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Each and Every Child

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Perchance to dream...

Students virtually land good-paying jobs through hands-on exploration

FOREST CITY – Two schools are teaching students to dream. And those dreams served up at Forest City and Charles City high schools

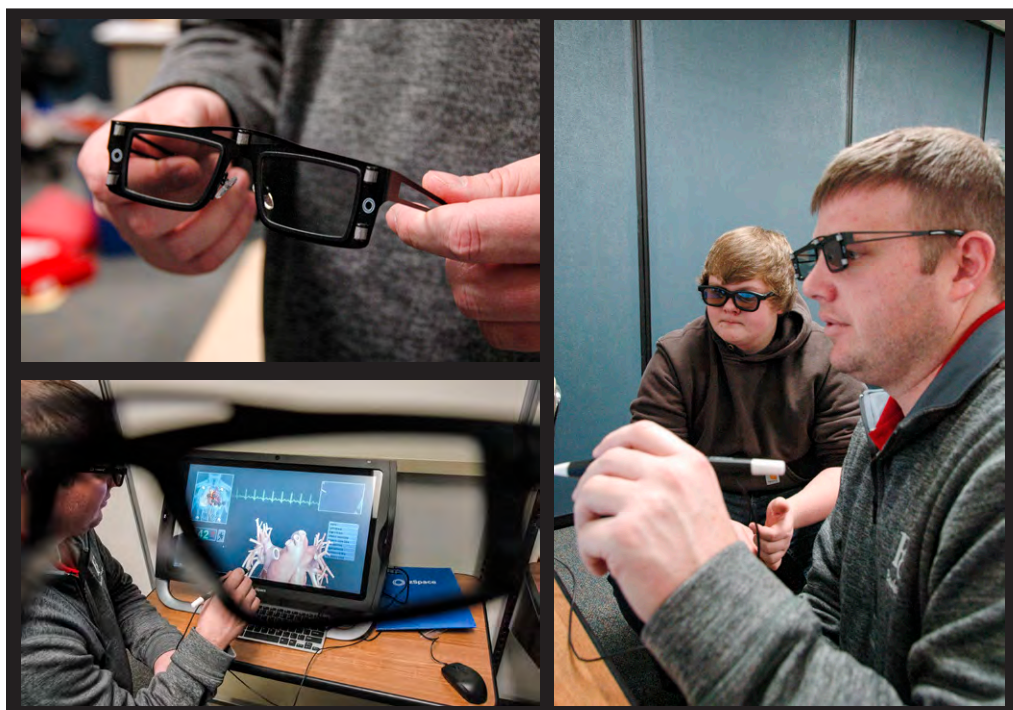
in northern Iowa are virtually at the students' fingertips.

Thanks to an initiative through

the Iowa Vocational Rehabilitation Services (IVRS), the schools enable students with special needs the ability to virtually learn about good-paying jobs they never knew existed. Through the use of software, the schools have created a virtual learning environment, offering students a front seat in interacting with simulated objects, from a car engine to the human heart.

The hands-on exploration supplements classroom instruction, and opens the doors for the students to a work world they never knew existed. It gives them, firsthand, a chance to try on different career options.

"A lot of times high school students, and even their parents, don't realize the number of jobs there are out there," said IVRS Counselor Amy Markham, who works with both Forest City and Charles City high schools.



Photos by Iowa Department of Education's Deborah Darge

Teacher Ryan Eastvold and student Joey Paulson work together in a virtual learning environment.

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"This gives them exposure to the variety. For instance, it might show them all the jobs that are possible at a place like Winnebago, and that the company has far more jobs than just the assembly line.

"We want to make sure students know there are lots of options in that middle skills area, such as advanced manufacturing, health care, nursing. Parents are awed that their kids could have jobs within the community. They go from thinking their child may be dependent all his life to seeing their child can be a productive citizen within the community."

The schools are in the first year of a two-year pilot through IVRS, so data is not yet available on what kind of impact it is having on students academically or career wise. But there's plenty of anecdotal evidence that it's stoking engagement among the students.

In one instance, four students – none of whom had much interaction with one another before – were assigned to complete a computer task. In many ways, the foursome didn't complement one another's personalities, and the collaborative task at hand seemed a long shot.

But one by one, students started falling in line. They discovered how an engine ran. Then they dissected a

virtual heart.

The boy with a written language deficit, in charge of writing down their discoveries, suddenly wasn't shy. "How do I write that?" he would ask unapologetically. Even the stalwart

teacher, and though these four kids wouldn't interact with one another earlier, they were really collaborating, communicating in a respectful way. The teacher hadn't seen those kids do any collaborative learning before."

The initiative came about when IVRS and the schools saw opportunity: the statewide push for STEM (science, technology, engineering and math) education, the plethora of unfilled, good-paying jobs that require that kind of knowledge, and the state's Future Ready initiative, which wants to

see a minimum of 70 percent of graduating high schoolers receive either training or education beyond high school by the year 2025.

"We have a middle-skills gap," Markham said. "We wanted to make sure we could help with that.

"We are hoping to look at curriculum and take it to businesses. Some of the factories in north Iowa have

testing for employment. One business has a 50 percent failure rate – people cannot get through the testing. If we tweak the software, we can gear them toward what businesses need in the area."

Traditionally, many students with special needs don't get much exposure to STEM subjects. But the initiative could change that.

"We want the students to have more exposure to a STEM curriculum to invoke more interest in pursuing



Joey Paulson



Ryan Eastvold



Amy Markham

loner with social-emotional problems who initially didn't want to participate started sitting upright in her chair, getting more and more interested, and finally joining the work.

"School was over, but the kids didn't want to leave," said Kenda Jochimsen, IVRS bureau chief. "I was talking to the

STEM occupations, which in the long run produces higher incomes and a work-ready labor force comprised of individuals with disabilities,” Jochimsen said. “In the end, it will increase family incomes and move more people with disabilities into the middle income.”

Jochimsen said they will be studying the impact on employment outcomes and areas of employment the students developed interest in.

“We also want to see if this impacts the local labor force for employers who often have difficulty getting the labor for these occupations because rural areas find that often their folks move

to the ‘big city,’” she said.

From the teaching standpoint, the initiative is seen as a great supplement to the classroom.

“The reaction has been good and students have been very curious and willing to explore,” said Forest City High School’s Ryan Eastvold, a special education teacher. “Students who have classes in science have been more interested in using the computer as an extension of learning. The content is more relatable and aligns easier with what they are doing in class.”

Eleventh grader Joey Paulson agreed.

construction, eagerly shows visitors how you can strip away the exterior of a house, leaving behind just the rafters. He takes the visitors to the kitchen area.

“Kitchens are my favorite part,” he said. “You can put a lot of detail into a kitchen, from cupboards to a sink to counters.”

It’s too early to see how the initiative impacts grades, Eastvold said.

“But I think it has improved understanding concepts,” he said. “In Joey’s case, I think it’s helped him understand parts of a motor, how circuits work and why blueprints of a house are important.

“I really like going on the computer,” Joey said. “I want to go into construction, and this lets me see how a building is really constructed, from framing to sheetrock.”

Joey, who plans on going into

“This is a great tool for STEM and helping special education students gain interest in STEM careers which are better paying jobs.”

The work truly is teaching students to dream.

“We are awakening students to their potential and interests,” Markham said. “And we are encouraging parents to see it.”



Exploring car engines, the human heart and a house under construction are all at the fingertips of students at two Iowa high schools.