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Developing an Equity-Focused Undergraduate Research Fellowship Program for Community College Social Science Students

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California community colleges serve a diverse student population, including many first-generation students and students of color. As equity-minded leaders, we must reimagine community college structures that create opportunities for students to transfer, earn baccalaureate degrees, and prepare for graduate school. One such opportunity is access to undergraduate research, which scholars have found fosters confidence, communication skills, and positive interactions with faculty and helps students develop clearly defined career goals. In this practice brief, we describe the establishment of the SEMILLAS Research Fellowship Program, an undergraduate research fellowship for first-generation community college students. We describe the intentionality of the program design, including student recruitment, seminar material and readings, guest speakers, mentorship, research project, timing, and incentives. We close with recommendations for educators looking to create similar environments or programs that foster learning, community, and a sense of belonging for first-generation community college students.

Keywords: community colleges; undergraduate research; equity; first-generation

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Introduction

For decades, California Community Colleges (CCC) have served a diverse student population. Of the more than 1.8 million students enrolled within the system, 35% are first-generation and 72% identify as racially minoritized students (California Community Colleges Chancellor's Office [CCCCO], n.d., 2023a). More specifically, 46% are Hispanic, followed by 11% Asian, 6% African American, 4% Multiethnic, 3% Filipino, fewer than 1% American Indian and Alaskan Native, and fewer than 1% Pacific Islander (Ortiz Oakley, 2022). Despite these data, the COVID-19 pandemic magnified challenges with enrollment, retention, and transfer among Asian, Black, and Latino students (Perez et al., 2022). Regarding the latter, for every 100 degree-seeking community college (CC) students, it is estimated that 31 will transfer to a four-year institution, with only 14 expected to earn a bachelor's degree (Community College Research Center, 2021).

As campus leaders seek to advance the CCC Chancellor's new goals for the Vision 2030 (Equity in Access, Equity in Support, and Equity in Success [CCCCO, 2023b]), we must reimagine CC structures that create opportunities for students to transfer, earn baccalaureate degrees, and prepare for graduate school. One such opportunity is access to undergraduate research (UR), which scholars have found fosters confidence, communication skills, and positive interactions with faculty and helps students develop clearly defined career goals (Crisp, 2010; Crisp et al., 2020; Luedke et al., 2019, 2023). Furthermore, students of color who participate in UR are significantly more likely to attend graduate school, as well as engage in additional research opportunities, than those who do not (Hathaway et al., 2002). These outcomes underscore the importance of developing pathways that prepare students to not only transfer but also engage in research activities at their transfer institutions. This practice brief describes the establishment of a UR program designed to expose CC students to social science research, methods of inquiry, and mentorship.

SEMILLAS Research Fellowship Program

The conceptualization of the SEMILLAS Research Fellowship Program began in 2014 when a similar program was designed for first-generation transfer students at San Diego State University (SDSU). While the existing program supported the development of scholarly identities and preparation for graduate school among transfer students, there remained the critical need to provide similar exposure to students before transferring. In the fall of 2019, our team began researching existing models for UR programs, specifically those with an emphasis on CC students. Our search revealed various programs across the country, each with its unique paradigms, modalities, functions, target populations, time frames, and outcomes. One common thread was an emphasis on STEM education, targeting students

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who were majoring in STEM disciplines and providing research opportunities with STEM faculty or in labs. In addition to identifying existing models, we conducted a literature review to ground our understanding of promising practices and outcomes regarding UR.

This review revealed that (a) UR promotes a variety of benefits for participants (Finley & McNair, 2013; Kuh, 2008), (b) first-generation and racially minoritized CC students are less likely to participate in UR (Kuh et al., 2017), and (c) there remains a gap in practice and literature of UR opportunities for CC students not majoring in STEM disciplines. Thus, we intentionally designed a UR program for first-generation and racially minoritized CC students pursuing social science majors. Woven throughout the fellowship, from recruitment materials to the final project, were efforts to create a curriculum and pedagogy that was reflective of student's experiences and that supported their development through an asset-based perspective (Crisp et al., 2020). In spring 2023, the SEMILLAS Research Fellowship Program received the Outstanding New Program award by the Latinx/o/a Knowledge Community of the National Association of Student Personnel Administrators. The following sections provide a broad overview of the program's components and implementation. We conclude with recommendations for implementation and practice.

