

1014-O1-1401 **Sergio Loch*** (sloch@gvc.edu), 1200 Grandview Ave, Des Moines, IA 50316, **Laurel A Cooley** (laurelcooley@yahoo.com), 2900 Bedford Ave, Brooklyn, NY 11210, **William O Martin** (william.martin@ndsu.edu), 210F FLC - P.O. Box 5057, Fargo, ND 58105, and **Draga Vidakovic** (dvidakovic@gsu.edu), 30 Pryor St SW STE 750, Atlanta, GA 30303. *Learning Theory and Linear Algebra*. Preliminary report.

This study investigates the impact of the parallel study of learning theory and advanced undergraduate mathematics on prospective and practicing secondary mathematics teachers. Participants at several universities studied learning theories related to mathematics education at the same time they study advanced undergraduate linear algebra. The researchers investigated how participants use learning theory to gain a deeper understanding of linear algebra and their own learning of content from linear algebra to help make sense of the learning theories. The researchers have implemented these parallel studies both as semester-long course sequences and as intensive three-day workshops for teachers. This presentation outlines the design and preliminary findings from the project. (Received September 28, 2005)