Student-centric Dashboard Provides Valuable Information for Delaware Educators

Executive Summary

Organization:
Delaware Department of Education

Project:
EdInsights Dashboard

Challenge
- Help educators make better decisions at the classroom level
- Leverage existing disparate databases
- Deliver an accessible, easy-to-use, secure and cost-effective solution

Solution
- Student focused dashboard displaying actionable information
- Gives educators valuable insights about their students
- Data aggregated and analyzed using the Ed-Fi data standard and dashboard starter kit

Results
- Powerful, student-centric dashboard of information for educators
- Scalable framework accommodating future enhancement/innovation
- Project delivery within a year – on time and under budget

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- Mary An Scarbrough, Student/Staff Supervisor, New Castle Co. Vo-Tech

Overview

The EdInsights Dashboard project was a major component of Delaware's application for federal Race to the Top funding; it focused on providing systems and data to improve educational outcomes in public K-12 schools statewide. The Delaware Department of Education (DDOE) wanted to provide teachers across the state with insight into students' needs to enable better instructional decisions at the classroom level. To achieve this, DDOE needed a solution that could collect and analyze information stored in various disconnected data systems and that could present it to teachers, administrators and district employees in a clear, coherent and actionable way. Using a grant awarded through the U.S. Department of Education's Race to the Top Fund, the DDOE project team worked with educators and solutions providers, including Double Line Partners, Amplify and Otis Educational Systems, to create a new student insights dashboard using Ed-Fi technology. As a result, the majority of Delaware K-12 educators are now using a single, comprehensive and secure resource for insight and information about their students' learning needs.

Background

The Delaware Department of Education works collaboratively with the state's schools and districts to help students achieve by: improving standards and teaching practices; assisting school systems to develop their capacity for insight-driven planning and review processes; promoting innovative strategies to improve instruction; and ensuring that community and state agency resources are included in efforts to support both students and educators.

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In July of 2009, President Barack Obama and Secretary of Education Arne Duncan announced a $4.35 billion Race to the Top Fund designed to spur innovation in state and local districts' K-12 education systems. In response, DDOE engaged more than 100 educators, education experts and parents, as well as leaders of teachers' unions, nonprofits, corporations and civic groups, to create a strategic plan that provided the foundation for the state's application for a Race to the Top grant. The application, endorsed unanimously by every school district and charter school, local school board, and teachers' union, was submitted to the US Department of Education (USDOE) in January of 2010.

In late March of 2010, the USDOE announced that Delaware was one of only two states to receive Phase 1 funding for Race to the Top. Of the 40 states and the District of Columbia that applied, Delaware's application received the highest scores. This was a result of the state's commitment to reach all of its school districts with programs designed to turn around struggling schools, and to install meaningful teacher evaluation systems linked to student achievement.

The state received about $119 million to implement its plan. The plan called for a tool that would give teachers critical information they needed about their students to teach them more effectively.

Challenge

To accelerate student achievement at the classroom level, Delaware educators needed access to meaningful student information that was often difficult to retrieve, because the supporting data was stored in disparate database systems.

"All of our students' most relevant information -- their grades, attendance, disciplinary activity, and so on -- was filed away in different systems that didn't communicate with each other," says Reese Robinson, Project Manager, DDOE Technology Workgroup. "We needed a way to bring all of that data together in one place and make it easy for people to use."

The technology used to solve this problem needed to be cost-effective, secure, reliable, robust and easy-to-use in order to effectively deliver student insights to educators and administrators. The DDOE project team was also faced with the challenge of completing the project within a year.

Solution

The project team immediately identified time- and resource-efficient ways to speed the development and implementation of the new insights dashboard (named EdInsights) and to make the best use of the Race to the Top funds. Because the Texas Education Agency had undertaken a similar project with the Ed-Fi Alliance team, major components of a teacher-facing data dashboard – which was designed based on research involving some 2,600 educators - were already available as a "starter kit" for other implementations. The Delaware project team took the opportunity to use and build on the successful work that had already been done.

