

## RESEARCH ARTICLE

**Driver's seat: A qualitative study of transformational student partnerships in SoTL**

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## ABSTRACT

This qualitative study is based on a series of interviews conducted with students (n=6) who participated in the inaugural cohort of a year-long students-as-partners program called CTL Scholars. As one of the first students-as-partners programs implemented at this large, dispersed, public research institution, students of diverse majors and research perceptions identified three common themes from their participation: motivation, agency, and partnerships. Our findings suggest that students-as-partners programs such as CTL Scholars can establish students as agents of their own learning, promote equitable relationships between students and faculty members, and potentially contribute to both teaching transformation and research productivity.

## KEYWORDS

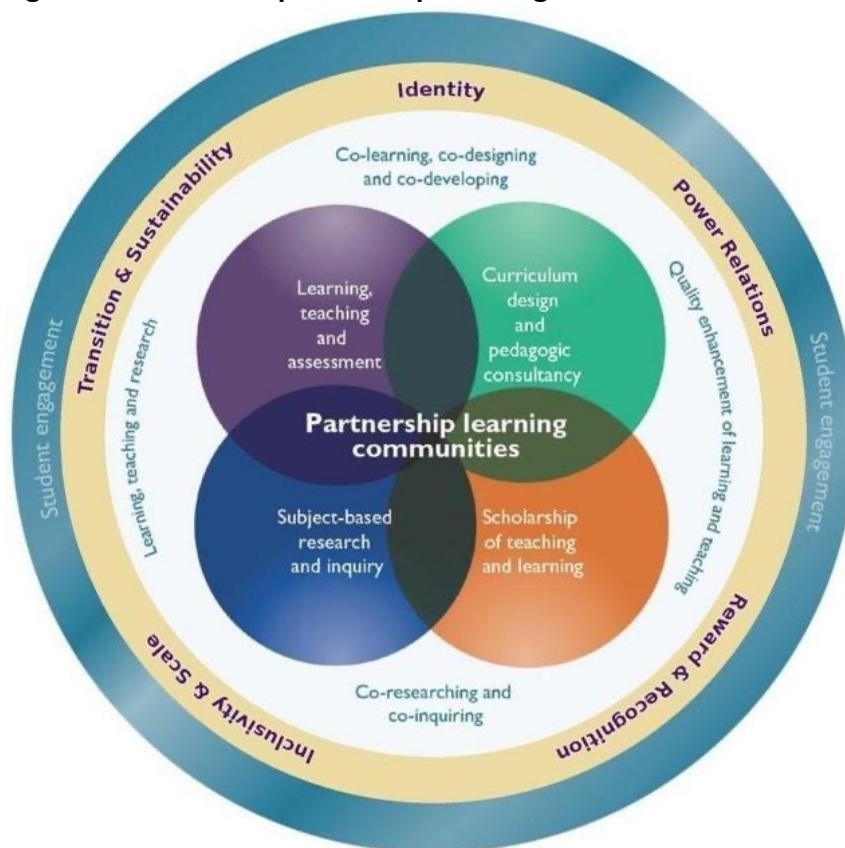
students as partners, undergraduate research, pedagogical consultancy

It is commonly believed that the current generation of college students are less interested in driving their own cars than their predecessors. The standard story is that technology has made it possible to travel less and utilize multi-modal forms of transportation, especially in desirable (but expensive) urban areas. As it turns out, however, these assumptions do not hold up under statistical scrutiny (Chen & Wang, 2020; McDonald, 2015). Several recent empirical studies have indicated that college students, perhaps now more than ever, desire to sit in the driver's seat and experience the exhilarating sense of independence and liberation that have historically been associated with being behind the wheel of your own car. This present study utilizes the desire to sit in the driver's seat as an analogy for the engagement of student partners in the scholarship of teaching and learning (SoTL) through a distinctive programming model known as CTL Scholars.

