

Building the Best Student Assessment Solution: An Integrated Approach to Student Achievement Data in an Era of Accountability

Prepared By CTB/McGraw-Hill



InFormative Assessment solutions are key elements of a high-quality data system designed to inform teaching and improve student learning.

An educated population is our nation's most valuable asset—and a mandate established to help our citizens meet the demands of the rapidly changing global economy of the 21st century. Today's educators must implement programs and make decisions on a daily basis that affect an individual student's learning and academic future, and also the effectiveness and longevity of our nation's society. Educators are also working to improve student achievement in the era of the federal No Child Left Behind (NCLB) Act, which was established with the goal of ensuring students meet proficiency goals by 2014.

Yet today's students come to the classroom with a diverse range of needs, from various socioeconomic and academic backgrounds to differing proficiencies in English language acquisition. In this ever-changing environment, educators also face a unique challenge: limited instructional time to understand individual student strengths and areas of need. At the same time, accountability measures mean students must progress to grade-level expectation.

Looking beyond data warehousing to meet student achievement goals

To address this challenge, educators need immediate access to student results in a format that supports informed classroom teaching and decision making throughout the school year. As educators build quality data systems that support student achievement, assessment solutions that support informed instruction are equally critical.

Currently, many educators are looking to implement data warehouses as a means to deliver on the promise of data-driven instruction and decision making. Data warehouses in the education arena are used to collect, organize and store data, with some add-on reporting functionality.

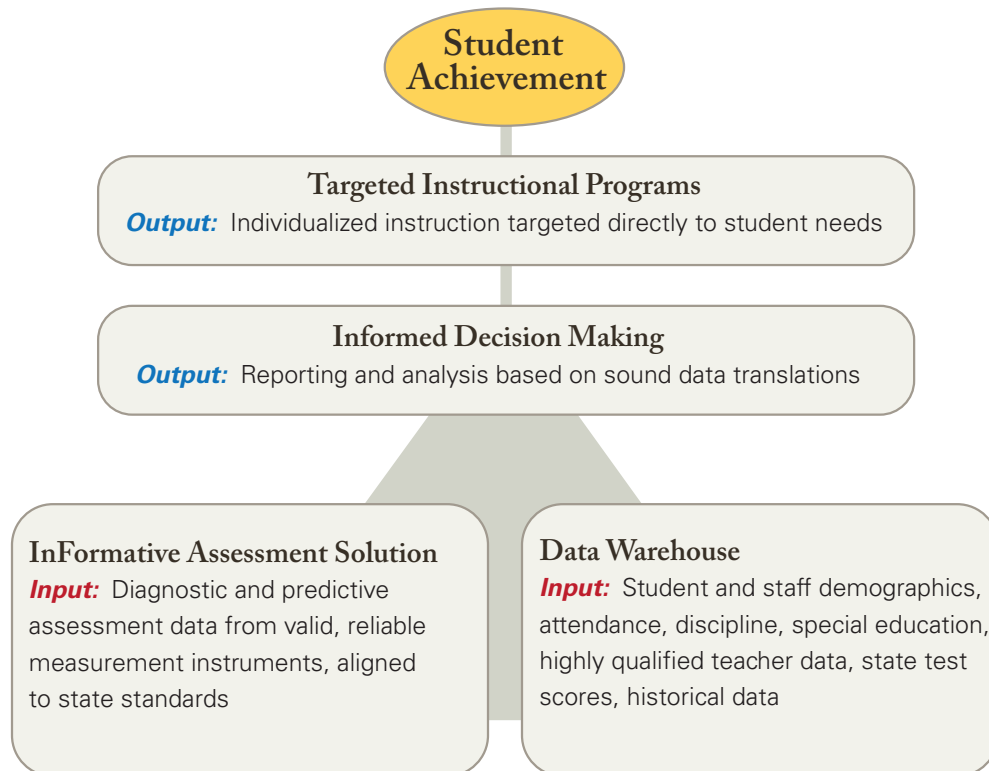
Data warehouses are not the only element of a sound data system, however. **Educators also need to ensure the quality of data populated in a data warehouse.** InFormative Assessment™ solutions help educators by delivering an integrated system for valid and reliable assessment, easy-to-use reports for teacher and administrator use, and instructional resources for teacher and student use. These solutions can work synergistically with traditional data warehouses to ensure high-quality student performance results are communicated and acted upon district wide.

Thus, InFormative Assessment solutions and data warehouses are not mutually exclusive. On the contrary, a quality data system should include best-of breed-solutions for assessment and data warehousing, so educators receive valuable decision support and can aggregate and disaggregate data across disparate systems, e.g. student information, food services, individualized education plan (IEP), healthcare, human resources, and finance systems.



Without a sound resource for assessing student strengths and areas of instructional need, the quality and usefulness of a data warehousing solution are at risk. InFormative Assessment solutions are a critical augmentation of a common data warehousing system to ensure an information architecture geared toward a consistent, continuing focus on student achievement.

