

Final Report – Grad CAFE Pilot Academic year
2023-24



Introduction

Grad CAFE is a transformative and innovative mentoring program that is very different from what is currently being offered at any research-intensive universities. In a review of the University of Arizona's (UArizona) 24 peer Research 1 institutions, only nine offer peer mentoring programs for graduate students. Of these, one is a Sloan-funded program, three are peer-to-peer mentoring, and five are discipline or identity specific. Grad CAFE is different. Grad CAFE is a strengths-based, holistic, interdisciplinary, intersectional, multi-tiered mentoring community. This program provides illumination of the hidden curriculum of graduate school for underrepresented first- and second year students. It provides professional development and skills development for early- and late-career graduate students. It provides networking and mentoring and most importantly, a sense of community and belonging to the participants. The following report outlines the process of creating and piloting Grad CAFE both an in-person and a virtual cohort, the outcomes after the first year of the program, and our plans for growing and institutionalizing the program.

Background

In May 2024, the Graduate College Office of Diversity and Inclusion completed the yearlong in-person pilot and the one semester virtual pilot of the Graduate Communities for Academic Fellowship & Efficacy (Grad CAFE) program. This program is the culmination of over two years of effort and planning beginning with a shared vision between Dr. Frans Tax and Dr. Celeste Atkins that underrepresented graduate students would benefit greatly from a better sense of community provided by peer mentoring.

Need for Grad CAFE

At the UArizona, domestic students of color are only 16% of the total number of doctoral graduate students. Moreover, they are more likely to leave after the first year and they also take longer to complete. From the 2012 STEM cohort who completed their graduate education in six years, less than 1% were Black, only 7% were Latino/a/x or Hispanic despite UArizona being a Hispanic Serving Institution (HSI), and although we are on Indigenous lands, none identified as Native American. The Graduate College Office of Diversity and Inclusion conducted a needs assessment for underrepresented graduate students during the 2022-23 school year ($n=90$) during which the top needs identified were mentoring, a sense of community, opportunities for

non-academic socializing, and access to resources such as mental health support, career services, and academic support. Most respondents (91%) indicated an interest in peer mentoring and multiple respondents spoke of the need for more overall mentoring and connection with faculty. A large percentage (44%) indicated that they did not feel a sense of belonging in their graduate program and 23% felt that they did not have adequate support to be successful. Multiple respondents indicated a longing for social events with food to increase connection, community, and a sense of belonging (e.g., “I have very little free time as a grad student, so having an extra incentive like food, social interaction, fun activity would ... get me to spend a free hour”). Students also shared the need to connect across disciplines (e.g., “I do feel a bit isolated ... in the graduate program. Are there campus-wide events for mingling with other students?”). The graduate student experience at UArizona is compounded by challenges related to finances and well-being. Female and underrepresented graduate students reported higher stress levels than other demographics around finances, family responsibilities, course load, and workload, and they shared concerns about their ability to continue at the university (Rhodes et al., 2021). Overall, there are challenges in recruitment, retention, and completion for underrepresented doctoral students and overall enrollment numbers and degrees conferred are low.

Creation of the Grad CAFE

When Dr. Atkins was chosen as a Hispanic Serving Institution (HSI) Fellow for the 2023-23 school year, she utilized that opportunity to encourage her team (Dr. Noel Hennessey and Dr. Nicole Marrone) to focus on the peer mentoring community project as their yearlong project. Over the course of the academic year, that team created a budget, successfully raised \$22,000 from internal stakeholders, successfully wrote a Commission on the Status of Women mini-grant (\$1500) and an HSI Seed Grant (\$25,000) which funded a 0.25 research assistant. The team also wrote and submitted a National Science Foundation (NSF) Innovations in Graduate Education (IGE) grant proposal which, although it ranked as competitive and scored well, was not funded. Additionally, the team created the new 1-unit Grad CAFE student success seminar, built the course map, built the Master class in D2L (the learning management system), commissioned a logo, created marketing, and recruited the first cohort of participants and community leaders. The stage was set for the pilot to launch.

The team did face some challenges in the initial launch phase. It was mutually agreed that Dr. Hennessey should step away to focus on other projects while Drs. Atkins and Marrone moved forward with the pilot. This was challenging because the initial model had 3 classes, one

led by each of the team members and the decision was made to consolidate down to 2 classes which led to some students being unable to participate at those times. In the end, we piloted the program with 11 community leaders and 17 peer mentors (1 from the College of Engineering, 7 from the College of Education, and 9 from the College of Science).