## LITERATURE REVIEW

The CTL Scholars program is part of the emerging students-as-partners movement in higher education, which rests on the principle that students can, and perhaps should, be co-creators of their own, and perhaps others', teaching and learning experiences (Cook-Sather et al., 2018; Matthews, 2017; Matthews et al., 2018; McKinney, 2012). In 2016, Mick Healey and his colleagues posited an influential conceptual framework for students-as-partners programs that encompassed four spheres of activity: learning, teaching, and assessment; curriculum design and pedagogic consultancy; subject-based research and inquiry; and SoTL (see Figure 1, below) (Bovill, 2017; Healey et al., 2015). While the same model indicates shared actions across these spheres (e.g., co-researching and co-inquiring encompasses both subject-based research and SoTL spheres), the activities in the respective spheres are not often linked in practice. Indeed, the research literature on students as partners has focused heavily on the activities at the top of the circle, whether those take place within a classroom (i.e., learning) or as part of an external program (i.e., consultancy). The CTL Scholars program did not take on this more conventional form; rather, the principles were adapted to suit the distinctive culture of Penn State, a large, public research-intensive university located in the mid-Atlantic region of the United States.

**Figure 1: A model of partnership learning communities**



Source: Healey et al. (2016). Used with permission.

Institutional culture has been identified as a significant variable in students-as-partners programs. In the United States, for example, the movement first took hold largely at private liberal arts universities, such as Bryn Mawr and Elon. This may not be surprising, as these institutions are, to some extent, defined as having small student-to-faculty ratios and close relationships between faculty and students. It has proven more challenging to consider how such programs can be scaled to integrate into public institutions that are both larger and more academically heterogeneous (e.g., that have more majors) and which exhibit different patterns of faculty-student interactions. Kim and Sax (2009), for example, analyzed a large data set ( $n=58,281$ ) across multiple institutions in the State of California. Their findings suggested that students at research universities engage less frequently with their professors in class, but more often through research.

The challenge of scale is compounded by the drive for equity that is characteristic of all contemporary universities, but perhaps especially institutions with civic service missions, such as land grant universities (of which Penn State is one) (Acai et al., 2019; Bindra et al., 2018). At a large institution, it may not be logistically possible for every student to form meaningful bonds with individual faculty, so the question becomes how students-as-partners programs can be developed that balance the intensity of students-as-partner work with the need to provide equitable access to all students. That access is further complicated by the divergent value and meaning placed on teaching and research across disciplines, a divergence that has been noted both in the context of fostering interdisciplinary research (Lewis et al., 2012) and transdisciplinary scholarship of teaching and learning (Miller-Young et al., 2018).

In embracing this divergence, students-as-partners programs share similar challenges with the broader movement to expand undergraduate research, represented in the lower left side of the partnership model (see Figure 1, above). As a high-impact practice (HIP), engagement in undergraduate research demonstrably increases the chances of long-term academic success for students, especially for those from previously under-served populations (Bangerra & Brownell, 2014; Bauman et al., 2005). This increased success is partly due to the level of intellectual engagement, but that engagement is facilitated primarily through meaningful relationships with individual faculty mentors (DeAngelo et al., 2016; Haeger & Fresquez, 2016; Hu et al., 2008; Lopatto, 2010; Vandermaas-Peeler et al., 2018;), which are, again, difficult to achieve at scale. Malachowski et al. (2015), for example, report on the outcomes of a series of nationally sponsored workshops specifically targeted toward identifying and ameliorating the challenges of scaling undergraduate research at larger institutions or across university systems. Indeed, because Penn State is both large and geographically dispersed, it can function simultaneously as a single institution and as a system, depending on context.

This desire to extend the benefits of HIPs broadly butts up against historical models of undergraduate research, which tended to be exclusive, reserved only for students deemed as highly competent and destined for post-graduate work. Evidence-based strategies for more equitable engagement in undergraduate research continue to emerge (for examples of these strategies, see Malotky et al., 2020; Peifer, 2019; Perella et al., 2020; Pierszalowski et al., 2020, Vandermaas-Peeler et al., 2018), but one model that has shown promise is the engagement of students in undergraduate research related to teaching and learning. After all, it is argued, students are actively engaged in their own learning, a positionality that can serve to reduce

barriers to entry while simultaneously increasing student voice in SoTL research (Felten et al., 2013).

