

# The Relationship between *i-Ready Diagnostic* and the 2023 Kansas Assessment Program (KAP)

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## Research Overview

*i-Ready Diagnostic* and the 2023 KAP are highly correlated—with an average spring correlation of **.82** for English Language Arts (ELA) and **.86** 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 KAP for Grades 3–8 in ELA and Mathematics, the primary grades in which *i-Ready* is used in Kansas for which there is a state summative assessment in place. Students came from a total of 19 school districts, one of which was a private institution (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 Kansas Districts in Study**

District	Schools Participating	Location	Total Enrollment	% National School Lunch Program	% English Language Learners <sup>1</sup>
1	30	City (19), Suburb (6), Rural (5)	10,000–14,999	5%	5%
2	14	Town (11), Rural (3)	5,000–5,499	50%	5%
3	12	City (10), Rural (2)	4,500–4,999	40%	5%
4	6	Suburb (3), Rural (2), City (1)	2,500–2,999	10%	<5%
5	6	Suburb (4), Rural (2)	2,500–2,999	50%	5%
6	5	Town (3), Rural (2)	2,000–2,499	75%	45%
7	5	Rural (5)	1,500–1,999	20%	*
8	13	*	1,000–1,499	*	*
9	3	Town (2), Rural (1)	1,000–1,499	35%	<5%
10	2	Town (2)	1,000–1,499	65%	<5%
11	4	Town (4)	1,000–1,499	40%	5%
12	2	Suburb (2)	800–899	30%	<5%
13	1	Town (1)	700–799	25%	<5%
14	1	Suburb (1)	500–599	50%	5%
15	1	Town (1)	300–399	30%	<5%
16	2	Town (2)	300–399	40%	*
17	1	Rural (1)	200–299	40%	*
18	1	Rural (1)	200–299	55%	5%
19	1	Rural (1)	100–199	35%	*
<b>Average of Participating Districts<sup>2</sup></b>				30%	6%
<b>Average across All Districts in the State<sup>2</sup></b>				43%	10%

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.

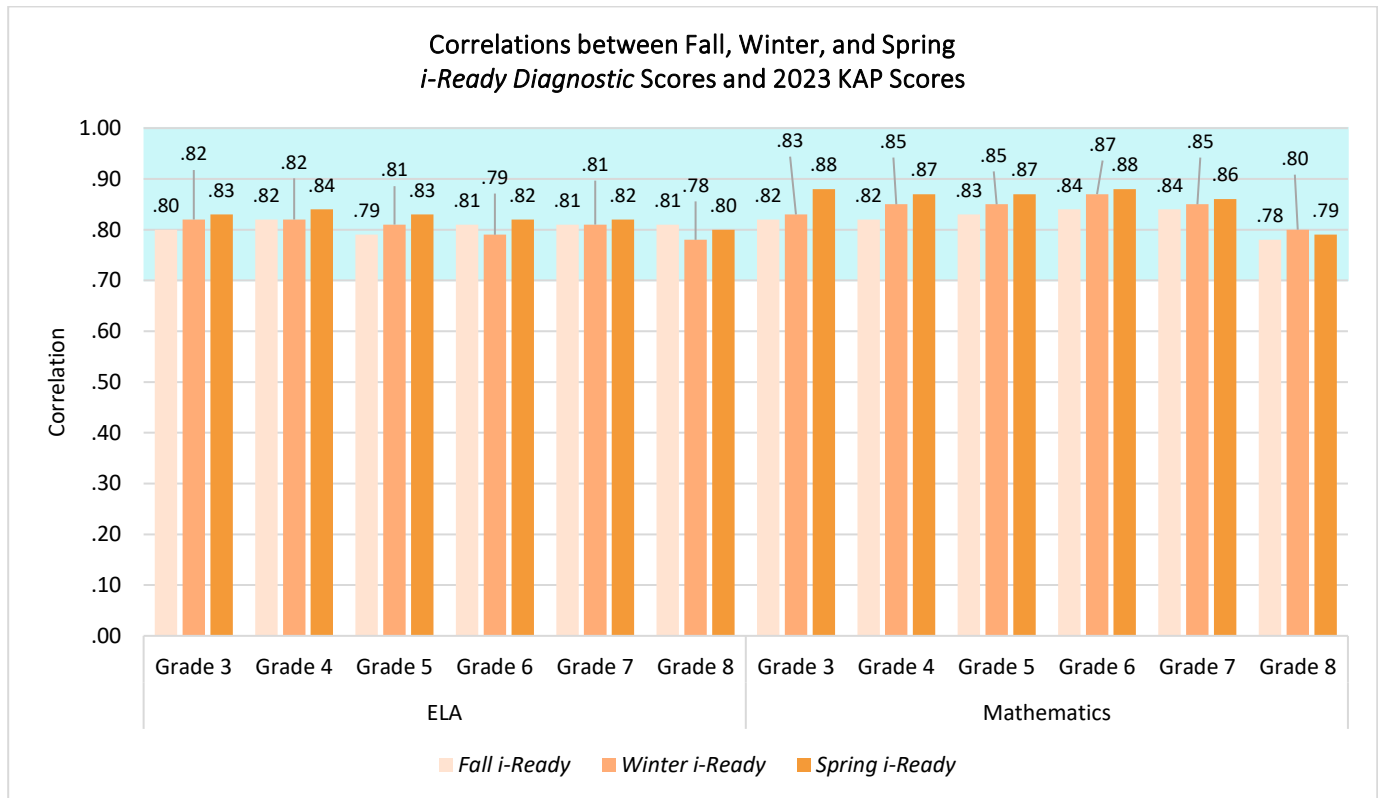
<sup>1</sup>Data on English language learners is only available at the district level. Data from U.S. Department of Education, National Center for Education Statistics, EDData file 141, Data Group 678, 2020–2021, extracted May 10, 2023. <sup>2</sup>Weighted averages.

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. 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 KAP (see Figure 1). Specifically, spring correlations for ELA ranged from .80 for Grade 8 to .84 for Grade 4, and spring correlations for Mathematics ranged from .79 for Grade 8 to .88 for Grades 3 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 KAP.

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 24,000 students, with between 467 and 524 students per grade for ELA for the spring *i-Ready* assessment and between 2,218 and 4,995 students per grade for Mathematics for the spring *i-Ready* assessment (see Table 2). These students took both the *i-Ready Diagnostic* and the KAP during the 2022–2023 school year.

**Table 2. Sample Sizes for Correlations**

	ELA			Mathematics		
	Fall	Winter	Spring	Fall	Winter	Spring
<b>Grade 3</b>	529	558	524	4,902	5,006	4,995
<b>Grade 4</b>	478	482	483	4,827	4,879	4,891
<b>Grade 5</b>	499	504	478	4,843	4,911	4,905
<b>Grade 6</b>	546	548	518	3,294	3,333	3,302
<b>Grade 7</b>	502	514	502	3,252	3,282	3,271
<b>Grade 8</b>	516	507	467	2,278	2,234	2,218

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 Kansas Students in this Study**

	American Indian or Alaska Native	Asian	Black	Hispanic	Two or More Races	White	Hawaiian or Pacific Islander
<b>ELA</b>	.5%	3.5%	.8%	26.7%	4.3%	64.2%	.0%
<b>Mathematics</b>	.4%	7.8%	5.4%	15.2%	6.9%	63.7%	.6%

Note: Four districts containing about 12% of students in the sample did not provide complete race/ethnicity information for their students and therefore are not included in this table.