

1096-VE-2314 **Jesse C. Beck*** (jcb5b@mtmail.mtsu.edu), **Jennifer Yantz**, **Andrea R. Cline** and **Ginger Holmes Rowell**. *Lessons Learned from Students' Views on Algebraic Misconceptions for Precalculus Readiness*.

Middle Tennessee State University's Mathematics as a FirstSTEP to Success in STEM project is an NSF-funded project exploring mathematics interventions for first-time, full-time freshman STEM majors with math ACT scores between 19 and 23, inclusive. FirstSTEP students participated in a two-week Summer Bridge focused on increasing their readiness for precalculus. One component of this program was peer-led group sessions where the students engaged in tasks that used examples of student work to explicitly address common misconceptions related to specific mathematical ideas. These tasks utilized problems that required students to evaluate a series of correct or incorrect steps and to justify their conclusions by providing written explanations of their reasoning. The researchers evaluated the student responses to these misconception scenarios using a guided rubric. This activity was designed to help students move from remembering and understanding to higher-order tasks of analyzing and evaluating mathematical properties in solving algebraic problems. This presentation will describe the use of correct and incorrect student work as a tool for explicitly addressing and eliminating students' mathematical misconceptions and how it increased students' precalculus readiness. (Received September 17, 2013)