That still leaves the open question of how to involve students in research on teaching, especially at scale. A handful of larger universities have experimented with a consultancy model, in which a select group of students is provided shared training in pedagogy (often through a center for teaching and learning or similar unit) so that they can provide feedback on teaching and/or gather evidence of learning for instructors who request this as a service. In a sense, these student consultants serve essentially as junior educational developers, albeit with a distinctive insight into their own learning. Examples of this model include Brigham Young's Student Consulting on Teaching (SCOT) program (Sorensen, 2001) and the University of Colorado at Boulder's ASSETT (Arts & Science Support of Education through Technology) program. The advantage of the consultancy models is that they provide equitable access, both for potential student partners and faculty interested in gathering evidence on their teaching, in a sustainable program. The downside of such models is that the partnerships forged between student and instructor are often short-lived, as the student consultants work with multiple faculty partners over the course of a given semester, and the link between pedagogical consultancy and scholarship becomes attenuated.

This is a potentially serious drawback. Much of the literature on students as partners has focused on explicating what is meant by the term partner/partnership (Mercer-Mapstone et al., 2017), with the consensus falling on intensive, long-term relationships that need to go through several stages before reaching the highest levels of trust and reciprocity, if indeed they ever reach them (Flint & Millard, 2018). These relationships require significant commitments of time on the part of both the faculty member and the student, which can be, yet again, difficult to scale. Unlike disciplinary-based research, however, engagement in the scholarship of teaching and learning can be part of already existing classroom practice, and for the growing number of non-tenure track, full-time teaching faculty at research universities such as Penn State, this form of scholarship is increasingly recognized and rewarded.

This qualitative study, itself the product of a faculty-student partnership, serves to assess the impact of a pilot students-as-partners initiative in this distinctive organizational context. The program, called CTL Scholars, is an adaptation of a similarly linked program pioneered at another large research university, McMaster University, in Canada (Marquis, 2017). For our program at Penn State, six students were partnered with six faculty volunteers across a range of disciplines. The pairs worked together in a year-long, three-stage process, starting with course redesign (summer semester), followed by the collection of evidence (fall semester), and concluding with the analysis and dissemination of the research (spring semester). Based on prior research on students-as-partners programs, the expected outcomes for the students in the program included a heightened sense of agency (as learners), a stronger sense of belonging (as students), and an expanded view of the role of research (as scholars). The project was also explicitly focused on deliverables in the form of publicly disseminated scholarship, whether as published articles, conference presentations, or both. The present study was conducted to assess the extent to which the CTL Scholars program lived up to its aspirations of providing an equitable and sustainable students-as-partners model.

## THE STUDY

This qualitative study is based on a series of interviews conducted with four of the six students who participated in the inaugural cohort of the CTL Scholars program. All six students consented to have their experiences included while four students were interviewed for greater depth.

### **The context**

The student participants in the CTL Scholars program were selected from two neighboring campuses that are part of a larger unified system of 24 campuses, all falling under the administrative umbrella of a single research-intensive university. It is not uncommon for students at the university to begin their studies at a smaller campus, which have lower faculty-student ratios (10:1, in the case of the two campuses included in this study), and then finish their degree at the main campus. The campuses offer multiple 2-year degree programs but only a limited number of 4-year degree programs (10 and 11, respectively), and these latter tend to be career-oriented, an example of which is the information systems technology program.

The two campuses have student populations of approximately 600 and 700 students respectively with an average class size of approximately 20 students. Of those students, many are nontraditional students such as returning students, veterans, and part-time students with established careers. A sizable percentage of students at both campuses are first-generation college students. Both campuses included in this study are part of a larger metropolitan area, with one located in the city directly and the other in a rural area on the outskirts. Nearly all students commute from surrounding areas, as residential options are non-existent or very limited.

