

Research Immersion

Key Program Elements

2020 Virtual

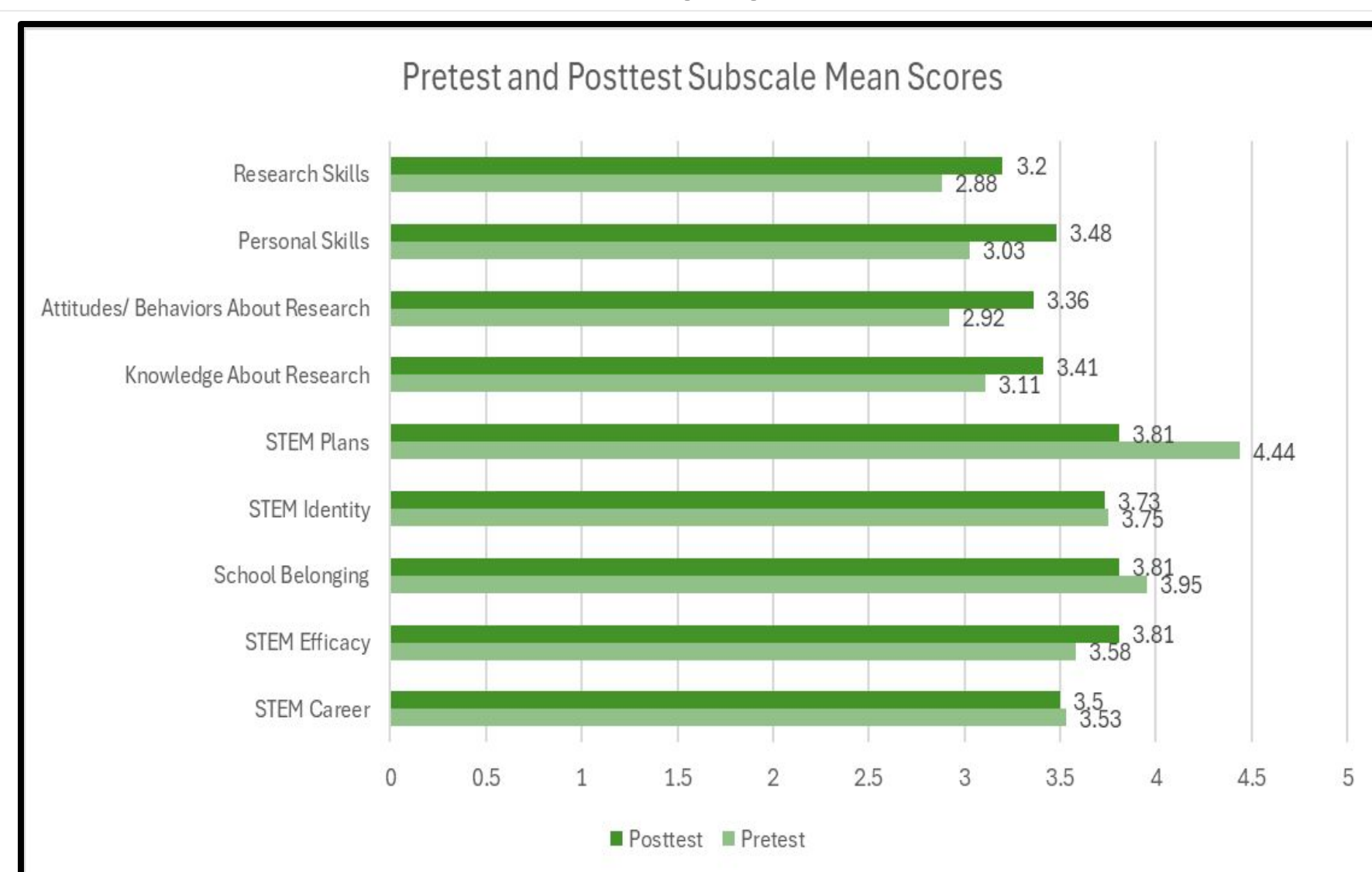
- UG Research with presentations
- Scientific talks
- Evening virtual activities on Discord

2022 In person

- UG Research with presentations
- Evening scientific talks
- College-prep workshops
- On-campus scavenger hunt
- Meet career services, Lead center, the library registrar, and Folklife Center
- Evening social activities such as Festival Fridays
- Program participants were placed in the same freshman seminar class

