

Improvement Science in the 21st Century Classroom: A Focus on Math



Troy Hayes



Mario Valdez



Shelah Feldstein



Duane Habecker

Session Description: Participants will observe a “live” 21st Century math lesson and then reflect and discuss the pedagogical practices utilized during the lesson. Additionally, the presenters will share the role Improvement Science work has had on changes in math classroom pedagogy. The lesson will be with Mr. Mario Valdez’s sixth-grade class from Oak Grove Elementary - Porterville, California. During the lesson Mr. Valdez, will highlight specific strategies and the thinking behind the processes utilized in the lesson. His principal, Troy Hayes, Shelah Feldstein from Tulare County Office of Education, and Duane Habecker from Merced County Office of Education will serve as co-facilitators for the session.

Audience: Coaches/Leaders/ TOSAs

Mario Valdez - 6th grade teacher, Oak Grove Elementary, Burton School District, Porterville, California

Mario currently serves as an elementary teacher at Oak Grove Elementary, Burton School District, Porterville, CA. He was a member of The Central Valley Networked Improvement Community (CVNIC), which focused on 5th Grade mathematics. His work centers on cultivating a classroom environment that recognizes students’ sense-making as the authority. His work has led him to present at state and national mathematics conferences.

Troy Hayes – Principal, Oak Grove Elementary, Burton School District, Porterville, California

Troy currently serves as the Principal at Oak Grove Elementary, within Burton School District, Tulare County. Over his 21 years in education he has been a teacher and administrator across the K-12 spectrum. For the past 3 years, he was part of the Central Valley Network Improvement Community (CVNIC) via Tulare County Office of Ed. This connection has transformed his instructional leadership, and has had a profound influence on his K-6 campus and entire district.

Shelah Feldstein - Director for the Mid-State Collaborative, Tulare County Office of Education, Visalia, California

Shelah serves as Director for the Mid-State Collaborative, a Geographic Lead Agency housed at the Tulare County Office of Education, and is charged with building the capacity of county offices across the state. Along with facilitating improvement efforts across organizations in her region, Shelah served as a lead in developing and facilitating California’s statewide improvement trainings. Shelah founded and Directed the Central Valley Networked Improvement Community (CVNIC), a network which was selected as a Carnegie Spotlight Honoree in 2019 and continues to thrive today. Shelah has an ongoing role as National Faculty for the Carnegie Foundation and participates on California’s

Continuous Improvement Advisory. Serving in many roles throughout her educational career in the Central Valley, Shelah has both a Secondary Mathematics and Life Science teaching credential, has earned a Masters of Arts in Education, and holds a Clear Administrative Credential.

Duane Habecker – Math Coordinator, Merced County Office of Education, Merced, California

Duane is the Mathematics Coordinator for Merced County Office of Education where he supports districts, school sites, and classroom teachers in improving mathematics instruction and learning. Prior to his current role at MCOE, he spent nearly 30 years as a TK-5 mathematics instructional coach and a middle school math teacher in the San Francisco Bay Area. He is a national GTE Growth Initiatives For Teachers award winner and an Excellence in Education award winner. Duane has created nearly 1000 math videos that are seen a half million times each month. He has created hundreds of GeoGebra applets that have been downloaded thousands of times by teachers and are used internationally. Most recently, Duane was elected to serve as Vice President of the California Mathematics Council Central Region. In his free time Duane can often be found playing guitar, dreaming of becoming a rock star.