

Abstract

The Molding Melanin Magic mentorship program through TCU Pre-Health is geared to impact minority female student populations at the Texas Academy of Biomedical Sciences (TABS) in Fort Worth. The program provides small group mentorship as high school students are paired with a college student in their area of interest. Along with mentorship, workshops are utilized as a method of increasing confidence, exposure, and overall knowledge about college and STEM careers. By coupling workshops and mentorship, the Molding Melanin Magic program seeks to encourage mentees to serve as mentors along their educational journey and apply for college and professional school to pursue a career in STEM.



Background of the Community

The Texas Academy of Biomedical Sciences was established in 2011 as a public Early College High School. TABS seeks to provide students who are interested in biomedical-related areas of study an opportunity to engage in rigorous curriculum while also gaining hands-on experience in their field of interest (Campus Profile). A majority of students attending school in Fort Worth ISD are from minority backgrounds. At TABS specifically, the minority enrollment is 88%, so this institution serves a place to generate a significant impact on underrepresented population in STEM (Public School Review).

Racial and Ethnic Diversity

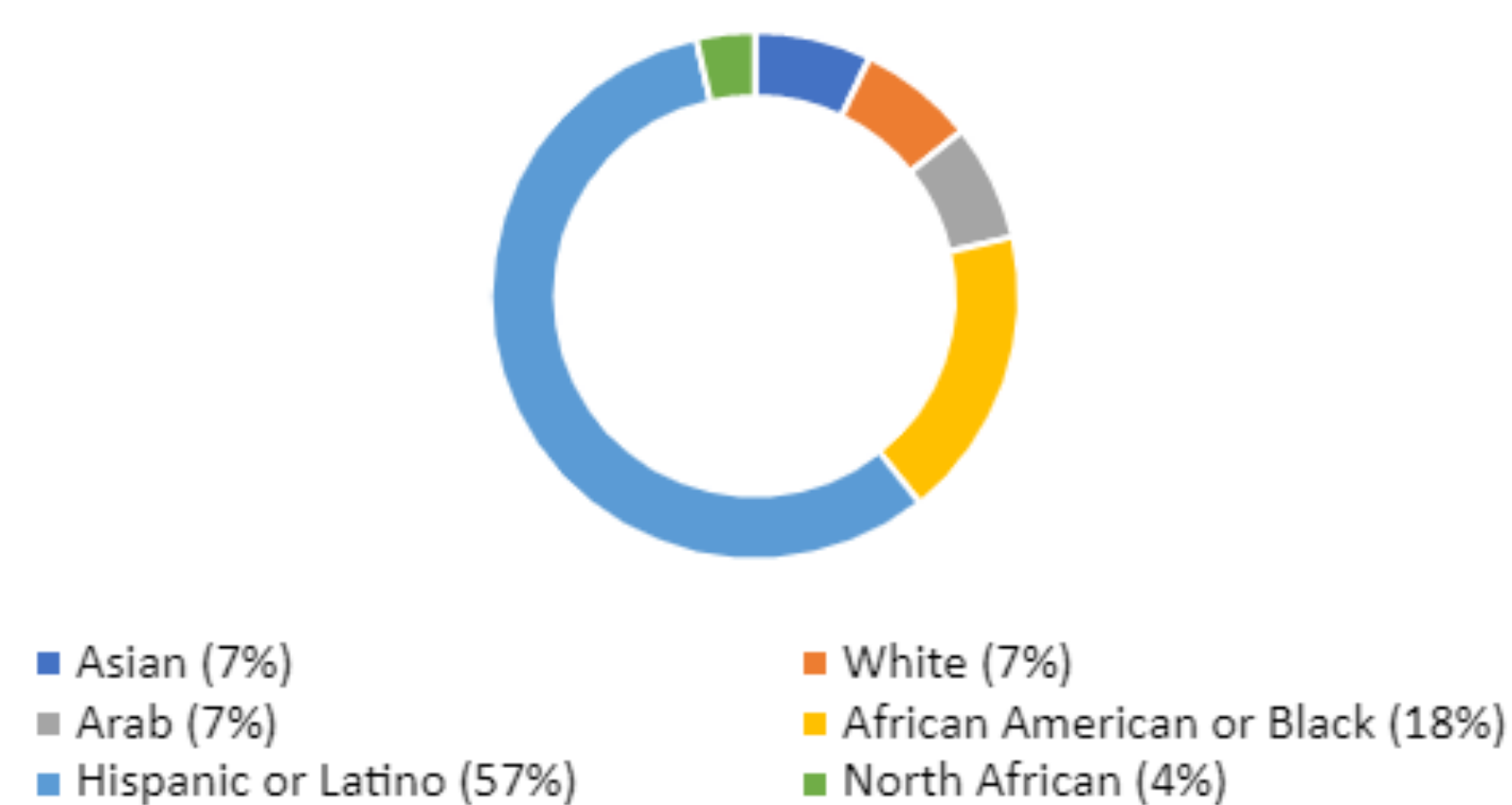


Figure 1. Racial and ethnic distribution of the Molding Melanin Magic mentorship program.

Need Statement

Minorities in STEM are largely underrepresented in both education and in the workforce. It is the goal of this program to serve as a mentorship connection to high school students at the Texas Academy of Biomedical Sciences. TABS provides a unique opportunity to assist minority students that have expressed explicit interest in STEM and the medical field. The previous president of Molding Melanin Magic is a TABS and TCU alumni that sought to give back to her community. Through mentorship pairings with college students, TABS high school students are exposed to STEM fields along with diverse college options to reduce the representation discrepancy in STEM fields.

