Mary D Shepherd* (msheprd@mail.nwmissouri.edu), Dept. of Math & Stats, Northwest Missouri State University, 800 University Dr., Maryville, MO 64468. Preliminary Identification of Difficulties Encountered by Students Reading Mathematics. Preliminary report.

Initial research has found that students who are good at reading and good at mathematics are not necessarily good at reading mathematics. That research reported on several first year college students who were observed employing good reading techniques while reading their mathematics textbooks. Most of them still had difficulty performing routine tasks based on the reading. The current research focuses on observing 15 students as they read from their College Algebra textbook during the Spring 2005 semester. It is a first attempt to begin to identify the specific difficulties first year college students have when reading a mathematics textbook for understanding. The students were video and audio recorded while reading a passage from their textbook. While the students were reading, they were asked to try routine tasks based on the reading and were questioned to attempt to analyze where difficulties in understanding occurred. Preliminary analysis of the video recordings and transcripts indicate that difficulties can occur when (1) readers do not stop to process the reading, (2) readers continue reading without understanding crucial definitions or concepts, and (3) readers do not try to integrate the reading with what they remember or already know. (Received September 28, 2005)