For many university students, the last formal experience in a mathematics classroom is a single semester “general education” math class. Traditionally, students in this type of class often hold negative attitudes towards mathematics. We study a sample of students from this population to research whether a positive experience in a freshman-level general education mathematics course correlates with a positive change in the student’s attitude towards math in general. We also explore what specific aspects of such a course contribute most to a positive student experience. The results show that while a positive experience in a freshman-level general education mathematics course correlates with positive responses in the student’s attitude about several key variable components of attitude (including motivation to do math, perceived usefulness of math, and confidence while doing math), it does not correlate with positive change. We then investigate the implications of this finding with respect to math identity among liberal arts majors. (Received August 23, 2015)