ASSESSMENT TECHNOLOGY, INCORPORATED

A Guide for Galileo® K-12: Tips and Troubleshooting Student Growth and Achievement Data

PURPOSE

The *Student Growth and Achievement Report (SGA)* cross-classifies students in terms of student achievement and student growth. When the desired tests and subjects are selected, the data is displayed in quadrants:

- Lower Growth, Higher Achievement
- Higher Growth, Higher Achievement
- Lower Growth, Lower Achievement
- Higher Growth, Lower Achievement

HOW STUDENT GROWTH AND ACHIEVEMENT ANALYSIS WORKS

Student growth is measured by the difference between the student's Developmental Level (DL) score at time one and time two. Time one is represented by an initial assessment, such as a pretest. Time two is represented by a second assessment or a posttest. The data are displayed in quadrants. It is important, therefore, that tests be scanned in the order they are administered: the pretest, test #1, test #2, then the posttest. Scanning should occur as close as possible to the date of the test administration. This ensures that the growth expectations are accurately calculated.

ACCESS

Student Growth and Achievement data may be accessed from the:

- ***Teacher Dashboard*** from both the Class and Intervention Group Filter Mode.
- ***Instructional Effectiveness Dashboard*** **Results** tab.
- **Reports** menu.
- ***Admin Dashboard***'s *Student Growth and Achievement* widget.
- From the *Categorical Growth Summary* widget accessed from the ***Admin Dashboard***.

For more information on interpreting the various versions of student growth and achievement data refer to *A Guide for Galileo K-12 Online: Glossary for the Student Growth & Achievement Report* and the online help files.

TIPS AND TROUBLESHOOTING

Below is a list of questions or issues a user may encounter when running the *Student Growth and Achievement* reports. Beside each issue or question are listed possible explanations or solutions.

ISSUES AND SOLUTIONS

Issue	Solution
Why doesn't the SGA report work on the ***Admin Dashboard***?	Galileo automatically populates data based on an Instructional Effectiveness (IE) pretest and the most recent assessment given. If the first assessment given by your district/charter school was not an IE pretest, then the test pair data will not populate. Galileo IE pretests are designed to provide the most reliable and valid growth data possible. If you are not giving the IE pretest and interested in doing so, please contact ATI.
	If, when scheduling the assessments, the *Instructor of Record* was not set, then the data will not populate. To learn how to edit the *Instructor of Record* refer to the **Bulk Scheduler** instructions: http://www.ati-online.com/pdfs/profdevelopment/K-12/Bulk_Scheduler_QRG.pdf.
	When a district is first set up in Galileo they are flagged as participating in Instructional Effectives (IE) measures. If you have recently begun implementing IE, your district/charter school site may not have been updated. Please contact ATI.
There is no SGA data associated with a teacher.	If the *Instructor of Record* was not set when scheduling the assessment, then the data will not populate. To learn how to edit the *Instructor of Record* refer to the **Bulk Scheduler** instructions: http://www.ati-online.com/pdfs/profdevelopment/K-12/Bulk_Scheduler_QRG.pdf.
	The user account originally associated with the teacher's account was deleted. The appropriate classes will need to be assigned to the teacher's current user name and password. To learn how to edit a user name and password: http://ati-online.com/pdfs/profdevelopment/k-12/Staff_User_Account_QRG.pdf.

Issue	Solution
Why does the teacher's SGA say "Scores not Possible"?	If a teacher is the *Instructor of Record* for less than ten students or less than ten students took both tests, Galileo is unable to provide a growth categorization for the given grade-level subject.
Why is a staff member duplicated and showing more than once in the data?	The user was initially uploaded to the wrong school or class but later uploaded to the correct school/class. The staff member is still connected to the initial school or class. Please contact ATI.
	If in a previous school year the user was associated with a particular school or class, the history is maintaining that link. Please call ATI.
Why does the teacher have more students showing in his or her data than he or she teaches?	This may occur when a teacher is listed as the *Instructor of Record* for classes he or she does not teach. To learn how to edit the *Instructor of Record* refer to the **Bulk Scheduler** instructions: http://www.ati-online.com/pdfs/profdevelopment/K-12/Bulk_Scheduler_QRG.pdf.
Why does data appear for a grade-level that the teacher does not teach?	This can occur if the students in the teacher's class have the wrong grade-level associated with them. The grade-level may be corrected in a subsequent upload or corrected manually. To learn how to manually change a student's grade level refer to the **Enter Student Information** instructions: http://ati-online.com/pdfs/profdevelopment/k-12/Enter_Student_Info_QRG.pdf.
	This can occur if the teacher teaches a non-academic class (such as homeroom or study skills). Those students test scores are now linked to the teacher. The students may be excluded from the teachers SGA data.
How can I exclude students or classes from a staff member's SGA?	Students may be removed from a teacher's SGA by following these instructions: http://ati-online.com/pdfs/profdevelopment/k-12/Dashboard_Admin_CGS_Edit_Students_QRG.pdf.
Why are certain classes that a teacher instructs not displaying?	Ensure that the teacher is the *Instructor of Record*, that the test was scheduled for his or her class, that their user account has him or her assigned to the class, and confirm that the class when imported or created was linked to the teacher. To check to see if a class is associated with a teacher follow the edit class instructions: http://www.ati-

Issue	Solution
	online.com/pdfs/profdevelopment/k-12/Course_Class_QRG.pdf.
Why was there very little growth between two benchmark tests?	When tests are taken offline, the test date used to define growth expectations is the date that the answer sheet is scanned into Galileo using *Scanline*. It is important, therefore, that tests be scanned in the order they are administered: the pretest, test #1, test #2, then the posttest. Scanning should occur as close as possible to the date of the test administration. This ensures that the growth expectations are accurately calculated. If the last student was tested more than 2 weeks ago, contact your ATI Field Services Coordinator.

