



# Innovative Method for Assessing the Attitude of Undecided and Underrepresented Students to Computer Science and Information Technology

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## Abstract

As Computer Science and Information Technology continue to prevail in every aspect of society, the number of underrepresented and undecided students pursuing and completing Computer Science and Information Technology undergraduate programs still needs to be higher. Computer Science and Information Technology research have focused on understanding why students of undecided and underrepresented groups don't pursue Computer Science and Information Technology and identifying better ways to instruct, retain, and engage them. To this extent, a survey was developed to measure five important constructs influencing the attitudes and identity of undecided and underrepresented students in pursuing Computer Science and Information Technology: Confidence, interest, gender, experiences, and self-identity. The survey currently targets first- and second-year students entering the university as first-time college students or enrolling in their first CS/IT course. Results will show the five important constructs influencing the students' attitudes and persuade them to a potential career path in both Information Technology and Computer Science.

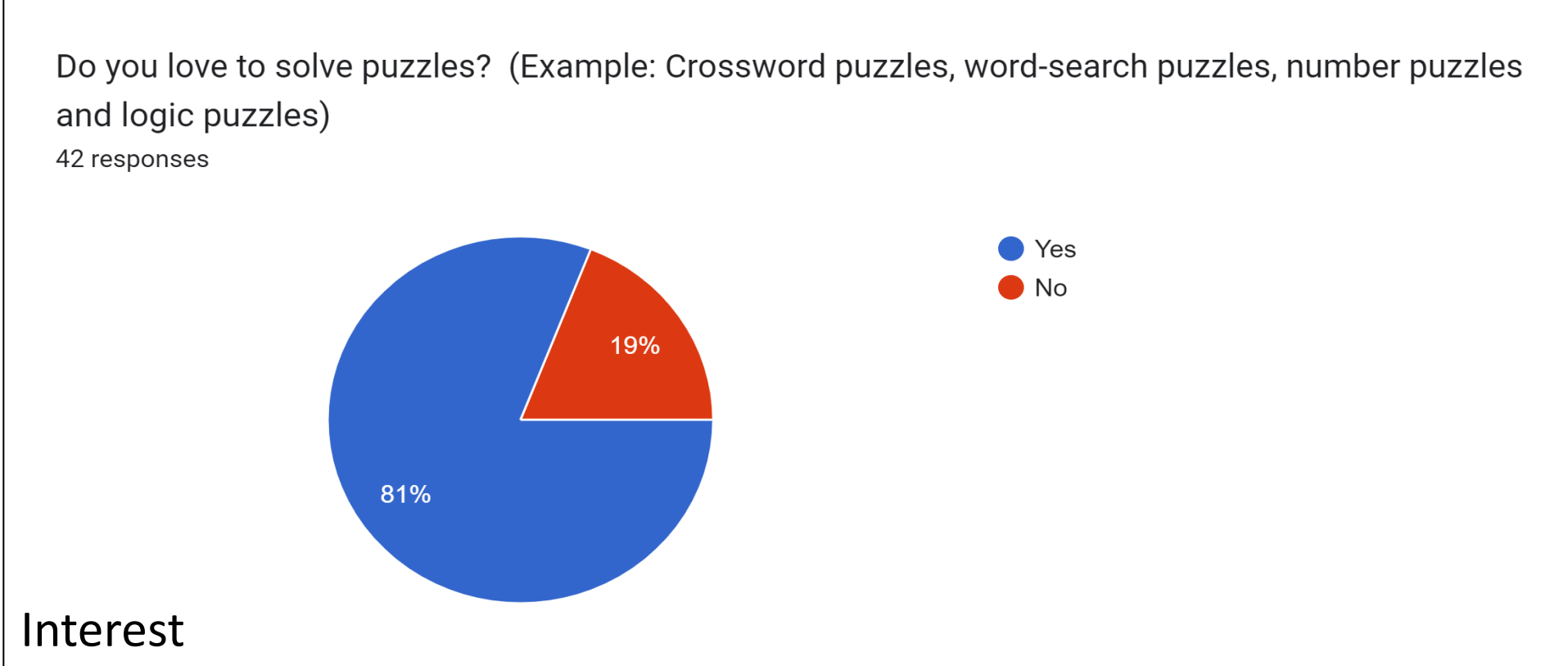