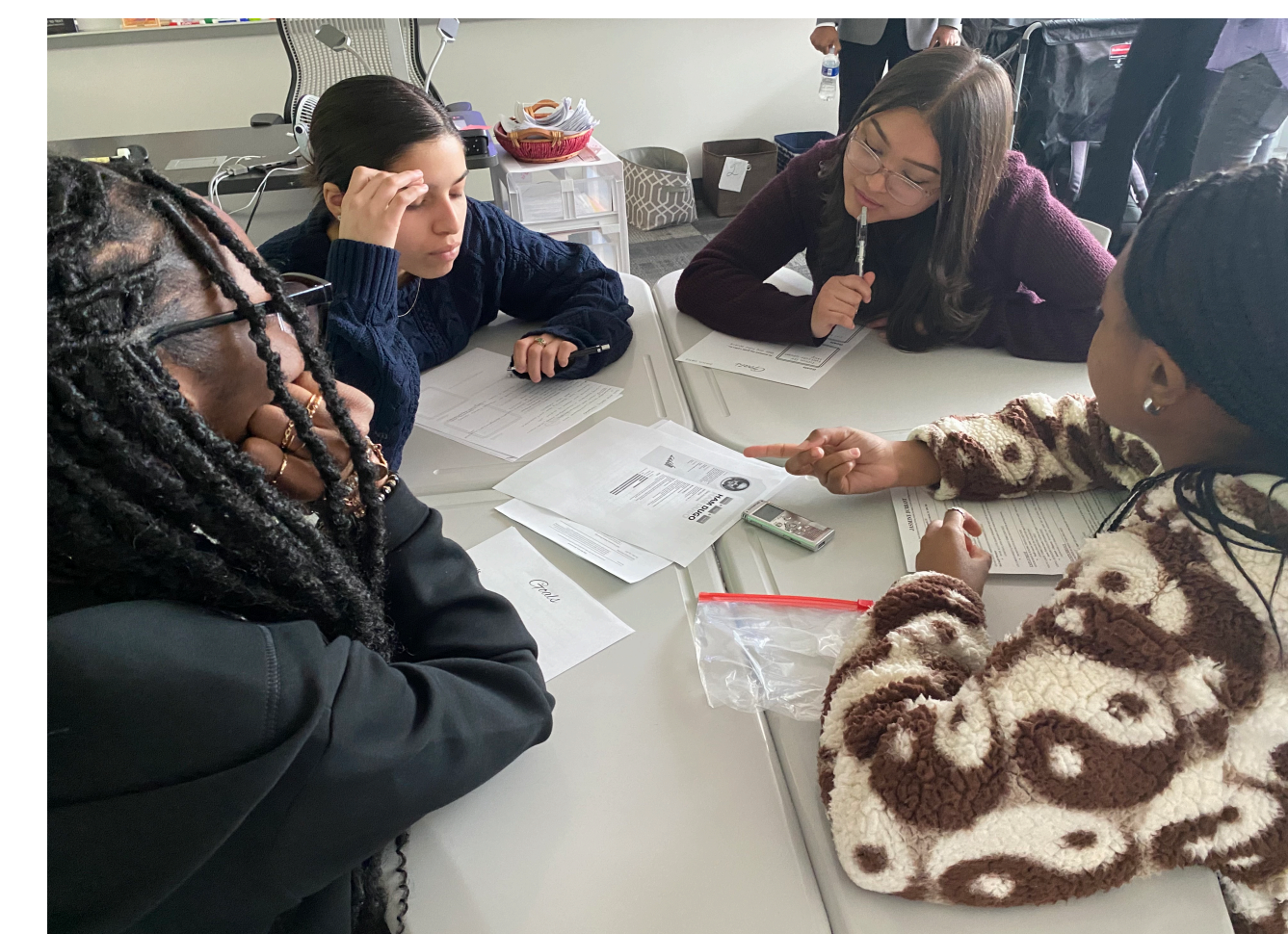