Grad CAFE Theoretical Framework

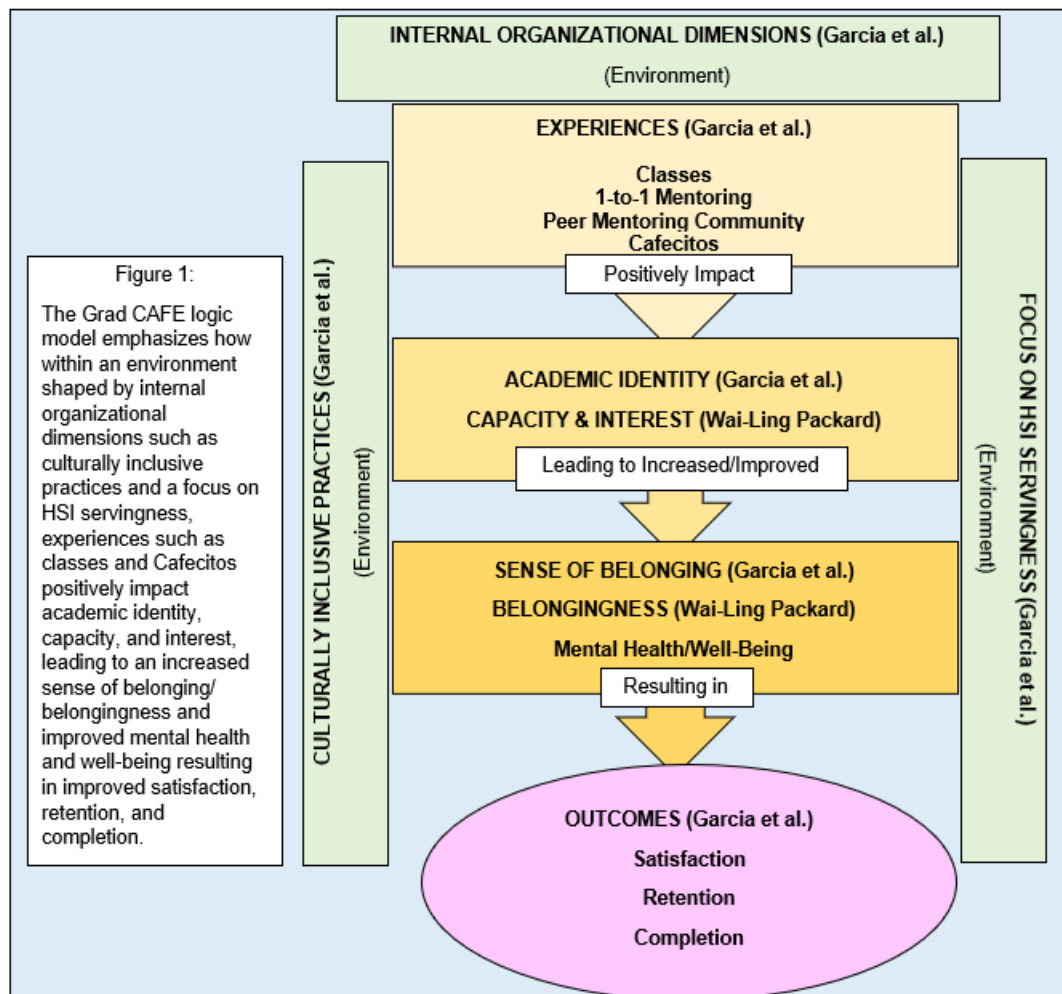
Grad CAFE's theoretical framework addresses Wai-Ling Packard's factors impacting student persistence using three of the four major components of HSI "servingness" identified by Garcia, Núñez, and Sansone (2019; described below). Wai-Ling Packard (2016) identified three factors impacting students' persistence in STEM: capacity, interest, and belonging. Capacity refers to the ability to learn and demonstrate competence in STEM, which is indicated, in part, by grades in classes. Capacity also refers to the student's sense of self-efficacy or confidence in their ability to persist and achieve in STEM. Interest refers to a student's perception that STEM is relevant, useful, and feasible for their future. Belongingness refers to a sense of shared identity. Belongingness is a particularly critical factor for underrepresented individuals in STEM, as the current demographics of the STEM workforce can send a negative signal to underrepresented students about how they fit into STEM (McGee, 2020). Please note, although the theoretical framework is specific to STEM disciplines, we hypothesize that the benefits will be similar for non-STEM graduate students.