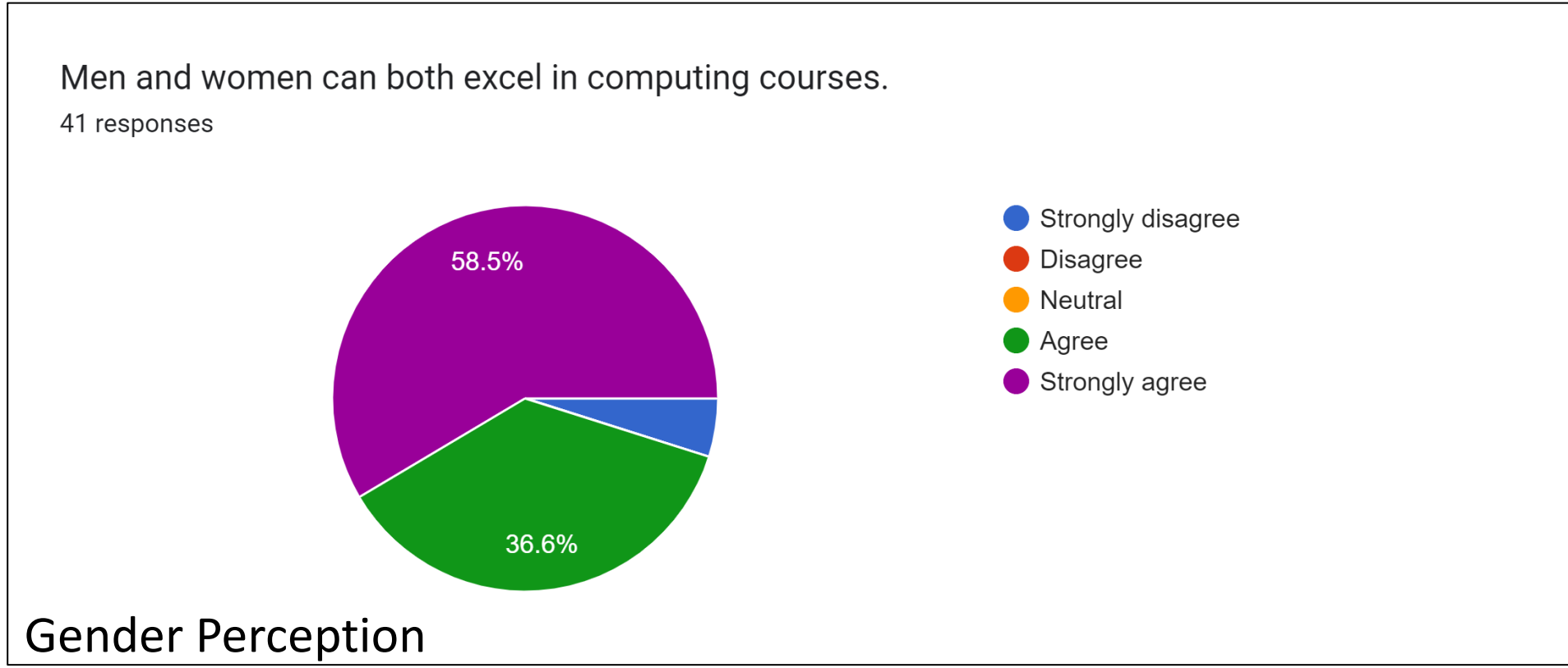
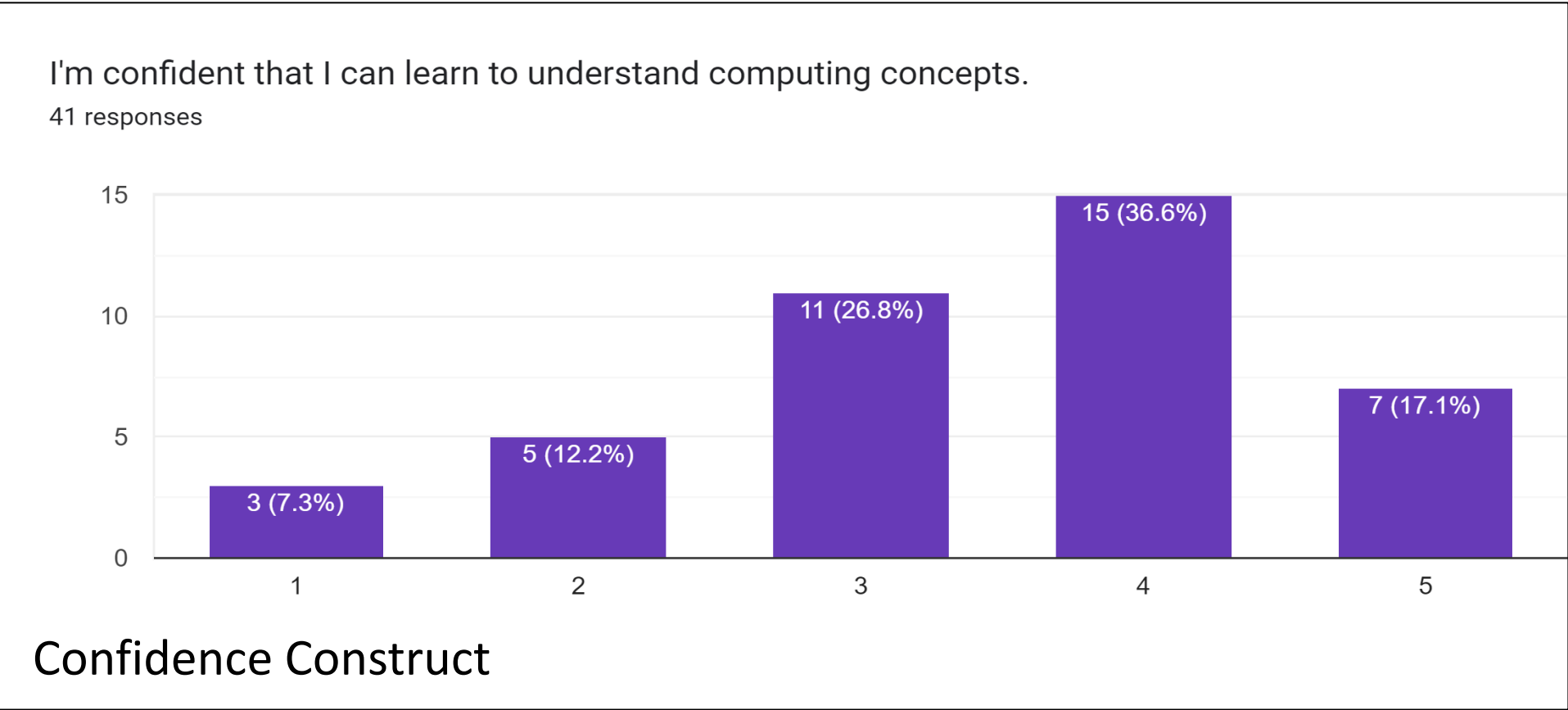
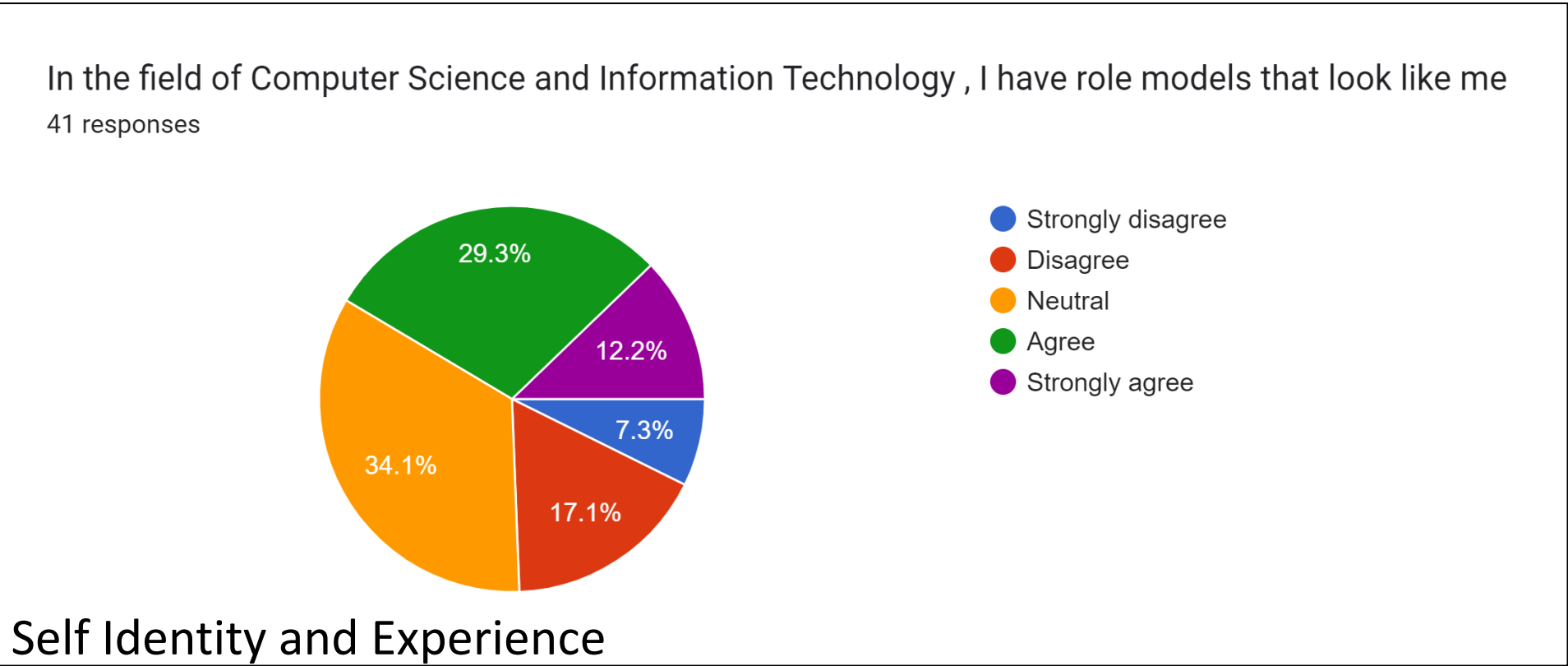
## Introduction

A survey was developed to measure five important constructs influencing the attitudes and identity of undecided and underrepresented students in pursuing Computer Science and Information Technology: Confidence, interest, gender, experiences and self-identity.

## Analysis

- A person will be more involved in ethnically relevant organizations and social groups, feel a deeper attachment to their own ethnic group, and be more inspired to pursue CS/IT if they have more ethnically relevant role models in the field.
- Meaningful learning opportunities centered on the concepts of inclusion and diversity can aid in students' feeling of belonging and the development of strong STEM identities.
- Some participants also said that they didn't think their performance in their CS/IT classes reflected their race, but rather just of themselves.

## Results



## Conclusions & Future Work

- More students of color are needed in the area as interest in computer science and information technology grows on a national scale.
- This survey can be used in to measure how different strategies can help improve the attitudes towards in Computer Science and Information Technology.

## References

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