

1125-VQ-1563      **Matthew K Voigt\***, 6475 Alvarado Road, Suite 206, San Diego, CA 92120. *Enriching the Flipped Classroom for All Students*. Preliminary report.

There have been several research studies examining the efficacy of flipped classrooms, due in part to its growing popularity in the field of Mathematics. While the results are generally encouraging, they often categorize flipped classrooms using broad strokes, despite the various characteristics of a particular implementation. In addition, the design of such courses often focus on the specifics of flipped classroom pedagogy at the loss of incorporating other critical perspectives. In this research, we designed and implemented a two-week classroom teaching experiment for calculus students enrolled in a Norwegian University. This unique setting provided the opportunity to include design elements to support students with varying degrees of fluency in English, a challenge that is faced by many educators in the United States. We addressed this issue by providing subtitles and guides to videos, and empowering students to utilize their native language when discussing in the classroom. Furthermore, the course was designed to include aspects of active learning, culturally relevant pedagogy for students in Bodo (Norway) and used mathematical modeling as a tool for social justice to explore the impacts of climate change. (Received September 18, 2016)