

Research Brief

Validity of the Independent Reading Level Assessment (IRLA)

Independent Reading Level Assessment (IRLA)

American Reading Company's Independent Reading Level Assessment® (IRLA) is a standards-based, formative assessment framework that is used on a regular basis throughout the year to measure the extent to which students independently demonstrate reading proficiency. The IRLA outlines a research-based, transparent progression of skills mapped to the Common Core State Standards (CCSS). Designed to work for every student, at every reading level, the IRLA delivers specific and actionable data that tells the teacher where a student is, why, and the sequence of skills and behaviors needed to learn next to accelerate reading growth.

IRLA scores show students' relative placement along a continuum of grade-level proficiency. A risk status is used to identify the intensity of student need. Students who have demonstrated reading proficiency at or above their grade level are considered "proficient" and are not likely to be at risk for academic difficulties. Students who need to make more than a year of growth in one year's time are assigned an "at risk" designation that alerts teachers that the student may need additional supports to make sufficient accelerated progress. Students reading significantly below grade level are assigned "emergency" status. These students need multiple years of growth per year to gain grade-level proficiency and require the most intensive supports to make this type of accelerated progress.

Validity

Validity is the most fundamental consideration in evaluating an assessment. Validity is the degree to which evidence supports

Interim Assessments Used as Criterion Measures

Measures of Academic Progress (MAP) Growth

The MAP Growth reading test is a computer-adaptive test that includes items across the grade-level spectrum for the purpose of pinpointing a students' reading skills relative to grade level. Numerous studies have examined the validity of the assessment.³

iReady Diagnostic

iReady Diagnostic is a computer-adaptive assessment that measures a series of early reading skills codifying students' performance and progress toward reaching grade level. Research has shown that the assessment is strongly correlated with numerous summative state assessments.⁴

Dynamic Indicators of Basic Early Literacy Skills (DIBELS): mCLASS, DIBELS 8th Edition

DIBELS 8th Edition is a set of measures used to assess the acquisition of literacy skills. Five of the six subtests are administered individually. Each subtest has been researched and demonstrated to be a reliable and valid indicator of early literacy development.⁵

interpretations of test scores for a given purpose.¹ The process of validation involves accumulating relevant evidence over time to provide a sound basis for the proposed score interpretations.

A primary use of the IRLA is to identify students who have not yet achieved grade-level proficiency and are at risk for academic difficulties and to monitor their reading progress. Thus, one particularly relevant form of validity evidence is the extent to which performance on the IRLA correlates with performance on other reading assessments, which are called criterion measures.

Correlation coefficients can range from -1.0 to 1.0, with values close to 1.0 indicating a strong relationship. Positive 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 strong positive correlation between two assessments provides evidence that the two assessments are measuring similar constructs. When an assessment is strongly correlated with several different criterion measures, there is greater confidence that results can be generalized to other measures of student proficiency.

Purpose

This research brief summarizes a series of studies conducted across the United States to examine the relationship between the IRLA and several commonly used interim assessments and summative state assessments.

Study 1

A 2014 study conducted by Measurement Incorporated² examined the relationship between scores on the IRLA and the MAP Growth reading assessment.

¹ American Educational Research Association, American Psychological Association, and National Council on Measurement in Education (Eds.). (2014). *Standards for educational and psychological testing*. American Educational Research Association.

² Griswold, A., & Bunch, M. (2014). A study of the independent reading level assessment framework. Measurement Incorporated. Durham, NC.

³ NWEA. (2019). MAP® Growth™ technical report. Portland, OR.

⁴ iReady (n.d.). Retrieved June 10, 2022, from <https://www.curriculumassociates.com/programs/i-ready-assessment/diagnostic>

⁵ DIBELS (n.d.). Retrieved June 10, 2022, from <https://dibels.uoregon.edu/about-dibels>

The study examined data from K–5 students in one Minnesota elementary school across two academic years. The school serves a population of ethnically and linguistically diverse students with nearly 75% qualifying for free/reduced price lunch.

Teachers administered the IRLA and MAP reading assessment during five testing windows: fall 2012, winter 2013, spring 2013, fall 2013, and winter 2014. The study found very strong correlations between students' scores on the IRLA and MAP across the five assessment intervals (see Table 1).

Table 1. Study 1 IRLA–MAP Correlation Coefficients

| | n | r |
|-------------|-----|------|
| Fall 2012 | 522 | .88* |
| Winter 2013 | 522 | .88* |
| Spring 2013 | 522 | .88* |
| Fall 2013 | 736 | .88* |
| Winter 2014 | 736 | .90* |

* $p < .001$

Study 2

A 2016 study conducted by researchers at the University of Portland and Northwest Evaluation Association (NWEA) and published in *The Journal of At-Risk Issues*⁶ examined the relationship between scores on the IRLA and Oregon's statewide assessment, the Oregon Assessment of Knowledge and Skills (OAKS).