Regardless of campus, Penn State is a research-intensive institution. Student research is valued and encouraged by supportive faculty members at the university's branch campuses, but conducting research at branch campuses comes with distinctive opportunities and challenges. The campuses often specialize in career-oriented programs, including associates' degree programs, which are less research driven. A sizable number of majors have only one or two professors who are regularly present on campus. Many students work and/or have family commitments outside of class. Branch campuses also have fewer affordances than the main campus when it comes to infrastructure. The differences between the campuses become apparent when students want to conduct research that requires, for example, an extensive lab setting, specialized equipment, or, in the case of SoTL, a substantial sample size.

### **The intervention**

The CTL Scholars program was initiated by a faculty member in the center for teaching and learning and funding was provided by the Office of Undergraduate Education, with the specific proviso that the program be piloted at one or more campus locations. The program was specifically charged with easing the barriers to research and providing equal opportunity for all students to engage in undergraduate research, regardless of locations across the geographically dispersed university. That mission is reflected in the program's name, which was chosen by student participants, and refers to the control key (CTL) on a keyboard, the purpose of which is to enable other keys to achieve new functions. To the best of our knowledge, the program is the first of its kind to be implemented in a setting such as these two campuses provided.

Both faculty and students were invited to apply to participate in the program, and students were paired with a faculty member by the program director. Each partner committed to common goals (i.e., transformed class and a publication) and the overall schedule provided by the program. The partners' objective was to redesign a course, preferably one in which the student had previously been enrolled, then conduct collaborative research on the outcomes of that course, the results of which would be published in a peer-reviewed academic journal. To meet these goals, the teams participated in two day-long workshops (for course and research design, respectively), as well as regular student-faculty team meetings (usually weekly), meetings with the project coach (usually monthly), and biweekly peer mentoring sessions.

The program offered flexible pathways through the design of both the course and the research projects. The partners were able to delegate tasks and choose the pathways that suited their circumstances. For example, several teams used observation protocols and reflective writing as evidence, while others used structured surveys and/or artifact analysis. These circumstances produced six distinct research studies that reflected the perspectives of each major/discipline and included the respective skills and interests of both partners. The teams met regularly with a research coach and the students engaged in weekly peer mentoring sessions throughout the duration of the program. Students were compensated with an hourly wage (\$12/hour), while participating faculty received a substantial grant (\$2,000) to support their redesign and research activities. Co-authorship credit was required for all participating partners; this latter condition was a negotiated process that was facilitated by the program's director/coach (Maurer, 2017).

### **Participants**

Faculty were recruited through a general email sent to all faculty on both designated campuses (approximately 85 recipients). Students were either recommended by faculty members or their campus administrators as potential candidates for the program. Prospective students were then invited to apply via an electronic form sent by the program coordinator. Students did not have to meet specific requirements to participate in the program, though in two cases, faculty chose to interview prospective candidates prior to selection.

As a result of the selection process, the student sample for this program was six third- or fourth-year students from different majors with minimal prior research experience. The university classified four of the participating students as non-traditional, defined both by age and/or circumstance. The disciplines represented included criminal justice, psychology, information systems technology, bio-medical engineering, engineering technology, and marketing.

### **Output**

In terms of productivity, the CTL Scholars program has proven to be highly successful (see Table 1 below). Over the span of approximately 18 months, the faculty-student pairs have given 15 conference presentations on their redesigned courses and published six SoTL papers (with three more in the pipeline). Three of the pairs have either published, or will shortly publish, their second collaboration together, well after the program itself has ended. One participating faculty member received a university-wide award for her engaged scholarship, in which the CTL project featured prominently.

**Table 1: CTL scholars' scholarly productivity**

	CONFERENCE PAPERS PRESENTED	PAPERS PUBLISHED	PAPERS SUBMITTED (NOT YET PUBLISHED)	AWARDS
CAMPUS A (URBAN)	5	2	2	1
CAMPUS B (RURAL)	10	4	1	
TOTAL	15	6	3	1

## METHOD

At the conclusion of the program, two of the student partners received institutional review board approval to conduct semi-structured interviews with the student partners. Because of global health concerns, the interviews were conducted via Zoom. Four of the program's six student participants, two from each campus, were available for interviews used in this study. The interviewees were asked to reflect upon their time in the program through questions regarding their motivation to join the program, their expectations, developed research skills, relationship with faculty partners, and future recommendations. Students were interviewed individually by another student partner from the program. The interviews were then machine-transcribed, after which the program director provided light clean up and removed any incidental identifiers from the text.