Garcia et al. (2019) describe four major components of 'servingness' at HSIs: outcomes, experiences, internal organizational dimensions, and external influences. As we cannot impact external influences, we focus on the first three components here. Outcomes include both academic variables, such as retention and completion, as well as non-academic variables, such as academic identity and sense of belonging. Experiences include student-student interactions and interactions with faculty, staff, and other members of the larger community. Internal organizational dimensions include factors that negatively or positively affect Hispanic students such as culturally relevant curriculum and a focus on servingness by institutional leaders. As UArizona is one of a select few R1 HSIs, Garcia et al.'s (2019) framework is relevant for creating a program that addresses diversity issues in STEM and fits in with our mission as an HSI.

Figure 1 (next page) illustrates the theoretical framework underlying Grad CAFE. The combined Grad CAFÉ experiences (classes, 1-to-1 mentoring meetings, peer mentoring community meetings, and Cafecitos) positively affect short-term outcomes such as academic

identity, capacity, and interest, leading to an increased sense of belonging and improved mental health and well-being. This, in turn, positively impacts long-term outcomes such as satisfaction, retention, and completion. Moreover, the UArizona's organizational dimensions of culturally inclusive practices, culturally relevant mentoring and pedagogy, and a focus on HSI servingness create a favorable climate for student and program success.

Figure 1: Grad CAFE Logic Model



We hypothesized that a holistic, multi-tiered mentoring community program can improve student capacity by making transparent the hidden curriculum of graduate school, providing skill-building and professional development opportunities, providing resources for mental health, self-care, and strategic planning, and facilitating soft-skill development. Grad CAFÉ improves student interest by providing opportunities for values and career exploration along with academic and professional networking opportunities. We improved their sense of belonging

through opportunities to socialize and network around food in weekly meetings, monthly peer mentor community meetings, and monthly Cafecitos (see below).

What is a Cafecito? The literal translation of cafecito is “a little coffee” in Spanish. Yet, the word carries great cultural significance within Hispanic/Latino/a/x communities along with a history in the social justice movement. Cafecitos traditionally took place around the kitchen table, with coffee, food, and conversation. As described in Lopez and Calderón (2023), “the mere invitation to partake in ‘cafecito’ signaled recognition, respect, and community. If you were invited to cafecito, you knew you were needed and trusted” (p. 1679). The term was intentionally selected to be a culturally affirming name for the monthly Grad CAFÉ events in recognition that research, teaching, and mentoring take place relationally. Within the Grad CAFÉ mentoring model, the Cafecito events are designated as times to intentionally come together across different cultures and STEM disciplines and strengthen social networks, where stories and experiences can be shared in a place and time dedicated to community, resilience, being one’s authentic self, and feeling cared for and supported.

Grad CAFE supports participants holistically across disciplines and social identities, focusing on 1) overall mental health, 2) overall well-being, 3) self-efficacy, 4) sense of belonging, 5) satisfaction in graduate school, and 6) reducing tokenism and isolation for underrepresented students. According to Alvarez et al. (2009), “the mentor-mentee relationship involving students of color is anchored in a sociopolitical, cultural, personal, and historical context” (pg. 182). By teaching mentors (and mentees) to address this sociocultural context, we change the mentoring dynamic for all students. Our approach is informed by literature documenting how these mentoring practices increase satisfaction and persistence for underrepresented students (Alvarez et al., 2009; Davidson & Foster-Johnson, 2001; Davis, 2008; Thomas et al., 2007). Through training and modeling culturally responsive mentoring, we create more effective mentoring relationships and communities and, more importantly, shift the mentoring culture here at UArizona and beyond as our students take what they have learned in Grad CAFE to their next institutions once they begin their academic careers.

