

## **Gimbar / Khan Academy Study 7/2012**

### **Purpose**

Goal was to test whether students would do better watching a video that their teacher created (Katie) versus an outsourced video (Khan Academy).

### **Study design**

Seventeen students were "randomly" selected to participate; all were students from Katie's Algebra 1 class. (They all were familiar with watching lecture videos). Students were asked to view a video on Quadratic Functions; none of the students had been exposed to the topic prior to the study. All students watched the video during class and were then asked to complete a short quiz that Katie created. The quiz included five questions, with a total of 25 possible points.

### **Sample**

Nine students watched a video on Quadratic Functions that Katie created (Group 1). The remaining eight students watched a Kahn Academy video covering the same topic (Group 2). Efforts were made to include students of varying achievement levels (i.e., some A students, some B students, etc.) The students who watched the Khan Academy video were also asked to share what they thought about the video.

### **Results**

The means and standard deviations for both Groups 1 and 2 are presented in Table 1 (below). Data were analyzed using an independent samples *t*-test. Despite the small sample size, Group 1's mean score was statistically significantly higher than Group 2's mean score  $t(16) = 4.28, p < .001$ . In other words, students watching their own teacher's (Katie's) lecture video did significantly better on the quiz than student who watched the Khan Academy video.

	<b>Group 1</b>	<b>Group 2</b>
<b>Mean</b>	0.79	0.26
<b>SD</b>	0.21	0.30

### **Conclusion**

Students who watched Katie's video scored significantly higher on a quiz than students watching a Kahn Academy video on the same topic. There are a few possible explanations for this difference. First, because all students in this study were members of Katie's class, it is possible that they are more used to and thus they prefer their own teacher's video compared to a stranger's video. Katie is consistent in the style in which she explains information and so a different person's video might have been confusing simply because the style varied. A second possibility might be that the Kahn Academy videos aren't geared toward younger students. Many of the comments from students indicated that they didn't understand the content in the Khan Academy videos. Some specific reasons cited were that the Kahn Academy videos didn't give enough examples, didn't provide good definitions, or the language was too technical. All of the students who watched the Kahn Academy video reported that they either didn't understand the video, found the video confusing, or they simply preferred Katie's video.