

UNDERSTANDING CHALLENGES STUDENTS OVERCOME TO ENGAGE IN L'SPACE ACADEMIES AND INTERNSHIPS. S. R. Buxner¹, S. Klug Boonstra², and D. Garcia², ¹Planetary Science Institute (1700 E. Ft. Lowell Suite 106, Tucson, AZ 85711), buxner@psi.edu, ²(Arizona State University, School of Earth and Space Exploration, Tempe, AZ 85278)

Introduction: The Lucy Student Pipeline Accelerator and Competency Enabler (L'SPACE) is a NASA-funded virtual STEM workforce development program for undergraduate students from across the United States. The virtual academies provide students with relevant technical workforce skills and training using NASA projects. In addition to virtual academies, students are invited to apply for summer internships. Pre 2020, these were held in person and during the past two years have been held virtually. Since its inception, the program has provided training for over 5,000 undergraduate students from over 650 colleges and universities (248 community colleges and 249 federally designated Minority Serving Institutions (MSIs). Students represent all 50 US states, Puerto Rico, and Guam. Overall, students of color represent 41% of participants and female students are 40% of participants.

Evaluation is Key to Evolution and Building a Successful, More Equitable Model: Throughout the L'SPACE Program, we have used surveys, interviews, conversations, and reflections on student work to identify ways to better support participants. L'SPACE is fast-track and iterative, meaning the leadership team uses the data and feedback to inform changes which can be implemented immediately to improve the program. In each academy iteration, L'SPACE has added elements to the program to ensure participants gain relevant workforce experience and identify areas that could use improvement. Continually collecting feedback has allowed the program to nimbly adapt to student needs and changing conditions due to the pandemic. These recommendations are helping the program create future internship opportunities that blend in person and virtual aspects to serve a diverse set of needs.

Identifying Barriers to Success for Participants:

In addition to program assessment, a non-facilitator evaluator has conducted focus group and individual interviews with nearly 100 students between 2019 and 2021 to understand barriers and challenges that students face in participation in both the virtual academies and internships. These challenges included students who have struggled to stay in school for socioeconomic and family obligations, students facing homelessness, food insecurities, PTSD, domestic violence, and lack of high-quality instruction in earlier education experiences. Students also battle imposter syndrome, lack of role models, lack of funding, and condescending faculty.

Virtual internships have also allowed us to uncover additional barriers that can be mitigated through virtual internships that include caring for children and parents, ability to keep full time employment to ensure benefits for the family, and other obligations that do not allow students to travel. The success of the virtual internship is opening up new possibilities to includes students in internships in the future.

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Additional Information: Learn more about L'SPACE at <https://www.lspace.asu.edu/>.