MathChavrusa is a novel application of Talmudic study techniques into the context of mathematics education, emphasizing long-term, partnered text study and problem solving. This study implemented MathChavrusa in semester long graduate mathematics courses, collecting data from both instructor and student perspectives on the effectiveness of MathChavrusa in facilitating student understanding of course material and engagement in communicating mathematics. Results indicated that students largely had a positive impression of MathChavrusa, highlighting its impact on student engagement, creating a conducive environment for asking peer-peer and peer-instructor questions, and was a factor in better understanding course materials. This study model has the potential to enhance student engagement in mathematics classrooms and could be adopted more broadly. (Received September 16, 2019)