Melvin A Nyman* (nyman@alma.edu), Department of Mathematics & Computer Science, Alma College, 614 W. Superior St., Alma, MI 48801, and John Berry and Douglas Lapp. Concept Acquisition in Linear Algebra. Preliminary report.

Many students claim that Linear Algebra is difficult and/or abstract. Why do they think so? What is hard or abstract in their view? Data was collected in a 300-level linear algebra course at Alma College in the fall semester of 2004. We examine those critical moments in the course when the material goes from being straight forward to difficult for students. Observations of students constructing concept maps for linear algebra indicates that students organize concepts into clusters or clumps. We explore the links within and between clusters of concepts in linear algebra. (Received September 16, 2007)