Gaging Interest in Computer Science Classes at Paly
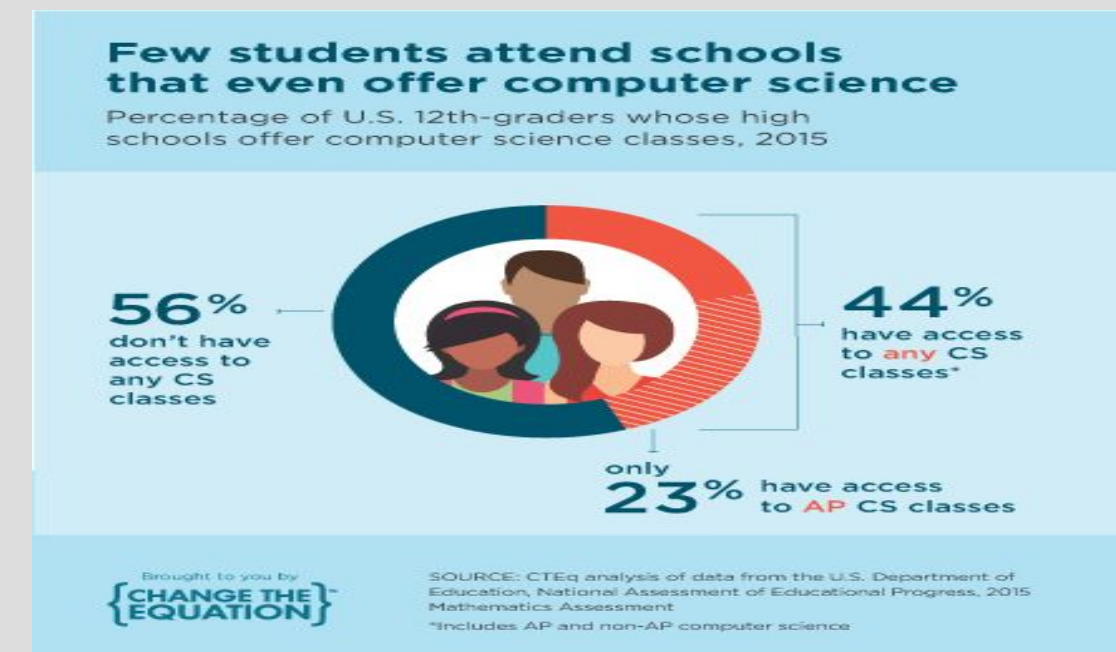
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INTRODUCTION

Question: Should schools be required to have computer science classes?

Computer science is a new field of science that is attracting a lot of attention. Computer science really became relevant in schools around 10-15 years ago, but the amount of computer science we see being taught in school is still lackluster. I think that we need to start incorporating more computer science classes into our general education curriculum, seeing as it is a rising subject, and only around 40% of schools even offer some sort of computer science class.

Few students attend schools that even offer computer science
Percentage of U.S. 12th-graders whose high schools offer computer science classes, 2015

