SC-READY Predictability Study



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EXECUTIVE SUMMARY: SC-READY Predictability Study

In June 2019 The Center for Research and Reform in Education (CRRE) at Johns Hopkins University contracted with Istation to conduct a mixed-methods evaluation study of the implementation and impacts on student achievement of Istation's ISIP Early Reading (ISIP ER) and Advanced Reading (ISIP AR) assessments in a school district in a small city in South Carolina. The present report examines findings from multinomial logistic regression analyses of the association between ISIP scores and SC-READY ELA achievement levels.

The current study was designed to address the following research question:

To what degree are ISIP scores associated with SC-READY ELA proficiency levels?

Correlational and multinomial logistic regression analyses were used to examine the associations between fall, winter, and spring 2018-19 ISIP ER and AR scores and spring 2019 SC-READY proficiency levels for grades 3 and 4 students in the 2018-19 school year. The important findings from these analyses include:

- Fall, winter, and spring 2018-19 ISIP ER and AR scores were strongly associated with spring 2019 SC-READY ELA scores, with observed correlations ranging between +.70 and +.75.
- Students with ISIP ER scores in the 65th percentile or higher had at least a 50% chance of attaining at least level 3 (meets expectations) SC-READY ELA proficiency. Students with ISIP ER scores in the 85th percentile or higher had at least a 50% chance of attaining level 4 (exceeds expectations) SC-READY ELA proficiency.
- Students with ISIP AR scores in the 60th percentile or higher had at least a 50% chance of attaining at least level 3 SC-READY ELA proficiency. Students with ISIP AR scores in the 80th percentile or higher had at least a 50% chance of attaining level 4 (exceeds expectations) SC-READY ELA proficiency.

SC-READY Predictability Study

In June 2019 The Center for Research and Reform in Education (CRRE) at Johns Hopkins University contracted with Istation to conduct a mixed-methods evaluation study of the implementation and impacts on student achievement of Istation's ISIP Early Reading (ISIP ER) and Advanced Reading (ISIP AR) assessments in a school district in a small city in South Carolina. The present report examines findings from multinomial logistic regression analyses of the association between ISIP scores and SC-READY ELA achievement levels.

The ISIP ER assessment, developed by Dr. Joseph Torgeson, Dr. Patricia Mathes, and Dr. Jeannine Herron, is a validated computer-based adaptive testing system that provides benchmark and continuous progress monitoring of student performance. Key indicators include:

- Assessment in critical domains of reading in all tested grades
- Assessment of skills most predictive of future reading success
- Assessment of progress in each area relevant to a larger domain
- Provision of a comprehensive snapshot of reading ability

Testing occurs in a game-like and engaging environment. Scoring results are obtained and reported to teachers immediately after test completion. The assessments are nationally normed every three to five years. ISIP ER levels were originally reported on a three-tier normative grouping, based on scores associated with the 20th and 40th percentiles, similar to the Response to Intervention (RTI) model. During the 2018-19 school year, however, the reporting system was changed by Istation to a five-tier grouping model.

The current study was designed to address the following research question:

To what degree are ISIP scores associated with SC-READY ELA proficiency levels?

Method

Research Design

This set of analyses analyzed retrospective ELA state test data from the 2018-19 school year in a school district in a small city in South Carolina. Specifically, ELA scores and achievement levels from the SC-READY and the Istation Indicators of Progress (ISIP) assessments were examined in this study. Correlational analyses were conducted that examined the interrelationships between ISIP ER and AR scores and SC-READY

ELA test scores and proficiency levels. ISIP and SC-READY scores were examined for students in grades 3 and 4.

Participants

The district is a "small city" district of approximately 7,400 students in the southeastern United States. The majority of its students (53%) are White, with Black students (40%) constituting the next largest ethnic subgroup. Approximately 70% of the students come from economically disadvantaged families, 7% are Limited English Proficient students, and 11% are disabled/special education students. For the purposes of the present analyses, five schools support the grade levels that have participated in ISIP ER and AR testing for multiple years. The schools are fairly diverse in student demographics.

Student demographics for participants in this evaluation are displayed in Table 1. "Other Race" is defined as ethnicities other than White, Black, and Hispanic/Latino, which are the three dominant ethnicities in the district. The analytic sample generally had smaller proportions of White students and larger proportions of Black students than did the overall district. Proportions of economically disadvantaged, special education, and LEP students were generally similar to district-wide proportions.

