



Scope of Work: Additional Psychometric Services for ILEARN, I AM, and IREAD-3

Indiana is seeking psychometric services for data replication of Indiana's statewide assessment programs, ILEARN (grades 3–8), I AM (grades 3–8, 10), and IREAD-3 (grades 2–3 and retest). The comprehensive website for all assessment programs can be found here: <https://www.in.gov/doe/students/assessment>.

Section 1.0 Background Information

Indiana's statewide assessment system includes ILEARN, IREAD-3, and I AM for school year **2024–25**. The test administration windows for each program can be found here: <https://www.in.gov/doe/files/2024-2025-Assessment-Windows.pdf>. Reporting follows each test administration and is dependent on the contractual reporting requirements for each independent program. General details are noted below, and specific time frames are noted within the key deliverables section.

Indiana's assessments are administered through a contract with Cambium Assessment, Inc. (CAI). Data layouts, scoring specifications, and prior analyses 'lessons learned' will be provided in the initial start-up meeting.

1) ILEARN

ILEARN is Indiana's online computer-adaptive assessment designed to measure student proficiency of the Indiana Academic Standards for Grades 3-8. ELA and Mathematics assessments will continue to be administered to all students in grades 3 through 8 in **Spring 2025**. Science assessments will continue to be administered to students in grades 4 and 6. Social Studies assessments will be administered to students in grade 5 only.

Table 1. **Spring 2025** Grades 3–8

	ILEARN Grades 3-8 (Spring 2025)
Anticipated individual test events to be replicated per content area and grade level	81,000

For ILEARN, assessments are administered online (unless an individual student requires a paper-based accommodation). For the **Spring 2025** administration, ELA, Mathematics, and Science assessments will be computer adaptive. Social studies (Grade 5) will be a fixed form. In the event of a large-scale test irregularity (e.g., breach, inappropriate use of accommodated form), students' computer-adaptive test (CAT) and/or Performance Task (PT) segments are reset in the test delivery system for students to use in lieu of their initial test segments and treated as a breach form. Contractor must confirm all form types for reporting. The ILEARN Technical report can be found here: <https://www.in.gov/doe/students/assessment/assessment-technical-reports/>.

2) I AM

I AM is the summative accountability assessment for students with significant cognitive disabilities in grades 3-8 and high school. I AM measures student achievement and growth according to Indiana's Content Connectors aligned to the Indiana Academic Standards. It assesses:

- English/Language Arts (Grades 3-8 and 10)
- Mathematics (Grades 3-8 and 10)
- Science (Grades 4, 6)
- Social Studies (Grade 5)

I AM assessments are stage adaptive, allowing for placement into specific tiered forms for the second part of the assessment based on the student's performance in the first part. The I AM Technical Report can be found [here](#).

Table 2. **Spring 2025** I AM Grades 3-8, 10.

Subject Area	Anticipated Individual Test Events for Spring 2025 Replication based on Spring 2023 Administration
English/Language Arts	5700
Mathematics	5700
Science	1500
Social Studies	700

3) IREAD-3

IREAD-3 measures student achievement for foundational reading skills in grade 3 and as a retest opportunity for grade 3, 4, and 5 students who did not pass. IREAD-3 is a fixed form assessment, and a modified version of the test blueprint is applied to students with a hard of hearing form designation. Anticipated counts are noted in Table 3.

The Indiana Department of Education (IDOE) has provided an opt-in opportunity for grade 2 students. During the 2022-2023 school year, approximately 57% of schools with grade 2 students participated and is anticipated to be greater for the 2023-2024 school year. The IREAD-3 grade 2 administration occurs during the same window as grade 3, but has a distinct set-up, Student Data File (SDF), and scoring rules.

Table 3. Spring and Summer 2025 IREAD-3 Counts

	Spring 2023 and Anticipated Individual Test Events for Spring 2025 Replication	Summer 2023 and Anticipated Individual Test Events for Spring 2025 Replication
First Time and Retest- grades 3-5	81,000	15,800
Grade 2 (opt-in)	46,000*	0

* Expected to increase for the 2024-2025 school year as more schools opt-in. During the 2021-2022 school year, there were 21,000 students who participated.

