"An Asset-Based Approach to Support Multilingual Learners in Science Classrooms"

Wednesday, July 14th

12:00 - 1:00pm

In light of the community concerns regarding COVID-19, this talk will be given as a webinar. The link will be provided on July 13th to those that have registered by 5:00 pm on Monday, July 12th at uccs.ucdavis.edu.

Multilingual learners (MLs), also known as English learners, emergent multilingual learners, or emergent bilingual learners, account for approximately 20 percent of California's K-12 students. ML students are recognized as diverse in their number of and proficiency in languages spoken; their country of origin, ethnicity, and culture; and their socioeconomic status. In recent years, in response to the increasing numbers of MLs in science classrooms, teacher education and professional development programs have moved away from teaching long lists of disconnected instructional scaffolds focused on vocabulary to developing comprehensive ML frameworks that promote rich science learning. In this presentation, I will share our asset-based ML instructional framework composed of five principles: providing a safe classroom community, celebrating student funds of knowledge, implementing cognitively demanding tasks, offering language rich opportunities, and attending to disciplinary language demands and supports. I will also describe our work with preservice and practicing teachers, where we pair these principles with structured instructional language routines, such as Three Reads, Co-Craft Questions & Problems, and Stronger & Clearer. In pairing principles with routines, teachers are able to better support their ML students in engaging in sense-making activities, cultivating conversations, and maximizing their connections across science ideas, language, and reasoning. I will conclude with lessons learned from our research that can inform district and state policy initiatives related to teacher education and professional development in science education.

Dr. Julie Bianchini is Professor of Science Education and Faculty Director of the CalTeach/Science and Mathematics Initiative in the Department of Education at UC Santa Barbara. She received both her undergraduate degree in Biological Sciences and her Ph.D. in Curriculum and Teacher Education from Stanford University. Professor Bianchini's research investigates ways to make science education accessible, interesting, and relevant to all students. She examines issues of diversity, equity, and inclusion in teacher education and professional development contexts, and the teaching and learning of science to linguistically and culturally diverse students, including multilingual learners, in classrooms. She also has expertise in curriculum development and groupwork instruction. Currently, she is investigating how preservice secondary teachers learn to teach reform-based science and mathematics to their culturally and linguistically diverse students and how preservice and practicing secondary science and mathematics teachers learn to implement language routines to teach their multilingual learners. She received the 1998 Outstanding Paper in the *Journal of Research in Science Teaching* and the 2000 Early Career Research Award, both from the National Association for Research in Science Teaching (NARST). She recently ended her six-year term as the chair of the Department of Education.

For questions contact Brooke Miller-Jacobs at (916) 445-5161 or bmmillerjacobs@ucdavis.edu

The views and opinions expressed during this lecture are those of the speaker and do not necessarily represent the views of UCCS.