A network of dropout recovery high schools has adopted a value-added model that tracks each student’s actual learning gains every year to assess the value of the school’s instructional program.

Everyone knows young parents who enthusiastically engaged in conversations about their children’s accomplishments, and rightly so. How old was the child when she started walking? When did he say his first words? During these phases of a child’s development it is common to hear that all children progress at a different pace, and parents should not be overly concerned.

However, in the traditional public school system, the varied pace of student learning is often lost, and replaced with a “one size fits all” expectation for grade-level cohorts of students using normed, standards-based assessments. This reliance on cohort-based test scores continues through high school.

Traditional measures are designed primarily for traditional calendars and emphasize cohort-group proficiency by grade level, rather than individual student learning gains. Schools that serve at-risk populations can be mislabeled as underperforming because they do not have the performance cohorts that counterbalance those students who are behind grade level.

SIA Tech, a network of dropout recovery charter high schools, has adopted an individual student growth model. Achievement based on standardized test scores is not unimportant at SIA Tech; however, each individual student’s academic growth over time is more highly valued. In other words, what matters is not fixed academic performance compared to other similar-aged students, but the learning growth that occurs for each individual student over time.

In dropout recovery, the focus is on each individual student’s potential in order to accelerate their learning and make up for lost time. SIA Tech saw a critical need for an accountability system that would more accurately measure its dropout recovery efforts in a manner that could distinguish successful schools from those that need improvement.

SIA Tech serves a socioeconomically disadvantaged student population (100 percent qualify for Free or Reduced Lunch) that

By Linda Dawson, Kris Mallory and Khris Johnson
has chosen to reenter high school and earn a WASC-accredited public school diploma. The school provides open entry and exit for students during a year-round school year and students advance through the curriculum based on competency rather than seat time.

Students often enter the school without basic academic skills. If SIATech only used achievement scores to gauge its school, staff and student success, the picture would be grossly misleading. Reentry high school students are often far below grade-level standards and reenter school seeking to complete their diplomas in a shorter period of time than available in a traditional high school.

Upon enrollment, students’ baseline test scores reveal an average of a sixth-grade level in math and a seventh-grade level in English. Students bring an average of 10.4 credits with them upon entry to SIATech, and more than half of them have no transferable credits.

Standardized annual tests, such as STAR, do not provide an informative picture of our students, nor do they provide any indication of student performance over time. An individual growth model tracks each student’s growth in terms of actual learning gains to assess the value of the school’s instructional program.

The challenge for dropout recovery programs is to provide a rigorous academic program that can engage the student and dramatically accelerate learning. A recent study by the education research organization WestEd found that fewer than 20 percent of re-enrolled dropouts in one California school district ultimately earned a diploma during the 2001-02 school year.

Dropout recovery schools reach out to a segment of students who need different pedagogies, different relationships, and different incentives than other students. Individualized learning plans and goal setting rooted in assessment data are a critical part of the transformative process as a student goes from high school dropout to high school graduate.

In 2008-2009, SIATech enlisted the services of John Schacter and Kilchan Choi of the Value-Added Analysis Network to determine a rigorous and reasonable growth expectation for each student based on Renaissance Learning assessment data. The fundamental idea of value-added is that schools are responsible for increasing every student’s learning every year.

Central to value-added statistical models is the estimation of expected growth. That is, based on where each student starts each year, how much learning or “value” is the school expected to produce? At the end of the year, if the student has achieved expected growth, he or she has made “value-added.” If the student shows more than expected growth, he or she has received a highly effective education.

Selecting which assessment to use was an important step in the process of creating a viable Individual Student Growth Model for SIATech. Researchers find that the use of scaled scores in value-added formulas provide more consistent results than the use of other test metrics (e.g., National Percentile Rank, NCE scores or Performance Levels). For SIATech, the nationally normed growth tables based on Renaissance Learning Reading and Mathematics tests were used because they have been part of California’s Alternative School Accountability Model data collection indicator that has been used for the past 10 years.

Dropout recovery programs must accelerate learning for students to get back on track to graduation. Our Individual Student Growth Model incorporates this need. A statistical calculation that accounts for time in the program, the national norms tables for 10th and 11th grade, baseline assessment results, and the students’ raw scale scores are used to determine an expected annual (10 months) growth target for each student. Students demonstrate added value when they meet or exceed expected growth goals. All accelerated student learning. An on-demand assessment (Renaissance Learning: Reading and Math) helps students to set learning goals, reflect on what was learned since the last assessment, look ahead to what needs to be done to reach the next level of expected growth and effectively monitor progress.

Student use of assessment data

Behind every re-enrolled dropout there is a unique story. One story is student Yusef Crawford. He enrolled in SIATech on the San Francisco Treasure Island Job Corps Center in the fall of 2009 at the age of 18. Yusef’s struggles began in elementary and continued through his middle and high school years. He attended five different schools including one private school.

Despite a strong and supportive family, Yusef chose a path that was counterproductive to success. After dropping out of school Yusef was involved in drug use and spent his days just “hanging out” with no future plans. After a family application of tough love, Yusef enrolled at Treasure Island Job
Corps Center as a place of last resort. Yusef entered the SIAtech classrooms with similar attitude and behavior as in his past schools: uncommitted and disengaged. Upon enrollment, his baseline scale score on his literacy assessment was 856. This assessment placed his literacy skills at the seventh-grade level.