Section 2.0 Overview

The IDOE, Office of Student Assessment, seeks additional psychometric support for ILEARN, I AM and IREAD-3 to include the following:

- A replication of the live scoring data for ILEARN, IREAD-3, and I AM for the assessed populations.
- Verification of sample data deployed correctly in CAI production and live platform, CAI's Centralized Reporting System (CRS). For example, based on confirmed live student data, review and confirm this data through the process in CAI's system through to public deployment of the same values to corporations, schools and/or educators.

- Verification of the final Student Data File (SDF) for each assessment administration.
- A confirmation of final data tables presented in the annual technical report for each program.

Section 3.0 Technical Requirements and Key Deliverables

The Technical Requirements and Key Deliverables described in this Scope of Work define the state's expectations for the Contractor. In responding to the request, the Contractor must address each task within the Technical Requirements and Key Deliverables section, specifically describing the method by which the Contractor will fulfill the technical requirements. The Contractor's response should provide a clear explanation of the rationale for the selected methodology; a description of the steps the Contractor will take to implement the proposed methodology; the parameters of any applicable sampling plans; a description of the specific data and/or data format required and a plan for collaborating with current vendors to access the data; and an explanation of the format in which results will be communicated to both the state and current assessment contractor.

The Contractor shall conduct independent replication of scoring in parallel to CAI's scoring of the ILEARN, the IREAD-3, and the I AM assessments. Replication will begin with calibrations through deployment into the online portal accessed by corporations and schools. Discrepancies identified through the process will be discussed with IDOE and CAI to agree on resolution for deployment. It is expected that the Contractor will participate in weekly meetings with the testing vendor throughout the development process to complete simulation replication work in a manner consistent with the workflow of CAI's development process. The Contractor will provide, receive, and send information and data using IDOE and CAI's approved secure file transfer protocol (SFTP). IDOE and CAI will set up the SFTP site prior to the project kickoff meeting.

Following reporting, the contractor will review the annual technical report for each program to confirm the relevant data tables embedded in the report.

ILEARN Applicable Grades and Content Areas:

- Grades 3-8 ELA and Mathematics
- Grade 4, 6 Science
- Grade 5 Social Studies

Anticipated Schedule for ILEARN 2025 Spring 3-8,

Task	Begin	End
Kickoff for ILEARN Spring 3-8	2/13/25	2/13/25
Handoff of Test Design and Reporting Documentation, Sample Files	2/20/25	2/22/25
Handoff of Data Sets	5/9/25	5/13/25
Replication Activities	5/14/25	5/17/25
Initial Sign Off	5/20/25	5/20/25
Delivery of Final Data Files	6/16/25	6/20/25
QC of Final Data Files	6/23/25	6/29/25

I AM Applicable Grades and Content Areas:

- Grades 3-8 and 10 ELA and Mathematics
- Grades 4 and 6 Science
- Grade 5 Social Studies

Anticipated Schedule for I AM 2025 Spring 3-8, 10,

<u>Task</u>	<u>Begin</u>	<u>End</u>
Kickoff for I AM	3/18/25	3/18/25
Handoff of Test Design and Reporting Documentation, Sample Files	3/17/25	3/17/25

Handoff of Initial Data Sets	4/29/25	4/29/25
Replication Activities	4/30/25	5/3/25
Initial Sign Off	5/6/25	5/6/25
Delivery of Final Data Files	6/5/25	6/5/25
Final Replication Activities	6/6/25	6/11/25
Final Sign Off	6/13/25	6/13/25

IREAD-3 Applicable Grades and Content Areas:

- Grades 2-3 and 4, 5 Retest

Anticipated Schedule for IREAD-3 [Spring 2025](#)

<u>Task</u>	<u>Begin</u>	<u>End</u>
Kickoff for IREAD-3 Spring (Includes grade 2 administration)	2/13/25	2/13/25
Handoff of Test Design and Reporting Documentation, Sample Files	2/27/25	2/27/25
Handoff of Initial Data Sets	3/22/25	3/26/25
Initial Replication Activities	3/27/25	4/1/25
Initial Sign Off	4/2/25	4/2/25

Handoff of Final Data Sets	4/3/25	4/8/25
Final Replication Activities	4/9/25	4/19/25
Final Sign Off	4/22/25	4/22/25