Working with Double Line Partners, Amplify and Otis Educational Systems, the Delaware project team used Ed-Fi technology, which included the "starter kit," to create the EdInsight dashboard.

"The quality of the Ed-Fi dashboards, the educator input, and the incredibly comprehensive documentation and research – those were the things that attracted us initially," says Robinson. "We saw right away that licensing and using those components would be a critical time and resource savings for us."

The EdInsights dashboard provided a single, secure online resource that brought student information together in one place and delivered them to educators in customizable ways. Permission-based security ensured that each educator only had access to his or her students' information.

Because users of Delaware's new solution would have varying degrees of technology know-how, the interface had to be simple and intuitive. However, the tool also needed to be powerful enough to support various use cases. To ensure that the technology met these needs, the DDOE team started with the people whose input mattered most: the educators themselves.

The DDOE appointed a dedicated liaison between the technology team and the people using the dashboard to help ensure its value was fully realized. The Delaware project team then held a series of workshops across the state, inviting educators to use mockups of the dashboards and give detailed feedback based on the experience. Obtaining thorough input from educators enabled the team to quickly document the Education Insight dashboard's technical specifications. The project team also recruited educators to serve as an advisory committee. The committee assumed a permanent role as a sounding board for planned enhancements in order to ensure that the needs of educators are met at every step of the way.

"Educators know what tools and resources they need to help students," says Robinson. "Bringing them in at an early stage was a tremendous help in guiding our approach, and their continuing feedback keeps us on track."

Results

As a result of these efforts, and the tools and technology provided by the Ed-Fi Alliance, the Delaware project team was able to get the EdInsights dashboard into the hands of the first pilot group of educators within just one year.

Today, Delaware teachers have desktop access to a single comprehensive dashboard for insight and information. Thanks to the team's work, and the benefits of the Ed-Fi technology used to create and implement the dashboard, the state was able to roll out the new tool in less time and costing far less than they could have with other alternatives. Thanks to insights gained by quickly and easily accessing important student information, educators are far better equipped to meet their students' needs

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A fast, cost-effective deployment

The entire process of scoping, planning, development and deployment took only a year – and came in below budget. Using Ed-Fi technology, the team was able to take advantage of an existing framework that was designed from the start with input from educators. Also, because the Ed-Fi dashboard starter kit is free to use, out-of-pocket expenses were minimal.

"Working with Ed-Fi technology helped us tremendously in meeting the state's goals," says Reese Robinson. "We estimate that Ed-Fi technology enabled us to cut six months of design work and over $500k from the original project plan."

A dashboard by educators, for educators

From the beginning, Delaware placed a high priority on reaching out to educators statewide for detailed input, tasking a dedicated representative with regularly bringing educator input back to the technical team. The team frequently rolls out new enhancements to the dashboard in response to feedback that it gets from the field. The pace of improvement accelerates as more educators use the dashboards and provide feedback.
This continued investment in strong relationships with educators has helped the team to refine and improve the dashboards. It has also driven educator adoption. By the end of the 2012-2013 school year, nearly 7,000 educators and administrators used the insights dashboard, and Delaware expects that number to grow to more than 8,000 by 2014.

A foundation for future innovation

With a solid technical foundation in place, the Delaware team has been able to continue scaling the Education Insight dashboards to help more educators in the state. Recently, the DDOE launched a joint project with the state's Office of Early Learning to deliver similar insights to pre-kindergarten educators and families. The early-learning dashboards focus on giving educators and program managers the essential information needed to provide high-quality early-learning opportunities to all children, so that they enter kindergarten ready to succeed. Preschool and kindergarten teachers can better address incoming students' needs and challenges, and provide families with helpful resources to help their children succeed.

For More Information

To find out more about the Ed-Fi Alliance and Ed-Fi technology, please visit www.ed-fi.org.
To find out more about the Delaware Department of Education, please visit www.doe.k12.de.us/.
To find out more about Double Line Partners, please visit www.doublelinepartners.com/.
To find out more about Amplify please visit www.amplify.com/.
To find out more about Otis Educational Systems, please visit www.otised.com/.