Table 1
Student characteristics for analytic sample

Group	
% Black	55.24
% White	34.52
% Hispanic	7.47
% Other Race	10.25
% Female	51.05
% Economically disadvantaged	64.07
% Students with Disabilities/SPED	14.11
% ELs	7.51
N	2,196

Measures

Data sources for the current study include student ISIP scores and SC-READY ELA achievement data. Specifically, scores from the 2018-19 school year for grades 3 and 4 were analyzed to examine the probability of students reaching different levels of SC-READY achievement, on the basis of fall 2018, winter 2019, and spring 2019 ISIP ER and AR scores.

ISIP ER and AR scores. Overall and sub-domain ISIP data were obtained for students in grades 3 and 4 in the 2018-19 school year who also had non-missing SC-

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READY ELA scores in this same school year. Sub-domains included Alphabetic Decoding, Comprehension, Letter Knowledge, Listening Comprehension, Phonemic Awareness, Spelling, Text Fluency, and Vocabulary. For the purpose of beginning and end-of-year comparisons, fall, winter, and spring scores were derived from monthly ISIP scores. The September ISIP score was used as the fall score; if this was missing, then the first non-missing score from October, August, and November was used as the fall score. The January score was used as the winter score; if this was missing, then the first non-missing score from February and December was used. The spring score was defined as the May ISIP score; if this was missing, then the first non-missing score from June and April was used as the spring score.

ISIP ER and AR scores are nationally normed across grades, meaning that similar numerical scores across grades, on a particular test, can be interpreted as reflecting the same ability level (Mathes, Torgesen, & Herron, 2016). For example, a Grade 2 student scoring at 200 and a Grade 3 student scoring at 200 on the ISIP ER test would be indicative of performance at the same ability level. Score ranges vary by grade level; Table 2 shows overall ISIP score ranges for grades 3 and 4 in the 2018-19 school year.

Table 2
ISIP ER and AR score ranges, by grade

	7 7 3
Grade	ISIP Score range
Grade 3	167-371
Grade 4	813-2720

Student achievement. Student achievement data were the standardized ELA exams administered to all district students (SC-READY). ELA SC-READY scores and proficiency levels from spring 2019 were used as the main outcome variables in these analyses. We specifically examined overall ELA SC-READY proficiency level, which ranges from one to four. Table 3 shows the score ranges associated with each proficiency level, by grade.

Table 3
ELA SC-READY proficiency levels and score ranges, by grade

Level	Grade 3	Grade 4
1 (Does not meet expectations)	100-358	100-418
2 (Approaches expectations)	359-451	419-508
3 (Meets expectations)	452-539	509-592
4 (Exceeds Expectations)	540-825	593-850

Analytical Approach

Multinomial logistic regression was used to examine the associations between ISIP scores and spring 2019 ELA SC-READY proficiency levels. Students who had ISIP scores between the $1^{\rm st}$ and $99^{\rm th}$ percentiles, as well as non-missing spring 2019 SC-

READY ELA scores, were included in these analyses. As with previous analyses, we also included demographic variables into these analyses, allowing us to control for potential confounding variables and obtain a more accurate picture of the association between ISIP scores and SC-READY ELA proficiency levels. The use of multinomial logistic regression allowed for the estimate of the probabilities that students obtain a certain level of SC-READY proficiency or higher, given their ISIP score. For example, estimate probabilities for level 3 proficiency attainment would represent the probability that a student with a given score would attain a proficiency level of three or higher. This means that predicted probabilities for higher proficiency levels will become lower, given the same ISIP score. Descriptive analyses and correlations were computed using STATA, and multinomial regression analyses were performed using the "nnet" package in R.

Results

Descriptive statistics

We first provide descriptive statistics regarding the ISIP and SC-READY ELA assessments. Tables 4 and 5 show the average ISIP ER and AR scores, along with SC-READY ELA scores, for the analytic sample, along with the breakdown of students by proficiency level for each assessment. Approximately one-third of students (37% in grade 3, 34% in grade 4) met or exceeded expectations, as indicated by attaining level 3 or 4 achievement on the SC-READY ELA assessment. On both ISIP and SC-READY assessments, larger proportions of students were classified in the lower achievement levels.

