1125-E5-1396 **Spencer Payton*** (spayton@math.wsu.edu). *Student Mathematical Connections in an Introductory Linear Algebra Course Employing Both Inquiry-Oriented Teaching and Traditional Lecture.*

Inquiry-oriented teaching is becoming increasingly popular in linear algebra classes, but certain institutional considerations may provide obstacles to incorporating inquiry in an undergraduate mathematics course. These obstacles may include large class sizes, class time constraints, amount of material to cover, and a requirement to coordinate with other sections of the class. This session will describe an action research study that was conducted in an attempt to explore how inquiry-oriented teaching could be implemented in an introductory linear algebra that faced the aforementioned challenges. Throughout the study, an approach to inquiry-oriented teaching was developed that involved teaching through both traditional lecture and inquiry-oriented teaching. Additionally, this study involved an investigation into what mathematical connections students appear to form within this classroom context. The data suggests that focusing inquiry-oriented teaching on particular concepts such as span and linear independence can be useful in creating opportunities for students to develop certain mathematical connections. (Received September 16, 2016)