

# Soaking Up Science: Students, Educators, And Scientists Conduct Utah Water Research

By RHESA LEDBETTER • JUL 18, 2016

“I could never do science.” That’s what high school student Mitzy Ocampo thought before participating in iUTAH’s Summer Research Institute. The institute, an educational outreach element of a statewide research and training program, brings together a number of Utah high school and undergraduate students as well as teachers to conduct water-related research with scientists.

“I am passionate about making science easy for everyone to understand and that’s what the iUTAH Summer Research Institute is part of,” said Louisa Stark, director of the institute and professor of human genetics at the University of Utah.

One goal of the institute is to generate interest and enthusiasm for science and give students a sense of what research is like. “Peer mentoring allows each [student] to learn from those above them in the educational pipeline and find out if pursuing a career in science is something [they] want to do,” Stark said.



*High school student, Mitzy Ocampo learns how to measure stream discharge from an iUTAH scientist.*

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“It’s also important to involve teachers in this research because each middle and high school teacher probably has 150-200 students each year. By reaching educators we’re able to reach thousands of students.”

The participants engaged in field-based, laboratory-based, and social science water research throughout the week. They analyzed their data and presented posters at a statewide scientific symposium.

Rachel Gabor, a postdoctoral research fellow at the University of Utah, helped lead fieldwork at Emigration Creek. The participants did a pilot study on the water’s composition to help the scientists understand where they should focus their future efforts. She said there is a good chance that the data collected will end up in a published research paper.

“As long as I have been a scientist, I have tried to do as much outreach and teaching as I possibly can. I think it’s really important as scientists to connect with society, because larger society is funding our research and our research affects them,” she said.

High school students, Ocampo and Joe Galang, were excited to be solving a ‘big problem’ like water quality rather than just conducting, what Galang called, "a cheesy science experiment with special effects."

“I didn’t know chemistry was actually used to find out what’s in the river. It’s cool how you can determine these things by taking a water sample,” said Ocampo.

Galang established where fruits and vegetables came from by looking at the different forms of hydrogen and oxygen in the food.

“We learned about stable isotopes and how they can help us find out where we get our food from and where the water used to grow that food is sourced from as well,” he said. “We took these food samples- a tomato, a banana, and a bell pepper. We sliced them open and inserted this special probe that measures water isotopes. That told us pretty accurately where our food was coming from. I got to cut up a pepper and found it came from Holland.”

Galang hopes more people take the time apply for these summer internships and that they don’t just do it for the free lunch or stipend, but because they want to learn more about science, or change the way they view science and the world.

Ocampo discovered potential within and said, “I didn’t think science was actually a possibility for me, but maybe now I can explore it more.”