The flipped classroom model of instruction has become an alternative to traditional, lecture-based instruction. An experiment with the flipped classroom and a survey of the students involved revealed some interesting information about the instructional model. The experiment was designed with two undergraduate Precalculus classes in a small, private college in the southeastern United States. Since all flipped classrooms are not the same, we discussed specifically how the flipped classroom was designed and how the control and experimental classes were compared. A student survey was used to gather the perceptions and attitudes toward the flipped classroom and field notes were analyzed to gain the instructor’s perspective. (Received September 01, 2014)