

2023 Path to STEM Success Survey Results

Introduction:

Path to STEM Success is a four-day orientation for existing and new STEM students at San Diego Mesa College sponsored by STEM E3 Title III, part F grant. Pre- and post-surveys were conducted during the first iteration of Path to STEM Success to collect data that will inform future program improvements. In Path to STEM Success event was a two-day event that started on Monday 8/14/2023 and ended on Tuesday 8/15/2023. Initially, 45 students were invited to the event and 26 students attended the day 1 session, 21 students attended the day 2 session, respectively. Only 16 students participated in both the Monday and Tuesday sessions.

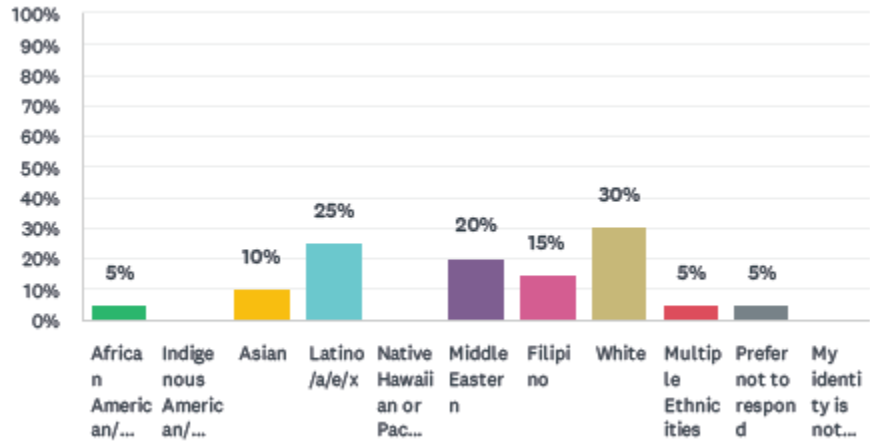
Day 1: Mon 8/14 (9am-3pm)	Day 2: Tue 8/15 (9am-3pm)
<ul style="list-style-type: none"> ➤ Do you want to learn more about opportunities and careers in STEM? ➤ Do you want to make sure you are taking the right STEM classes? 	<ul style="list-style-type: none"> ➤ Do you want to be prepared for this Fall's classes?
<ul style="list-style-type: none"> • Student/Faculty Panel & Mixer • Internships opportunities and Work Based Learning overview • Industry Panel • General STEM Counseling Session • Fun activities with STEM Faculty • Tour of MS building and the STEM Center 	<ul style="list-style-type: none"> • Refresher for your Biology, Chemistry, Math, and Physics courses • Meet with the Mesa Impactship Program (MIP) coordinators to start interning with a purpose! • Counseling session: Appointments will be scheduled on Day 1

Survey Administration:

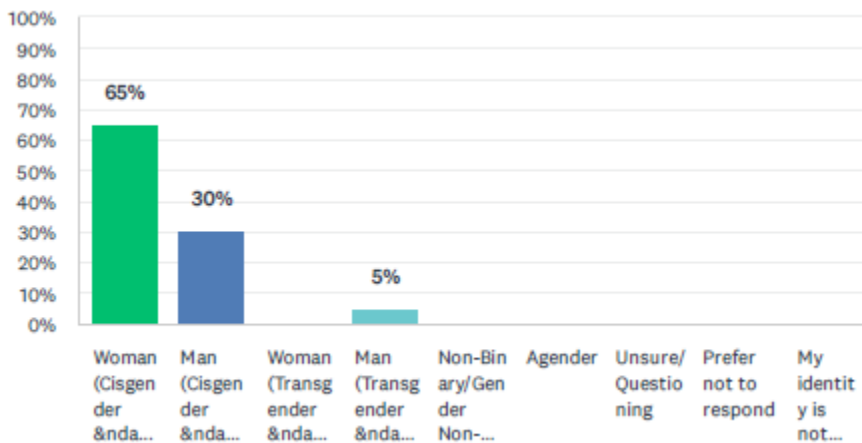
The survey participation rate for the pre-survey was 80.7% (21 responses out of 26 Day 1 attendees). The post-survey participation was much lower (28.6% or 6 responses out of 21 Day 2 attendees). The pre-survey was distributed via QR code and a weblink so that students could fill out the survey at the beginning of the first day's event, onsite. The post-survey was sent to students' emails after the second day's event ended and the students were dismissed. Due to a very small number of post-survey respondent counts, this report will focus on pre-survey results.

