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Photo by Jane Utecht

SEE ANY SCIENCE? — Dakota State University math education major Nathan Rauven asks St. Thomas fourth-grader Ava Brandenburger if she sees any examples of STEM principles in the Pokémon Go app they are using. Gravity, she said, a scientific principle that applies to the slide on the playground.

St. Thomas, DSU

St. Thomas, DSU collaborate on STEM project

Students use Pokémon GO to show science

By JANE UTECHT
Staff Reporter

Pokémon is everywhere.

The craze that started in 1995 simply as a couple of video games has since grown into a huge franchise of more games, books, movies and toys.

Science, technology, engineering and math (STEM) principles are everywhere, too, so it seems logical, in a scientific sort of way, to tie the two together.

Dakota State University students in a junior level technology in education course did just that last week, using the Pokémon Go apps on their smart phones to take St. Thomas fourth-graders around Memorial Park to find Pokémon characters.

DSU associate professor Dr. Mark Geary said the plan was to use the game to get the children involved so they see STEM objects.

"A lot of students are naturally engaged" with the game, he said, so the college students used the app to find Pokémon creatures. In the captured images, they pointed out aspects of STEM, mostly science and math.

The college students and fourth-graders then went back

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to campus to calculate how well they did, using the STEM vision and the creature.

"The combined values make the score," Geary said.

It was a new experience for the seven youngsters, said Audrey Johnson, STS fourth-grade teacher. The experience will help them "grasp science and math skills" to "make it more fun and understand it better," she said.

Mark Moeller, a secondary education student in health and physical education, said the technology project was a good way to expand the students' creativity.

It was a new learning experience for the college students as well. When they were in elementary school, their STEM experience did not include cell phones and outdoor gaming experiences.

Nathaniel Rauven, a math education major, said he only used the school computer lab. Technology projects were "definitely not on phones."

The changes over the last few years show "how fast technology is taking over," he said, so the students "might as well grow up using it."

Math education major Kaylee Vander Wal said the project was a good way to show the children how to use technology resources.

"It makes it educational instead of just a game," she said.

"It's something the kids can relate more to," added Alex Babcock, an elementary education major.

The students paired off, one or two St. Thomas youth with a DSU student.

Back on campus to calculate their results, their STEM observations included photosynthesis in the grass and leaves, the math involved in building a bridge, gravity with the slide in the playground, or friction between the road and car tires.

One pair of students also did a comparison and contrast between the Pokémon character Drowzee and an aardvark.

Vander Wal thought the young students "maybe were more interested in the game," but the exercise still provided a good chance to point out STEM examples.

"Science and math are everywhere," she said.