ITLS Welcomes Hillary Swanson | ITLS

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The new year brought a welcome addition to the Instructional Technology and Learning Sciences department at Utah State University with the arrival of Dr. Hillary Swanson.

The department's newest tenure-track faculty member debuted on the Logan Campus January 1 with an impressive list of qualifications and great hopes for personal and professional satisfaction.

Swanson, who visited her paternal grandmother in Ogden as a child, is no stranger to this area. Although she is excited to take advantage of the outdoor recreation opportunities in the mountains, such as skiing and snowshoeing, Swanson said the people are the number one draw.

"What drew me to Utah State was the intellectual community. That was the deciding factor for me at the end of the day," she said.

Swanson brings valuable teaching insights to share with students in USU's Emma Eccles Jones College of Education and Human Services.

"I want to help students develop and pursue research and design projects that are personally meaningful, so that they can develop academic and professional skills while creating products they care about," said Swanson.

She taught high school physics, chemistry and math for six years, including three years of integrated physics/math at High Tech High, a renowned project-based school in San Diego. She also taught secondary science teaching methods at the University of California, Berkeley, where she subsequently earned a PhD in Science and Mathematics Education. Most recently, Swanson worked as a research assistant professor of Learning Sciences in the School of Education and Social Policy at Northwestern University near Chicago, where she specifically worked at the Center for Connected Learning and Computer-Based Modeling (CCL) and Tangible Interaction Design and Learning Lab (TIDAL).

Swanson is actively contributing new research, having recently been awarded funding from the National Science Foundation for work on student theory building in the context of computational modeling. Her interest in how people learn has resulted in a body of work which focuses on the process of conceptual change through knowledge refinement. Swanson's most recent publication "Refining Student Thinking Through Scientific Theory Building" appeared in the book, *Deeper Learning, Dialogic Learning and Critical Thinking* in September, 2019.

"As a learning scientist, I look at learning as a refinement of intuitive or prior knowledge," she said. "The key to helping someone learn is to find out what they know and how to build on and refine that."
Dr. Andy Walker, ITLS department head, said he has enjoyed looking at the rich history of conceptual change literature over the years and enjoyed even more learning the directions that Swanson is taking it in by examining student theory building.
"She is a deeply thoughtful scholar which is a mindset that she also brings to her teaching," Walker said. "We are fortunate to count her as one of our colleagues."

A veteran of project-based learning (PBL), Swanson said this method gives students personalized learning experiences based on what matters most to them. Instead of regurgitating memorized facts from a lecture, students who learn through PBL gain deep understanding that connects with their own lives.

While Swanson has built a career around her passion for the physical sciences and social sciences, she also enjoys drawing and water-color painting, as well as cooking, gardening and reading, particularly Russian literature. For more information about Dr. Swanson, her CV, Bio, and Featured Works are available at https://itls.usu.edu/people/faculty/swanson/.