The Relationship between *i-Ready Diagnostic* and the 2023 Alaska System of Academic Readiness (AK STAR)

Curriculum Associates Research Brief | June 2024

Research Overview

i-Ready Diagnostic and the 2023 AK STAR are highly correlated—**with an average spring correlation of .83 for English Language Arts (ELA) and .85 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 AK STAR for Grades 3–8 in ELA and Mathematics, the primary grades in which *i-Ready* is used in Alaska for which there is a state summative assessment in place. Students came from a total of 4 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 Alaska Districts in Study

District	Schools Participating	Location	Total Enrollment	% National School Lunch Program[1]	% English Language Learners[2]
1	73	City (60), Town (7), Rural (6)	25,000–29,999	55%	15%
2	27	Town (14), Rural (13)	10,000–14,999	50%	5%
3	20	City (9), Suburb (7), Rural (3), Town (1)	6,500–6,999	45%	5%
4	13	Rural (11), Town (2)	3,000–3,499	50%	5%
Average of Participating Districts[3]				49%	9%
Average across All Districts in the State[3]				44%	11%

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 from U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Local Education Agency (School District) Universe Survey", 2019-2020 v.1a. (obtained from https://nces.ed.gov/ccd/pubagency.asp), represent 2019–2020 data, which was the most recent data available for the National School Lunch Program in Alaska at the time of the study.

[2]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.

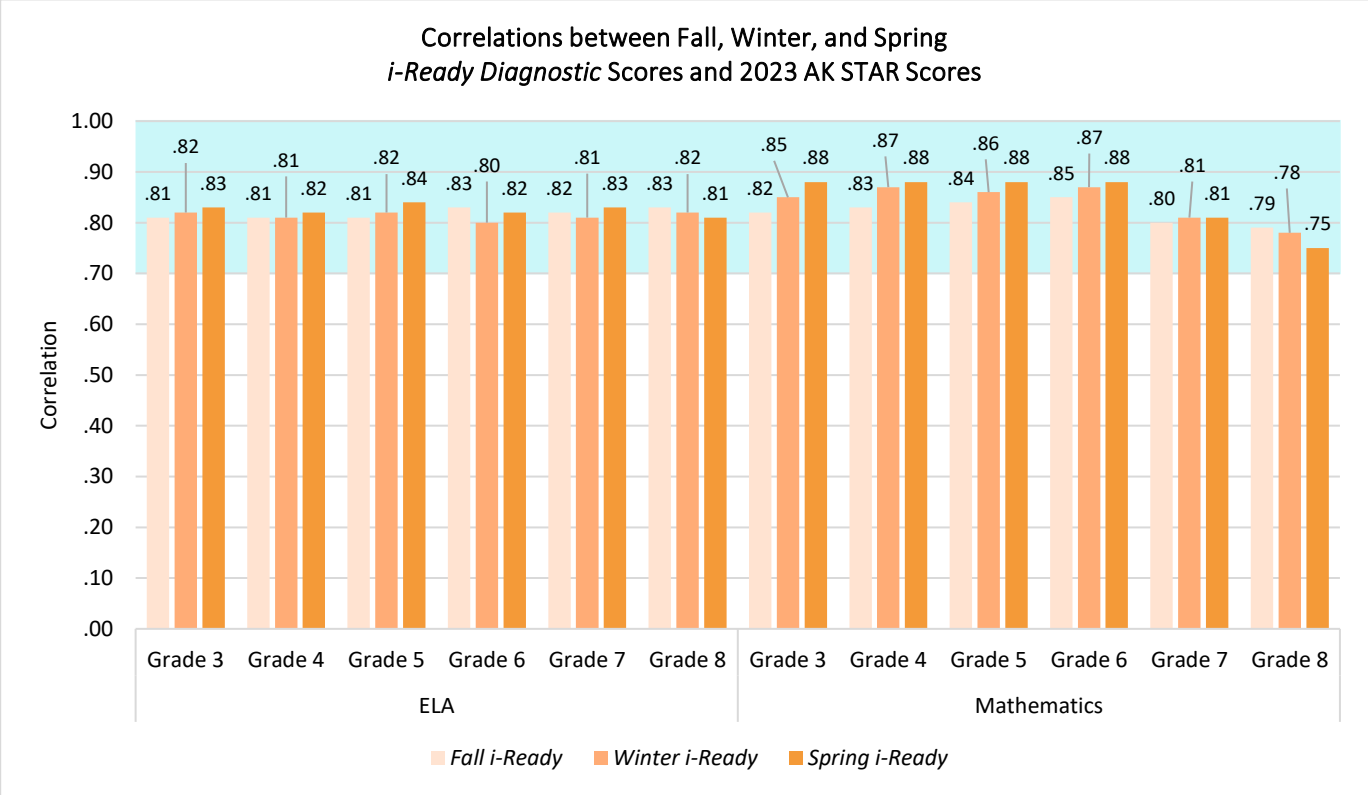
[3]Weighted averages.

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 AK STAR (see Figure 1). Specifically, spring correlations for ELA ranged from .81 for Grade 8 to .84 for Grade 5, and spring correlations for Mathematics ranged from .75 for Grade 8 to .88 for Grades 3, 4, 5, and 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 AK STAR.

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 27,000 students, with between 191 and 1,653 students per grade for ELA for the spring *i-Ready* assessment and between 1,938 and 4,883 students per grade for Mathematics for the spring *i-Ready* assessment (see Table 2). These students took both the *i-Ready Diagnostic* and the AK STAR during the 2022–2023 school year.

Table 2. Sample Sizes for Correlations

	ELA			Mathematics		
	Fall	Winter	Spring	Fall	Winter	Spring
Grade 3	2,877	1,130	1,653	5,022	5,030	4,841
Grade 4	2,631	936	1,532	4,973	4,974	4,883
Grade 5	2,437	834	1,381	4,973	4,900	4,761
Grade 6	1,565	764	622	4,454	4,267	3,629
Grade 7	366	418	399	3,302	3,215	2,378
Grade 8	337	283	191	2,856	2,670	1,938

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 Alaska Students in this Study

	American Indian or Alaska Native	Asian	Black	Hawaiian or Pacific Islander	Hispanic	Two or More Races	White
ELA	9.8%	6.2%	3.3%	4.7%	10.7%	17.3%	48.1%
Mathematics	9.6%	6.2%	3.1%	4.9%	10.7%	17.0%	48.5%