Data

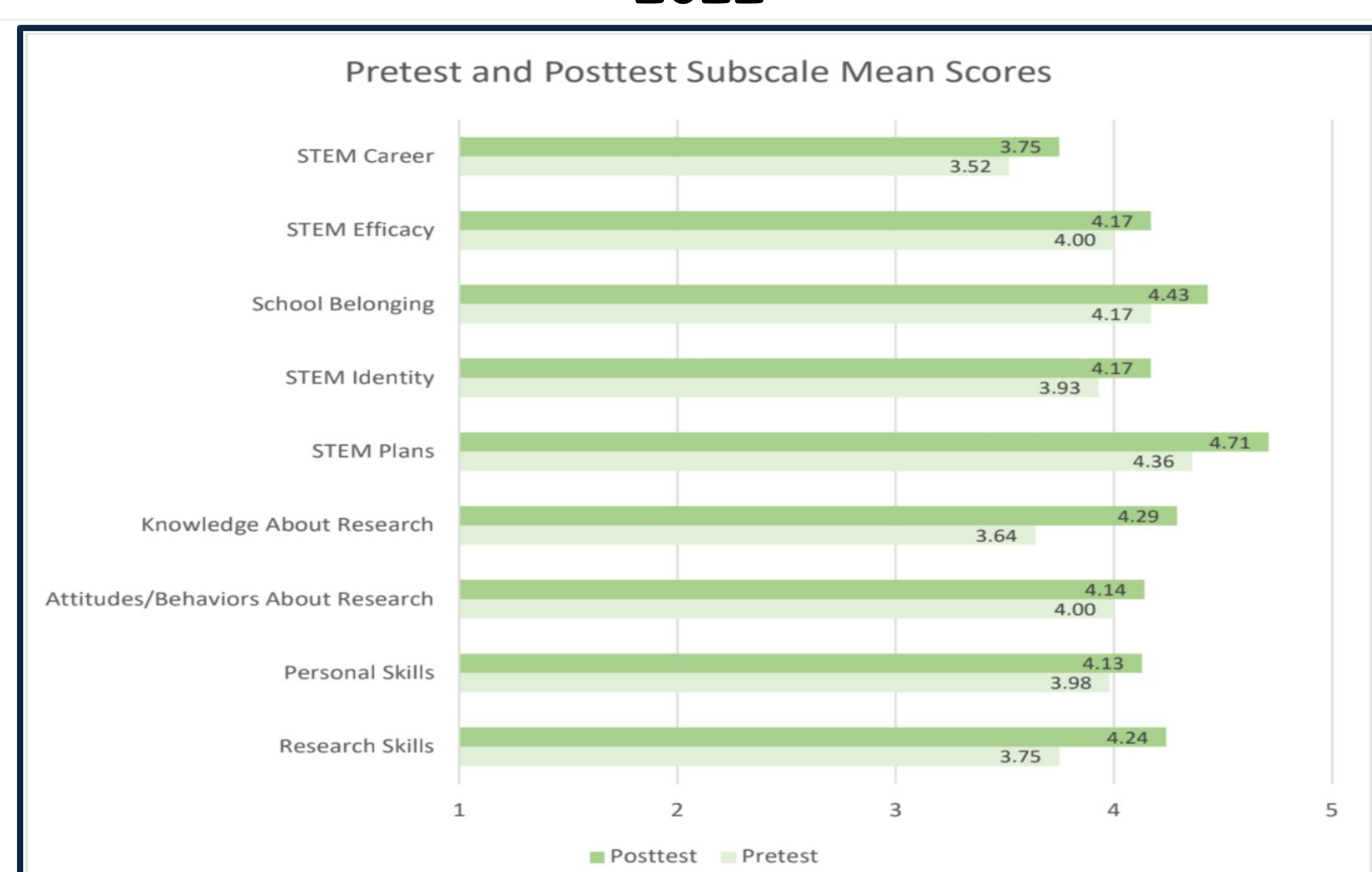
2020



What did you like best about the internship program?