The OAKS is a standardized test aligned with the Oregon State English Language Arts content standards.⁷ The OAKS technical manual describes concurrent validity evidence, including strong correlations with the California Achievement Test ($r = 0.75 - 0.80$), the Iowa Test of Basic Skills® ($r = 0.78 - 0.84$), the NWEA Subject Tests ($r = 0.73 - 0.81$), and the Lexile Scale® for reading ($r = 0.76 - 0.77$).

The study examined data from students in grades 3–5 in one Oregon school district. Participants included 2,303 students attending 11 elementary schools. The public school district serves almost 11,000 ethnically and linguistically diverse students with nearly 75% qualifying for free/reduced price lunch.

The study found strong statistically significant correlations between the IRLA and OAKS scores at each grade level and all grades combined (see Table 2).

⁶ Ralston, N.C., Waggoner, J.M., Tarawasa, B., & Jackson, A. (2016). Concurrent validity of the independent reading level assessment framework and a state assessment. *Journal of At-Risk Issues*, 19(2), 1–8.

⁷ Oregon Department of Education. (2014). Oregon report card.

Table 2. Study 2 IRLA–OAKS Correlation Coefficients

| Grade | n | <i>r</i> |
|---------|------|----------|
| 3 | 803 | .713* |
| 4 | 720 | .775* |
| 5 | 780 | .751* |
| All 3–5 | 2303 | .766* |

* $p < .001$

Study 3

A 2022 study conducted by American Reading Company (ARC) researchers* examined the relationship between scores on the IRLA and the MAP Growth reading assessment.

The study examined data from K–8 students in one Nebraska school across two academic years. Participants included roughly 400 students. The public school district serves roughly 600 students with nearly 45% qualifying for free/reduced price lunch.

Scores from five testing windows were correlated: fall 2020, winter 2020, spring 2021, fall 2021, and winter 2021. The study found strong statistically significant correlations between students' scores on the IRLA and MAP across each of the five testing windows (see Table 3).

Table 3. Study 3 IRLA–MAP Correlation Coefficients

| | n | <i>r</i> |
|-------------|-----|----------|
| Fall 2020 | 365 | .804* |
| Winter 2020 | 336 | .781* |
| Spring 2021 | 402 | .832* |
| Fall 2021 | 373 | .891* |
| Winter 2021 | 396 | .878* |

* $p < .001$

Study 4

As part of a study of a 2021–2022 school-year pilot implementation of the IRLA in kindergarten, grade 1, and grade 2 in one mid-size Oregon school district, ARC researchers examined the relationship between scores on the IRLA and two criterion measures: iReady Diagnostic and DIBELS 8th Edition.

The study examined data from K–2 students whose classes participated in the pilot. Participants included roughly 300 students (80% white, 20% receiving special education services) attending eight elementary schools. Scores from three testing windows were correlated: fall 2021, winter

*All studies conducted by ARC researchers utilized data provided by school districts. All assessments were administered independently by school district personnel using standard protocols.

2022, and spring 2022. Due to the nature of the pilot, fewer students were administered both assessments during the spring 2022 testing window.

The correlations between the IRLA and both criterion measures were strong and statistically significant for all three time points (see Table 4).

Table 4. Study 4 IRLA–iReady and IRLA–DIBELS Correlation Coefficients

| | Fall 2021 | | Winter 2022 | | Spring 2022 | |
|-------------|-----------|-------|-------------|-------|-------------|-------|
| | n | r | n | r | n | r |
| IRLA–iReady | 237 | .812* | 258 | .845* | 95 | .786* |
| IRLA–DIBELS | 298 | .731* | 360 | .773* | 96 | .826* |

* $p < .001$

Study 5

As part of a study of a first-year ARC Core implementation in kindergarten, grade 1, and grade 2 in a mid-size New York school district, ARC researchers examined the correlations between the IRLA and iReady Diagnostic.

Participants included roughly 650 students attending six elementary schools with about 20% qualifying for free/reduced price lunch.

The correlations between IRLA and iReady were strong and statistically significant for all three time points (see Table 5).

Table 5. Study 5 IRLA–iReady Correlation Coefficients

| | Fall 2021 | | Winter 2022 | | Spring 2022 | |
|-------------|-----------|-------|-------------|-------|-------------|-------|
| | n | r | n | r | n | r |
| IRLA–iReady | 678 | .850* | 651 | .877* | 904 | .884* |

* $p < .001$

Conclusion

The validity studies described in this research brief show strong positive correlations between the IRLA and criterion measures for K–8 students. The subset of studies that examined correlations over multiple school years showed that the correlations are stable over time. Correlation coefficients consistently exceed .70, the threshold for what is considered a strong correlation. These strong positive and statistically significant correlations provide evidence that when students score high on the IRLA, we can expect students to also score high on the other assessments.



Suggested Citation

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