56% don't have access to any CS classes

44% have access to any CS classes

only 23% have access to AP CS classes

RESEARCH METHODOLOGIES

Background Research → Survey → Analysis

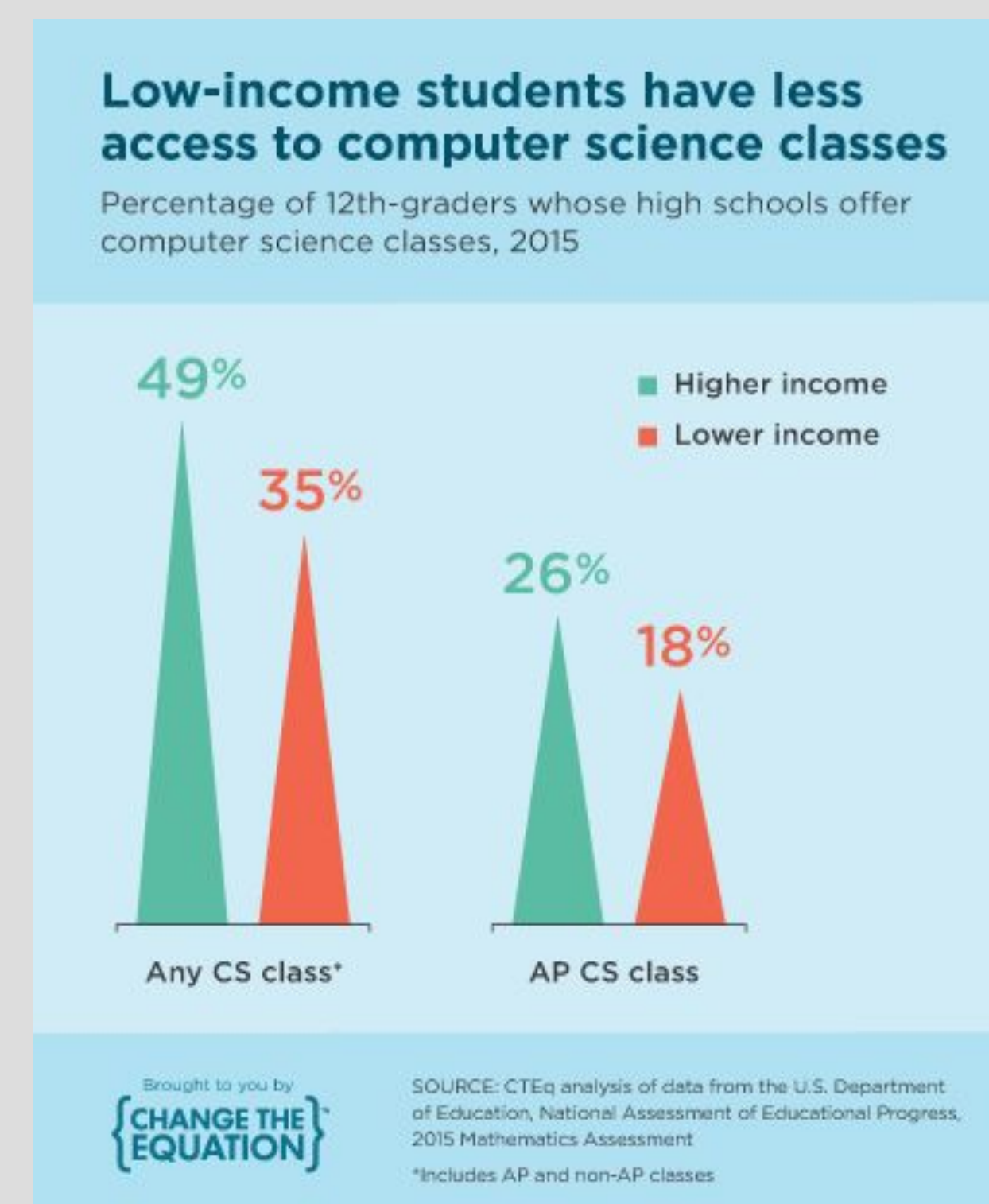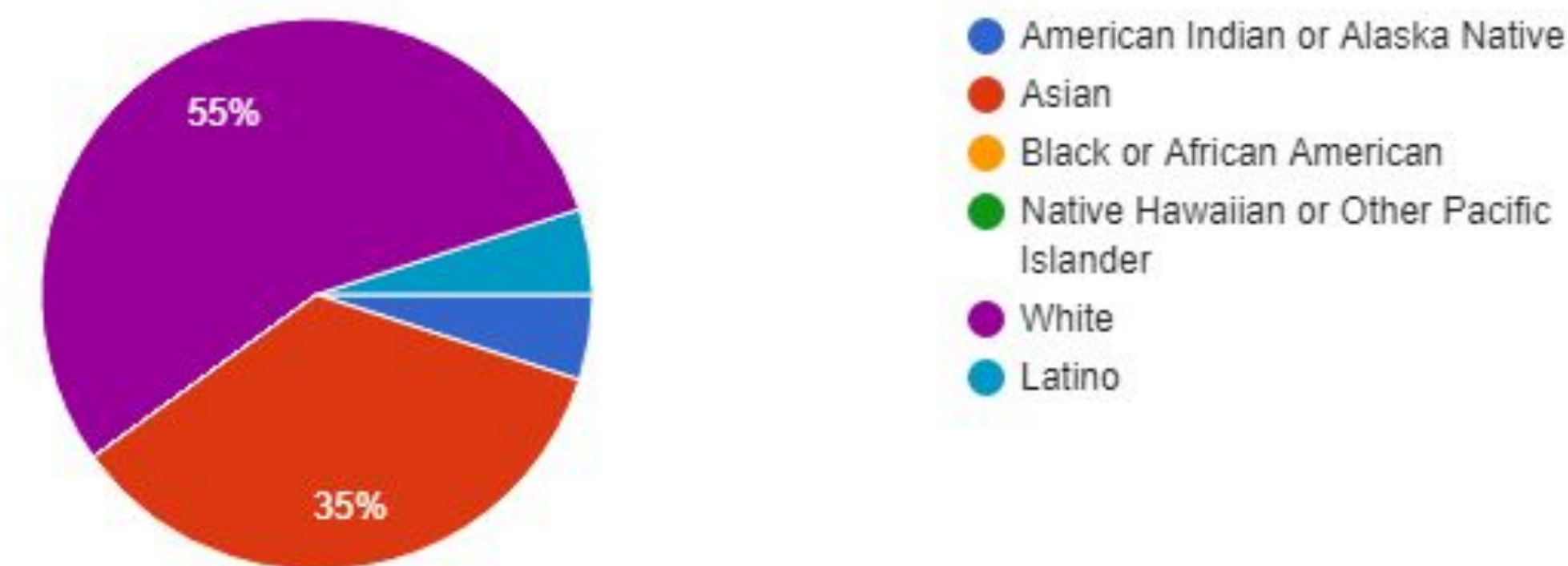| Background Research	Survey	Analysis
I surveyed Paly students to see if they are interested and taking computer science classes.	I surveyed Paly students to gather data on whether they are taking computer science classes or not, and why.	I analyzed my findings to discover that a majority of students have not taken a CS class, for a variety of reasons.