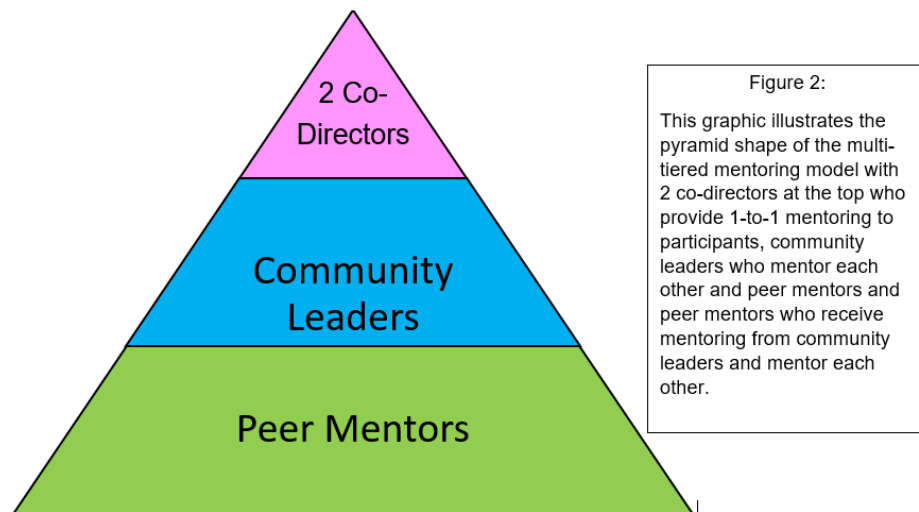
Program Overview

Grad CAFE Participants

Grad CAFE has several tiers of participants (see Figure 2 next page), who come together for monthly Cafecitos. Drs. Atkins and Marrone serve as co-directors and provide guidance, co-planning, and facilitation of all classes and events. They also conduct one-to-one mentoring with all community leaders and peer mentors. Community leaders are doctoral candidates who have successfully passed their comprehensive exams. They provide peer

mentoring to each other, near-peer mentoring to the peer mentors, attend the weekly community leader meetings, facilitate a monthly small group peer mentoring community, and (as of the spring semester) co-plan and co-facilitate the weekly student success seminar for peer mentors. They receive a \$500 stipend each

Figure 2: Pyramid Structure of Grad CAFE Participant Roles



semester for their participation. Peer mentors are first- and second-year doctoral students. They provide peer mentoring to each other and attend the weekly student success seminar and the monthly small group peer mentoring community meetings.

Multi-Tiered Mentoring Model Centered Around Food as a Common Need

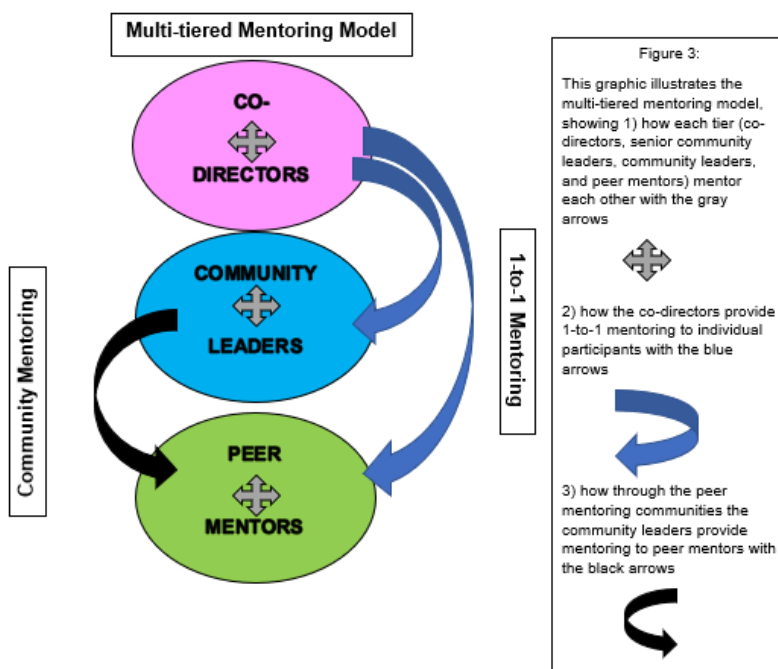


Figure 3: Grad CAFE Multi-Tiered Mentoring Model

In Grad CAFE, students benefit from an intersectional and interdisciplinary multi-tiered mentoring model, as illustrated on the left in Figure 3. In this model, all community leaders and peer mentors receive one-to-one mentoring sessions with a co-director each semester

allowing them to connect with trusted advisors outside of their own discipline for advice and support. The co-directors provide additional mentoring as needed during the year. Within the classes, peer mentoring community groups, and other activities, community leaders mentor each other and act as near-peer mentors to peer mentors. Finally, peer mentors mentor each other and receive near-peer mentoring from community leaders.