Pre-Survey Participant Profile

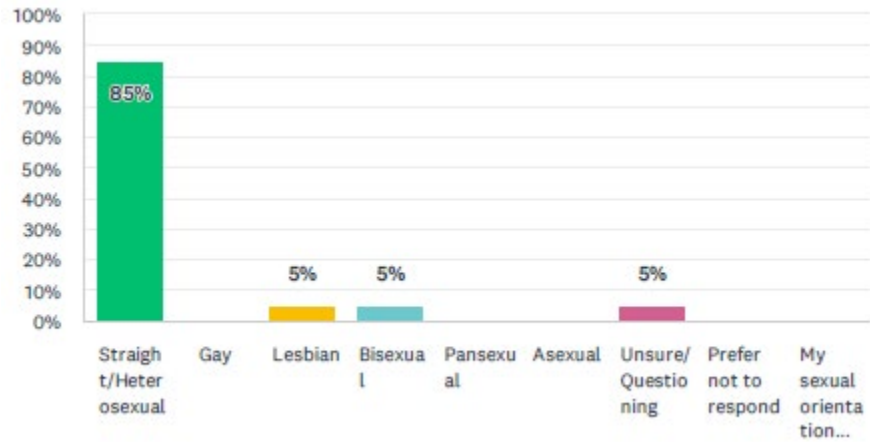
Ethnicity (n=20)



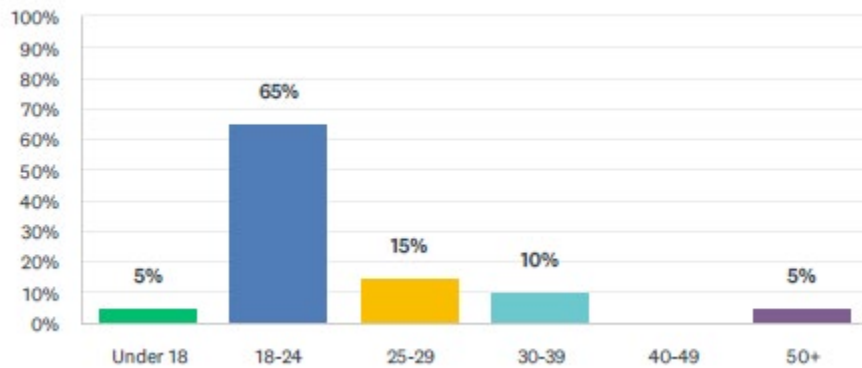
Gender (n=20)



Sexual Orientation (n=20)



Age (n=20)



Special Population (n=20)

ANSWER CHOICES	RESPONSES	
I am a first generation student	44%	7
I am a low income student	63%	10
I am a CRUISE student	13%	2
I am in the Promise Program	25%	4
I am a student athlete	0%	0
I have a physical disability or chronic illness	13%	2
I receive support from DSPS (Disability Support Programs and Services)	38%	6
I am neurodivergent (e.g. ADHD, Autism Spectrum Disorder)	25%	4
I am undocumented or DACA	6%	1
I am the parent of a child under 18 years old	6%	1
I am struggling with food insecurity	6%	1
I am unsheltered	0%	0
I am struggling with housing insecurity	0%	0
I am formerly incarcerated	6%	1
Total Respondents: 16		