SIAtech staff sat down with Yusef to create his Individualized Learning Plan and set appropriate learning goals to put him on a course toward high school graduation. His successful academic progress is largely due to his ownership of his educational experience and the integration of the numeracy/literacy growth model into his Individual Learning Plan. Yusef was provided with an overview of each subject area, targeted academic goals and individualized support. Armed with a comprehensive understanding of the requirements to meet his academic needs, he mapped out his personalized course toward his high school diploma.

A focus on learning gains
A multi-dimensional view of student growth is important in dropout recovery. Rather than focus on a student’s academic achievement—how a student compares to other students nationwide—SIAtech chooses to focus on a student’s academic growth—the learning gains that student makes over time. This creates a more meaningful dialogue between teacher and student about that student’s learning progress. The student is then able to take ownership of his or her learning and monitor personal growth based on external assessment data as well as progress through curriculum.

Looking at individual student growth also provides a lens for SIAtech’s administrative leadership to view the efficacy of its program as it relates to students’ academic learning.

Shortly after arriving at SIAtech, Yusef began his journey toward completing his high school diploma one step at a time. Yusef has attributed much of his academic growth to the support, personalized attention, and structure that the staff and program has provided: “I made my mind up to get it done. I had wasted too much time; I dug myself a ditch and was sitting in it for a cool minute. I wasn’t going to give up on myself and the teachers would not give up on me.”

Within a period of 13 months, Yusef moved from his literacy grade level equivalent of 7.7 to an 11.4. Yusef continues to embrace opportunities for learning and has made real-life connections and application of his learning experiences that will live well beyond the classroom.

Due to the constructive goal-setting efforts, Yusef has a clear understanding and appreciation for the assessment process. “I took the STAR Renaissance test to assess my English and vocabulary skills. I feel good that I have not only met my two year literacy growth gain, but exceeded the expectation in less than a year. I feel proud of myself and I know my family is proud of me.”

Yusef’s transformative mindset was a journey that has lifted his spirit and transcended his past. He continues to push for-
ward to achieve his personal and academic goals and embraces the hope and optimism that comes with empowerment.

Principal Khristel Johnson explains, “Our students come to us feeling unsure that they can learn. They leave empowered. They realize that they can learn and do anything.” In the words of Yusuf, “To me, learning is something you have to embrace, desire and want. Learning means you can go as far as you want to in life.”

SIATech’s Individual Student Growth Model emphasizes student learning and is not used to evaluate teacher performance. Successful administrators realize that teachers are the single most important classroom-based asset to positively impact student academic success. An increased emphasis on data in the classroom necessitates an increased emphasis on training and preparing the teacher to effectively use the data. Assessment results are one piece of a puzzle that teachers put together to support each student.

SIATech teachers help students set academic goals and learn to use assessment data as a tool for measuring goal achievement. Students are taught to use the assessment information to track their own learning and to focus on strategies and behaviors that will support goal achievement. Instructors embrace assessments as a source of data to inform students’ learning goals. Teachers learn to help students assume responsibility for their own learning, learn across the curriculum, self-identify learning strategies, and embrace those strategies to become lifelong learners.

SIATech provides professional develop-
ment to help teachers grow and hone their instructional skills to provide the best possible student support. Teachers learn to identify students’ precise learning needs and to implement appropriate, personalized intervention programs to accelerate the learning process. Specific strategies are implemented to provide struggling students specific assistance with one or more of the cognitive structures, such as comparative thinking, symbolic representation, and logical reasoning. An intention focus on the cognitive structures allows for:

• connections to be made;
• patterns to be identified;
• rules to be formulated; and
• abstract principles to be applied to new situations.

Research illustrates that many students need to be explicitly taught ways that allow them to develop the cognitive and neurodevelopmental processes that they need to construct knowledge and “learn to learn.” There can be no assumption that high school age students come to us with all these cognitive processes in place. Individual student assessment data measuring growth over time helps teachers individualize the instruction to maximize each student’s time in the program.

Using data to drive improvement

SIATech uses Renaissance STAR Reading and Math assessments to compare average growth over its eight campuses serving its homogeneous disadvantaged, dropout student population. Larger schools might review academic growth levels of multiple student groups (students enrolled in two or more honors and/or Advanced Placement classes, those enrolled in predominantly traditional grade-level classes and those enrolled in two or more remedial and/or below-grade-level classes).

Through staff collaboration and discussion, successful practices are identified to further student growth across all levels and school sites.

SIATech looks at average data across campuses and at individual sites to identify best practices and develop professional development opportunities that allow for collaboration and sharing. The expectation is that students will be able to accelerate learning beyond a year’s growth in a year’s time.

While the standard adopted by SIATech is high, numerous students have been able to reach and/or exceed this expectation. Overall, student learning exceeds expected student growth and the best performing schools have demonstrated that they are capable of producing two years of student growth in a single year. As a result, SIATech is raising the bar for its expectation for individual student growth.

Re-engaging and retaining students

All of America’s youth must have access to a complete and appropriate education. SIATech seeks to re-engage and retain students by revamping practices for a small school setting, revitalizing and accelerating learning for previously disengaged learners and renewing academic achievement for all our youth.

Recent legislation authorizes the State Board of Education to make recommendations for the development of an individual student growth model by July 1, 2013. The work that SIATech and other schools are undertaking can help California policy makers measure the value of individual student growth models as applied to real schools and real students.

References


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