INTEROPERABILITY CASE STUDY

Raytown Quality School District

Metro Status: suburban

Number of Schools: 18

Number of Students: 9,000

Device-to-Student Ratio:
1:1 (grades 2-12)
1:3 (grades K- 1)

IT FTEs: 29

Interoperability Level: 3-4

Up against Kansas City, Mo. is Raytown Quality School District.

Classified as a suburban school, Raytown hardly fits the typical profile of a suburban enclave. Like school districts in many suburban regions, Raytown is by far the biggest employer in the region, with 1,437 employees, according to a recent Chamber of Commerce report.
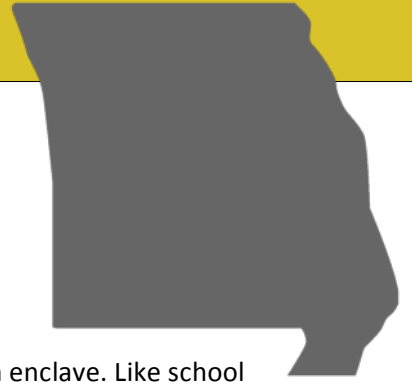
But at the same time, eight of its 18 schools are physically within Kansas City's boundaries, some rather deep into the city's urban core. Its 8,979 students speak roughly 25 different languages, said Melissa Tebbenkamp, director of instructional technology.

On top of that, the school system's student body is highly transient, with about 22 percent of students moving in and out of the district a year. Others move between buildings year to year and often in the same year, giving the district a total transient rate of about 30 percent, she said.

That's why a technology commitment to connecting students, teachers, administrators and parents in a seamless fashion and in every way possible – begun years ago – was so necessary. It has paid off for the district, she said.

"To handle that level of transiency without having automation would be incredibly cumbersome," Tebbenkamp said.

"We have a term that we use which is called 'efficiently lazy'. We have a lot of demands on our time and we have a lot of data that we work with.

And so the only way for us to manage that is for us to actually not manage that. And so we don't do things manually. Our drive to not ever want to do something manually has moved us to automating everything. We will spend two days trying to automate a task that might only take you 30 minutes a month because in the long run, it's automated and we're not doing that anymore."

Tebbenkamp, who has been with Raytown for 13 years, says she can't remember working at Raytown without the emphasis being on interoperability.

She has 29 people on her technology team, each with assignments, whether in programming, maintaining servers or managing hardware and software. But whenever an issue arises, Tebbenkamp says the team can pool their knowledge to deliver solutions. On the student data side, two team members handle the integration of data systems, one is a database system administrator and one supports instructional systems to provide data integration, Tebbenkamp said.

Tebbenkamp reports to one of two associate superintendents, who themselves report directly to the superintendent. But while the organizational chart shows Tebbenkamp reporting to the operations side, you'll also find a line from her position to the instructional side as well.

Her dual loyalties have helped her staff look broadly at their mission.

Raytown years ago began to push back against software vendors who insisted on doing things their way only, she said, calling those battles over rostering and updating the files her biggest challenge. "It is a last resort to adopt anything that doesn't allow us to roster," she said. "They had to change their database structures so that you're not overwriting data and you can keep that history on kids when they move from building to building."

The district has not undertaken a study to see how the effort to smooth the program-to-program communication has improved student outcomes.

However, the district's effort to make systems interoperable has "significantly" cut the time it takes for students to access online resources.

"In the past, the teacher had to complete a technology work order asking us to add a student and then wait for us to complete the entry and then for the overnight process to run," Tebbenkamp said. "Now, students have access the day after they enroll."

Additionally, students shuttling between schools don't have to worry about their records not showing up in what can already be an emotional time.

"When it is working you don't know that we're there," she said. "Our teachers don't have to think about it – they have the resources when they need them."

Information teachers need gets updated during the night, she said, so that teaching time does not get interrupted.

Parents also benefit from a smooth operating SIS portal in which they can set custom alerts, notifying them when a test score comes in or if their child has an unexcused absence, for example.

The latest step forward was automating file transfers in an area not commonly thought of in a school setting – bus transportation.

Until this year, changes in student transportation records had to be entered manually. Around 60 to 70 students a week, and sometimes more, had to be entered manually because of data mismatches with actual addresses, Tebbenkamp said. Her team

spent a lot of time last year making sure the addresses in the SIS matched transportation's maps.

"So now, every night… we send a file to our transportation system," she said. "It automatically routes all of our kids and it assigns them a bus. And then that sends that back to our SIS and we update the bus number. Then the secretaries and everybody at the building automatically know what bus that kid is on so they can make sure they get on the right bus."

Transportation now gets a report every morning showing which children changed bus stops, who is new on the bus, and just a handful of files need to be updated by hand.

With that in place, parents were offered an app called "Here Comes The Bus" that allows them to watch their kids get on the bus and follow it to school on GPS.

"We couldn't release the app for our parents to use until we got the integration going," she said.

Having the systems coordinated means transportation has virtually eliminated overtime of around 60 hours a week during the busy routing time between sessions, Tebbenkamp said.

Counting saved overtime costs and administrative tasks, the district estimates the transportation changes alone will save 950 hours of worker time – and pay – a year, she said.

Challenging work still remains to be done. The district still adopts some new software that does not meet its lofty goal of being device-agnostic, but that's something that will have to be for the immediate future, given some of the courses taught at the high school level, Tebbenkamp said.

For example, most Raytown high school students take a desktop publishing class, and Photoshop and InDesign are must-have parts of the curriculum, she said.

"There are a few other for the business classes, but most of those are moving to web-based," Tebbenkamp said.

Tebbenkamp also dreams of having a virtualized application environment, but she hasn't been able to make the numbers work for the benefit that would be gained.

If Tebbenkamp has any advice for other districts looking to advance up the ladder on the interoperability model, she would say, think big.

"Sometimes, when they talk about Interoperability, they're talking about instructional software systems," Tebbenkamp said, "but it goes so much deeper than that."

You could call it thinking "efficiently lazy."