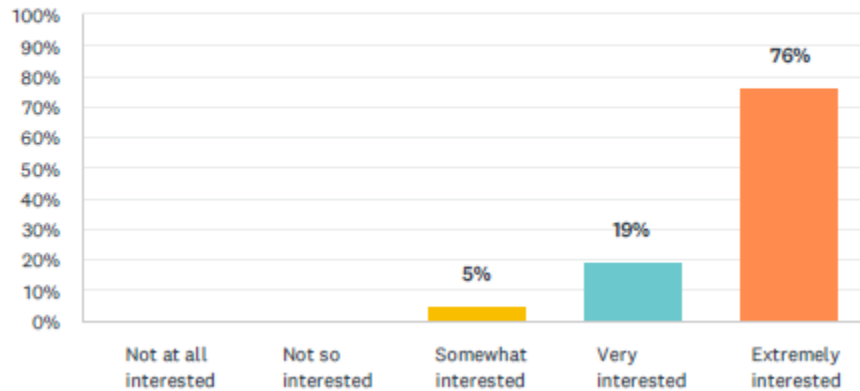
Students' Interest Alignment and Readiness with STEM

An overwhelming majority of students reported that they were interested in pursuing a STEM Career but when it comes to how knowledgeable they were about the STEM courses, 39% of respondents reported they were either “very knowledgeable” or “extremely knowledgeable”. About half of students (52%) reported “somewhat knowledgeable” (Q3), suggesting that a large majority of respondents are very interested in a future career in STEM, but they evaluate themselves as moderately knowledgeable about the subject matter at this stage.

86% of respondents reported they were planning to take STEM course(s) in Fall 2023 and when asked about their preparedness for the classes in the fall, half of the students reported they are either “very prepared” or “extremely prepared”. About one-third of students reported being “somewhat prepared” (Q5).

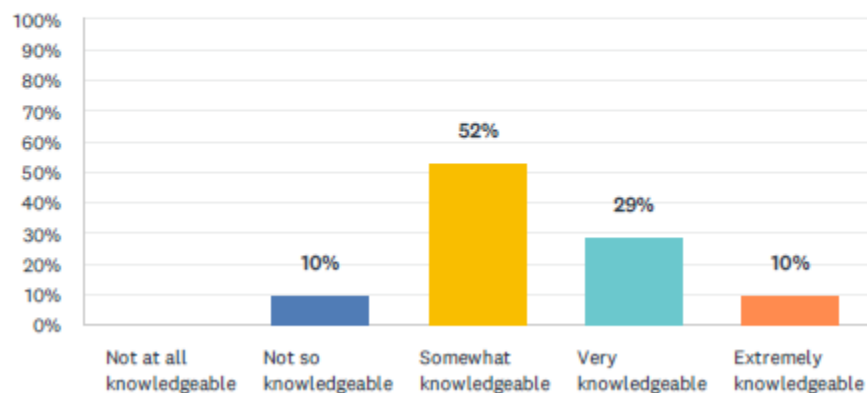
Q1 How interested are you in pursuing a STEM career?

Answered: 21 Skipped: 0



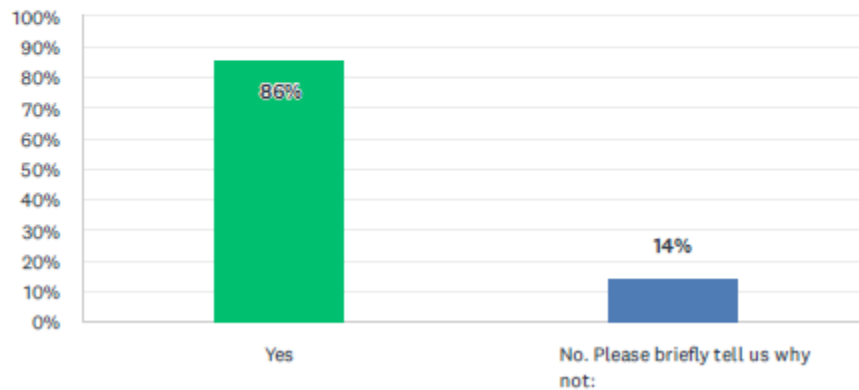
Q3 How knowledgeable are you regarding the courses that you need to take in order to reach your academic goals?