Anticipated Schedule for IREAD-3 Summer [2025](#)

- Grades 3-5

<u>Task</u>	<u>Begin</u>	<u>End</u>
Kickoff for IREAD-3 Summer	TBD, if needed	TBD, if needed
Handoff of Initial Data Sets	TBD, if needed	TBD, if needed
Initial Replication Activities	TBD, if needed	TBD, if needed
Initial Sign Off	TBD, if needed	TBD, if needed
Handoff of Final Data Sets	7/15/25	7/15/25
Final Replication Activities	7/16/25	7/19/25
Final Sign Off	7/22/25	7/22/25

For all applicable noted ILEARN, IREAD-3 and I AM assessments, the Contractor shall design and implement a complete “beginning to end” process to confirm the outputs (i.e., reportable data for the state, corporation, and schools) of ILEARN, IREAD-3 and I AM assessment scoring and reporting procedures. This process must be submitted to IDOE no later than 2 weeks prior to the beginning of the replication activities.

This process will be reviewed by IDOE and CAI and confirmed for any potential discrepancies to be addressed prior to the initiation of the process.

A summary document of issues identified within the replication process must be posted within one week of replication end date for each program.

The Contractor’s process shall assume the state has implemented appropriate quality assurance processes during development and administration to support the reliability, and ultimately the validity of the assessments. As such, the Contractor’s responsibilities in contributing to the overall validity argument for the assessments shall include, at a minimum:

- a) Timely reporting of real-time scoring issues to the state

The Contractor shall develop and implement a process/feedback loop to ensure timely reporting of any scoring issues that are discovered during the review process to the state.

- b) Data Cleaning

The Contractor shall receive the raw, unscored data from CAI or simulated data based on timelines agreed to by both parties. The Contractor shall independently apply the same data cleaning and scoring rules as CAI. The Contractor shall compare the n-counts of the cleaned data to the n-counts from CAI. If the n-counts are not an exact match, then the Contractor shall find the cause of the differences. If the cause cannot be determined, the Contractor shall determine and report to the state the discrepancy and present probable causes.

- c) Replication of psychometric analyses

The Contractor shall review and implement all psychometric specifications defined by CAI. The Contractor shall use the same psychometric software as utilized by CAI for the Indiana analyses to the extent possible. It is expected that the results of the Contractor’s psychometric analyses will be an exact match to CAI. Any discrepancies must be identified and communicated with IDOE.

The Contractor shall replicate all psychometric analyses to verify accurate student scoring using the cleaned data. The Contractor shall replicate all classical test theory and Item Response Theory (IRT) analyses. Classical Test Theory (CTT) analyses

include, but are not limited to, item difficulty, item discrimination, omit rates, internal consistency, standard error of measurement, and classification analyses. The Contractor shall use identical methodologies as those employed by CAI and documented in CAI's technical research specifications. Specifications will be shared with the awarded vendor at the kick-off meeting. The Contractor shall prepare documentation either confirming or refuting the reliability measures and standard errors of measurements determined by CAI. If the Contractor is unable to confirm exact reliability results as reported by CAI, the Contractor shall determine and report to the state the discrepancy and present probable causes.

The Science performance tasks (PTs) must be replicated according to CAI's scoring of the assertions, specifically, the following steps must be conducted as the Science exams utilize marginal maximum likelihood estimation (MMLE):

- Estimating theta and SE of theta without applying the rule.
- Re-estimating theta applying the All Correct/Incorrect rule as follows:
 - If a student has taken more than one PT item, change the correct (or incorrect) item score to .5 for the first PT item of the cluster with the largest variance.
 - If a student has only taken one PT item, change the correct (or incorrect) item score to .5 for the first PT item of that cluster.
 - If a student has not completed all items in a PT, change the item score of the item with the smallest a-parameter. In the case of Rasch, change the item score of the first item attempted.
 - If the student has not attempted any items in a PT, and the first attempted item is a polytomous item, then change the score of the first attempted dichotomous item to 0.5.

