

1106-VT-398 **Rebecca Dibbs*** (rebecca.dibbs@tamuc.edu). *"How does this help me?" Modeling growth in introductory calculus by using participation in formative assessment.* Preliminary report.

One of the challenges of teaching introductory calculus is the large variance in student backgrounds. Formative assessment can be used to target which students need help, but little is known about why formative assessment is effective with adult learners. The purpose of this study was to investigate the effect of participation in formative assessment on achievement in an introductory calculus course. Fifty-four introductory calculus students participated in the study, 23 of whom were regularly participating in formative assessment. Students' ACT Math scores, gender, native language, participation in formative assessment, and scores on the three major calculus labs throughout the semester were collected. In the growth model analysis, participation in formative assessment reduced more unexplained variance than any other factor. (Received August 26, 2014)