In keeping with best practices in qualitative research, the coding took place in three stages. The first round of coding was emergent, in which three coders independently identified primary themes within each student's story. Student co-researchers recused themselves from coding their own interviews. The first round of coding identified four main themes: motivation, access and inclusion, metacognition, and relationships. The second round of coding was conducted collaboratively, and the process served to extract finer details to support and further refine the main themes. Among other outcomes, the second round of coding exposed which challenges and barriers to research influenced students to join the program. It also highlighted which aspects of the program were successful in encouraging growth and skillful learning (and which were not). The third, and final, round was used to find connections and similarities across the respective stories. This round underscored the program's broader capacity to benefit various fields and student types. The collective findings from the coding process were compiled, categorized, and finalized by the two student co-researchers. The results are presented below.

## FINDINGS

Through the coding process, student interviews presented three main themes: motivation, agency, and partnerships.

### **Motivation**

Although Penn State is a research-intensive institution, the students entered the program with mixed perceptions of research and pedagogical partnership. As an information systems major, Student B joined the program with no research background or pertinent plans for the future:

If I did it and I'm in IT and I have no interests in research, why can't you do it? This is just practice for the real world. . . . you asked me many times, . . . do you think you'll ever become a researcher? I said absolutely not.

Student E highlighted intrinsic motivators with the following comments: "I was always fascinated by research and development" and "I wanted to do some sort of research eventually in my career."

Students D and F came from people-centered degree programs that heavily emphasized the importance of research. Student D stressed how research knowledge was beneficial to their rapidly changing field:

It was a topic that was going to help evolve my career field for future people. And our career field . . . is very hands-on and evolving as is. So, I thought it was important to help aid in the transition from college learning to the hands-on learning of the field.

Their motivation to participate in the program was also, at least in part, context driven. The dynamic of a small commuter campus limits the number of co- and extra-curricular activities in which students can participate. Student E stated: "Most people just go to the school, do the classes, and leave."

Student B shared a similar experience on campus: "I never got chosen for anything. Not that I was a student that didn't want to. There was never any clubs in college and since my campus was small, there wasn't really that many clubs that were interesting."

Furthermore, Student D's response reflects the relationship between the larger mission of Penn State and the campuses: "One of the things that Penn State stresses is the opportunity for research. . . . I just wasn't sure how to do it."

The students found a variety of ways to connect the CTL Scholars experience to their academic and career goals, the majority of which did not include conventional motivations, such as graduate school. Student D, for example, described the opportunity to participate in the program as a social motivator: "People that I graduated from high school with aren't doing undergraduate research. I kind of wanted [this opportunity] to put me a step ahead."

Student B, an information systems major, on the other hand, described a broad mastery orientation or generalized desire to learn:

Even if it was outside my scope of interests. . . . I was willing to give [CTL Scholars] a shot . . . because I think in college you do something, maybe different than what you think. So, I jumped on it and, and I'm happy I did because I think I learned something."



Student E, also an information systems major, emphasized performance orientation:

I know a big thing is when a lot of people come out of college and undergrad, they feel that they're not ready to take on the task or they feel they're lacking in certain skill sets. I figured if I just put myself out there in as many opportunities that pop up as possible that it will benefit me in the long-term.

It could be said that many of these students were eager to hop into the passenger seat of the car, even without knowing their final destination. These diverse motives are suggestive of future strategies for engaging a wider range of students in students-as-partners work.

### **Agency**

Over the course of the program, the students began to exercise increasing agency, even outside of their role as CTL Scholars. For many students, it had been common to be passive and avoid disrupting a lesson even if the topic is unclear. Student D, on the other hand, learned how to avoid that situation:

I'm also taking away the fact that you have to advocate for yourself in the way you learn. Our research project was, do the students know how they learn? I'm getting taught a lot of things in a short amount of time from day to day. So, me being able to say, can I see this in a drawing instead of you just explaining it or can you explain this in some different terms? So, it's definitely changing the way that I think of things, as well as the way that I approach things.

