



“I SEE KIDS
ENGAGED IN
LEARNING LIKE
NEVER BEFORE.”

—TRC FACILITATOR

TECHNOLOGY RICH CLASSROOMS – APRIL 2010

TECHNOLOGY RICH CLASSROOMS ALTEC

More than 5,000 students across Kansas are well on their way to becoming digital citizens, thanks to a program called *Technology Rich Classrooms* (TRC). The program enables qualifying school districts to purchase technology for their classrooms and learn how to use it effectively with the assistance of a job-embedded coach or facilitator.

Since the program began in 2003, 80 school districts have received a two-year TRC grant from the Kansas Department of Education (KSDE). Funds for the grants come from a federal program called Enhancing Education Through Technology, commonly referred to as “EETT.” The primary goal of EETT is to help states improve student achievement through the use of technology.

To help manage the program, KSDE has established a contract with the KU Center for Research on Learning (KU-CRL). Staff from the Center’s Advanced Learning Technologies division coordinate the project and

provide statewide professional development.

HOW THE PROGRAM WORKS

To become a part of the TRC program, eligible school districts must apply for a competitive grant with KSDE. Districts that are funded are able to hire a half-time facilitator to work with four of their teachers. They also receive money to purchase equipment for the teachers’ classrooms.

Although the type of equipment varies depending on the needs of a district, all districts must have at least one laptop computer for



PROJECT GOALS

The program enables qualifying school districts to purchase technology for their classrooms and learn how to use it effectively with the assistance of a job-embedded coach or facilitator.

FUNDING AGENCIES

Kansas Department of Education (KSDE)
Enhancing Education Through Technology (EETT)



every two participating students. In addition, each participating teacher receives a laptop, projector, and some sort of interactive whiteboard. Other types of technology that districts can purchase include iPod touches, interactive clickers, sound systems, digital cameras, printers, scanners, and software.

Professional development is a critical component of all TRC programs, says Amber Rowland, CRL staff member and project coordinator. "Research tells us that when school districts purchase a great deal of equipment but they don't pair it with good professional development, the technology doesn't get used. It typically just collects dust."

Thus, TRC grants also provide each grant recipient with a facilitator or professional development person. All facilitators attend a summer institute where they learn about *Technology Rich Classrooms*. Then, when the school year begins in the fall, they spend the next two years working with four teachers in their classrooms.

The first semester of a project is typically spent providing some basic instruction to teachers and students in how to use the new equipment. In addition, facilitators model how to teach with the equipment using best instructional practices. As the semester progresses, instruction moves to more of a team approach, and by the end of the semester, many teachers are taking on the technology even without the presence of a facilitator.

Although the facilitator's role is to help the teachers integrate technology, Rowland emphasizes a broader goal. "This is not just technology for the sake of technology," she says. "Instead, it's letting technology enhance the content of the curriculum. In this way, the technology becomes the tool that helps the teachers and the students learn and the facilitator is the person who helps the teachers envision the shift."

NEW WAY OF TEACHING, LEARNING

Despite the name "Technology Rich Classrooms," many of the TRC teachers say that the project is not about technology. Instead, it's about changing the way instruction takes place.

"Direct instruction is not a big piece of what we ask for," Rowland says. "We ask for student-centered instruction that uses a lot of higher-order thinking, project-based learning, and using technology as a tool for learning."

Year 2 of the grants is when project-based learning typically takes off. One example of a current project-based activity is found at a grade school in Buhler, Kan. An injury at a school intersection propelled students in a TRC classroom to ask the question, "Why is that intersection so dangerous and what needs to be changed?" In their quest to discover answers, students are gathering data to determine how busy the intersection is and what sort of traffic management devices could be installed to decrease accidents. Once data have been

gathered, they plan to make a recommendation to the city council about what they believe should be changed.

"One of the big things that I hope students take away from this project is the idea of independence ... that they can be their own advocates for finding the answers to questions," Rowland says. "That is a huge 21st Century skill, and one that I hope all students in the grant take away."

FUTURE DIRECTIONS

Thanks to funds from the American Recovery and Reinvestment Act, the number of people who can participate in the TRC program in the 2010-2011 school year has almost tripled. In addition, the program is being expanded from elementary schools into middle schools.

"We really want this project to be a catalyst for change in the state of Kansas," Rowland says. "We want kids to become tech literate and technology to become the way we do business."

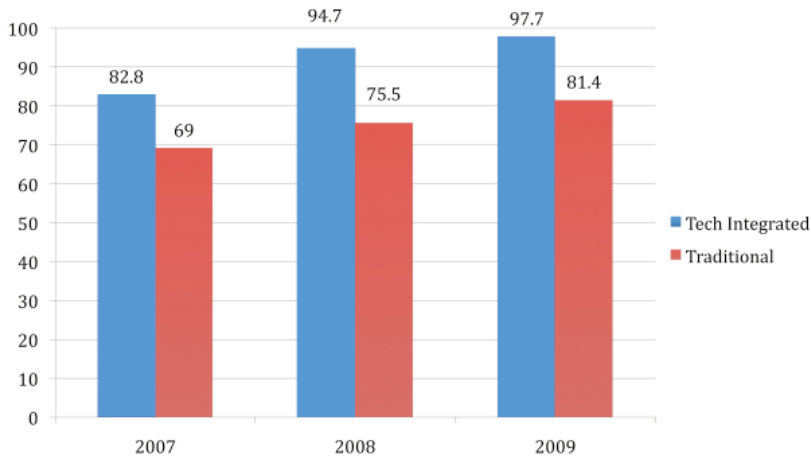
"We know that kids have to use technology when they get into the job market, no matter where their career pathway leads them. So it doesn't make sense for us to continue to teach them using direct instruction or from a textbook, because that's not what they're going to need when they get into the real world. Thus, our big goal is to get technology infused across the state and better prepare kids for their future."