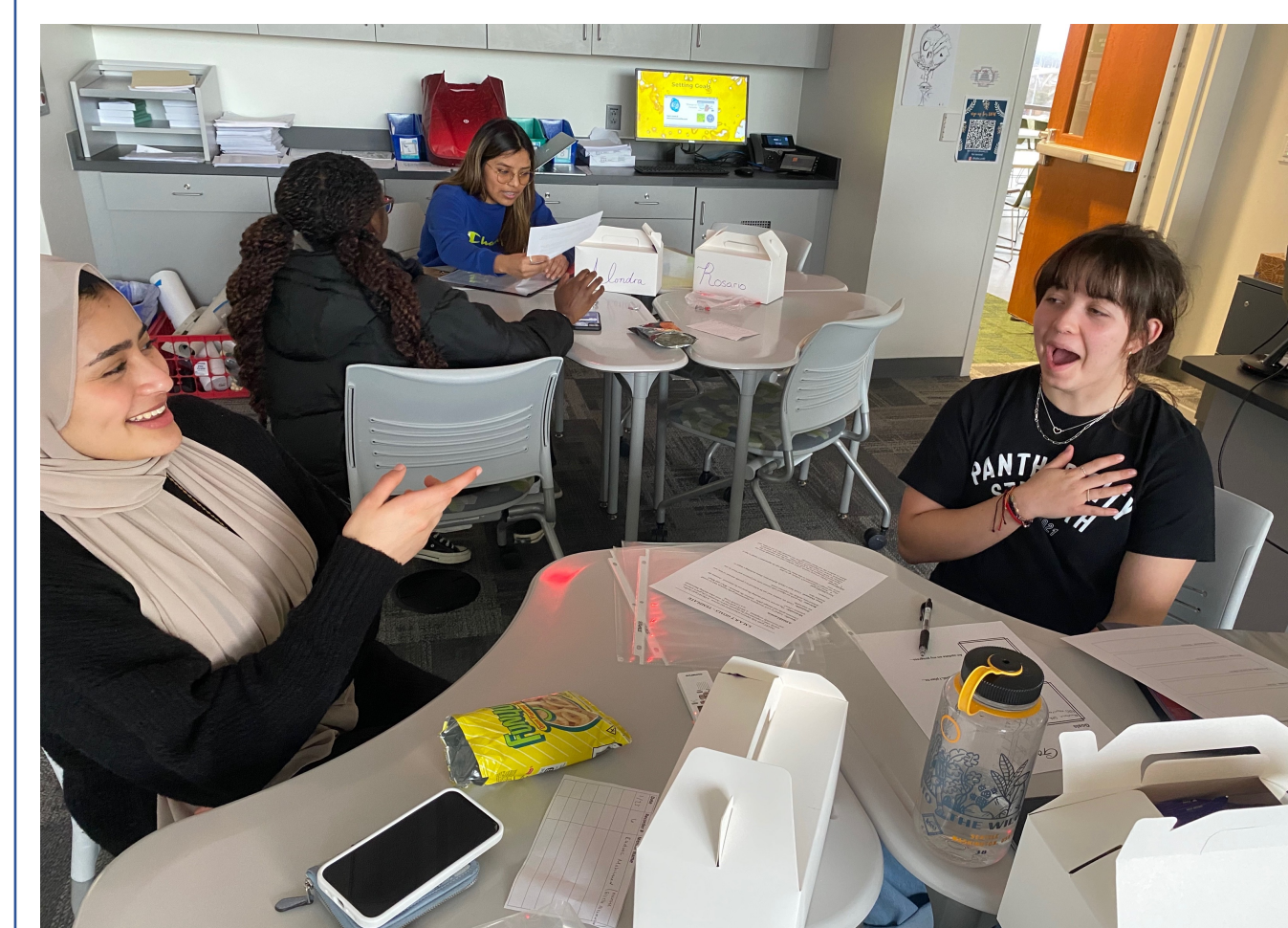
