

1086-G5-911

**Draga Vidakovic\*** (dvidakovic@gsu.edu), **Sergio Loch**, **William Martin**, **Jeff Suzuki**, **Laurel Cooley** and **Scott Dexter**. *LINE: Linear Algebra in New Environments – Focusing on Students' Learning*.

Ten mathematicians and mathematics education researchers are studying ways to incorporate research on the teaching and learning of mathematics to shape instruction in upper division undergraduate linear algebra courses. Over two years, ten sections of undergraduate linear algebra were taught at four institutions implementing modules that were based on the APOS learning theory. Our presentation will examine the impact of the use of these modules on more than 150 students and their instructors. We analyzed student learning based on written work, student and instructor interviews and reflections, and classroom observations. Our analysis of these data indicates that the most affected students were prospective mathematics teachers. They reported increased awareness of the importance of attending not only to the mathematical content, but also their students' ways of learning mathematics. Participants demonstrated significant awareness of how they learned mathematics. (Received September 15, 2012)