

1116-S1-129

Keith A Nabb* (nabb@morainevalley.edu). *Reflections from Teaching Inquiry-Oriented Differential Equations.*

This presentation will focus on my reflections from teaching Inquiry-Oriented Differential Equations (IO-DE). With inquiry, the pedagogical foci include modeling problem situations, thinking about the associated mathematics, and understanding the structural qualities of DEs. Typical classroom activities consist of small groups of students deriving differential equations from data and giving mathematical meaning to assumptions. At the end of the classroom period, select groups present their findings to the class. The final 15 minutes of class time is used to openly discuss/criticize/admire the work of the groups (a teacher-driven discussion). The culmination of each activity results in reaching a consensus on a practical approach to the problem and linking students' informal reasoning with formal notions. We capitalize on commonalities found across different group's work and associate the findings with mathematical convention. In this session, I will share my initial challenges in adapting to this pedagogy. Discussion points will include lesson preparation, classroom discourse, student expectations, and assessment practices. Attendees new to inquiry will have a better understanding of its nature and the demands necessary for its successful implementation. (Received August 03, 2015)