Table 4 ISIP and SC-READY score frequencies and percentages, Grade 3 (n = 366)

ISIP ER	Istation Tier					
Mean						
	1	2	3			
235.41	185	89	92			
	(50.55%)	(24.32%)	(25.15%)			
SC-READY		SC-READY Level				
Mean						
	1	2	3	4		
418.54	121	106	88	51		
	(33.06%)	(28.96%)	(24.04%)	(13.93%)		

Table 5
ISIP and SC-READY score frequencies and percentages, Grade 4 (n = 440)

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ISIP AR	Istation Tier
Mean	

	1	2	3		
1780.38	201	98	141		
	(45.68%)	(22.27%)	(32.05%)		
SC-READY	SC-READY Level				
Mean					
	1	2	3	4	
455.07	182	106	85	67	
	(41.36%)	(24.09%)	(19.32%)	(15.23%)	

Relationships between ISIP ER scores and SC-READY achievement levels

In this section, we examine the results of multinomial logistic regression analyses of the predictive utility of ISIP ER scores on SC-READY achievement levels. In these analyses, we used ISIP ER scores from each of fall, winter, and spring of the 2018-19 school year to predict SC-READY achievement levels in the spring of 2019. These analyses only examined grade 3 students, as this was the only grade to have both ISIP ER and SC-READY scores.

The Pearson product-moment correlation between ISIP ER scores and SC-READY scores ranged from +.71 for fall ISIP scores to +.74 for spring ISIP scores. Correlations of these magnitudes indicate that ISIP ER scores have high levels of predictive validity in relation to SC-READY ELA scores. This means that students with higher ISIP ER scores tended to have higher SC-READY ELA scores.

Projected proficiency of Levels 3 and 4, ISIP ER scores. We now examine the results of multinomial logistic regression analyses concerning the predictive utility of ISIP ER scores on SC-READY ELA proficiency levels. We display probabilities for every 5th percentile of ISIP scores in this sample, as well as the 99th percentile score. There are four SC-READY proficiency levels, but we are focusing on the probabilities of attaining proficiency levels of 3 and 4 in these analyses. Note that level 1 attainment is guaranteed as a minimum. It is important to consider that these probabilities of attaining a given level are actually the sum of the probabilities of achievement at that level or a higher level. Thus, the probability of attaining level 3, for example, is p(level 3) + p(level 4). Tables 6-8 show the predicted probabilities of SC-READY levels 3 (Meets Expectations) and 4 (Exceeds Expectations) for various ISIP ER scores from fall 2018, winter 2019, and spring 2019, respectively. We also include probability bands of low, medium, or high for each estimate. The utility of these probability bands will be discussed below.

Table 6

Predictability table for Levels 3 and 4 SC-READY ELA proficiency, Fall 2018 ISIP ER
Scores

ISIP Score	Percentile	Probability	Meets	Probability	Exceeds
	Rank		Expectations		Expectations

204	5	.005	Low	<.001	Low
216	10	.028	Low	<.001	Low
220	15	.048	Low	.001	Low
223	20	.071	Low	.002	Low
225	25	.091	Low	.004	Low
227	30	.123	Low	.006	Low
230	35	.164	Low	.011	Low
232	40	.204	Low	.016	Low
234	45	.250	Low	.024	Low
236	50	.303	Low	.034	Low
237	55	.332	Medium	.041	Low
239	60	.394	Medium	.059	Low
241	65	.460	Medium	.081	Low
244	70	.562	Medium	.127	Low
246	75	.629	Medium	.166	Low
250	80	.751	High	.264	Low
252	85	.802	High	.321	Low
256	90	.891	High	.458	Medium
263	95	.960	High	.647	Medium
274	99	.994	High	.860	High

Table 7

Predictability table for Levels 3 and 4 SC-READY ELA proficiency, Winter 2019 ISIP ER

Scores

ISIP Score	Percentile	Probability	Meets	Probability	Exceeds
	Rank		Expectations		Expectations
201	5	.003	Low	<.001	Low
212	10	.011	Low	<.001	Low
219	15	.029	Low	.001	Low
225	20	.061	Low	.002	Low
228	25	.087	Low	.004	Low
232	30	.137	Low	.009	Low
234	35	.169	Low	.013	Low
236	40	.207	Low	.019	Low
238	45	.251	Low	.027	Low
240	50	.300	Low	.038	Low
241	55	.327	Low	.045	Low
243	60	.384	Medium	.061	Low
245	65	.444	Medium	.083	Low
247	70	.507	Medium	.109	Low
252	75	.662	Medium	.200	Low
254	80	.718	High	.246	Low
258	85	.718	High	.350	Medium
262	90	.885	High	.462	Medium

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269	95	.957	High	.646	Medium
285	99	.997	High	.898	High

Table 8

Predictability table for Levels 3 and 4 SC-READY ELA proficiency, Spring 2019 ISIP ER Scores

