1086-N1-2794 **Jungeun Park*** (jungeunpark124@gmail.com), 15 Orchard Rd., Newark, DE 19711, and **Jason Martin** (jasonm@uca.edu), 201 Donaghey Ave., Conway, AR 72035. *Role of Instructor Prompts in Reinvention of Sequence Convergence Definition.* Preliminary report.

Studies have shown that students have difficulty with the concept of limit, especially when reasoning about formal limit definitions. We conducted a five-day teaching experiment (TE) in a second semester calculus classroom in which students were asked to reinvent a formal sequence convergence definition. Classes were videotaped and students' written work was collected. Oehrtman, Swinyard, Martin, et al., (2011) detailed how pairs of students reinvented sequence convergence definitions but they did not consider the same instructional heuristic in the classroom. Analysis of our classroom data focused on the interaction between the instructor and a group of student participants. We explored the characteristics of this interaction by looking at instructor prompts and the TE students' subsequent group discussion through their use of key words and visuals in revising their definition. An interview with the instructor was conducted to investigate his intention of using specific prompts and his thinking about the TE group's choice of words and visuals. We found that the roles of the instructor were extended beyond those roles previously reported as roles for facilitators with pairs of students. In this talk we present these roles and the impact of these roles on the reinvention process. (Received September 25, 2012)