Linking 2nd Grade Istation ISIP Reading with 3rd Grade ISAT in English Language Arts

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The Center for Research and Reform in Education (CRRE) is a research center affiliated with the School of Education at Johns Hopkins University (JHU) that specializes in education program evaluations in K–12. Istation contracted with the CRRE at JHU to conduct a study of the predictive validity of Istation’s Early Reading (ER) program ([https://www.istation.com/Reading](https://www.istation.com/Reading)) in the state of Idaho.

This brief provides a summary of the reliability of second grade students’ Istation ISIP Early Reading scores in predicting third grade students’ scores on the Idaho Standards Achievement Test (ISAT) in English language arts (ELA). For more details, please reference the full technical report.

### Methods

This correlational study analyzed how well second grade students’ performance on the ISIP Early Reading test at each administration (e.g., fall, winter, or spring) predicted their third grade spring performance on the ISAT ELA. The ISIP Early Reading test was administered to a subset of second grade students in Idaho in the 2017–18 school year, and student achievement was tracked longitudinally over time through the end of students’ third grade year.

### Sample

- 75% of students were White and 19% were Latino
- 56% of students were economically disadvantaged
- 12% of students were English learners
- 10% received special education services

### Measures

- Istation’s ISIP Early Reading test was administered to students twice a school year, with most schools opting to administer the assessment three times a year in the fall, winter, and spring. The ISIP covered phonemic awareness, letter knowledge, alphabetic decoding, spelling, vocabulary, listening comprehension, and text fluency.
- The ISAT in ELA was administered to third grade students annually in the spring. Students were scored in terms of scale scores and four performance levels (e.g., below basic, basic, proficient, or advanced).
Analytic Approach

Second grade students’ ISIP Early Reading scores at each administration (e.g., fall, winter, and spring) in 2017–18 were used to predict their spring ISAT ELA scores in spring 2019 using hierarchical linear modeling with students nested within schools. The correlation between second grade students ISIP scores and their third grade ISAT ELA scores was calculated from standardized regression coefficients. No other variables were included in the model.

Results

Second grade ISIP reading scores were highly correlated with third grade ISAT ELA scores.

As shown in Table 1, second grade students’ ISIP reading scores were correlated at .70 or higher with third grade students’ ISAT ELA scores. The reliability of the ISIP in predicting ISAT ELA scores was similar across the fall, winter, and spring administrations of the ISIP.

Table 1: Reliability of second grade ISIP scores in predicting third grade ISAT ELA scores

<table>
<thead>
<tr>
<th></th>
<th>Correlation with ISAT</th>
<th>Student N</th>
<th>School N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall ISIP</td>
<td>.70</td>
<td>3,262</td>
<td>113</td>
</tr>
<tr>
<td>Winter ISIP</td>
<td>.71</td>
<td>3,514</td>
<td>129</td>
</tr>
<tr>
<td>Spring ISIP</td>
<td>.71</td>
<td>4,596</td>
<td>178</td>
</tr>
</tbody>
</table>

In conclusion, second grade student performance on the ISIP reliably predicts third grade student performance on the ISAT ELA.

Correlations of .70 or higher indicate that ISIP is sufficiently reliable to be used to predict student performance on the ISAT ELA.