Scores					
ISIP Score	Percentile	Probability	Meets	Probability	Exceeds
	Rank		Expectations		Expectations
203	5	.001	Low	<.001	Low
217	10	.006	Low	<.001	Low
225	15	.021	Low	<.001	Low
229	20	.039	Low	.001	Low
232	25	.060	Low	.001	Low
234	30	.080	Low	.002	Low
237	35	.120	Low	.004	Low
238	40	.137	Low	.005	Low
241	45	.197	Low	.010	Low
244	50	.276	Low	.020	Low
245	55	.306	Low	.025	Low
247	60	.370	Medium	.038	Low
249	65	.441	Medium	.056	Low
252	70	.551	Medium	.095	Low
256	75	.692	High	.175	Low
258	80	.755	High	.227	Low
262	85	.856	High	.352	Medium
266	90	.983	High	.734	High
296	95	.999	High	.977	High
285	99	.997	High	.898	High

The results in Tables 6-8 show how likely a student is to attain "meets expectations" or "exceeds expectations" proficiency levels on the spring 2019 SC-READY ELA assessment. For example, a student with a fall ISIP ER score of 239 had a 39.4% chance of attaining SC-READY ELA level 3 (meets expectations) or higher, and a 5.9% chance of attaining SC-READY ELA level 4 (exceeds expectations). In terms of important cut points, such as scores where students have a probability of 50% or higher of attaining a proficiency level, students with a fall 2018 ISIP ER score of 244 had a 56.2% chance of attaining SC-READY level 3 proficiency, while students who obtained a score of 263 had a 64.7% chance of attaining SC-READY level 4 proficiency. Similarly, these cut points for winter 2019 ISIP ER scores were 247 (50.7% chance of level 3 SC-READY attainment) and 269 (64.6% chance of level 4 SC-READY attainment). In spring 2019, these cut points were 252 (55.1% chance of level 3 SC-READY attainment) and 266 (73.4% chance of level 4 SC-READY attainment).

Probability bands. In supplementary analyses, we used cut point probabilities of .33 and .67 to create probability bands of "low," "medium," and "high" for all ISIP ER scores considered in the prior analyses. Probabilities of less than .33 were considered "low," probabilities between .33 and .67 were considered "medium," and probabilities greater than .67 were considered "high." These cut points allow for more easily digestible summarization of the probabilities from the prior analyses. For example, regarding level 3 performance, students with fall ISIP ER scores of 236 or less would have a low probability of attaining at least level 3 SC-READY performance, while students with fall ISIP ER scores of 252 or less would have a low probability of attaining level 4 SC-READY performance. Similarly, students with fall ISIP ER scores between 236 and 246 would have a medium probability of attaining level 4 SC-READY performance, while students with fall ISIP ER scores between 256 and 263 would have a medium probability of attaining level 4 SC-READY performance. Table 9 shows the ISIP ER score ranges for probability bands of SC-READY attainment levels 3 and 4, by test administration date.

Table 9

Probability bands of ISIP-ER scores predicting SC-READY achievement levels

	Fall 2018	Winter 2019	Spring 2019	
Level 3				
Low	<236	<243	<247	_
Medium	236-252	243-252	247-256	
High	>252	>252	>256	
Level 4				_
Low	<252	<258	<262	_
Medium	252-263	258-269	262-266	
High	>263	>269	>266	

Relationships between ISIP AR scores and SC-READY achievement levels

Projected proficiency of Levels 3 and 4, ISIP AR scores. Tables 10-12 show the same estimates for SC-READY ELA proficiency levels, as predicted by ISIP AR scores. Correlations between ISIP AR scores and SC-READY scores ranged from +.72 to +.75, again demonstrating that ISIP scores have high levels of predictive validity in relation to SC-READY ELA scores.

Table 10 Predictability table for Levels 3 and 4 SC-READY ELA proficiency, Fall 2018 ISIP AR Scores

ISIP Score	Percentile Rank	Probability	Meets Expectations	Probability	Exceeds Expectations
1474	5	.006	Low	<.001	Low
1582	10	.027	Low	.001	Low

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1639	15	.054	Low	.003	Low
1672	20	.080	Low	.005	Low
1704	25	.114	Low	.010	Low
1735	30	.158	Low	.017	Low
1757	35	.196	Low	.026	Low
1782	40	.246	Low	.039	Low
1809	45	.309	Low	.060	Low
1834	50	.373	Medium	.086	Low
1856	55	.434	Medium	.116	Low
1877	60	.493	Medium	.150	Low
1903	65	.568	Medium	.202	Low
1922	70	.621	Medium	.245	Low
1955	75	.707	High	.330	Medium
1985	80	.776	High	.414	Medium
2034	85	.864	High	.552	Medium
2077	90	.917	High	.662	High
2163	95	.973	High	.825	High
2290	99	.995	High	.941	High