DISCUSSION, ANALYSIS, AND EVALUATION

After looking at the data, I was surprised to see that many people had not taken or had no interest in taking computer science classes at Paly, seeing that Paly offers a great computer science program compared to the rest of the country. Some people said that they did not know that there were computer science classes at Paly. I think that we need to start advertising computer science more so people will hear about it.

Low-income students have less access to computer science classes
Percentage of 12th-graders whose high schools offer computer science classes, 2015

Any CS class*: Higher income 49%, Lower income 35%
AP CS class: Higher income 26%, Lower income 18%

SOURCE: CTEq analysis of data from the U.S. Department of Education, National Assessment of Educational Progress, 2015 Mathematics Assessment
*Includes AP and non-AP classes

DATA AND FINIDNGS

Ethnicity?
20 responses

- American Indian or Alaska Native
- Asian
- Black or African American
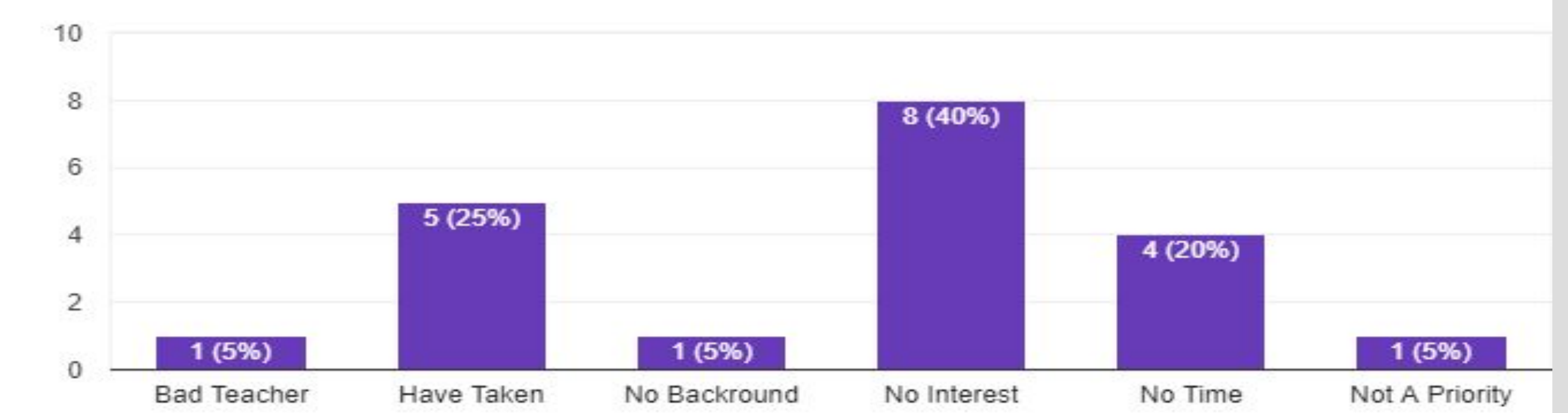- Native Hawaiian or Other Pacific Islander
- White
- Latino

