The Relationship between *i-Ready Diagnostic* and the 2023 New Hampshire Statewide Assessment System (NH SAS)

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Research Overview

i-Ready Diagnostic and the 2023 NH SAS are highly correlated—**with an average spring correlation of .82 for English Language Arts (ELA) and .88 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 NH SAS for Grades 3–8 in ELA and Mathematics, the primary grades in which *i-Ready* is used in New Hampshire for which there is a state summative assessment in place. Students came from a total of 6 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 New Hampshire Districts in Study

District	Schools Participating	Location	Total Enrollment	% National School Lunch Program	% English Language Learners[1]
1	7	Rural (5), Suburb (2)	2,500–2,999	5%	<5%
2	4	Suburb (3), Rural (1)	2,000–2,499	15%	<5%
3	5	Town (5)	2,000–2,499	35%	5%
4	3	City (3)	2,000–2,499	35%	10%
5	2	Suburb (2)	800–899	15%	<5%
6	2	Rural (2)	800–899	10%	<5%
Average of Participating Districts[2]				21%	6%
Average across All Districts in the State[2]				21%	3%

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.

[1] Data 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.

[2] Weighted 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 NH SAS (see Figure 1). Specifically, spring correlations for ELA ranged from .80 for Grade 8 to .84 for Grade 6, and spring correlations for Mathematics ranged from .86 for Grade 3 to .89 for Grade 6. 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 NH SAS.

Figure 1

Correlations between Fall, Winter, and Spring
i-Ready Diagnostic Scores and 2023 NH SAS Scores
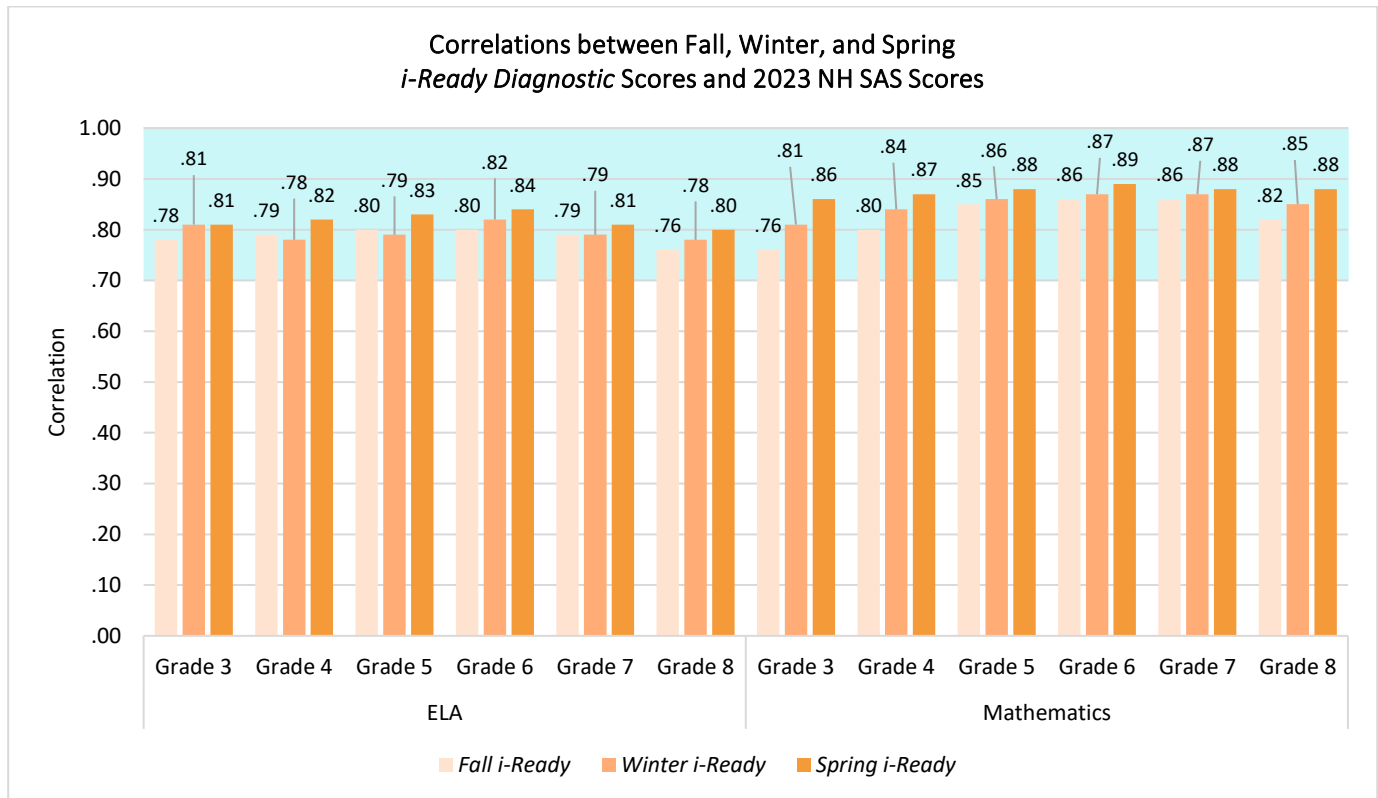
Why Correlations Matter

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 7,000 students, with between 642 and 1,435 students per grade for ELA for the spring *i-Ready* assessment and between 748 and 1,523 students per grade for Mathematics for the spring *i-Ready* assessment (see Table 2). These students took both the *i-Ready Diagnostic* and the NH SAS during the 2022–2023 school year.

Table 2. Sample Sizes for Correlations

	ELA			Mathematics		
	Fall	**Winter**	**Spring**	**Fall**	**Winter**	**Spring**
Grade 3	669	667	676	737	745	748
Grade 4	636	645	642	730	737	758
Grade 5	872	885	878	924	933	930
Grade 6	952	1,513	1,435	961	1,520	1,523
Grade 7	841	1,439	1,370	859	1,479	1,429
Grade 8	848	1,366	1,112	876	1,423	1,191

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 New Hampshire Students in this Study

	American Indian or Alaska Native	Asian	Black	Hawaiian or Pacific Islander	Hispanic	Two or More Races	White
ELA	.2%	3.7%	2.9%	.1%	12.6%	4.4%	76.2%
Mathematics	.2%	3.7%	2.8%	.1%	12.8%	4.3%	76.1%

Note: One district containing about 7% of students in the sample did not provide complete race/ethnicity information for its students and therefore is not included in this table.