Grad CAFE classes and activities are centered around food for several reasons: 1) to address issues of poverty and food insecurity rampant among graduate students, 2) to address graduate students skipping meals due to lack of time, and 3) to create a sense of fellowship and community that comes from sharing a meal. Staff who manage the campus pantry estimate that at least one-third of the students utilizing pantry resources to alleviate hunger are graduate students. Food insecurity is an important stressor for many graduate students (Bruening et al., 2017; Coffino et al., 2021). Additional anecdotal evidence from the pilot cohort indicates that even those who can afford to eat often do not have the time to eat during the day or the time or ability to prepare meals in advance to take to campus. Furthermore, social cognitive theory asserts that adult learners develop self-efficacy by positively interpreting their emotional and physiological states. Therefore, classes and meetings provide holistic support by ensuring that students are adequately addressing their physiological and affective states (Bandura, 2023). In addition, the monthly small peer mentoring community meetings are held during class time to reduce the time constraints on already busy students and allow for fellowship over food. Finally, we offer monthly whole cohort Cafecito dinners (explained in more detail below), bringing all the participants together to network, connect, and find areas of collaboration through non-academic socializing and professional development.

Core Activities

As an academic program, Grad CAFE is centered around the student success seminar for peer mentors. Peer mentors participate in a one-unit, one-hour-a-week student success seminar co-facilitated by the community leaders. This seminar covers topics such as graduate school expectations, illuminating the hidden curriculum, essential milestones along the graduate school journey, university resources (writing, research, grants, mental health, etc.), career exploration, metacognition, and other evidence-based best practices in learning, strategic planning, networking, creating a mentor universe, public speaking, and making the most out of conference attendance as well as topics selected by each class. This approach of using seminars to train students in research methods is a best practice resulting in better engagement and higher self-efficacy (Chestnut et al., 2015; Royalty et al., 1986).

Course design for the classes is a “flipped” format, with students having readings/videos to complete prior to class and class time consisting of interactive activities that allow them to engage with the topic (Gay, 2018). Students work collaboratively during the first week of the semester, creating community agreements and expectations. In the following weeks, the student success seminar focuses on exploring values and engaging in interactive activities designed to allow participants to get to know each other more personally. Around week 5, participants are placed into smaller interdisciplinary peer mentoring communities consisting of one community leader or senior community leader and four peer mentors. These peer mentoring communities meet monthly, beginning in September, during the student success seminar time providing a safe, student-only space to discuss, reflect on, and process the topics covered in the seminar well as any additional topics students wish to discuss.

In addition, the community leaders meet weekly to discuss any issues that have arisen in class and to plan for the co-facilitation of the student success class and their individual facilitation of the monthly peer mentoring community meetings. In this meeting, they help the co-directors decide on the upcoming curriculum and Cafecito professional development opportunities. This is also the time the community leaders do a dry run of the programming they have planned for that week’s student success seminar and receive feedback and constructive criticism from their peers.

Finally, the Cafecitos are the heart of the Grad CAFE program because trust and relationships are built around the kitchen table in many communities, particularly communities of color. All students participate in a monthly Cafecito dinner on campus (4 per semester). These Cafecitos provide the opportunity for students to socialize non-academically, connect with peers from other sections, and network over food in an open, inclusive, comfortable environment. In addition to providing a welcoming atmosphere to build social and scholarly connections, having a hearty meal is beneficial in and of itself. Providing a monthly dinner addresses the food insecurity and time constraints discussed above while helping to create a warm, welcoming atmosphere where students can be their authentic and whole selves. Additionally, these dinners, sourced from local restaurants in Tucson, which the United Nations Educational, Scientific and Cultural Organization (UNESCO) has recognized as a City of Gastronomy, help students acclimate to the area by experiencing the food that shape the region’s unique culinary landscape.