- The research
- Meeting new people
- The involvement
- I liked the lectures and the yoga/workouts we did.
- Getting some beforehand knowledge
- The mentors.
- Meeting new people
- Getting to know everyone

2022



What did you like best about the internship program? (n=7)

- Presenting the research
- The research
- The people and making new friends
- All the information, I really think it will give me a head start as an incoming freshman.
- I liked the research experience before going into major research.
- Research experience
- Meeting new people and presenting my work to my peers

Summary

Fairmont State has held three different iterations of STEM Immersion Programs. In 2020 and 2022, nine incoming freshmen engaged in a two-week long research program during the summer. The students engaged in research projects under the guidance of STEM faculty and peer mentors. They also participated in some college-prep workshops. In August 2023, we shifted focus and held a four-day bridge program the week before classes started. Seven students attended this program and engaged in a variety of college-prep activities, including a campus resource scavenger hunt, a discussion on test-taking strategies, and a lunch with STEM faculty mentors. Students also participated in one citizen science activity. Based on the data collected, both programs were successful. After the two-week research program, students reported higher self-efficacy with regards to their identity as a STEM person. After the bridge program, students reported feeling more prepared for college. Both programs improved their sense of belonging at college and improved their confidence when interacting with faculty members.

Photo Highlights



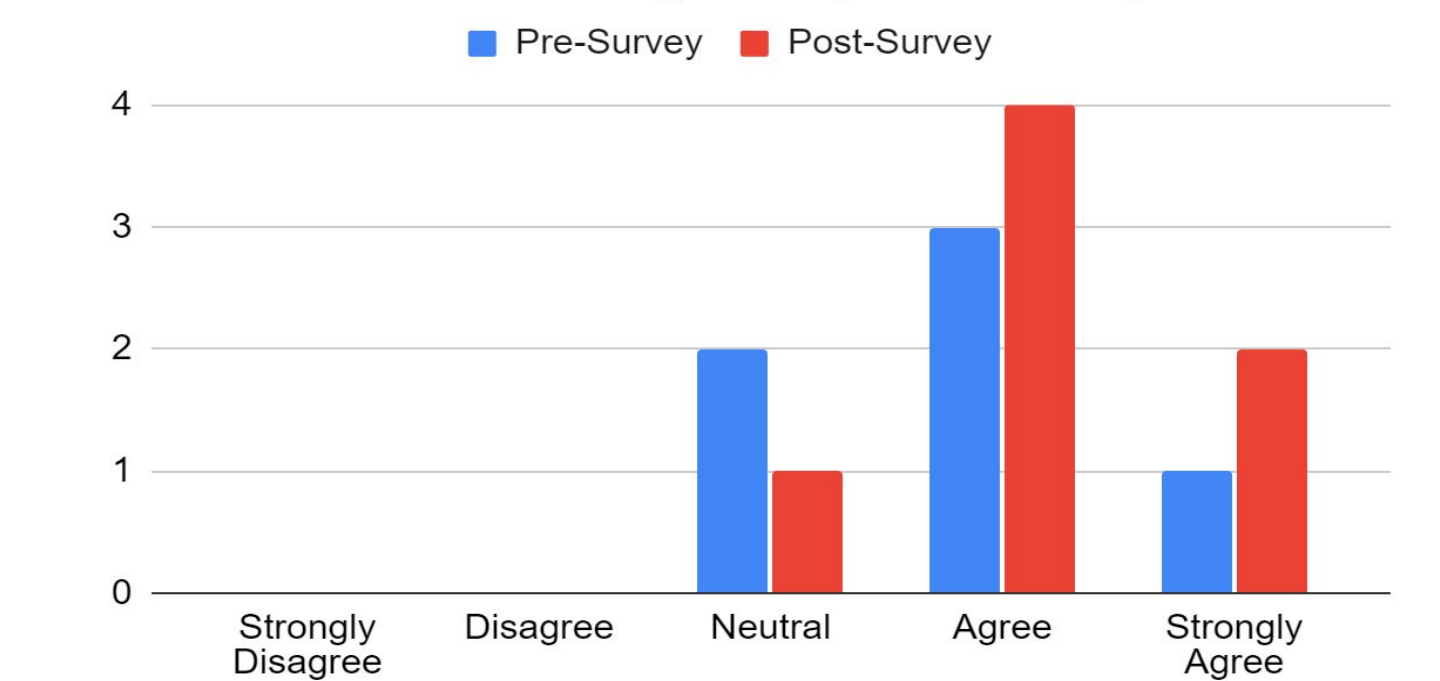
Immersive Bridge Program

Key Program Elements

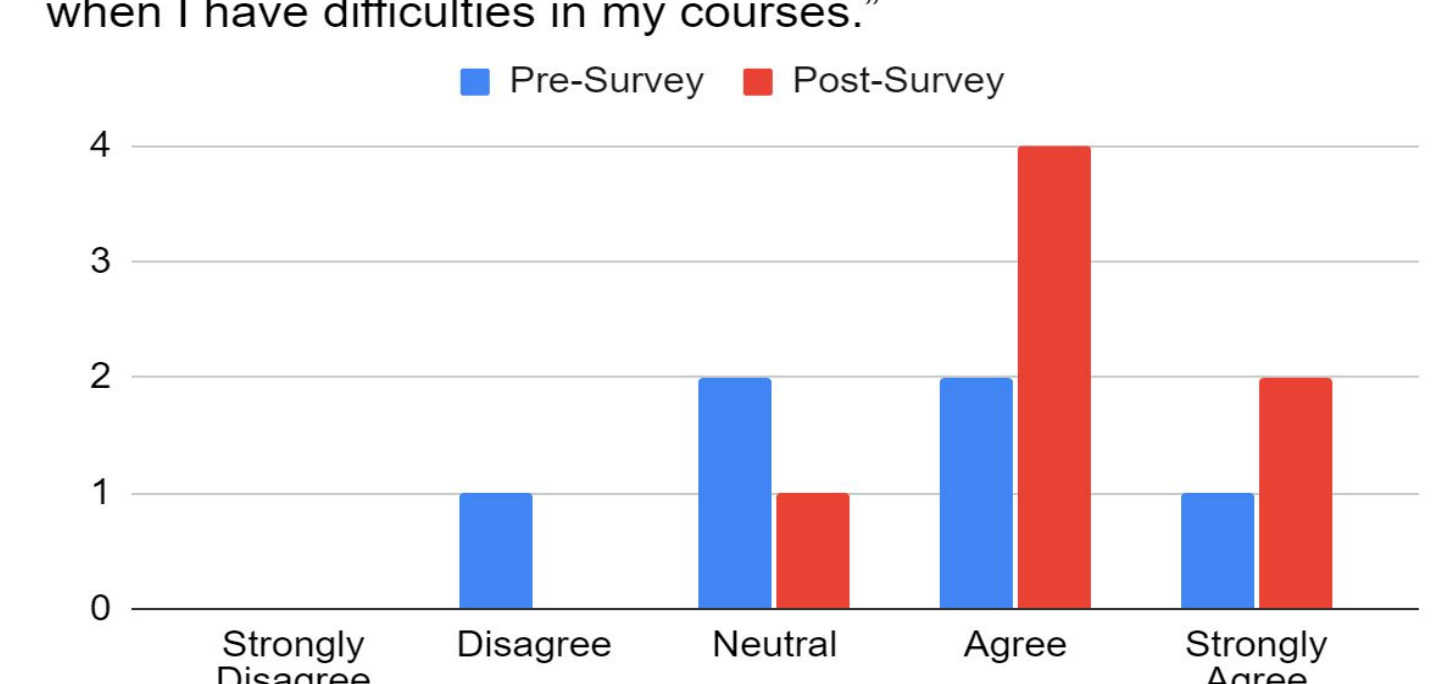
- College-prep workshops discussing topics including test-taking strategies, time management, and math anxiety
- On-campus scavenger hunt
- Meet with representatives from career services, the tutoring center, and the library
- Citizen science project
- Lunch with faculty mentors
- Evening social activities such as mini-golf, mostly led by UG student mentors
- Done in conjunction with the S-STEM program which also supports first-gen low income students
- Bridge program participants were placed in the same freshman seminar class

