

Colby Tofel-Grehl Receives NSF CAREER Award | CEHS

05/11/2020



Dr. Colby Tofel-Grehl, associate professor in the School of Teacher Education and Leadership in the Emma Eccles Jones' College of Education and Human Services, received a Faculty Early Career Development (CAREER) award from the National Science Foundation (NSF). This is NSF's most prestigious award in support of early-career faculty who have the potential to serve as academic role models in research and education and to lead advances in the mission of their department or organization. Activities pursued by early-career faculty build a firm foundation for a lifetime of leadership in integrating education and research.

Focused on helping teachers learn how to teach in STEM areas more effectively, Dr. Tofel-Grehl has found that the most effective strategies involve finding ways to engage and motivate students who do not see themselves as good students. To do that, she works with teachers to examine their professional practices as well as other factors that influence student outcomes. In her role at Utah State University, she is Director of the Chaos Learning Lab, a group of faculty, students, and community members who work collaboratively to create integrated, meaningful STEM learning experiences for students across Utah.

Through this award from the NSF, Dr. Tofel-Grehl's CAREER project will cultivate a professional development model that allows rural secondary teachers to build skills related to computational thinking. Research data will be collected through extensive participant interviews, video observations, and analysis of classroom artifacts. This project will enhance academic achievement of approximately 1000 students (predominantly Pacific Islanders, a group with a unique cultural identity who are

largely underrepresented in STEM fields), to help meet the Next Generation Science Standards and Hawaii's computer science education standards.

Dr. Tofel-Grehl is an associate professor of STEM education in the School of Teacher Education and Leadership in the Emma Eccles Jones College of Education and Human Services at USU. After receiving her Ph.D. from the University of Virginia, Dr. Tofel-Grehl came to Utah State University to explore access to STEM learning for rural students.