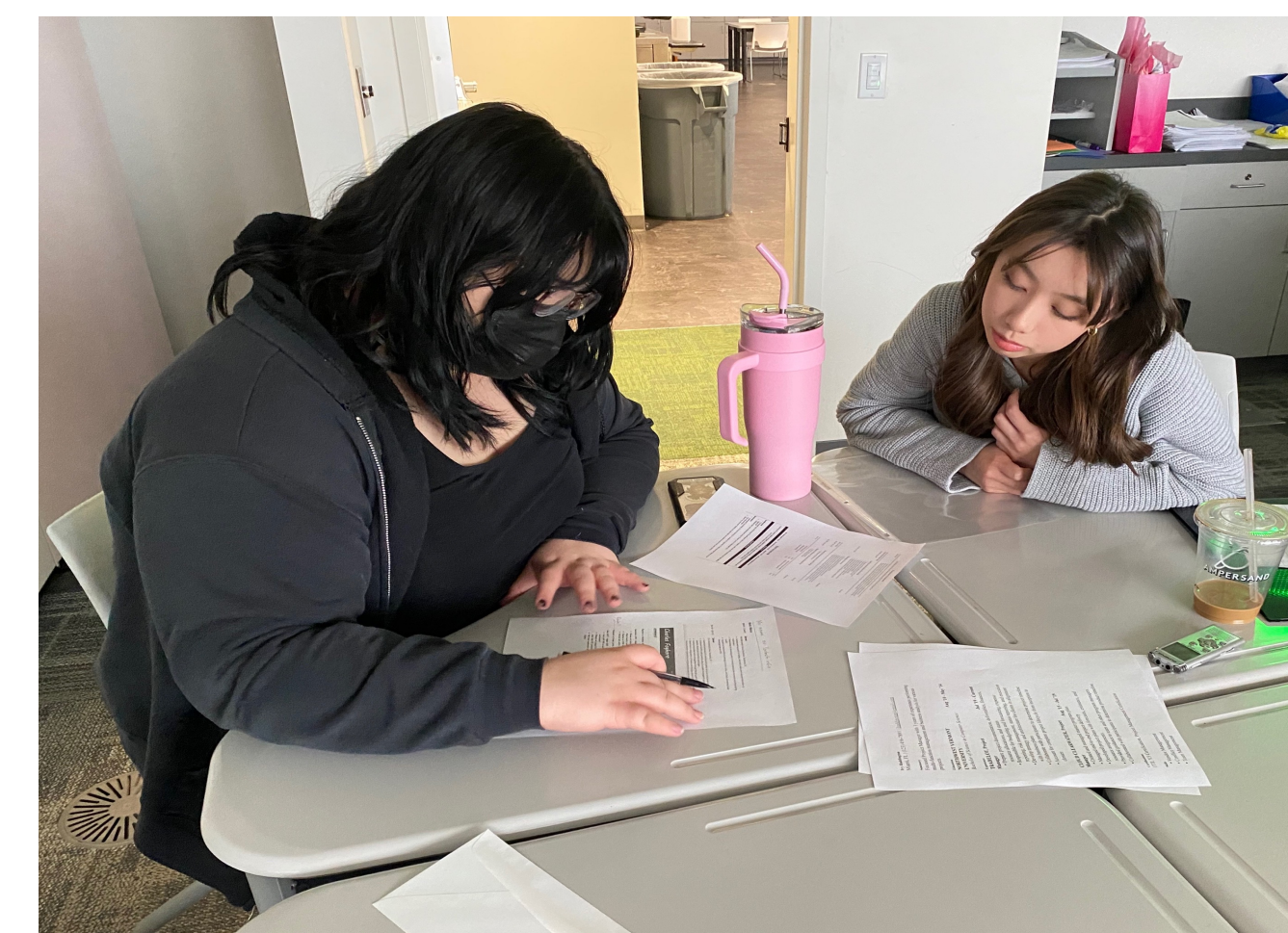
Project Description

