STEM Interests at Paly

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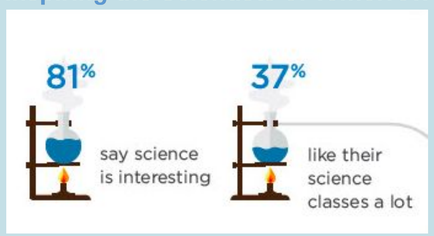
INTRODUCTION

- Personal Connection: I teach second graders at Menlo Church, and I tutor lower-income middle school students through DreamCatchers. My dad is a physician and my mom does ultrasound, and I've always had a passion for science and might pursue chemistry in college.
- According to a study done by AMGEN Foundations, a research facility aiming to advance science education, 81% of students ages 14-18 find science interesting, but only 37% enjoy their classes.
- **How does this apply to Paly?**

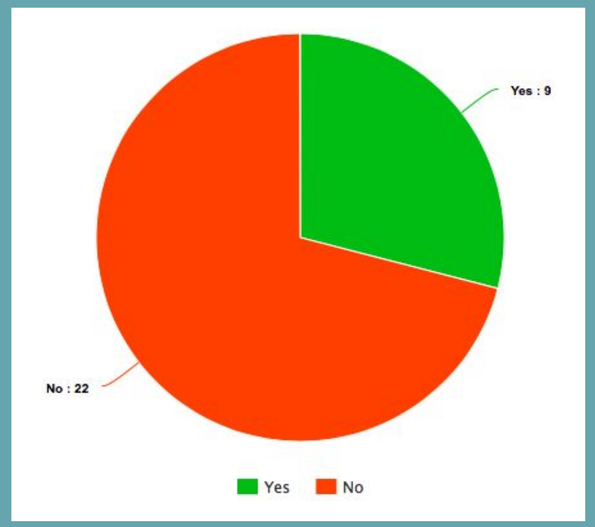


DATA AND FINDINGS

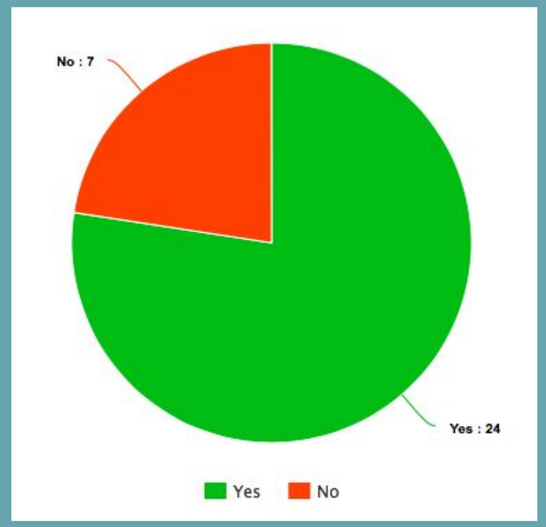
Why are you taking these classes?

"I am taking physics because colleges want to see that you took that class, and I am taking AP Biology and AP Environmental Science because it gives me AP credit."

Do you take an outside activities pertaining to this class?



Are you interested in pursuing this class in college?



CONCLUSIONS, IMPLICATIONS, AND NEXT STEPS

With today's technology and possibilities, there is a need for more students in STEM fields.
If I were to do this project again, I would redo my methodologies make sure I get accurate results. I would do more outreach to get a larger sample group for my survey, which in turn would allow me to do a more representative analysis of the school. With more accurate data, I could identify specific actions to take. I would take this data to the district office to see how we can engage students.

RESEARCH METHODOLOGIES

Background Research

- Through my research, I decided that a survey would be the best option.
- Surveys provide characteristics of a large population, which ensures more accurate results when drawing conclusions.

Survey

- I chose to do a survey because I wanted to get a large number of responses to measure interest in STEM at Paly.
- I created surveys for both teachers and students so I could get both perspectives.
- 31 students took the survey; 0 teachers.

Analysis

- The results were qualitative data with the thoughts and perspectives of the students and how they enjoy their classes.

DISCUSSION, ANALYSIS, AND EVALUATION

Although my sample size of 31 was small compared to the population at Paly, the data helps address my research question. This is a good start to my research and identifies a social injustice that needs to be addressed. With the majority of students not taking any outside activities but wanting to take the class in college, I can infer that teachers are not providing any outside opportunities to further challenge their students. The final question I asked was if the students liked their teachers. Surprisingly, all of the students said yes. Unfortunately, I wasn't able to get any responses from the teachers' perspective, so I was unable to identify any possible ideas for how teachers can increase the interest levels of students.

ACKNOWLEDGEMENTS / REFERENCES

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