Carla V. Gerberry* (cliguore@purdue.edu). Females in mathematics: Why aren’t they persisting? And what can we do to encourage them to stay? Preliminary report.

While current research shows diminishing gender differences in mathematics achievement, females are still failing to persist in STEM fields. This study focused on the self-efficacy beliefs of females in mathematics as a potential reason. The research question for the study was: How are high school females’ self-efficacy beliefs influenced by their participation in cooperative group work in mathematics class? Data collected were videotaped sessions of cooperative work, and surveys pertaining to self-efficacy beliefs of females. Preliminary results of the study indicate that those females who adopted roles requiring them to explain and speak to others in the group increased in self-efficacy. This increase may be attributed to the presentation of mathematics in such a way that students verbalize their ideas and are encouraged to think about mathematics in a more nontraditional way. Implications are that presenting mathematics in such a way can increase perceptions of ability and may, therefore, increase persistence in mathematics and other STEM fields. (Received September 10, 2008)