), Rural (6)	5,500–5,999	5%	40%	<5%
6	16	Town (12), Rural (4)	5,000–5,499	10%	45%	<5%
7	9	Rural (5), Town (4)	3,000–3,499	5%	45%	<5%
8	8	Rural (7), Town (1)	2,500–2,999	<5%	45%	<5%
9	9	Rural (6), Town (3)	2,500–2,999	5%	45%	<5%
10	8	Rural (5), Town (3)	2,500–2,999	5%	55%	<5%
11	7	Rural (7)	2,000–2,499	<5%	60%	*
12	7	Rural (6), Town (1)	1,500–1,999	5%	35%	<5%
13	5	Rural (3), Town (2)	1,500–1,999	5%	60%	<5%
14	5	Town (3), Rural (2)	1,500–1,999	5%	60%	<5%
15	4	Rural (2), Town (2)	1,500–1,999	25%	60%	<5%
16	4	Rural (3), Town (1)	1,500–1,999	<5%	45%	<5%
17	6	Rural (4), Town (2)	1,500–1,999	5%	50%	*
18	7	Rural (7)	1,000–1,499	5%	55%	<5%
19	3	Rural (3)	1,000–1,499	<5%	65%	*
20	4	Rural (4)	800–899	<5%	55%	<5%
21	2	Rural (2)	600–699	<5%	55%	*
22	2	Rural (2)	600–699	5%	40%	*
23	2	Rural (2)	500–599	<5%	50%	<5%
24	2	Rural (2)	300–399	<5%	55%	*

Table 1 (continued).

Average of Participating Districts³	8%	47%	1%
Average across All Districts in the State³	11%	48%	1%

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.

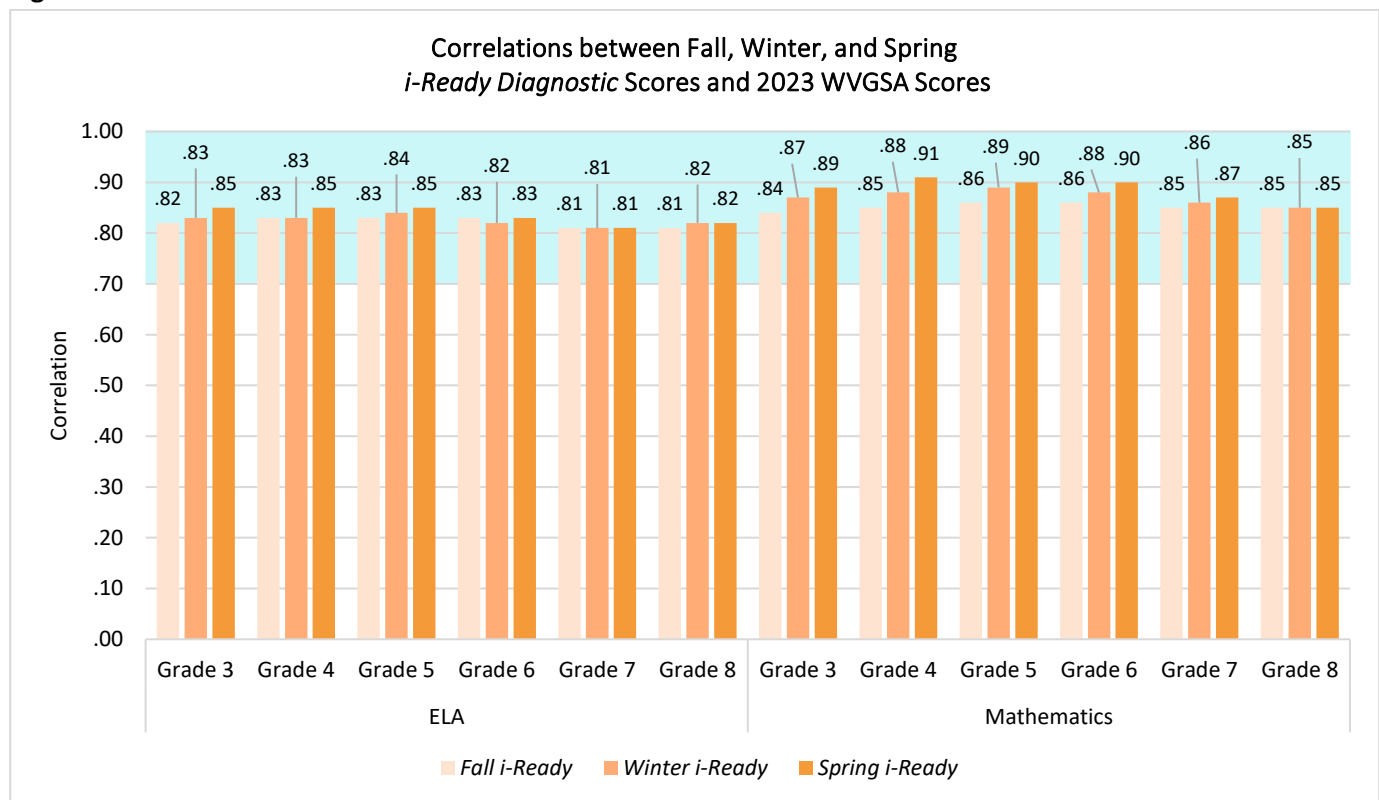
¹Black, Indigenous, and People of Color. ²Data on English language learners is only available at the district level. Data from U.S. Department of Education, National Center for Education Statistics, ED^o Facts file 141, Data Group 678, 2020–2021, extracted [May 10, 2023]. ³Weighted averages.

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. An asterisk (*) signifies that NCES has recorded the data as missing, not available, or not reported data items.

Correlation Results

Across all grades and in both subjects, results provide evidence for the strong correlation between *i-Ready Diagnostic* and the WVGSAs (see Figure 1). Specifically, spring correlations for ELA ranged from .81 for Grade 7 to .85 for Grades 3, 4, and 5, and spring correlations for Mathematics ranged from .85 for Grade 8 to .91 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 WVGSAs.

Figure 1



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 40,000 students, with between 6,022 and 6,854 students per grade for ELA for the spring *i-Ready* assessment and between 6,173 and 7,001 students per grade for Mathematics for the spring *i-Ready* assessment (see Table 2). These students took both the *i-Ready Diagnostic* and the WVGSA during the 2022–2023 school year.

Table 2. Sample Sizes for Correlations

	ELA			Mathematics		
	Fall	Winter	Spring	Fall	Winter	Spring
Grade 3	5,954	6,055	6,086	6,029	6,131	6,173
Grade 4	6,714	6,833	6,854	6,858	6,931	7,001
Grade 5	6,487	6,556	6,586	6,549	6,597	6,652
Grade 6	6,303	6,306	6,346	6,396	6,451	6,497
Grade 7	6,039	6,139	6,022	6,255	6,344	6,301
Grade 8	6,043	6,177	6,045	6,399	6,436	6,332