States Need to Embrace Data-Driven Education

Daniel Castro | January 13, 2017

When it comes to education, we are living in the dark ages. Even as the technology-driven march of progress continues to reshape industries from automakers to financial service providers, the forces of innovation come to a screeching halt at the doors of most schools. Instead of using data to personalize instruction, most educators adopt a one-size-fits-all strategy that fails all but the most “average” child. Instead of using analytics to make schools more efficient, school administrators rely on intuition. And instead of implementing evidenced-based education policy, school boards merely follow tradition. As the Center for Data Innovation has written in a recent report, this needs to change, and making this change will require states to bring a new level of technological sophistication to their school systems.

Many parents, educators and policymakers have adopted an instinctual aversion to attempts to create a more data-driven education system. Much of this opposition is fueled by the assumption that increased reliance on data will simply drive educators to focus on helping students succeed at testing rather than at learning. In reality, data-driven education might be the very cure that schools need to avoid teaching to the test by eliminating high-stakes annual testing in favor of routine assessments of whether students have mastered specific concepts. But in a world where data-driven education
is falsely equated with politically fraught programs like No Child Left Behind or Common Core, it is no surprise that all but the most courageous policymakers steer clear of these important initiatives. Instead, they are more likely to propose additional student data privacy rules, a typically meaningless gesture given existing rules, but one that erects additional barriers to collecting and using data in the classroom.

This should not be the case. After all, measuring a student’s academic progress with valid, reliable data should go hand-in-hand with providing that child an education. How can educators help students succeed if they do not know where they are struggling, where they are thriving and how they learn? While there is growing awareness that health care needs to be moving into a world of personalized medicine, where doctors treat patients based on how their individual genetics, lifestyle and environment shape their disease risk factors, few recognize the importance of creating an education system similarly designed to meet the unique needs of every child. And beyond personalized instruction, an increased used of data would enable schools to become more efficient and accountable.

Achieving this type of transformation will require schools to integrate new technologies, processes and training. Given that it has taken tens of billions of dollars in funds to incentivize doctors to adopt electronic health records and train them in how to use the technology, we should not expect to see a similar change in schools without a serious commitment of funding. While the federal government has provided grants for the development of statewide longitudinal data systems for student information, schools still need to adopt learning management systems to facilitate student instruction and assessment; backend databases to store the massive volume of data produced by these digital learning tools; and the front-end systems necessary to provide students, teachers, parents and administrators access to the relevant information.

Some states have been more ambitious than others about transforming their education system to better use data, but no state can do this alone. While states are going to be responsible for creating the tech infrastructure for data-driven education, it is the private sector that will ultimately develop many of the analytical tools that will make use of all the data. But these markets will only thrive with scale, which means states need to coordinate their efforts so that data collected in one state is compatible with data collected in another.

Education is due for a renaissance. If the future of education requires data, then state technology leaders will need to play a greater role in improving education. While this transition will not occur overnight, states should begin to look closely at how they can lay the foundation for greater use of data in education by modernizing their information systems, establishing national education data standards and changing the culture around data in the classroom.

http://www.govtech.com/opinion/States-Need-to-Embrace-Data-Driven-Education.html