Student decision making in large group discussion

MARY BRIDGET KUSTUSCH, DePaul Univ, COREY PTAK, Rochester Institute of Technology, ELEANOR C. SAYRE, Kansas State Univ, SCOTT V. FRANKLIN, Rochester Institute of Technology — It is increasingly common in physics classes for students to work together to solve problems and perform laboratory experiments. When students work together, they need to negotiate the roles and decision making within the group. We examine how a large group of students negotiates authority as part of their two week summer College Readiness Program at Rochester Institute of Technology. The program is designed to develop metacognitive skills in first generation and Deaf and hard-of-hearing (DHH) STEM undergraduates through cooperative group work, laboratory experimentation, and explicit reflection exercises. On the first full day of the program, the students collaboratively developed a sign for the word “metacognition” for which there is not a sign in American Sign Language. This presentation will focus on three aspects of the ensuing discussion: (1) how the instructor communicated expectations about decision making; (2) how the instructor promoted student-driven decision making rather than instructor-driven policy; and (3) one student’s shifts in decision making behavior. We conclude by discussing implications of this research for activity-based physics instruction.