

Galileo Instructional Improvement and Effectiveness System

What are the benefits of implementing the Galileo K-12 Online Instructional Improvement and Effectiveness System?

The Galileo K-12 Online Instructional Improvement and Effectiveness System (IIES) goes well beyond the analysis and reporting of observational ratings of educator proficiency, which for many years has been the primary focus of educator evaluation initiatives. Current initiatives at a minimum call for information on student academic growth in addition to educator ratings. The Galileo IIES integrates student growth measures with educator ratings and other variables to build a complete customized instructional improvement and effectiveness system. A brief summary of the benefits provided by the Galileo IIES follows.

Benefits include:

- Use of valid and reliable IIES student assessments in math, reading/English language arts (ELA), science, and writing.
- Access to categorical measures of student academic growth that indicate whether expected growth has been exceeded, has been maintained, or has not occurred.
- Availability of value-added models indicating the value added to student performance by each of the educators being evaluated.
- Support for instructional effectiveness (IE) assessment in non-state-tested content areas such as art, music, and foreign languages.
- Built-in rating scales aligned to the Interstate Teacher Assessment and Support Consortium (InTASC) Model Core Teaching Standards and the Interstate School Leaders Licensure Consortium (ISLLC) standards. Additionally, rating scales designed or identified for use in local IE initiatives may be uploaded, with appropriate permissions, into Galileo and administered online.
- Access to *Educator Proficiency Profiles* that summarize rating scale results and serve as a guide for planning and implementing educator professional development.
- Use of the *Galileo Score Compiler* enables users to combine and differentially weight data from multiple sources (e.g., student performance data, educator proficiency ratings, surveys) into a single IE score. District or charter-determined scoring provides the rating scale by which IE scores are calculated. The compiler may be used during the school year to provide a provisional evaluation score that can be used in planning professional development. The compiler is also designed to provide a final IE score at the end of the school year with a detailed explanation of how the score is compiled available from the *View Calculations* link.

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What grade levels and content areas for student assessment are covered by the Galileo IIES?

The Galileo IIES provides student assessments for grades K–12 in math, reading/ELA, science, and writing, utilizing the Galileo K-12 Online IIES secure item banks which contain ATI developed, certified, and psychometrically validated, standards-aligned items. Those districts participating in the *Community Assessment and Item Banking (CAIB)* initiative can use the shared community item banks when assessing in non-state-tested subjects and grades.

What additional content areas are supported by the Galileo IIES?

The Galileo IIES supports the implementation of instructional evaluation in non-state-tested grades and content areas in a number of ways.

- ATI's *Standards Builder* enabled ATI to enter standards for non-state-tested grades and subjects into the system, including such diverse scales as art, music, foreign language, and social studies. This means that IE assessments can easily be created and aligned to these and other subjects within Galileo. While the banks are becoming robust, users may need to contribute items to the bank when building an assessment for a non-state-tested subject and/or grade.
- Galileo's *Automated Scoring Key (ASK)* technology enables schools and districts to use the Galileo K-12 Online IIES tools to administer, score, and report on an assessment in any content area created outside of Galileo. Such an assessment may be administered either online or with scannable answer sheets just like any other assessment within Galileo.

What are the Galileo IIES student assessments?

The Galileo IIES student assessments consist of reliable pretest/posttest pairs for each grade level in the content areas of math, ELA, science, and writing. Items comprising these assessments have Item Response Theory (IRT) validated item parameters including item difficulty, discrimination, and guessing parameters that support the evaluation of student growth in IE initiatives. Pretest/posttest pairs are becoming available in other content areas as items with validated item parameters are added to the system. On the pretests, half of the content is aligned to standards at the prior grade level. IE assessments for grades one through high school are 46 items in length. IE assessments for kindergarten are 36 items in length and are comprised of all kindergarten standards. The content on both the pretest and the posttest are comprehensive, covering the standards in as much breadth as possible given the length of the test. ATI uses IRT to place the IE pretest and IE posttest on a common scale. This ensures that the assessments will be reflective of student progress.

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What are the Galileo IIES rating scales of educator and administrator proficiency?

The Galileo IIES is designed to support a customized approach to educator and administrator assessment. ATI maintains banks of educator and administrator rating scale. The banks can be used to construct customized assessments designed to meet district needs and can reflect national, multi-state, and state-level standards. Multi-state standards, for example, can include the InTASC Model Core Teaching Standards and the ISLLC Educational Leadership Policy Standards.

Some districts already have educator and/or administrator assessments in place. These instruments can also be entered into the Galileo IIES. Moreover, they can be modified. For example, new items can be added to an assessment. Third-party assessments may also be entered into the system as long as the district has copyright permission to place such assessments in Galileo. The flexibility provided by customization makes it possible to take advantage of assessment scheduling, assessment security, data entry, data analysis, and reporting capabilities available in the Galileo K-12 Online IIES. Moreover, customization makes it easy to accommodate changes in standards and assessment requirements over time.

How should the student assessments be scheduled?

Achieving the goal of an IE initiative involves identifying the amount of change that is observed in the performance of the students associated with each teacher. This means that the appropriate student test scores must be assigned to the teacher. The assignment of test scores to teachers depends on a number of factors, including 1) the classes for which the test is scheduled, 2) the students enrolled in each class, and 3) the teacher associated with the class. A teacher can be associated with the class in one of two ways. The teacher associated with each class during enrollment data uploads from the district student information system into Galileo is considered the *Instructor of Record* for all assessments taken by the class. This default can be overridden by designating an *Instructor of Record* during the bulk scheduling of tests. This flexibility in designating the *Instructor of Record* allows a class of students to take an assessment during a class period disassociated with the content of the assessment while keeping the association of the assessment with the *Instructor of Record*. That is, a class of students can take a math assessment during a class time normally addressing another subject and student performance will be associated with the teacher who has been identified as the *Instructor of Record* for the math class.