Program Design

Recruitment of Students

In alignment with the program's asset-based framework, we recruited CC students who (a) self-identified as first-generation, self-identified as racially minoritized, and/or were historically marginalized in higher education; (b) had an interest in the social and behavioral sciences; and (c) desired to transfer to a bachelor-degree-granting institution. Recruitment efforts included sending emails and flyers to colleagues within the Region 10 (San Diego/Imperial Counties) of the CCCCO, particularly those who had direct-facing roles with students (e.g., counseling faculty, instructional faculty, culturally relevant cohort-based program coordinators). The call was also shared on personal and professional social media sites, such as Twitter, Instagram, and LinkedIn.

Time Commitment

The fellowship was intentionally designed as a summer program with the anticipation that students would be enrolled in fewer classes and have more flexibility in their schedules to participate. In its first year, the program was facilitated via Zoom for six weeks, and it was extended to 10 weeks in the following years, after students expressed wanting more time to engage with the material and one another. Fellows (program participants) were asked to commit a minimum of six hours a week,

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which included participation in virtual seminars twice a week (three hours), meetings with their mentor/femtor (one hour), independent reading assignments (one hour), and making progress on their research project proposal (one hour).

In addition to the weekly meetings, we hosted a half-day in-person orientation at the Faculty Staff Club at SDSU, which occurred before the program began. Given the social disruption caused by the global pandemic, we felt that it was important for students to meet face-to-face to help foster relationships, ease potential anxiety, and share a meal with one another. We also intentionally choose the location to help students develop a physical connection with the campus and visualize themselves at a university.

Funding and Incentive

A variety of funding sources allowed us to provide a $500 incentive to each of the fellows at the conclusion of the fellowship. This included institutional and professional organizational grants as well as philanthropic support from nonprofit entities. Such funding also supported honorariums for guest speakers and mentors/femtors, research project materials (e.g., poster printing, name tags), fees for the use of campus space, and food/beverages.

Mentors/Femtors

A key component of the program's success was the support from mentors and femtors. Guided by Chicana Feminist Epistemology (Delgado Bernal, 1998; 2002), we intentionally used the term *femtor* to challenge patriarchal language that decenters women in the exchange of knowledge, wisdom, and support of students. The mentors and femtors were masters and doctoral students from various institutions who shared a wealth of personal, professional, and educational knowledge. Taking into account salient identities, research interests, and lived experiences, each fellow was paired with a mentor/femtor who served as a source of guidance and provided technical support for the culminating research project proposal. Mentors/femtors were invited to attend the weekly seminars and met with their paired fellow throughout the program. Mentor/femtorship was essential for building community, providing support, and validating students.

Seminar Curriculum

The seminar curriculum was designed to prepare fellows to be critical consumers of research and introduce them to higher education scholarship. Each week, we facilitated lecture-style seminars, covering a range of topics, such as literature reviews, positionality, theoretical frameworks, research design, and methods of inquiry. We explored these concepts more thoroughly by assigning foundational literature on first-generation and racially minoritized CC students, as well as critical theoretical frameworks used in higher education (e.g., Critical Race Theory [Ladson-Billings, 1998], Community Cultural Wealth [Yosso, 2005], Validation

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[Rendón, 1994], Racial Battle Fatigue [Smith et al., 2007]). Examples of the assigned readings include:

- Abeyta, M. (2020). Formerly incarcerated Latino men navigating California community colleges. *Journal of Applied Research in Community Colleges, 27*(2), 51–62.
- González, A. D. J., & Cataño, Y. (2020). Queering community college HSIs: An environmental scan of current programs and services for Latinx students. *Journal of Applied Research in the Community College, 27*(1), 81–95.
- Nachman, B. R., Miller, R. A., & Peña, E. V., (2020). "Whose liability is it anyway?": Cultivating an inclusive college climate for autistic LGBTQ students. *Journal of Cases in Educational Leadership, 23*(2), 98–111.
- Xiong, S. (2021). Beyond providing access to services for Southeast Asian American community college students: The critical role of providing access to caring and validating agents. *Journal of Applied Research in the Community College*, *28*(1), 83–98.