High-quality student data systems designed to support student achievement



Turning data into actionable roadmaps for student achievement

Today, accountability requirements demand that data are translated into valuable information educators can immediately use to improve student achievement in the classroom. The right InFormative Assessment solution is a critical spoke in the hub of a student data system, working jointly with a data warehouse to ensure the final output is quality information that drives informed decision making and leads to student achievement.

Unlike data warehouses, InFormative Assessment solutions are more than just mere data repositories. A key difference is that most data warehouses function as a rear-view mirror. Educators can see where students have traveled, so to speak, but not where they are going. In contrast, InFormative Assessment solutions work more like a map or a global positioning system (GPS). Educators can see previous student results, but they can also see where students are headed and provide the resources to help them reach their destination.



In addition to assessing student performance, InFormative Assessment solutions can track growth over time and deliver predictive data that mobilizes educators around common goals, such as improving student performance on high-stakes tests. Further, these solutions give technology infrastructures a mechanism for delivering highly targeted, differentiated instruction. For example, reports like Distractor Analyses uncover the reasons for student misconceptions at a granular item level, delivering the kind of classroom support that is unmet by traditional data systems.

Using valid, reliable measures of student performance, InFormative Assessment solutions allow educators to easily capture snapshots of student learning throughout the year to construct a more complete picture of student achievement. Using targeted instructional resources and activities, educators can actively shape how that picture develops—from the individual student level to the class, school, and district levels.

Assessment and reports aligned to curriculum for a total achievement picture

InFormative Assessment solutions add value to student data systems by providing educators with immediate, actionable data and tools to support high-quality, informed teaching.

Designed in collaboration with educators nationwide, Acuity™ is an InFormative Assessment solution from CTB/McGraw-Hill—a unique integration of interim and formative assessments, reports, instructional resources, item banks, and item authoring—all aligned to state standards and designed to improve student achievement. Unlike generic assessments available with some data warehouses, assessments within Acuity will actually identify how students are doing today—and forecast how they are likely to do tomorrow.

Diagnostic and Predictive Assessments

Acuity Diagnostic Assessments help teachers probe student understanding of state standards, grade-level expectations, and specific skills, and quickly diagnose their strengths and instructional needs. These assessments enable teachers to easily assess what is taught, when it is taught. Acuity Predictive Assessments, on the other hand, provide an early indication of how students will likely perform on state NCLB assessments.

Normally administered within a single class timeframe, Acuity assessments create an accurate picture of student progress relative to state standards and grade-level expectations. Educators can benchmark student mastery at the beginning of the year and give visibility to progress throughout the year at the student, class, school, and district levels. This helps teachers prioritize instructional plans, adjust the pace of instruction, and concentrate efforts where students most urgently need intervention.



Another key differentiator between the Acuity solution and other data systems is that the Acuity Assessments are linked directly to Instructional Resources to help teachers instantly provide students with further practice and intervention related to key content standards.

Together, Acuity Assessments and Instructional Resources help bridge the gap between daily classroom instruction and end-of-year high-stakes tests, delivering results while there is still time in the school year to make a difference.

High-quality items

To be useful, assessments must include only items that are correctly aligned to state or local standards and pacing guides. Further, assessments should showcase content structures that reflect those of state test blueprints.

Acuity uses high-quality, valid, and reliable items that align to state, district, or other local standards, so educators have a common framework for understanding student progress. All assessment and instructional items undergo a rigorous review process—the same process used to create items for high-stakes assessments. Each item is developed by assessment experts, reviewed for bias and fairness, and evaluated to ensure reliable inferences about student strengths and instructional needs. Numerous item reviews, specific to state content standards, ensure accurate skill assessment and measurement of student growth relative to state standards. Critical item and distractor analyses illuminate students' understanding and misconceptions about key concepts. The result is a suite of assessments teachers can use to drive classroom instruction.

In addition, unlike generic assessments, Acuity also reflects state NCLB exams in terms of item content and format. Because Acuity is accurately aligned with state standards and exams, educators are assured it supports common goals in a school, district, or multiple districts.

Custom assessments

In addition to pre-built assessments, a quality InFormative Assessment solution should offer built-in customization for maximum flexibility in creating and delivering assessments. Acuity gives educators the ability to create custom, state-specific assessments with an Acuity Item Bank of more than 25,000 items aligned to state standards. Teachers can use the online Item Bank to measure student progress, and provide further practice and instruction. Item Authoring also allows educators to write their own selected- and constructed-response items, and add them to the Item Bank to create custom assessments. To increase efficiency, a permission-based tool allows educators to produce, manage, and organize Item Authoring initiatives at the school and district levels.



Flexible assessment administration options

To enhance flexibility and meet the needs of schools nationwide, the Acuity InFormative Assessment solution supports online and/or paper-and-pencil delivery options, along with the option to use student response devices—or clickers. Online student assessments can still be easily delivered in a computer lab or via classroom computers, and are scored immediately. If computers are not available, clicker or paper-and-pencil assessment options allow assessments to be administered with all of the benefits of the Acuity reporting system readily available. Many schools choose a combination of methods for delivering assessments and receiving timely results.

