Vilma Mesa, Mollee Huisinga (mollee@umich.edu) and Ashley N Jackson* (jacksash@umich.edu). Managing tensions within a coordinated inquiry-based learning algebra course: The role of worksheets.

We present a description of the ways in which nine instructors teaching a linear algebra course at a research university managed tensions that emerged because of the requirement of using Inquiry-Based Learning (IBL) in a coordinated way. Through interviews and analysis of documents (pacing chart, textbook, and worksheets), classroom observations, and focus groups, we identified features of the course organization that created tensions that were resolved by creating worksheets that were used to support the teaching and learning of the course. The tensions were related to content to cover, the pacing, and what counts as IBL. There were differences in how instructors used the textbook (e.g., some reorganized sections in the textbook and others used the textbook as given) and how they designed their worksheets (some tried to create worksheets that emphasized applications of concepts while others sought to increase the level of abstraction and development of mathematical theory). We propose that differences were observed in managing tensions might be related to the research orientation the instructors brought and to their status in the institution. (Received September 18, 2016)