Data

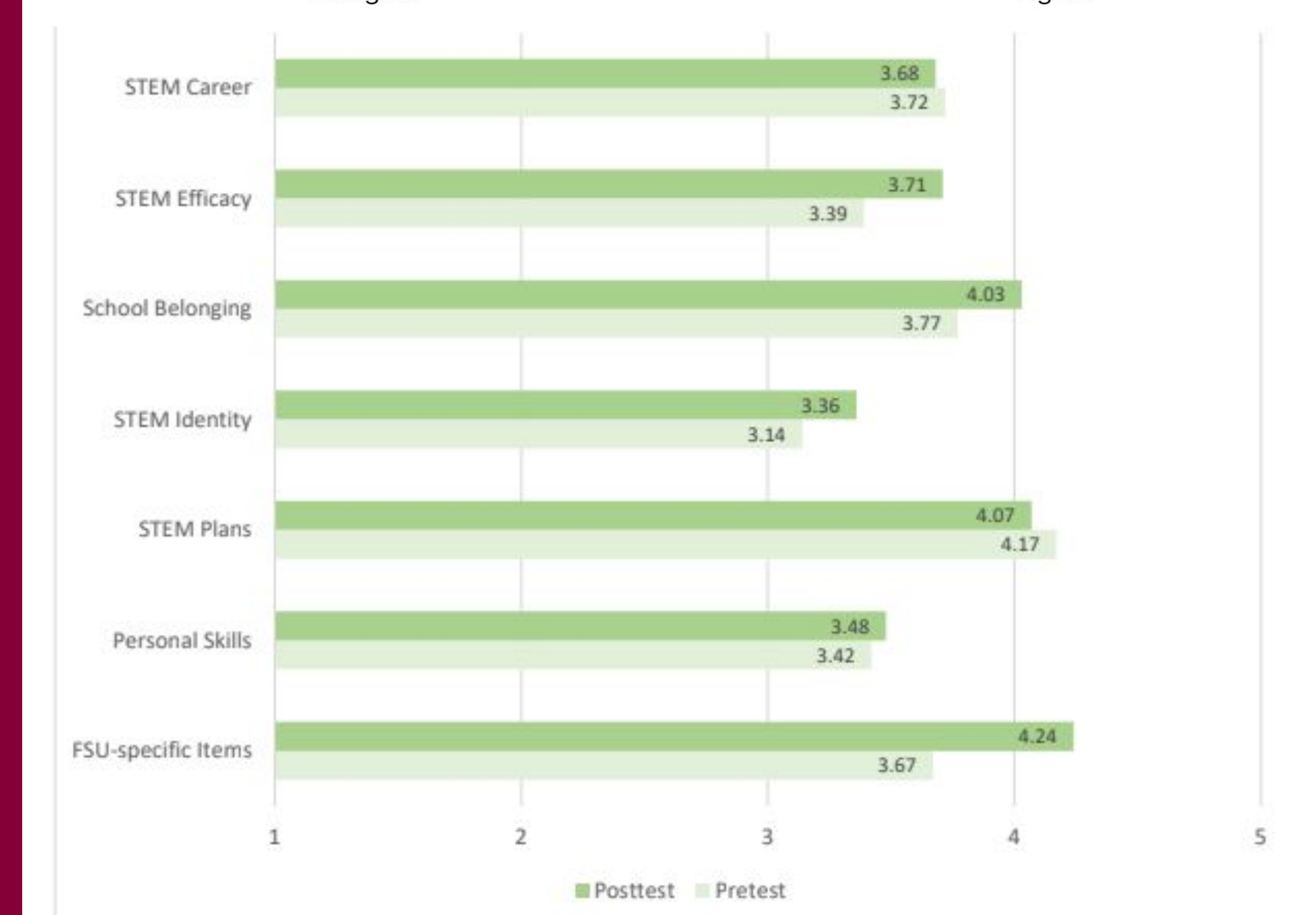
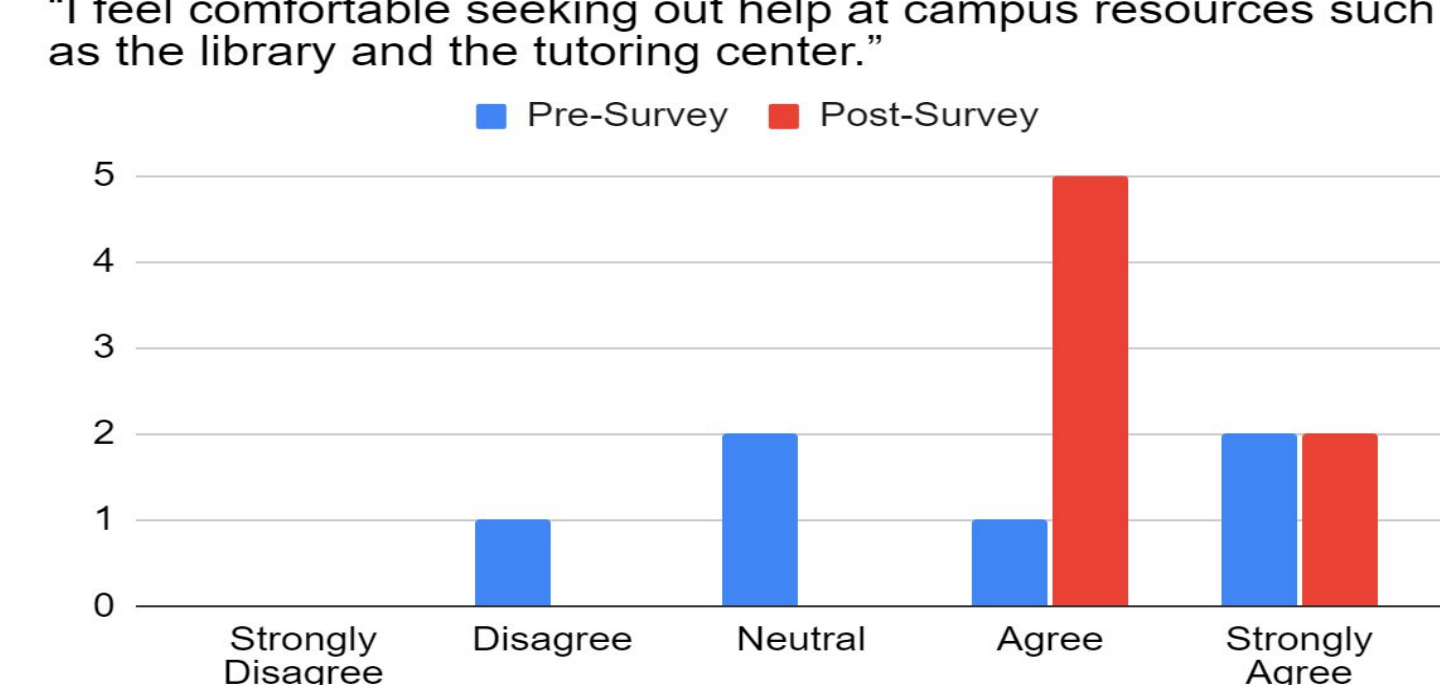
"I feel comfortable conversing with my STEM faculty and staff."