QUESTIONS AND ANSWERS

WHAT IS A CEILING EFFECT AND HOW DOES ATI HANDLE THIS WHEN CATEGORIZING STAFF?

When a student receives the maximum possible score on an assessment, they have "hit the ceiling" of the assessment (i.e., experienced a ceiling effect). Although the student receives the highest possible DL (Developmental Level) score for the assessment, their true ability may be even higher. If a student experiences a ceiling effect on the second of the two assessments used to estimate growth, it is also possible that the student's true growth may be underestimated. In addition, the constraints of a ceiling on the second test may make it impossible for the student to achieve a score that meets the growth expectation.

ATI adjusts the observed growth value in circumstances where the ceiling effect may have a negative impact on the Categorical Growth Analysis. A student experiencing a ceiling effect receives the highest of the following values: their observed growth, expected growth, and the median observed growth for the class. Note that under this approach the student's observed growth is never adjusted to be a lower value. Currently, the adjustment for a ceiling effect is applied at the class level. The observed growth values for students adjusted, if necessary, for ceiling effects are then included in the corresponding school-level Categorical Growth Analysis.

HOW DOES ATI DETERMINE EXPECTED GROWTH?

ATI conducts annual research that employs regression analyses to model student growth patterns throughout the previous year for each grade and content area for which sufficient data are available. Each regression analysis provides an estimate of the slope of the line that best describes the daily change in student DL scores for a grade and content area (i.e., a growth constant). ATI research has demonstrated that growth patterns differ based on whether the assessments are comprehensive or curriculum-aligned. Therefore, ATI provides a growth constant for use between two comprehensive assessments as well as a growth constant for use between two curriculum-aligned assessments. To accommodate testing strategies that employ a

mix of the two assessment types, ATI also provides a "hybrid" growth constant that can be used between two assessments of different types. Finally, in order to accommodate the heightened interest in growth expectations from a pretest administered at the beginning of the school year to a posttest administered at the end of the school year, ATI also provides a growth constant that is based specifically on student performance from a pretest administered at the beginning of the year (i.e., July 1 through October 31) to a posttest administered at the end of the year (i.e., March 1 through June 30).

For purposes of Categorical Growth Analysis, growth expectations in state-tested content areas (i.e., math, English language arts, science, writing) are determined by multiplying the appropriate model-based growth constant by the number of days between the two assessments. This yields an expected growth value for the time period between the two assessments. Since sufficient data has not yet been collected to conduct regression analyses for non-state-tested content areas (e.g., music, physical education), growth expectations in non-state-tested content areas are determined based on the average observed growth for the students who took the tests within the district/charter school. This approach provides a growth expectation that supports the categorization of a class or school as exceeding, maintaining, or failing to maintain the average growth demonstrated by the broader group of students. This approach can also sometimes be applied in state-tested content areas (e.g., when highly atypical growth patterns are observed).

To ensure accurate growth expectations, scan answer sheets as soon as possible after administration.

HOW COME THE TEACHERS' CATEGORICAL GROWTH ANALYSES IN MY SCHOOL ARE DIFFERENT THAN THE SCHOOL CATEGORICAL GROWTH ANALYSIS?

The t-test determines significance based on the difference between the average observed growth and expected growth, the variability of the student observed growth scores, and the number of student observed growth scores. The Categorical Growth Analysis is run independently for the teacher (including all the students in classes assigned to the teacher who took the same test) and the school (including all the students in the school who took the same test). This means that the teacher-level Categorical Growth Analysis scores and the school-level Categorical Growth Analysis score will not always yield identical results. For example, imagine the following scenarios:

SCENARIO 1:

Teacher 1:	Teacher 2:	*School 1:
90 students Observed growth = 40 Expected growth = 55	30 students Observed growth = 50 Expected growth = 55	120 students Observed growth = 42 Expected growth = 55

Teacher 1:	Teacher 2:	*School 1:
T-test indicates, given the variability in the 90 students' observed growth scores, 40 is significantly lower than 55.	T-test indicates, given the variability in the 30 students' observed growth scores, 50 is NOT significantly different from 55.	T-test indicates, given the variability in the 120 students' observed growth scores, 42 is significantly different from 55.
Teacher receives "Expected Growth Not Maintained"	Teacher receives "Expected Growth Maintained"	School receives "Expected Growth Not Maintained"

*includes students from Teacher 1 and Teacher 2

Why*?* The average observed growth for the school is different than the average observed growth for Teacher 1 and the average observed growth for Teacher 2. In this case, Teacher 1 has more students than Teacher 2, so the average observed growth for the school is shifted lower.

SCENARIO 2:

Teacher 1 and Teacher 2	School
Both score one way (e.g., "Maintained")	Scores another way (e.g., "Not Maintained")

Why*?* The variability and the number of scores are different depending on whether you are considering the students from Teacher 1, the students from Teacher 2, or the students from the whole school. In this case, this results in significance in the school level analysis, but not in the analysis for Teacher 1 or Teacher 2.