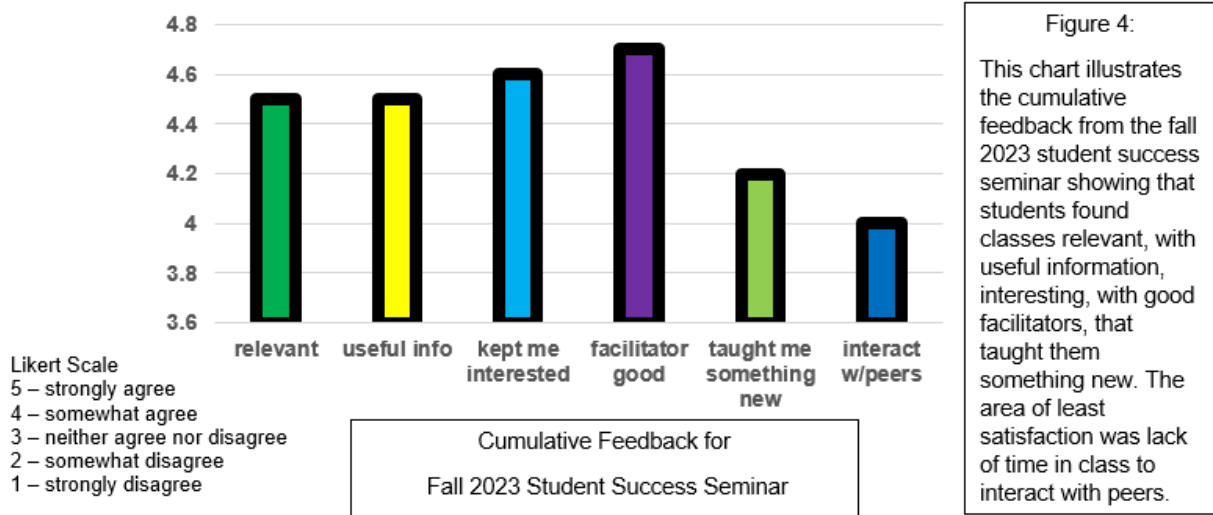
Community spaces dedicated to celebrating the knowledge, intellect, and perspectives of underrepresented graduate students provide space for students to connect with one another in

an otherwise fractured environment in which students are isolated in a predominantly well-represented graduate student body (Morales, 2021; Williams et al., 2022). These spaces unite and empower students across marginalized identities who are potentially tokenized as one of a small percentage of those from their identity group(s) seeing PhDs in their academic units or disciplines (Lozano et al., 2018; NASEM, 2019). After dinner, some Cafecitos will offer professional development and networking opportunities with guest speakers representing industry leaders and alumni, faculty, and staff with various areas of expertise such as grant writing, publishing, or public speaking. In other months, Cafecitos are dedicated to purely social interactions such as game-playing and other team-building activities, fulfilling the need for non-academic socializing identified in the needs assessment.

Fall 2023 In-Person Pilot

The first cohort was piloted in Fall 2023 with three sections, one taught by Dr. Atkins, one taught by Dr. Marrone, and one co-taught by both. Students participated in weekly classes, after the first month they were sorted into peer mentoring communities that met monthly. They chose creative names for their communities including Outreach Kermits, Smighty, Sonoran Dawgs, Eclectics, and the Peas & Thank Yous. All sections came together for monthly Cafecitos throughout the semester. Students were asked to complete short feedback surveys after each class, each peer mentoring community meeting, and each Cafecito.

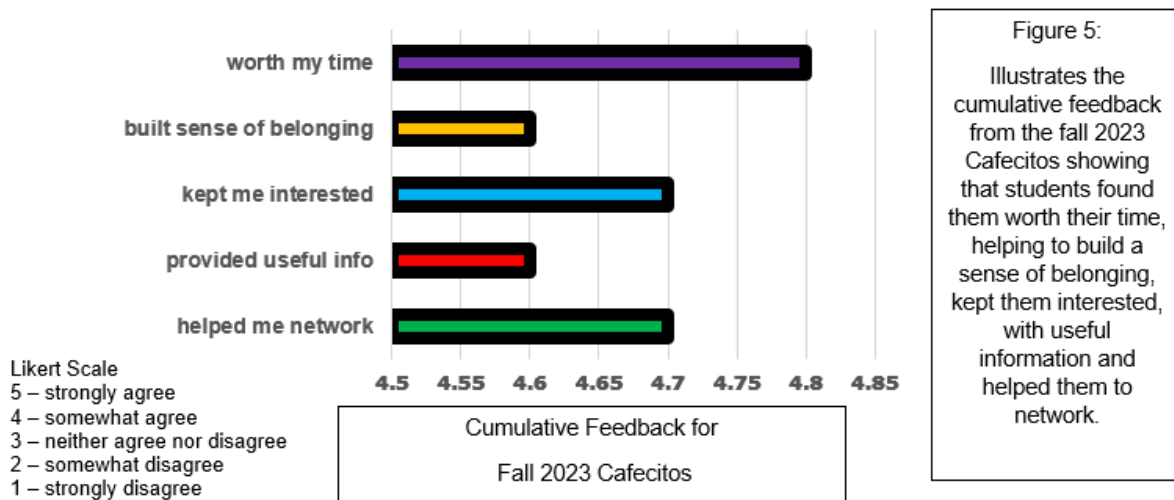
Figure 4: Cumulative Feedback for the Fall 2023 Student Success Seminar



