

## InSight: Measuring Three Domains

*InSight* is a computer-adaptive assessment that measures three dimensions essential to successful independent silent reading: capacity, efficiency, and motivation. *InSight* goes beyond the typical measures of comprehension and vocabulary (capacity) by also including measures of comprehension-based silent reading rate (efficiency) and motivation for reading. These often overlooked dimensions of reading have significant effects on a student's ability to make sustainable academic gains and desire to use reading as a tool for lifelong learning.

*InSight* reports each student's performance in terms of comprehension level, vocabulary level, and comprehension-based silent reading rate. These performance measures are combined to create a composite score of the student's overall reading proficiency, reported as the student's Proficiency Index. Comprehension and vocabulary levels as well as the Proficiency Index are reported on a grade level scale. *InSight* also captures and reports on students' self-reported motivation for reading across several motivation domains.

### Screening

The initial administration of *InSight* groups students by instructional needs to determine which students:

- are in need of comprehension, vocabulary, and/or silent reading rate development
- are proficient readers who will benefit from building capacity with increasingly complex texts
- may need a diagnostic assessment to determine if they have the foundational skills needed to begin *Reading Plus*.

### Placement and Schedule Recommendations

*InSight's* initial administration determines an individualized instructional path for each student, including:

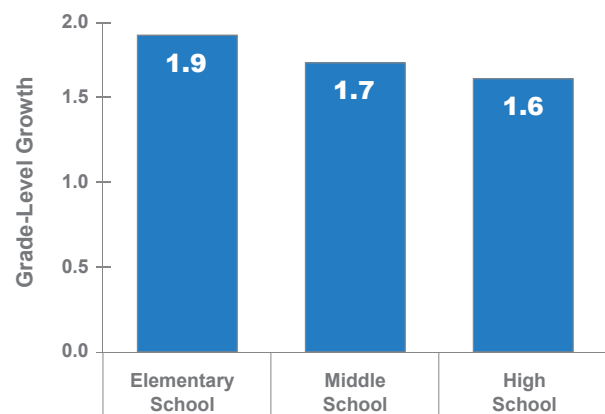
- the most appropriate program components for instruction (*SeeReader*, *ReadAround*, *iBalance*)
- the initial placement level within each component
- weekly assignment recommendations for each component.

### Progress Benchmarking

The initial administration of *InSight* provides baseline performance measures while subsequent administrations (mid-term and end-of-term) gauge performance changes in:

- comprehension and vocabulary levels (grade level)
- comprehension-based silent reading rate
- various domains of motivation.

### Typical Reading Proficiency Growth



Growth in Reading Proficiency as measured by the *InSight* Assessment after ≈ 40 hours of *Reading Plus* practice.

## Time Requirements

On average, students require 30 minutes to complete the *InSight* assessment, which includes time for viewing student orientation videos. Educators are advised to set aside an hour for the *InSight* assessment process. However, the assessment can be completed in multiple sittings.

## Technical Quality (Reliability & Validity)

*InSight* was developed to provide an assessment that is useful in the 21st century standards-based environment. Toward that end, measures have been taken to maximize the reliability and validity of *InSight* so that it can be used with confidence to assess, track, and measure progress in developing reading proficiency.

- Development was informed by *Reading Plus* and others in the field of Computer Adaptive Testing (CAT) and standards for educational testing outlined by the American Educational Research Association (AERA), the American Psychological Association (APA), and the National Council on Measurement in Education (NCME).
- To ensure content validity, passages and items were developed in collaboration with experts in content creation, literacy, and curriculum. Content rubrics were based on multiple text metrics (including vocabulary, The Lexile® Framework for Reading, mean log word frequency, average sentence length), state standards for academic content, and national guidelines for text complexity, such as the Common Core State Standards (CCSS).
- Passages and items were analyzed by an internal review team and an external review panel that included literacy researchers, curriculum developers, and classroom teachers.
- Assessment items and passages have undergone extensive pilot testing with hundreds of thousands of students (with diverse demographic characteristics and proficiency levels) from all regions of the United States.
- Item Response Theory (IRT) modeling, along with additional item statistics, were used to evaluate the functioning of items and passages during the assessment development process.
- For ongoing maintenance, an iterative review process is used to identify passages and items needing revision or replacement.
- Passages and items for each *InSight* level were refined by applying a rigorous, iterative research design, which included multiple trials with target populations to ensure appropriate levels of complexity.
- Preliminary results show significant moderate ( $>.50$ ) to strong ( $>.70$ ) Pearson correlation coefficients between *InSight* and commonly used third-party assessment results (Table 1). Additional third-party assessments will be added to this list as data become available for analyses.

**Table 1.** *InSight* Proficiency Index Correlations with Third-Party Assessments (overall test scores)

Third-Party Assessments	Correlation Coefficients
Accuplacer®	.63*
FCAT 2.0 - Florida Comprehensive Assessment Test	.75*
FSA - Florida Standards Assessment	.76*
GMRT® - Gates MacGinitie Reading Test®	.78*
GRADE™ - Group Reading Assessment Diagnostic Evaluation™	.85*
MAP® - Measures of Academic Progress®	.67*
Missouri MAP	.71*
SBAC - Smarter Balanced Assessment Consortium	.83*
STAR Reading™	.80*

\*All correlations are significant at  $p < .001$  (2-tailed).