Table 11 *Predictability table for Levels 3 and 4 SC-READY ELA proficiency, Winter 2019 ISIP AR Scores*

Percentile Rank	Probability	Meets Expectations	Probability	Exceeds Expectations
5	.001	Low	<.001	Low
10	.033	Low	.002	Low
15	.057	Low	.004	Low
20	.090	Low	.009	Low
25	.123	Low	.015	Low
30	.169	Low	.025	Low
35	.223	Low	.039	Low
40	.263	Low	.052	Low
45	.310	Low	.069	Low
50	.373	Medium	.097	Low
55	.418	Medium	.119	Low
60	.476	Medium	.152	Low
65	.542	Medium	.196	Low
70	.615	Medium	.253	Low
75	.681	High	.315	Low
80	.762	High	.408	Medium
85	.829	High	.502	Medium
90	.873	High	.577	Medium
95	.940	High	.724	High
99	.985	High	.878	High
	Rank 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95	Rank 5 .001 10 .033 15 .057 20 .090 25 .123 30 .169 35 .223 40 .263 45 .310 50 .373 55 .418 60 .476 65 .542 70 .615 75 .681 80 .762 85 .829 90 .873 95 .940	Rank Expectations 5 .001 Low 10 .033 Low 15 .057 Low 20 .090 Low 25 .123 Low 30 .169 Low 35 .223 Low 40 .263 Low 45 .310 Low 50 .373 Medium 55 .418 Medium 60 .476 Medium 65 .542 Medium 70 .615 Medium 75 .681 High 80 .762 High 90 .873 High 95 .940 High	Rank Expectations 5 .001 Low <.001

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Table 12

Predictability table for Levels 3 and 4 SC-READY ELA proficiency, Spring 2019 ISIP AR

Scores

ISIP Score	Percentile	Probability	Meets	Probability	Exceeds
	Rank		Expectations		Expectations
1527	5	.007	Low	<.001	Low
1603	10	.019	Low	<.001	Low
1652	15	.036	Low	.001	Low
1708	20	.073	Low	.003	Low
1746	25	.113	Low	.007	Low
1787	30	.172	Low	.015	Low
1812	35	.216	Low	.023	Low
1836	40	.264	Low	.033	Low
186 4	45	.323	Low	.050	Low
1901	50	.407	Medium	.082	Low
1923	55	.457	Medium	.107	Low
1951	60	.520	Medium	.146	Low
1976	65	.575	Medium	.187	Low
2010	70	.6 4 6	Medium	.254	Low
2042	75	.708	High	.326	Low
2077	80	.769	High	.412	Medium
2122	85	.837	High	.526	Medium
2169	90	.892	High	.6 4 0	Medium
2268	95	.960	High	.822	High
2370	99	.987	High	.923	High
23/0	99	.98/	nign	.923	nign

As in the previous set of analyses, the probability shown in a given row is the probability that a student with a corresponding ISIP AR score would attain a given SC-READY ELA achievement level. For example, a student with a fall 2018 ISIP AR score of 1877 would have a 49.3% chance of attaining SC-READY ELA level 3 or higher, and a 15.0% chance of attaining SC-READY ELA level 4.

Probability bands. The same cut points for "low," "medium," and "high" probabilities were used in these analyses. For example, regarding level 3 attainment, students with fall 2018 ISIP AR scores less than 1834 had a low probability of reaching level 3 SC-READY ELA attainment, while students with fall 2018 ISIP AR scores less than 1955 had a low probability of reaching level 4 SC-READY ELA attainment. Similarly, students with fall ISIP AR scores between 1834 and 1955 had a medium probability of reaching level 3 SC-READY ELA attainment, while students with fall ISIP AR scores between 1955 and 2077 had a medium probability of reaching level 4 SC-READY attainment. Table 13 shows the ISIP AR score ranges for probability bands of SC-READY attainment levels 3 and 4, by test administration date.