Answered: 21 Skipped: 0



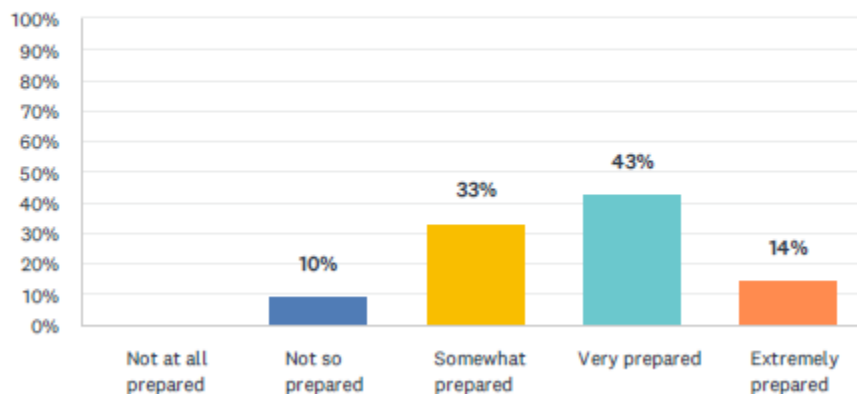
Q4 Are you enrolled in all of the classes that you plan to take this fall semester?

Answered: 21 Skipped: 0



Q5 How prepared do you feel for your classes this fall?

Answered: 21 Skipped: 0



Sense of belonging

In the pre-survey, survey respondents were asked to assess a series of seven statements for their perceived sense of belonging at Mesa College. A total of 20 students responded (n=20). Only six responses were received in the post-survey for the same question, therefore the comparison between pre and post-survey does not seem to be adequate for analysis in this round of survey. This report focuses on the pre-survey results for students' sense of belonging at Mesa.

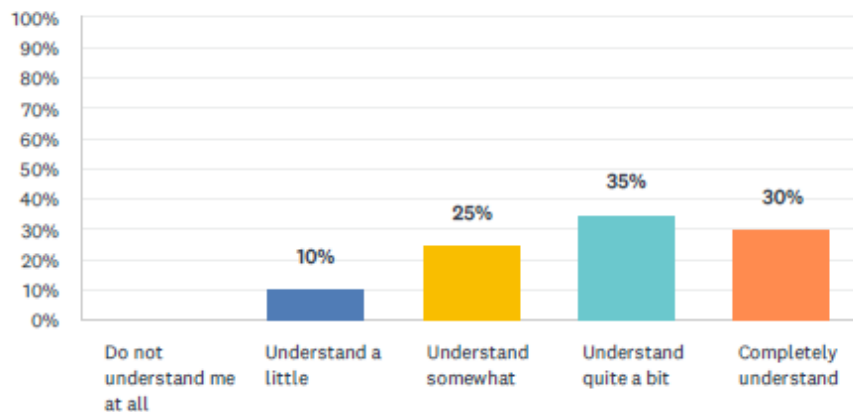
Most of the respondents reported positive about their sense of belonging in Mesa. The Sum of “Strongly agree” and “Agree,” ranged from 50% to 100% throughout the seven statements. 100% of respondents reported that they are extremely happy or quite happy about their choice of attending San Diego Mesa College (Q12, average score 4.6). The response shows the respondents are highly satisfied with their campus experience at Mesa College.

In the question of “How much do you matter to others at San Diego Mesa College?”, 50% of the survey takers reported: “matter quite a bit” or “matter a tremendous amount” (Q11, average score 3.70).

About the sense of belonging score: The sense of belonging score consists of seven questions that measure various aspects of the sense of belonging construct. The responses to each question were scored from one to five, and a mean of means was subsequently calculated. The sense of belonging scale used in the survey is an adaptation of Imperial College London’s Centre for Higher Education Research and Scholarship (n.d.) sense of belonging scale, which has been tested for reliability.

Q6 How well do people at San Diego Mesa College understand you as a person?