Pretests should be administered as early in the school year as is realistically possible, before instruction has begun in earnest. All students should be assessed within the briefest time frame

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that is realistic so that all are captured at the same, beginning state of proficiency for the year. The posttests should be administered late in the year, again within as limited a time frame as possible so that all students have the same amount of time between the pretest and posttest within which to grow in proficiency. While posttest administration late in the year is ideal for observing the greatest amount of student growth, the posttest should be administered early enough in the year to accommodate the analysis of the assessments and generation of teacher scores in time for teacher evaluations. For many districts, this means that late March is an ideal timeframe in which to administer IE posttests.

How should teacher and administrator rating scales be scheduled?

Ratings of educator proficiency usually occur two to three times during the year. Administrator ratings typically include visits to the school to which the administrator is assigned. Teacher ratings generally involve classroom visitations. In some cases visitations are scheduled. In other instances, a formal schedule is not required. Multiple visitations are useful because they create the opportunity to make instructional or managerial changes during the course of the year. For example, a teacher rating session may yield information that can inform professional development activities, which may be implemented during the course of the year. Multiple assessments also make it possible to focus each visitation on a separate aspect of instruction or management. Finally, multiple assessments make it possible to cover more of the critical aspects of instructional and managerial proficiency than could be addressed through a single assessment.

What kinds of analytic procedures and reports accompany the Galileo IIES?

Galileo IIES reports classify each teacher's and administrator's effectiveness based on the integrated analyses of IIES student achievement data and educator/administrator proficiency scores.

Student Achievement Scores: The Galileo IIES includes assessments, reports, and analytic procedures that evaluate student achievement data in the context of educator evaluation. ATI employs two approaches to the analysis of IIES student achievement scores for use in evaluating administrators and teachers: value-added modeling and Categorical Growth Analysis. Value-added modeling analysis is normative, meaning that each teacher is compared to the other teachers in the school and district and each administrator is compared to the other administrators in the district. By definition, someone must be at the top of the distribution and someone must be at the bottom. In working with district administrators in developing the

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Galileo IIES approach to assessment, it has been ATI's experience that some administrators are looking specifically for a normative approach, while others prefer to avoid staff comparisons. For this reason, ATI has also developed the non-normative Categorical Growth Analysis approach. ATI believes it is important to provide districts with a choice between a normative and non-normative approach to teacher and administrator evaluation.

Teacher and Administrator Proficiency Scores: With regard to teacher and administrator rating scales, ATI uses IRT when sufficient data are available to produce a proficiency scale score for these assessments. The proficiency scale score is beneficial in a number of ways as it:

- Provides a continuous interval scale score that can be used to measure instructional proficiency.
- Includes, through IRT analyses, indicators of measurement precision including internal consistency reliability.
- Provides a convenient way to create proficiency levels such as Not Evident, Emerging, Proficient, and Exemplary.
- Supports the assessment of growth in proficiency. Educator assessments given at multiple times can be placed on a common rating scale using IRT. When this is done, increases and decreases in proficiency can be measured over time. This is not the case when raw scores are used.

How do we ensure that each teacher gets credit for the correct set of students?

In order to ensure that each teacher gets credit for the correct set of students, teachers and districts/charters must verify that 1) the teacher is properly linked to the correct class(es) for each content area and 2) that student enrollment in these classes is correct. For IE purposes, a teacher can be associated with a class in one of two ways as described earlier in this document. The *Instructor of Record* option enables districts to schedule IE assessments for whichever class is convenient (e.g., the art class) even if it is a math test and still designate that it is the students' homeroom teacher that is responsible for instruction and for whom the student scores should generate a teacher score. Note that this option can only be applied at the class level. All students in the class must be associated with the same responsible teacher.

Galileo reports of teacher scores display the list of the students whose performance was evaluated in generating each score. This list is based on student enrollment in the classes for which the teacher is identified as the *Instructor of Record*. Teachers and district staff may use the Galileo *Exclude List* feature to exclude individual students or entire classes for which they should not be held accountable for IE purposes. It is the district's/charter's responsibility to

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update the information in Galileo to reflect any corrections and ATI supports district/charter staff in this task.

Will teachers be able to see reports?

With regard to reports on student performance and since the Galileo IIES will be used to inform teacher evaluations, security is paramount. At the same time, ATI realizes that a great deal of instruction time is already lost to assessment, and the student performance data on the IE assessments can be very useful for planning instruction. As a best-practices approach to addressing these concerns, reports for the student assessments are not available to teachers before or during administration. Once the administration of the assessment is complete district-wide, the pretest will be closed so that no further student scores can be entered. At that point, teachers will be able to access the data for the assessments in all of the reports to which they normally have access in the Galileo K-12 Online IIES including the *Intervention Alert* and the *Risk Assessment Report*, so that the assessment data can be used to guide instruction. To further protect assessment security, assessment items themselves will not be available in the reports.

To get started:

Contact Dr. Jason K. Feld or your Galileo Field Services Coordinator at 1.877.442.5453 if you are interested in participating in the Galileo IIES initiative, or the *CAIB* initiative, or if you would like to learn more about either initiative.