

1035-U1-1904 **Dong Joong Kim***, Department of Mathematics, Michigan State University, East Lansing, MI 48823. *COMPARISON OF NATIVE-ENGLISH AND NATIVE-KOREAN SPEAKING UNIVERSITY STUDENTS' DISCOURSES ON INFINITY AND LIMIT*. Preliminary report.

This study will investigate and compare how native-English and native-Korean speaking university students, who received their education respectively in the U.S. and in Korea, think about the concepts of infinity and limit. Based on the communicational approach to cognition, according to which mathematics is a kind of discourse, the characteristics of students' discourse on the topics will be identified: words and their use, discursive routines, endorsed narratives, and mediators and their use. The intention of studying these two linguistically different groups is to illuminate the ways in which culture affects learning of mathematical concepts. Two groups of university students participated in the study. The comparisons of these two groups will be based on analyses of students' responses to a survey questionnaire and discourse analyses of paired interviews. I first analyzed and categorized about 120 university students' written responses to the survey within each group, and chose their representatives. Twenty representatives in each group were interviewed in pairs, and discourse analysis on those interview data will be conducted. The participants' discourse will be scrutinized with an eye to the common characteristics as well as culture- and education-related differences. (Received September 20, 2007)