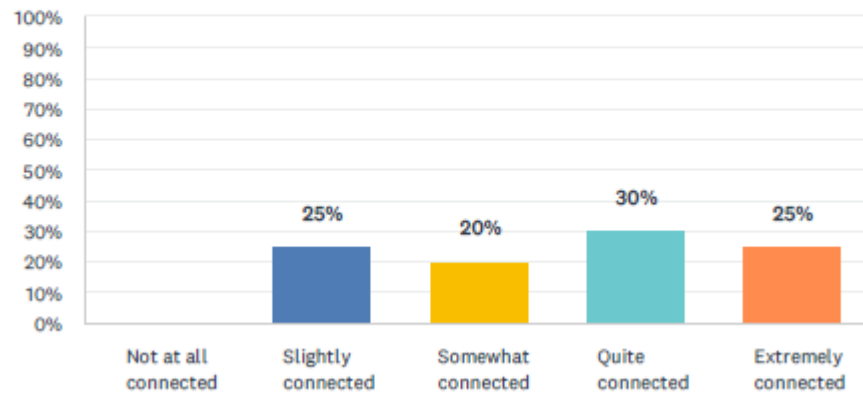
Answered: 20 Skipped: 1



(Q6. Average Score: 3.85)

Q7 How connected do you feel to the staff at San Diego Mesa College?

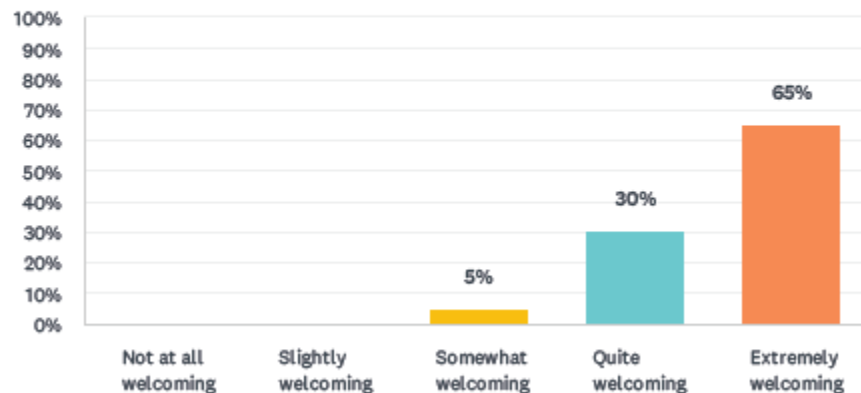
Answered: 20 Skipped: 1



(Q7. Average Score: 3.55)

Q8 How welcoming have you found San Diego Mesa College to be?

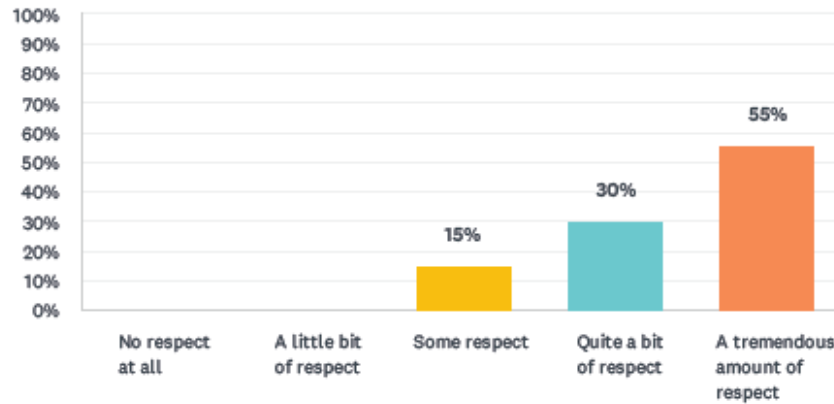
Answered: 20 Skipped: 1



(Q8. Average Score: 4.60)

Q9 How much respect do other students at San Diego Mesa College show toward you?

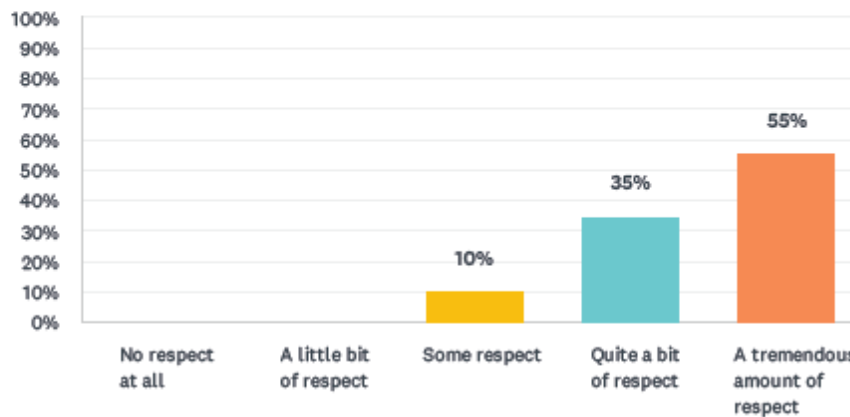
Answered: 20 Skipped: 1



(Q9. Average Score: 4.40)