55%, 35%

Of the people who took the survey, the majority identified as white or Asian.

Have you ever taken a computer science class?
20 responses

- Yes
- No

75%

75% of students have not taken a computer science course.

If no, why? (Time Constraints, Lack of Access, No Interest, No Background, Etc...)
20 responses

- Bad Teacher: 1 (5%)
- Have Taken: 5 (25%)
- No Backround: 1 (5%)
- No Interest: 8 (40%)
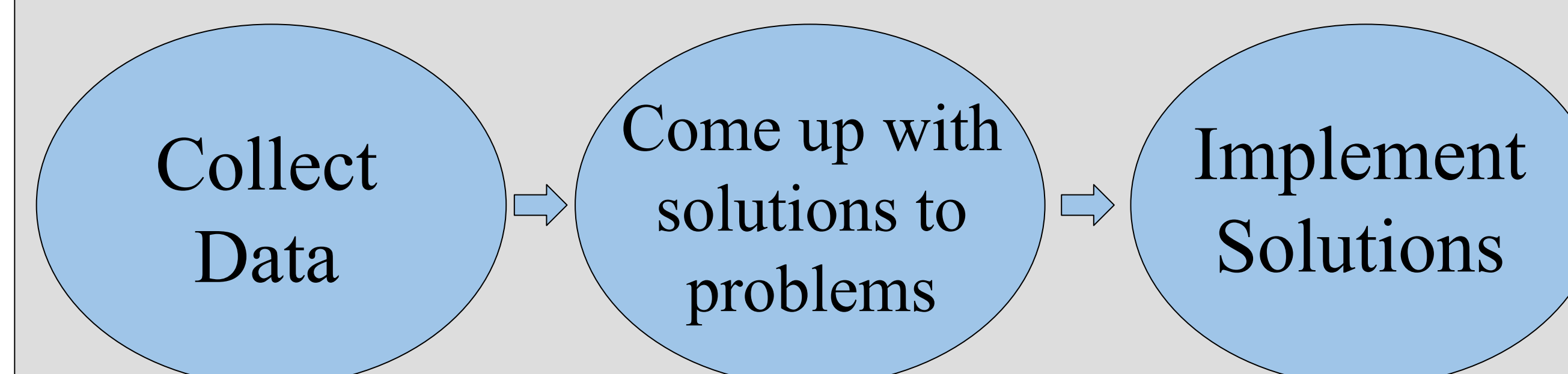- No Time: 4 (20%)
- Not A Priority: 1 (5%)

The most common reason people gave for not taking a computer science class at Paly is because they did not have interest in taking the class. A smaller portion also stated that they just did not have the time or prioritized other classes.

CONCLUSIONS, IMPLICATIONS, AND NEXT STEPS

Next Steps:
1. Collect more data
2. Compare data
3. Figure out methods to get computer science more well known
4. Implement those methods

I think that my main mission right now is to promote computer science and get more people interested in it. There are so many jobs out there that pay very good money, people just need to want to go and get them. I think that if I can start it in my school, then maybe I could start (or inspire other people to start) to promote computer science in their schools, especially in low income schools and neighborhoods. This was the original goal of my project: to get computer science classes in low income schools.

Collect Data → Come up with solutions to problems → Implement Solutions

ACKNOWLEDGEMENTS /

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