Accelerate Learning Targets STEM Competency

Accelerate Learning (Houston) in April formed a National Institute for STEM Education that has three initial goals:

1. help teachers and administrators get STEM certified by completing an online competency-based program that covers three domain areas and 15 specific teacher actions in the classroom;
2. help schools and districts become certified as STEM learning centers when they transform STEM culture and improve scores; and
3. enable teachers who have completed STEM certification and teachers in certified districts and school to pursue advanced degrees.

Bartholomew Implements 1:1 and Standardizes LMS

The Bartholomew (IN) school district took a major step forward in technology use for the 2015-2016 school year with the distribution of 1:1 computing devices and standardization on the itslearning (Bergen, Norway/Boston) management system.

District director of technology Mike Jamerson told EER the work done in 2015 is an outgrowth of the adoption nearly a decade ago of Universal Design for Learning, a framework to optimize teaching and learning based on scientific insights into how humans learn. Jamerson said UDL informs the way the district looks at everything from product selection to instruction and technology with the goal being offering multiple ways to doing things.

Schools are Interested in STEM Integration but Need Time to Work On

Schools are making progress in integrating STEM education although having enough time to do so is the number one factor hampering progress toward that goal, according to a fall 2015 survey of mathematics educators conducted by Simba Information, the parent of EER, and MCH Strategic Data for Simba’s recently released K-12 Mathematics Market Report 2016.

With increasing recognition of the need to give students strong education in science, technology, engineering and mathematics, there are more calls to
easy-to-implement best practices. “Building a positive school climate is not something that can be checked off a back-to-school prep list, it’s something you are constantly working at,” Medbury said.

The best educators have been focused on school climate and culture, classroom management and character development along with academic instruction for decades, Medbury said, but the transition from NCLB to ESSA reflects a pendulum that swung to academic performance at all cost has moved back to the middle with recognition of the importance of taking a holistic approach to education.

Accelerate Learning, cont’d. from p. 1

Accelerate Learning president and CEO Vernon Johnson told EER the National Institute was built to be agnostic to Accelerate Learning’s STEMscopes curriculum, and instead is for any school that wants to use good practices in STEM. In addition to getting word out to customers through sales personnel, Accelerate Learning will advertise the initiative nationally.

Accelerate Learning is working with the American College of Education in creating the professional development and certification, and the ACE will be offering a new master’s degree in STEM leadership.

Johnson said the value of certificates earned is increased because they would be counted as the first two courses needed for an advanced degree. Accelerate Learning is working with ACE to ensure the rigor and compatibility of the certificates. ACE was chosen because it offers a nationally recognized, affordable degree.

There are very few competency-based programs available to degree-seeking educators, Johnson said, but the new offering will allow educators to move as fast or slow as needed to demonstrate proficiency in required areas. Showing competency could involve presenting documentation from a supervisor observation or sharing video clips or classroom artifacts.

Educators pursuing the STEM degree will need to show proficiency in three domains: creating an environment for learning, building scientific understanding and engaging students in science and engineering practices. Below those domains are 15 teacher actions, for example, fostering data utilization or addressing student misconceptions about science. Below the actions are 45 indicators of what has to be shown to be done in classroom, for example, how to probe for and resolve misconceptions.

While teachers seeking certification will need to show they can learn behaviors and demonstrate them in the classroom, districts seeking certification will be required to prove they are focused on the right elements of STEM education. Johnson said a school must show a comprehensive commitment to be certified, not be offering a rocket club for a few students after school.

Update on Accelerate Learning

Accelerate Learning develops programs to help teachers adopt effective STEM instruction practices, improve student performance and increase engagement of parents through hands-on digital STEM curriculum. Its efforts in adoption states bore fruit in March as STEMscopes was approved for core and supplemental instruction in grades K-8 in Alabama when the state Board of Education approved K-12 science programs in an adoption that could be worth nearly $50 million.

New state standards, which take effect this year, stress experimentation and hands-on instruction and that is particularly evident in the approved titles for grades K-5, where no traditional textbook is on the list.

