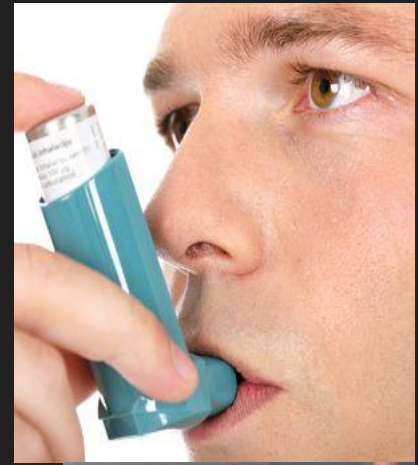




¿Do you vape?



Solveig Quant & Matthew Stout



Question

Do you vape?

Vaping refers to the use of an electronic cigarette

We found this question pertinent because we initially thought that the number of high schoolers who used an electronic cigarette would increase along with the grade of the high schoolers

Our handout had two boxes for the test subjects to check: upperclassmen/lowerclassmen and do you vape yes/no



Data collection

We randomly selected two classrooms (one predominantly upperclassmen and one predominantly lowerclassmen)

We used a random number generator on the calculator that coincided with all the fourth hour classes. We generated a random number for upperclassmen classrooms then lowerclassmen classrooms

We handed out our survey which was the same for all of our subjects

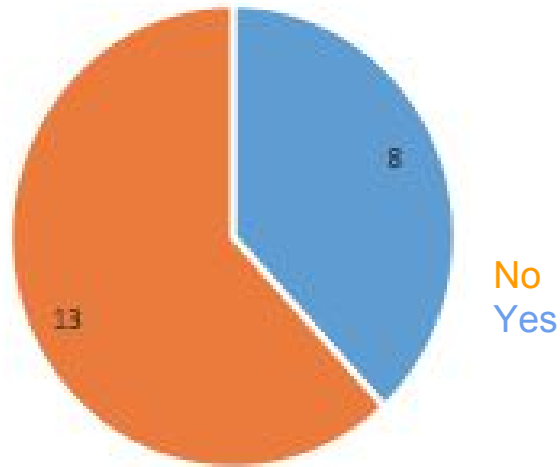


Data Analysis

	Yes	No	Total
Upperclassmen	8 (6.3)	13 (14.7)	21
Lowerclassmen	4 (5.7)	15 (13.3)	19
Total	12	28	40

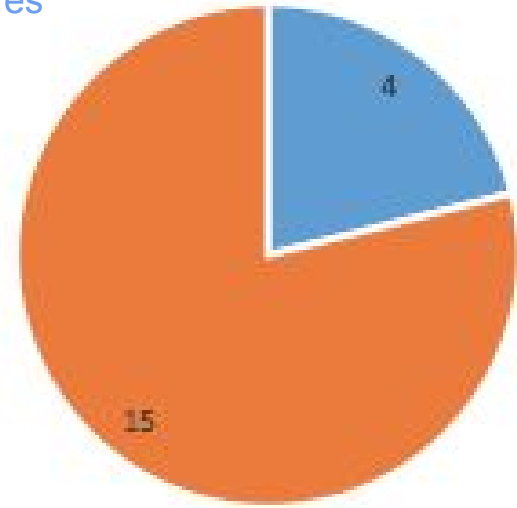
Graphs

Upperclassmen



Lowerclassmen

No
Yes



Inference

P: "We are interested in if there is an association in upperclassmen and lowerclassmen who vape"

H: Ho: There is no association

Ha: There is an association

A: Random- The samples were taken randomly and independent of each other

Independent- 10% condition, $10 \times 40 = 400$, it is safe to assume that there are more than 400 students

Counts- All expected counts are ≥ 5

N: We will use a chi-squared test of association/independence

T: Chi-squared test stat = 1.397, Df=1

O: P-value is between .1 and .25

M: Because the P-value is not significant at the .05 alpha level we fail to reject the null hypothesis

S: There is not strong evidence that there is an association between upperclassmen who vape and lowerclassmen who vape



Large



Final summary

Some limitations we encountered included people not answering truthfully and not having a large enough sample size. People may have been uncomfortable with the question and we could have surveyed more classes. To reduce this in a future experiment we would highlight the fact that it's an anonymous survey and we would use a larger sample size.