BY THE NUMBERS: COMPARING TECHNOLOGY-INTEGRATED CLASSROOMS WITH TRADITIONAL CLASSROOMS

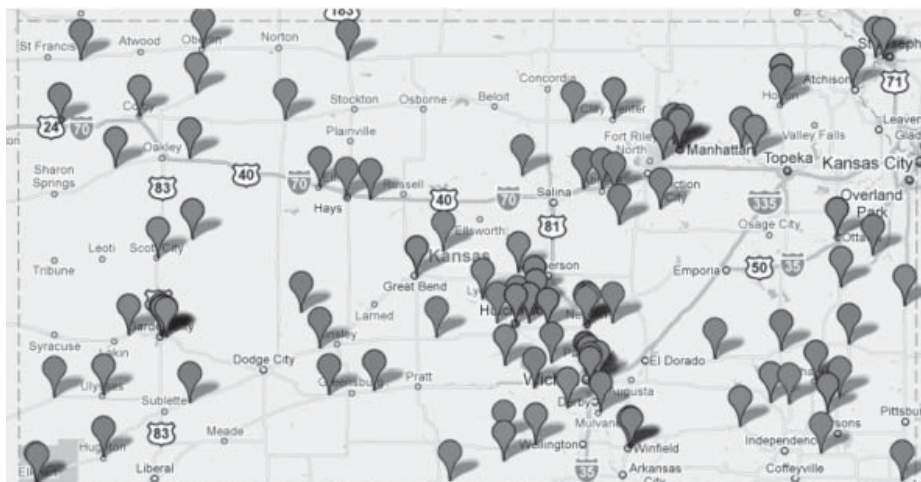
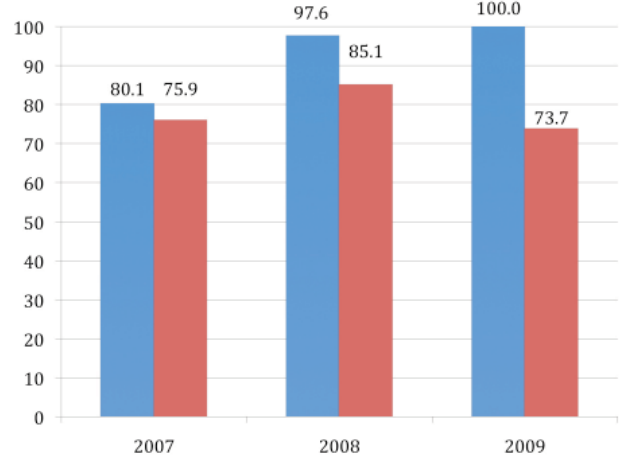
So what effect does Technology Rich Classrooms have on student achievement? These graphs represent the reading and math assessment scores of two TRC classrooms compared to scores from two traditional classrooms. (All classrooms were in Garden City, Kan., where more than 60 percent of the district student population is considered economically disadvantaged.)

The reading scores of TRC students demonstrated a 13.8 to 19.2 percentage point increase over the scores of students in traditional classrooms, and the math scores of TRC students ranged from 4.2 to 26.3 percentage points higher. Future research will continue to chart the progress of TRC students.

KS State Reading Assessment - Tech Integrated vs. Traditional Classrooms



KS State Math Assessment - Tech Integrated vs. Traditional Classrooms



MAP OF TRC SITES

Since the Technology Rich Classroom program began in 2003, 80 Kansas school districts have participated in the program. This map represents the location of all of the school districts that have participated since the program's inception.



“The students I see diligently working on a task on their computer are some of the same ones who didn’t care about school and assignments last year or even at the beginning of this school year. They are now taking ownership for their work and are excited . . . Having a computer at their fingertips throughout the school day has definitely opened a door to learning!”

—TRC facilitator

PERSONNEL AND PARTNERS

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HOW PARTICIPANTS FEEL ABOUT THE PROGRAM

Reactions to Technology Rich Classrooms have been overwhelmingly positive. Facilitators, teachers, parents, and students love what the program has done to the learning process. Here are some of the comments participants have made about the program:

“I have to make my kids go to recess.” —TRC teacher

“We take CBM tests in the fall, winter, and spring. Usually the students’ scores peak in the winter and decline slightly in the spring. This year, they increased greatly on all three tests in all subject areas tested.” —TRC teacher

“I can’t imagine teaching the way I did 20 years ago. It would be stone-age and completely painful.” —TRC teacher

“TRC leveled the playing field for students, especially English Language Learners and students who typically struggle with learning.” —TRC facilitator

“We don’t use technology for technology’s sake. We use it because it engages students and helps us to saturate our day with meaningful experiences.” —TRC teacher

“Our daughter has struggled as a traditional student. But with this kind of program, she has just blossomed.” —TRC parent

“We could not get our son excited about going to school. He would drag his feet out the door every day. And last night it was 7:30 or 8:00, I finally had to come pick him up.” —TRC parent

“Our son doesn’t enjoy reading; he doesn’t enjoy writing. But if you give him that technology and let him shine a little bit, and now he’s a kid who’s showing leadership skills that we haven’t seen before.” —TRC parent

“I had a really hard time in school. I didn’t want to do any of this stuff, but I knew I had to. But now it’s really awesome. Every day I wake up and go ‘Yay! I get to work with Mrs. Herron in math,’ and math was my least favorite subject.” —TRC student