Accelerated Learning’s STEMscopes will be competing for K-5 sales with the Discovery Education (Silver Spring, MD) Techbook series, National Geographic/Cengage Learning’s Exploring Science series, Carolina Biological Supply Co.’s (Burlington, NC) Building Blocks of Science Program, and two traditional adoption participants. Pearson’s (London/New York) new Interactive Science program for K-5 features digital materials, readers, kits, activity books and a CD of science songs; School Specialty’s (Greenville, WI) Delta education program FOSS Science has always been—and continues to be—a kit-based, hands-on program.

In grades 6-8, the approved competitors to Accelerated Learning are Carolina Biological, Discovery, McGraw-Hill Education (New York) and It’s About Time (Mount Kisco, NY) project-based inquiry science.
flagship STEMscopes curriculum was developed at Rice University and incubated in the classroom. More than 200 teachers, science experts and science professionals contributed to curriculum development and teachers field-tested lessons and assessments.

With its roots at Rice, STEMscopes first gained traction in Texas, winning state approval in 2011. STEMscopes still is growing in Texas as districts add schools, grade levels and switch from other programs, Johnson said, but now also has grown nationally expanding to 35 states and Washington D.C. By then end of this year, Johnson expects more than 3 million students will be using STEMscopes, and about 55% of company business will come from outside Texas.

STEMscopes was built to be 100% digital, although the company meets some district requests for print materials. There is a lot of talk about schools being digital, the fact is many are not, Johnson said.

The program, cloud-based to work in any environment on any device, includes digital text, songs, games, interactive experiments, assessment and intervention for $5.25 per student per year.

STEMscopes already has a professional development component including workshops on practices. The company’s STEMcoach website has been embedded in the product to offer just-in-time professional development.

STEMscopes is customized by state. Johnson said even among states accepting the Next Generation Science Standards most have made some modifications, especially at the middle-school level, requiring the customization.

In 2015, Accelerate Learning introduced STEMscopes Early Explorer, STEM curriculum for ages 3, 4 and 5 and is building pipeline for that business this year. Developed to get preschool students ready for instruction in physical, earth and life sciences, Early Explorer also was built for easy implementation.

The program introduces concepts with hands-on activities, students move to learning centers for small group exploration before a wrap up with a larger group activity that evaluates understanding. Early Explorer includes big books to build a connection with English language acquisition and keep-it-up activities that also can be done at home.

Accelerate Learning is targeting the preschool spectrum with Early Explorer, but Johnson said the majority of customers are public school districts, where he is seeing a strong commitment to preschool education.

Title I Funding, Boon to Poor Schools, Up in FY 2015

Funding for Title I, the largest elementary and secondary education program that funds support for low-achieving children especially in high-poverty schools, climbed in fiscal year 2015, ended Sept. 30, 2015, to $14.41 billion, up from $14.38 billion in fiscal 2014.

The 50 school districts that receive the largest Title I allocations were scheduled to receive $3.64 billion of the grants allocated to local education agencies for fiscal year 2015, more than one-fourth of the total funding and down 0.8% from the $3.67 billion allocated to the 50 largest recipients in fiscal 2014.

The top three recipients—New York City, Los Angeles and Chicago—were projected to receive $1.32 billion, or 9.2% of total fiscal 2015 funding. Among the 50 districts receiving the largest Title I allocations, nine are located in Florida, six in Texas and five in California.

Title I finances the additional academic support and learning opportunities viewed as necessary to help disadvantaged students progress along with their classmates. Title I is an area of interest to educational publishers because, although the program is used mainly to pay educator salaries, schools also spend the funds on professional development, educational materials, after-school programs and specialized instruction. A number of educational technology companies, particularly those with literacy and intervention solutions cite the importance of federal funding, like Title I and IDEA, to their customers.

Title I money is paid to states and territories that distribute it to individual school districts with school districts having two years to spend the funds. Funding has ranged between $14.38 billion and $14.52 billion from 2009 to 2015, with the exception of the sequester year of 2013 when funding dipped to $13.76 billion.