Mentor-Mentee Ratio:

Each mentor is paired with 2-3 high school students during small group sessions. In these small groups, mentors provide guidance, encouragement, and support to mentees associated with meeting topics. Additionally, TCU Pre-Health students serve as a mentor outside of meeting times by keeping an open line of communication with their mentees to help with their unique difficulties throughout their educational journey.

Meeting Topics:

1. Resume Building
2. Vision Boards
3. STEM Faculty Panel
4. STEM Career Presentation
5. Financial Literacy
6. College Applications



Midpoint Assessment of Emotions and Attitudes Toward College and Mentoring Results

Item	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I feel confident about my ability to apply for college.	0.4	0.2	0.4	0	0
I feel confident about my ability to apply for scholarships.	0.2	0.2	0.6	0	0
I know what major I want to pursue in college.	0.6	0	0.4	0	0
I am excited about going to college.	0.6	0.4	0	0	0
I am nervous about graduating.	0	0.4	0.6	0	0
I know how to prioritize my mental health.	0	0.2	0.4	0.2	0.2
I know how to write an effective resume.	0	0.4	0.4	0	0.2
My mentor cares about me as a person.	0.6	0.2	0.2	0	0
I have gained knowledge as a result of my participation in the Molding Melanin Magic Program.	0.4	0.6	0	0	0
I would be a mentor for someone in the future.	0.8	0	0.2	0	0

Discussion

A survey was administered to the mentees to assess their feelings towards college and the mentorship process halfway through their completion of the mentoring program.

Notable results include:

- "I would be a mentor for someone in the future."
 - 80% of mentees strongly agreed with this statement.
- "I know how to prioritize my mental health."
 - 20% of mentees agreed with this statement.

Based on these results, the program will shift towards a greater prioritization of mental health and providing resources for mentees.

During a meeting focused on financial literacy, students were given a pre- and post-survey that assessed their knowledge of financial aid applications such as the Free Application for Federal Student Aid (FAFSA) and the CSS Profile. The mean score of the pre-survey was 38%, and the post-survey showed an increase to 75%.

References

- School Information / Campus Profile, <https://www.fwisd.org/domain/2648#:~:text=Founded%20in%202011%2C%20the%20Texas,careers%20and%20areas%20of%20study.>
- "Texas Academy of Biomedical (2023 Ranking) - Fort Worth, TX." *Public School Review*, <https://www.publicschoolreview.com/texas-academy-of-biomedical-profile#:~:text=67%25%20of%20Texas%20Academy%20of,are%20Two%20or%20more%20races.>