



Missouri Ensures the Quality of Student Assessment Data

Like most agencies that report to federal regulators, the Missouri Department of Elementary and Secondary Education has been diligent about monitoring the consistency and quality of information it submits to the U.S. Department of Education (USED). After all, Missouri's collections of student assessment data provide critical statistics for federal funding and satisfy compliance with data-intensive initiatives like the USED No Child Left Behind Act and the federal Performance Based Data Management Initiative (PBDMI).

For Tom Ogle, Missouri's director of school core data, student data quality was top-of-mind. When he learned about a federally-sponsored program to improve the completeness, accuracy and consistency of education data, he was enthusiastic about participating. Through the USED Data Quality and Standards Project, Missouri is among a handful of states to receive assistance from Certica Solutions, including Certify™ data quality software, methodology and training.

Certify performs a battery of tests on data, such as content analysis, data population, primary key uniqueness, row uniqueness and referential integrity. Once the project kicked off, consultants from Certica demonstrated their unique approach to data quality analysis by performing a rigorous interrogation of the data Missouri had submitted to the PBDMI. Although the data had been verified and scrubbed already, Certica analysts using Certify could iden-

Student Information Systems

Many school districts and schools share information using packaged student information systems (SIS). While these systems provide benefits by keeping information centralized and facilitating searching and online data collection, they do not prevent or track data errors.

Certica's validation solution checks the accuracy, completeness and consistency of data in SIS databases, to pinpoint errors and report them back to schools.

For the first time, district education leaders and data administrators can manage the integrity of student data in a pro-active, systematic manner.

tify underlying business rules that were previously unknown or misunderstood. As a result, Missouri data analysts saw errors where the data did not conform to those rules.

As an example, a business rule uncovered during the Certica project pertained to the grade level classification of students who were enrolled in local high schools, but were also taking classes at regional technical community colleges. Before the data quality errors were identified, no one had noticed that some of the grade levels for these students were invalid. Now, the business rule could be identified, documented and stored in Certify.

So in addition to scouring data for quality problems, Tom Ogle plans to use Certify's functionality as a business rule and metadata repository, to discover and improve the quality of business rules. "This data quality program will have a positive, preventive affect on Missouri's data," he says, "because the state will be able to better communicate accurate business rules to its data suppliers."

As a next step, Missouri hopes to put Certify in the hands of the data suppliers themselves. Tom is also considering giving a handful of districts—and their associated school systems—the ability to analyze and correct data closer to its point of origin.

Because student assessment data (such as attendance, drop-out rates and graduation rates) is trended over 5-8 years, the data continues to be relevant and can be corrected, even after it is submitted to federal regulators. In his experience, Tom Ogle believes that manual data corrections are more error-prone than the original data itself, as corrections are made in areas that are often misunderstood. As such, manually corrected data will be one focus of the ongoing analysis. Using Certify, Tom plans to roll out a regular, systematic

program for assessing data files on a monthly—or even daily—basis, and gauge the level of quality improvements over time.

"Although we were reviewing and correcting our data collections already," says Tom, "we will definitely benefit from the strategic, methodical and repeatable nature of Certica's approach to data quality improvement."

About Certica Solutions

Certica Solutions is a leading provider of data certification solutions. Certica helps corporate and government organizations address specific business challenges with a structured, systematic approach to identifying, reporting and monitoring data quality issues. Certica's business-specific solutions, based on the company's Certify software, enable organizations to identify costly data errors and omissions, comply confidently with regulatory requirements, improve data in a shortened time period, and certify their data suppliers' data.

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