We chose these readings, among others, as they elevated diverse experiences and populations that are often underrepresented in higher education literature. During each session, fellows reflected on the readings, sharing points of interest, agreement and disagreement, and connections to their personal experiences and salient identities. These discussions nurtured deeper bonds among fellows and mentors/femtors. The readings also served as tools to demonstrate how scholars approached their research, including positionality, theory, methodologies, and implications for future research, which offered ideas to the fellows on how to design their proposals.

Guest Speakers

The selection of assigned readings was aligned with the intentional invitation of guest speakers. Just as we sought to expose fellows to critical readings, we worked to give them the opportunity to personally connect with the authors of their assigned readings. Guest speakers represented diverse racial/ethnic backgrounds and other salient identities (e.g., being Queer, first-generation, former CC students, mothers) that reflected those of the fellows. This model intended to demystify research by prompting fellows to see themselves represented in both written scholarship and the authors. Each guest speaker began their presentation with an authentic reflection of their positionalities, which grounded their research agendas.

The Digital Testimonio

Similarly, Fellows were invited to reflect on how their own lived experiences shaped their view of their respective research topics. To do so, they narrated short (5–7 minute) digital *testimonios* that spoke of their salient identities, academic journey, and long-term aspirations. As a methodology, the testimonio allows the narrator to illustrate an experience that is not only liberating in the

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process of telling but also affirming and empowering in its production of awareness to others (Blackmer Reyes & Curry Rodríguez, 2012). This assignment served as a starting point for students to reflect on their experiences, and eventually informed their positionality statements for their research proposal.

The Culminating Project

The fellowship's culminating project allowed students the opportunity to develop a research proposal that addressed an equity issue of their choice. The proposals included research components that were taught during the program: an introduction, a purpose statement, research questions, a review of extant literature, a positionality statement, guiding theoretical framework(s), a brief description of their intended research design and methodology, limitations, and implications for future research, policy, and practice. The development of their proposal was supported by content from each week's seminar topic, guest lectures, one-on-one meetings with mentors/femtors, and interactions with one another. The proposals allowed students to reflect on how their lived experiences informed their research interests, as well as apply their working knowledge of social science research to topics that were best aligned with their academic and professional goals.

Fellows prepared a poster presentation that was delivered at the SEMILLAS Research Symposium, which was hosted in person at SDSU and was open to the campus community. We also invited colleagues from the local CC region who helped with recruitment, as many of them knew the fellows. Many fellows also invited their friends and family members to attend.

Recommendations

With the opportunity to engage in this work for the past three years, there are various aspects that we have come to realize are necessary for this program to be successful and for students to have a fulfilling experience.

Relationships Matter: Leveraging Networks with Campus Communities

This program would not exist without the support of the colleagues who helped with outreach and recruitment of potential participants. Throughout our varied careers and experiences, we have had the great privilege of meeting and learning from practitioners and scholars. Whether they began as students in SDSU's EdD in Community College Leadership program or its MA in Postsecondary Educational Leadership and Student Affairs program, our partners have landed positions at colleges and universities across the state and nation. This network has been instrumental in our recruitment process. Rather than solely sharing our recruitment flyers on social media, we have sought support from individuals who we know are intentional in the relationships they develop with students at their CC.

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We rely on their knowledge, expertise, and personal connections to encourage students to apply for the fellowship.

Critical Dialogue and Intentional Spaces: Centering Historically Marginalized Students

Of utmost importance in this work is the prioritization and intention of selecting students who have been historically excluded from higher education spaces, research opportunities, and the transfer process. Scholars have long documented the transfer inequities for first-generation students and students of color, asserting that the vertical transfer process continues to perpetuate a racial transfer gap (Crisp & Nuñez, 2014; Jain et al., 2020; Wood et al., 2012). This is especially concerning for CCC, which are more likely to serve these student populations. The fellowship created an unapologetic space for historically marginalized students to engage openly and authentically with one another. This meant having skilled and knowledgeable facilitators to guide critical discussions on race, gender, sexual orientation, privilege, immigration, neurodiversity, physical ability, anti-Blackness, citizenship status, homelessness, physical and psychological trauma, family dynamics, and much more. Given the often difficult conversations that arise, it is also important to have campus-specific resources and contact information to share with students. These discussions were also coupled with information-sharing about financial aid, community resources, academic planning, and navigating college spaces. Overall, the fellowship fostered students' social, navigational, and resistant capital (Yosso, 2005).

