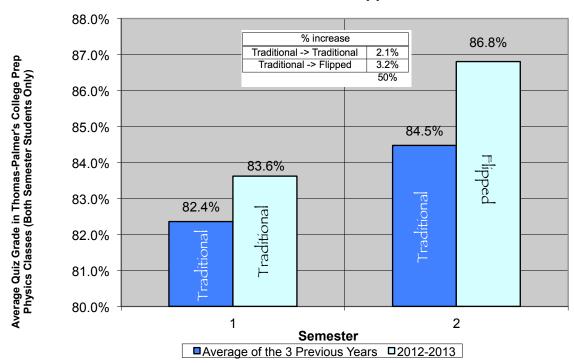


## 12-13 Goal Reflection: Thomas-Palmer

My goal was to flip the 2<sup>nd</sup> semester of College Prep Physics (CPP) and AP Physics C (APC). Considering there are more than four times as many students in CPP than APC, I have decided to analyze the effectiveness of flipping CPP.

Rather than looking at a single quiz, test, or exam, I decided to look at all of the quizzes for four years. Including only students that I had both 1<sup>st</sup> and 2<sup>nd</sup> semesters, I figured out the average quiz grade for 1<sup>st</sup> semester and 2<sup>nd</sup> semester for the three years before I flipped and the year I flipped. Here are the results:

## Traditional vs. Flipped



For three years the increase in average quiz grade under a traditional model from semester 1 to semester 2 was 2.1% (or 84.5% - 82.4%).

Flipping the class from semester 1 to semester 2 instead caused an increase in average quiz grade of 3.2% (or 86.8% - 83.6%).

I also handed out a survey and was able to increase the time the students "spend on average in small group conversation with Mr. Thomas-Palmer during class per week" from 4.1 minutes 1<sup>st</sup> semester (Traditional) to 6.1 minutes 2<sup>nd</sup> semester (Flipped). In addition I was able to reduce the time the students "spend on average working for [CPP] outside of class per week" from 3.1 hours 1<sup>st</sup> semester (Traditional) to 2.3 hours 2<sup>nd</sup> semester (Flipped).

Will I continue to flip my classes? Absolutely.

Would I recommend it to others? Absolutely.

The students have more time to ask individualized questions of their teacher, spend less time doing "homework" and perform better on quizzes.

Jonathan Thomas-Palmer