Survey questions were on a Likert Scale from 1 being strongly disagree to 5 being strongly agree. As you can see from Figure 4 (above) students were satisfied overall with the weekly classes. The lowest score we received from the cumulative feedback was a 4 out of 5 on providing interaction with peers. Students found the classes relevant, with useful information, that was interesting with good facilitators. The two areas of lowest satisfaction were 1) teaching them something new (this was most likely because community leaders were taking the same class as the peer mentors, and it was designed for first- and second-year students) and 2) providing more time for peer-to-peer interactions during the classes. Students shared that they felt the guest speakers spent too much time “talking at them” and that they did not have enough time to discuss the topics with their peers and work together on projects.

For the Cafecitos, our cumulative feedback was even better with our lowest cumulative score a 4.6 (see Figure 5 below). Students felt the Cafecitos were worth their time, helped to build

Figure 5: Cumulative Feedback for Fall 2023 Cafecitos



their sense of belonging, kept them interested, provided useful information, and helped them network. Anecdotally, the co-directors were able to viscerally feel the increased sense of community in the first class after the first Cafecito and it got better with time. The students created a group chat and were interacting outside of the program activities. Even one of the graduate assistants stated that they have been in their program for five years and Grad CAFE is the first time that they have felt like they found their “people” since coming to campus.

Lessons Learned

Overall, we successfully created a community and a sense of belonging for participants. As Co-Directors, we felt a palpable difference in the classroom after the first Cafecito. There was a sense of community and connectedness that was absent prior to the Cafecito. Students created group chats independently and interacted outside of program activities. The Cafecitos were a success, providing food, fun, professional development, non-academic socializing, and a time for the community leaders to check in with their peer mentor community outside of the class context.

Regarding the class, we found that community leaders were somewhat less engaged in the assignment portion of the curriculum because they felt sections of the content were repetitious for them. Some peer mentors felt that some guest speakers “talked at them,” and there was not enough time for interaction with their peers. We addressed this in the second semester by having the community leaders help plan and facilitate the seminar classes in spring, with each community leader expected to facilitate or co-facilitate at least one session. Also, guest

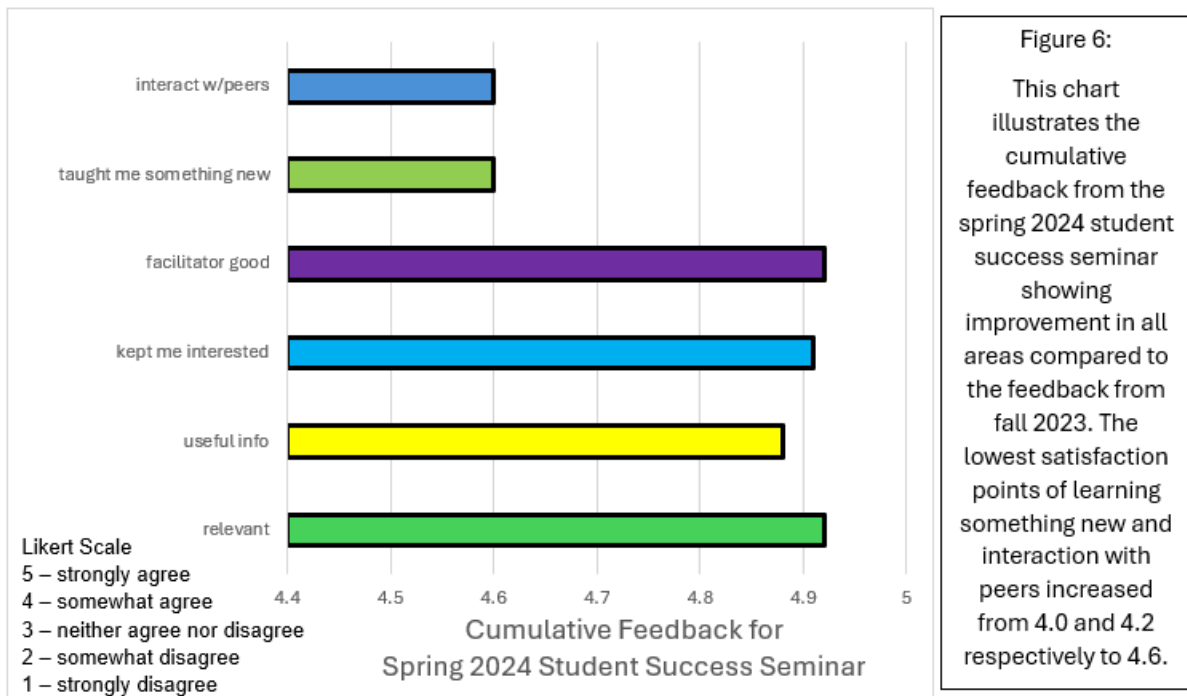
speakers are now limited to 30 minutes, allowing the facilitating community leader to lead the class in interactive activities for the other 30 minutes. This adjustment has had the desired effect, with peer mentors finding the sessions more interactive and engaging, and the community leaders investing more in the classes and gaining meaningful curriculum, planning, and facilitation skills. In the Track 2 IGE program, we will add a separate professional development class for community leaders that focuses on the skills they need as they transition to a STEM career.