Be Intentional but Flexible: Adapting Your Design to Meet Students' Needs

From its inception, we have striven to design a program that would be fruitful for all involved. This has meant being flexible and willing to adjust aspects of the program to ensure positive outcomes for students. Some of these changes occurred after the program and some in real time. For instance, in the first couple of weeks of our first year, we realized that having students meet once a week for an hour did not provide enough time to discuss the planned materials and engage in meaningful discussions about the readings, and it also limited guest speakers to 30 minutes (which often went over). After gauging students' availability and interests, we moved to two-hour weekly meetings instead. Today, the workshops are scheduled twice a week, for an hour and a half each meeting, which has afforded even greater opportunities for engagement. We also extended the duration of the program, which evolved from a six-week program to a 10-week program based on similar feedback. Additionally, we have added in more intentional in-person events throughout the summer to address the challenges of building relationships and community online. We now have three in-person events, including orientation, a midpoint barbecue, and a research symposium for fellows to present their

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final projects. All of these changes were in response to students' feedback on the program.

Benefits of Professional Associations: Intentional Selection of Guest Speakers

As previously discussed, we aimed to invite speakers who were representative of various social identities, as well as racial/ethnic backgrounds. Yet, what was distinct about our speakers was that they were scholars who had identities similar to the fellows and whose research centered on CC students. Once again, our professional network played an important role in identifying and inviting colleagues to speak with students. While CC scholars can be found presenting at various professional associations, there is one annual gathering that is prominent among this group: the Council for the Study of Community Colleges. An affiliate of the American Association of Community Colleges, the Council for the Study of Community Colleges is home to over 300 university-based researchers and CC practitioners who further scholarship on CCs. Being part of this collective network has fostered opportunities for collaboration on research grants, writing projects, and most importantly relationships with colleagues who share the same commitment to equity and student success.

Fostering Generational Mentorship: The Role of Graduate Students as Mentors/Femtors

Another critical component of this program is the selection and matching of mentors and femtors with fellows. Like the selection of guest speakers and reading assignments, we did not assign mentors/femtors until after fellows were accepted. During orientation, we asked fellows to share their research interests and what qualities they valued in a mentor/femtor. Coupled with their salient identities and lived experiences, we used their responses to create a list of colleagues in our network who had similar backgrounds as them. Given that the culminating project required expertise in research methodology, theoretical frameworks, and literature review, we garnered support from faculty and graduate students in various master's and doctoral programs with an emphasis on higher education. What is special about this design is the multifaceted and generational mentoring/femtoring that unfolded. It was not only the fellows who benefited from the mentoring/femtoring experience; the graduate students did as well, learning from one another and from the faculty scholars who served as guest speakers. Given the intimate nature of this work, we prioritized colleagues who were willing and able to devote the bulk of their summer to supporting one or two students in the development of their research proposal. We also incentivized individuals with an honorarium for their time and expertise.

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Partnerships with University Faculty: Opportunities for Funding

This program was fully supported by non-CC funding sources. Our team leveraged our affiliation with professional organizations to apply for external grants that focused on CC research and practice. In addition, we applied for internal institutional grants at SDSU that sought to support university faculty with research-related projects. Within every grant application, we emphasized the need to expand opportunities for historically marginalized students to not only transfer and earn a baccalaureate degree but also be prepared to pursue graduate and professional degrees. CC leaders interested in replicating this model should consider partnerships with university faculty who have access to different funding sources. Similarly, university faculty should expand their networks to local CCs that may have access to funding resources to support this work.

Conclusion

The Spanish word *semillas* translates to *seeds*, which reflects the essence of this program and our research team. The SEMILLAS Research Fellowship Program provided an opportunity to not only plant seeds of knowledge among CC students but also foster an environment that allowed students to bloom personally and academically. Through its intentional design, the fellowship aimed to expose CC students pursuing social science majors to UR. This program provided students the opportunity to learn about and apply knowledge of foundational research skills, such as reviewing and summarizing key literature, communicating the importance of a given topic, and designing a methodological approach. In alignment with literature on the benefits of UR (Hathaway et al., 2002), we hoped students would recognize their ability to engage in the research process and pursue research opportunities when they transferred to baccalaureate-degree-granting institutions.

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