State-specific reporting

InFormative Assessment solutions should also deliver detailed reports that support informed instruction in clear, easy-to-understand formats. Acuity delivers a selection of helpful reports that recommend specific actions to improve student achievement. The reports allow educators to measure student progress and growth at the student, class, school, district, and multi-district levels. Educators can use the reports to track student growth within or across grades, or to disaggregate student performance according to NCLB subgroups or demographic categories.

Unlike generic reports that simply state how many questions a student answered incorrectly, Acuity reports pinpoint exactly where a student is having difficulty. Teachers can use this data to adjust their classroom instruction, and facilitate small group or individual instruction to immediately address areas of concern. For example, the Item Analysis Report outlines which wrong answer or “distractor” the student chose. Using this data, teachers can efficiently group students with similar learning gaps and provide targeted instruction.

Administrators can use the reports to plan for professional development or allocate resources to support high-quality instruction in areas needing improvement in specific classes, subject areas, grade levels, and/or schools. Additionally, Acuity Reports can highlight areas for curriculum reform and renewal.

Linking assessment results to instruction

Educators frequently ask, “Now that I know the needs of my students, what’s next?” Acuity is specifically designed to answer this question by providing teachers with Instructional Resources that can be assigned to students individually or as a group from student assessment results, so assessment leads directly to appropriate instruction.

Using the Acuity Instructional Resources, educators can easily deliver targeted, personalized instruction by skill or standard. The Instructional Resources are designed to engage students, and provide extra practice and intervention in time to make a difference. Real world content, sound, and graphics further motivate students to achieve. Acuity also includes an individual student report so students are keenly aware of what skills they have mastered—and where they need the most help. Research has shown that providing a clear roadmap of instructional expectations for students leads to more engaged learners and increased achievement.



Linking research to informed decision making

While student progress and other reports provide teachers with a means to modify instruction to improve learning, quality feedback can only result from valid, reliable assessments. Developed by CTB/McGraw-Hill, a trusted leader in educational assessment and reporting for more than 80 years, Acuity meets the highest standards of validity and reliability. It is based on statistically sound measurement models, and extensive research and development. With a staff of doctoral-level researchers, scientists, mathematicians, writers, and editors, CTB/McGraw-Hill applies the same best practices used in item development for high-stakes testing to the development of Acuity. In addition, the company continually updates the assessments to meet the changing needs of educators. Superior test items and assessment forms result in more accurate indicators of student progress for informed decision making at all levels.

Empowering educators with professional development support

To ensure a successful launch and maximize success, an InFormative Assessment solution should offer implementation, professional development, and technical support. With Acuity, educators have the support needed to help schools get started quickly and smoothly, to answer questions, and address any issues.

Acuity is supported by comprehensive professional development programs targeted to teachers, administrators, and school support staff to help ensure the achievement of students. Developed in collaboration with districts across the nation, Acuity professional development workshops are designed to make the most efficient use of educator time. A flexible menu of training options includes web-based and on-site workshops, as well as customized training developed around school or district specifications. These workshops, offered at introductory and advanced levels, guide educators to effectively use assessment data, target instruction, and meet each student's unique learning needs. In addition, CTB can certify district trainers and empower them to provide end-user professional development.

Integrating with district data systems for a comprehensive solution

To help schools maximize their technology investments, InFormative Assessment solutions should also integrate with technologies and data systems in classrooms, schools, and districts. Acuity is a flexible, scalable system designed to quickly and compatibly integrate with existing technologies, and adapt to future needs. A web-based product, Acuity works on both Windows®-based operating systems and Macintosh® computers. In addition, data extracts at the student, class, school, or district levels can be delivered in the form of a comma delimited data file that can be imported into an Excel® file or other systems.

By combining Acuity real-time student assessment results with the information in data warehouses or other district systems, educators can create a comprehensive data solution to meet their needs throughout the school year.



Summary

InFormative Assessment solutions enhance educator ability to address diverse instructional needs while meeting rigorous accountability demands. Used as standalone assessment solutions, or integrated with district data warehouses or other student data systems, these solutions help educators support positive change in classroom instruction and maximize technology investments to accelerate learning—from the first day of school to the last.

InFormative Assessment solutions like Acuity preserve classroom instructional hours by helping to focus classroom teaching. Interim and formative assessments deliver detailed insight on student strengths and areas of need relative to state standards. This helps the teacher know when students are ready to move on to the next level, and when to spend more time on practice and review. InFormative Assessment solutions also give teachers the ability to assign personalized instructional activities, based on assessment results, to immediately target areas of instructional need.

With integrated assessment, reporting, and instructional capabilities, educators can accurately measure students potential, chart a course toward improved learning, and direct students toward lifelong success.