The other issue in the pilot was retaining peer mentors across the semester transition between fall and spring. After talking to the students, we discovered that this was not because the students did not find the program worthwhile but instead due to competing time commitments with the change in class schedules, meeting times, and work demands. Additionally, it was difficult to keep the small peer mentoring communities together due to scheduling conflicts. Finally, unlike community leaders who receive stipends each semester, peer mentors had no monetary support for their participation. We took a two-fold approach to solving this issue. After reviewing the curriculum and outcomes, in the future we plan to reduce the peer mentor responsibility to a single semester. We believe that we can successfully distill down the professional development to a 16-week class. Additionally, we are making participation in Grad CAFE a component of receiving Graduate Access Fellowship funding to increase the pool of participants. We also posit word-of-mouth and program marketing will increase referrals.

Spring 2024 – Virtual Pilot and Second Semester of In-Person Pilot

In Spring of 2024, we updated the in-person pilot by changing our approach from the co-directors teaching and facilitating with guest speakers to having the community leaders in charge of facilitating the student success seminar. This change was highly effective with peer mentors finding the classes more engaging and interactive and community leaders feeling more invested and engaged in the program. Our cumulative feedback for the spring classes improved across all aspects of the class as is illustrated in Figure 6 (below).

Figure 6: Cumulative Feedback for the Spring 2024 Student Success Seminar



Additionally, we piloted a virtual cohort for the spring semester.

The virtual pilot was open to doctoral students from any college. After marketing and recruiting, we ended up with a cohort of 13 students (10 peer mentors and 3 community leaders) in two sections that met weekly via Zoom. Due to the community leaders being new, the virtual sessions were planned and facilitated by Dr. Atkins along with guest speakers. They created three peer mentoring communities – Desert Warriors, Brainy Bunch, and Cat Nappers. To better approximate the in-person sessions, Dr. Atkins invited in-person community leaders to present in the virtual classes. We attempted to have virtual Cafecitos, but due to illness and travel we were only able to have one, however the virtual students were invited to, and many did attend, the in-person Cafecitos. While the virtual pilot was an overall success and students were happy with their experience, the co-directors realized that trying to have both a virtual and an in-person cohort was beyond their current bandwidth, therefore the virtual program will not be continued in the 2024-25 academic year.

Future Plans

At this time, we plan to offer Grad CAFE again in the 2024-25 academic year. This program has been an overwhelming success more than tripling the number of underrepresented graduate students receiving holistic support from the Graduate College. At least one student

was considering leaving graduate school but decided to stay due to mentoring and support from the program. One of the virtual Grad CAFE community leaders stated that this has been her best semester in graduate school thus far due to the program. The community and holistic support provided have been vital to helping improve participants' sense of belonging at UArizona.

Due to the current financial crisis at UArizona, we have not secured funding, as of May 2024, for the next academic year. We submitted an NSF Innovations in Graduate Education Track 2 proposal to fund and grow the program with 1 million dollars over the next five years, however, decisions for that grant funding will not be made until October 2024, after the academic year has begun. It is our hope that we might be able to either internally fund the program again (\$22,000) with funds from TRIF, HSI, and colleges such as the Graduate College, College of Education, and SBS, or find a donor through the foundation who might be willing to fund the program in full.