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Aubrey Kemp* (akemp2@csb.edu), 8225 Hastings St, Bakersfield, CA 93311, and **Draga Vidakovic**. *Ways in which students transfer and apply definitions from Euclidean to Taxicab geometry: 2nd Cycle of Data Collection and Analysis*. Preliminary report.

This ongoing study seeks to improve student understanding of the content of mathematical definitions as well as their application in logic, since definitions are often not used correctly by students in proof or logic courses. Research also shows students can better develop their understanding of concepts in Euclidean geometry by observing properties and making conjectures in other geometries. As part of an ongoing project, an initial cycle of this study was conducted in a undergraduate geometry course at a university to identify and analyze ways students transfer and apply definitions from Euclidean to Taxicab geometry. APOS Theory was used as the framework in the analysis of students' use of definitions in course work and semi-structured interviews. In particular, the ways in which students applied definitions in a new context (Taxicab geometry) and how these methods influenced their overall understanding of these concepts were reported. Results from the initial study were implemented at another university, and data was collected as a second cycle of this study. These students demonstrated a variety of ways in which they transfer and apply definitions in new contexts. Here, we discuss the preliminary findings from the second cycle of data analysis as a part of the larger study. (Received September 04, 2018)