Q10 How much respect do members of staff at San Diego Mesa College show toward you?

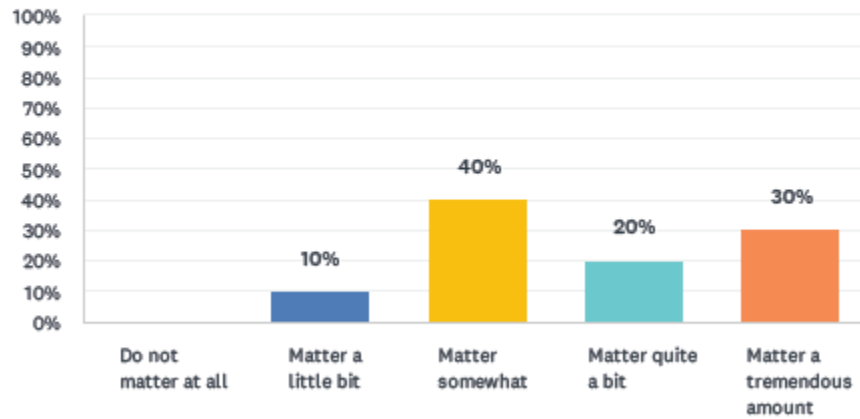
Answered: 20 Skipped: 1



(Q10. Average Score: 4.45)

Q11 How much do you matter to others at San Diego Mesa College?

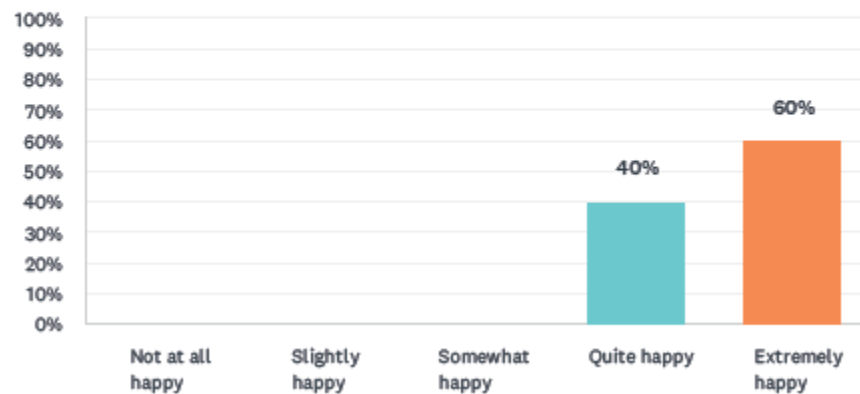
Answered: 20 Skipped: 1



(Q11. Average Score: 3.70)

Q12 How happy are you with your choice of attending San Diego Mesa College?

Answered: 20 Skipped: 1



(Q12. Average Score: 4.60)

For Further Inquiry:

1. Post-event survey response rate was very low compared to the pre-survey that was administered after the two-day event ended. Email survey administration typically yields lower response rates. For future reference, the post-survey is recommended to be taken before students are dismissed from the event.
2. The participation rate was lower than anticipated. 45 students RSVPed to the event, but about half attended. Only 15 students attended both day one and day two events. A follow-up with students who RSVPed and did not attend the event will improve the participation rate in the future.

References:

Center for Higher Education Research and Scholarship. (n.d.). *Sense of Belonging Scale*. Imperial College London. Retrieved on July 11, 2022, from <https://www.imperial.ac.uk/education-research/evaluation/what-can-i-evaluate/sense-of-belonging/tools-for-assessing-sense-of-belonging/sense-of-belonging-scale/>