Table 13 Probability bands of ISIP AR scores predicting SC-READY achievement levels

	Fall 2018	Winter 2019	Spring 2019
Level 3			
Low	<1834	<1865	<1901
Medium	1834-1955	1865-1996	1901-2042
High	>1955	>1996	>2042
Level 4			
Low	<1955	<2038	<2077
Medium	1955-2077	2038-2194	2077-2268
High	>2077	>2194	>2268

Discussion

In this study, we performed a set of multinomial logistic regression analyses to estimate the probability of students attaining different levels of SC-READY ELA proficiency, based on ISIP ER and ISIP AR scores. Specifically, we used fall 2018, winter 2019, and spring 2019 ISIP ER and AR scores to predict proficiency levels on the spring 2019 SC-READY ELA assessment. In previous analyses, we found that observed correlations between 2018-19 ISIP scores and spring 2019 SC-READY ELA scores ranged between +.71 and +.75, indicating strong, statistically significant positive associations between ISIP and SC-READY and ELA scores. The current analyses allowed us to move a step further and make predictions about student proficiency attainment on state standardized tests on the basis of ISIP ER and AR scores.

Among the most important findings in these analyses, we found that students with ISIP ER scores between the 65th and 70th percentile had a probability of about 50% of attaining SC-READY ELA proficiency of level 3 (meets expectations) or greater, while students with ISIP ER scores between the 85th and 95th percentile had a probability of about 50% of attaining SC-READY ELA proficiency of level 4 (exceeds expectations). Similarly, students with ISIP AR scores between the 60th and 70th percentiles had about a 50% probability of attaining SC-READY ELA proficiency of level 3, while students with ISIP AR scores between the 80th and 85th percentiles had about a 50% probability of attaining SC-READY ELA proficiency of level 4.

In addition, we classified different ranges of scores as having a low, medium, or high probability of being associated with a given SC-READY ELA proficiency level. Low probability was defined as a less than 33% chance of attaining a proficiency level, medium probability was defined as between 33% and 67%, and high probability was defined as greater than 67%. In terms of attaining level 3 (meets expectations) SC-READY ELA proficiency, students with 55th percentile or lower ISIP ER scores had a low probability of attainment, students with 55th-75th percentile ISIP ER scores had a medium probability of attainment, and students with 80th percentile or higher ISIP ER scores had a high probability of attainment. In terms of attaining level 4 (exceeds

expectations), students with 85th percentile or lower ISIP ER scores had a low probability of attainment, students with 85th-95th percentile ISIP ER scores had a medium probability of attainment, and students with greater than 95th percentile ISIP ER scores had a high probability of attainment. Similar patterns of classifications were found with ISIP AR scores. In terms of level 3 attainment, students with 45th percentile or lower ISIP AR scores had a low probability of attainment, students with 45th-70th percentile ISIP AR scores had a medium probability of attainment, and students with greater than 70th percentile ISIP AR scores had a high probability of attainment. In terms of level 4 attainment, students with 75th percentile or lower ISIP AR scores had a low probability of attainment, students with 75th-90th percentile ISIP AR scores had a medium probability of attainment, and students with greater than 90th percentile ISIP AR scores had a high probability of attainment. These patterns of associations were generally consistent across fall, winter, and spring 2018-19 ISIP scores.

The results of these analyses may provide useful achievement benchmarks for students, teachers, and administrators. Knowledge of students' ISIP ER and AR scores, along with the predicted probabilities of standardized test proficiency levels, can be used to help teachers set achievement goals through Istation instruction throughout the year.

Limitations

The present analyses were restricted to ISIP ER and AR scores, as well as SC-READY ELA proficiency levels, for elementary students in one school district. Thus, generalization to other school districts and of the relationship between ISIP scores to other standardized ELA assessments cannot be established. In addition, these analyses were only correlational in nature, so causal inferences cannot be made regarding ISIP scores and SC-READY proficiency levels.

Conclusions

The main findings from this study are as follows:

- Fall, winter, and spring 2018-19 ISIP ER and AR scores were strongly associated with spring 2019 SC-READY ELA scores, with observed correlations ranging between +.70 and +.75.
- Students with ISIP ER scores in the 65th percentile or higher had at least a 50% chance of attaining at least level 3 (meets expectations) SC-READY ELA proficiency. Students with ISIP ER scores in the 85th percentile or higher had at least a 50% chance of attaining level 4 (exceeds expectations) SC-READY ELA proficiency.
- Students with ISIP AR scores in the 60th percentile or higher had at least a 50% chance of attaining at least level 3 SC-READY ELA proficiency. Students with ISIP

AR scores in the 80^{th} percentile or higher had at least a 50% chance of attaining level 4 SC-READY ELA proficiency.