The Contractor shall develop and implement procedures to replicate the calibration and equating methods used by CAI to ensure that test scores are comparable from one administration period to the next. If results of the replication indicate that scores may not be comparable, the Contractor shall determine potential causes for form differences (e.g., poorly functioning linking items, poorly developed equating set, difference in content representation across forms, poor fit to test blueprint) and provide recommendations to the state.

d) Replication of reported student scores at multiple levels

The Contractor shall replicate reported student scores by replicating (a) pattern scoring procedures and (b) the transformation of raw scores to scale scores using the same methodologies employed by CAI and shall report any instances of scale score discrepancy to the state. The Contractor shall confirm the accurate assignment of performance levels based on approved scale score cuts for all individual student scores. At the aggregate level, the Contractor shall collaborate with CAI to replicate

school, district, and state level data to ensure accuracy and completeness. The Contractor shall determine the cause of any noted discrepancies and shall report to the state immediately. Data replications must be completed concurrently with operational scoring and final replications must be completed at least two weeks prior to reporting of the final results to allow CAI to address any issues that may be discovered in the process. Any changes to this timeline must be agreed to by IDOE in advance.

Beginning with contract award and continuing through completion of the audit/replication process, the Contractor shall participate in weekly calls with the state and CAI based on program. For each component of the auditing/replication task, the Contractor must utilize a secure method for accessing/transferring student level data from CAI for analysis and replication. All auditing and replication procedures shall be completed and documented in support of the overall reliability and validity of the assessments.

The Contractor shall prepare a final report detailing all methodologies, findings, and recommendations.

The Contractor's final report must be framed as contributing to the overall validity argument for the assessments and must be suitable for submission as evidence in the United States Department of Education's Peer Review process.

Section 4.0 Timeline of Key Deliverables

Task	Begin	End
<ul style="list-style-type: none"> Process and implementation for timely reporting of scoring issue 	2/13/25	2/13/25
<ul style="list-style-type: none"> Secure data transmission mechanism verification 	2/13/25	2/13/25
<ul style="list-style-type: none"> Specification and documentation of data cleaning 	Initial data set timeline for each assessment	Initial data set timeline for each assessment
<ul style="list-style-type: none"> Specification documentation and results of psychometric analyses, including: 	Final replication activities	Final replication activities timeline

<ul style="list-style-type: none"> ○ CTT analyses ○ IRT analyses ○ Student score calculations 	timeline for each assessment	for each assessment
<ul style="list-style-type: none"> ● Confirmation of tables in technical reports 	November 2025	November 2025
<ul style="list-style-type: none"> ● Final summary report 	December 2025	December 2025

For the audit/replication of ILEARN and I AM scoring and reporting, the Contractor must identify specific steps and methodologies proposed, the individuals responsible for completing the tasks, and a timeline for each key deliverable.

Section 5.0 Communication and Scheduled Meetings

Project Kickoff Meeting: A kickoff meeting is required for project initiation. The purpose of the kickoff meeting is to introduce key stakeholders, points of contact for the project, address vendor or IDOE questions/concerns, provide an update on the contract status, and discuss next steps for project implementation.

- The contractor will schedule and facilitate one (1) project kickoff meeting.
- The kickoff meeting will be virtual (Microsoft Teams is preferred but not required; if the vendor opts to use another platform, that platform must be accessible to IDOE at no cost via a web browser with no additional software or extensions/plugins required).
- The contractor will draft an agenda and provide it to IDOE at least 72 hours in advance of the meeting for review and approval.
- The contractor must provide meeting minutes for IDOE's review within 24 hours of the meeting completion for review and approval.

Project Status Meetings: The contractor must communicate regularly with IDOE and CAI. Communication expectations include:

- Attending scheduled virtual meetings throughout each identified replication period to resolve differences. Meetings are established based on need during the data replication activity timeline and may be more or less frequent for different test administrations. Microsoft Teams is preferred for all virtual meetings but is not required; if the vendor opts to use another platform, that platform must be accessible to IDOE at no cost via a web browser with no additional software or extensions/plugins required.

- Providing daily written updates (via email) to IDOE and CAI throughout the replication process.
- Responding to inquiries from IDOE or CAI within 48 hours.

Section 6.0 Staff Qualifications

The contractor must provide staff member names and resumes highlighting relevant experience to this work. It is expected the contractor would include psychometric staff and project/program management staff who are well-versed in standardized assessments and the nuances associated with such work.