Lesson study is a collaborative teaching improvement process that has origins in Japanese elementary education, where it is a widespread professional development practice. Four College Algebra instructors at UW-Barron County undertook a lesson study when teaching piecewise functions. Our goal was to investigate what effect a carefully designed lesson developed collaboratively would have on student learning. Students’ mastery of the topic was assessed by a quiz and a Likert scale instrument was used to evaluate how the lesson was taught. Among other things, we learned that even if we think we have a polished lesson, students may not ”get” it; some assessment of student learning is essential to find out what students comprehended. As a result, valuable changes were made, resulting in improved student learning. A second lesson study on inverse functions reflected similar findings. (Received September 17, 2013)