

1077-D1-1184 **Rebecca Anne Dibbs*** (rebecca.dibbs@unco.edu), School of Mathematical Sciences,
University of Northern Colorado, Campus Box 122, 501 20th St., Greeley, CO 80634. *Formative
assessment and learning trajectories in first semester calculus*. Preliminary report.

Adding formative assessment to a mathematics classroom raises student achievement; however, little is known about how formative assessment raises achievement. Do students in classrooms using formative assessment learn the material faster, but on the same learning trajectory, or learn the material differently? I investigated the learning trajectories of a class of first semester undergraduate calculus course using Oehrtman's Approximation Framework and formative assessments. In this presentation I will discuss how formative assessment influenced the learning trajectories of the course, helped facilitate transfer of limit concepts throughout the course, and aided the acquisition of the approximation framework language; the data collection plan for the next semester will also be discussed. (Received September 17, 2011)