

1106-N1-1285 **Diana White*** (diana.white@ucdenver.edu). *Using a Non-Traditional Mathematical Operation to Teach Inquiry.*

Problem posing and mathematical exploration are key disciplinary components of mathematics, yet they are often overshadowed by the push to cover content. In this talk, we discuss an open-ended mathematical problem that has been used repeatedly by a variety of mathematicians in both undergraduate mathematics courses and professional development workshops for teachers. We provide an overview of the problem, discuss how it leads naturally to problem posing, mathematical exploration, conjecturing, communication, and level-appropriate rigorous mathematical argumentation. We also point out how it crosses into a variety of mathematical content areas and connects up with ongoing mathematical research. Finally, we provide a brief qualitative overview of survey results from students regarding the impact of these types of problems on their perspective of mathematics. (Received September 11, 2014)