The study determined the effectiveness of flipping a college level Introductory Statistics course. I wanted to assess the effectiveness of using online homework and quizzes by analyzing scores and students’ attitudes. The sample consisted of (N=40) mostly Freshman and Sophomore students in a private college located in the Pacific Northwest. The class was flipped using Powerpoints to deliver lecture material. Students read the slides outside of class, so we could devote class time to answering some guided questions and working through examples of the techniques. This enabled me to use differentiated teaching and work with groups or students one-on-one answering questions and providing formative feedback. When necessary, Powerpoints were supplemented with applets, online resources, video lessons and tutorials. Additionally, I would use class time to present mini-lectures whenever the subject matter required it. Student attitudes were collected via online surveys, and their performance was compared to previous sections and concurrent sections taught traditionally. Midway through the term, students were asked to voluntarily do the rest of their homework and quizzes with MyStatLab. Nine of the students opted out, which enabled me to compare the test and quiz scores of the two groups. (Received September 02, 2014)