"I feel comfortable asking my STEM faculty members for help when I have difficulties in my courses."



"I feel comfortable seeking out help at campus resources such as the library and the tutoring center."



Discussion

The 2020 program resulted in 1 student scholar, while the 2022 program resulted in 6 student scholars. The 2022 program was more successful in engaging the students and creating a cohort. Both programs focused on UG research, professional research talks, and socializing activities. The 2022 program included all of those components but also had a one-week freshman seminar component which included enrolling these students in the same SOAR (freshman seminar class) section. The 2022 cohort still interact today and show an interest in UG research.

When examining the 2-week immersion data students tend to enjoy the following:

- Independent undergraduate research
- Meeting other students
- Being involved on campus

Future Plans and Tips for Others

After consulting with students involved in both the research-based and bridge-based immersion programs, in August 2025, we plan to combine the strengths of both immersions. The research immersion was too long and the bridge was too short. Compromising, we will hold a 5 day bridge program the week before the semester begins that both prepares the students for college and allows them to engage in meaningful undergraduate research.

Tips and tricks for successful immersion:

- Use creative and diverse recruitment methods
 - On-campus orientation, recruiting events, e-mail, and mail
- Don't overwork the students
 - Include time for students to decompress and socialize organically
- Involve as many faculty/staff as possible!
- Involve as many current students as possible!

Discussion

The 2023 bridge program was very effective at helping students feel more prepared for college and increasing their levels of comfort interacting with faculty members. It was also somewhat effective at improving students' self-efficacy as a STEM person, increasing their sense of belonging at college, and helping them develop a social support network. Many students continued to be friends throughout the school year.

Five program components were rated by the participants from 1 (Not at all Useful) to 5 (Very Useful):

- Meeting with faculty members: Mean 4.14
- College-readiness activities: Mean 4.00
- Academic mentoring by UG mentors: Mean 3.86
- Community building by UG mentors: Mean 3.86
- Team-building activities: Mean 3.43

PRESENTED BY:

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