For many of the student partners, the CTL scholars program showed them that they could navigate unfamiliar contexts and ambiguous forms of evidence. This was especially the case for qualitative research, an approach used frequently because of the smaller class sizes offered at the campus. For example, Student B, who had a technology background, overcame learning curves when interpreting unfamiliar data:

Our degree's . . . a different type of data because your research is very curvy and like the English majors . . . liberal arts, very curvy [data]. There's no, mathematics and discrete, and IT, it's just binary. I had to go through this whole program and you guys, tell me . . . just fill it out. I can't just fill it out. There has to be an answer, tell me what to do, it's driving me crazy through the whole thing.

Similarly, Student E found that "you have to figure out different angles with like the data you collect [when receiving feedback from questionnaires]. . . The data still has value, but it just needs to be applied in a different way."

The skills gained in learning to work through ambiguity were extended to navigating complex relationships. For the most part, the students already knew their professors, a benefit of a small campus, but not as partners. Working alongside professors for the first time, the students all acknowledged working through periods of discomfort. Student E explained the difficult process of unlearning their role as a student in order to become an equal partner: "[In]

the beginning . . . I was uncomfortable asking the person you're working for, for help. . . . Am I going to ask the person who thought that I had enough of a skill set to do the job anyway?"

Student F, as a psychology major, found themselves "worried because [they've] never had any experience in engineering. A lot of new people, new words and terms, a lot of learning curves." They added: "Now that I'm involved in engineering technology, I don't see why [conducting research in other fields is] not a possibility."

Despite the challenges, these students learned how to persist throughout a long and demanding program. The following remarks, by Student D, are indicative of the feeling of pride the student partners felt when they described the feat of creating a high-quality published study in their undergraduate education:

I didn't even have [sic] graduated technically yet. I was 19 years old, could a person like me accomplish that feat in that short amount of time? . . . some people don't accomplish that in their four-year degrees. . . . I worked hard, my colleagues worked hard, the students that I researched worked hard to make it happen. . . . I never thought that I would be an almost published researcher . . . at this point in my educational career, career, and in life.

To extend our metaphor, the CTL scholars program could be seen as extending a learner's permit to the student partners, giving them the guidance and experience necessary to enable them to drive the car on their own.

### **Partnerships**

Through the CTL Scholars program, students saw the behind-the-scenes of their professors' work and sometimes personal lives for the first time in their academic careers. Student B, for example, gained an appreciation for their faculty partner's extensive preparation for class when they realized that "his passion drove his academic work."

As Student B and Faculty B's relationship evolved, Faculty B became open to modifying the class that they had taught consistently for several years. Student B expressed their concerns about the class being "boring" and "dry," to which Faculty B responded: "I remember sitting through some bad classes. Let's make this better. Let's make them pay attention. Now what can we do to engage?"

By reflecting on their time as a student and asking a current student for help, Faculty Partner B ensured that their class will not be one future learners will reflect upon negatively.

Student F was surprised that they had never met their faculty partner prior to the program because, as they explained, "we had no idea who each other were, and we were in the same building."

During the interview, Student F told of times that the partners disagreed and how they used their relationship to sort these differences:

I handed out the surveys in the class and we met out in the hallway while they were finishing their work. [Faculty Partner F] said, I think we should add another question, I kept saying no, we can't do that. We incorporated that idea somewhere else in the

study so that we didn't have to completely abandon it. . . . it was give-and-take. . . . everything that [Faculty Partner F] wanted to accomplish was in that paper somehow.

One of the participants noted that, despite having clashing personalities, e.g.:

When I first met [Faculty Partner D], I didn't know how to take her. I thought she was very awkward, and I was like, this is not going to go well. I'm a very outspoken person. I like to talk and she didn't strike me as that type of person. So, I was like this isn't going to go well.

Student D and their professor became one of the strongest partnerships in the program. Throughout the program, the partners relied on each other for support when faced with challenges. In one instance, Faculty Partner D struggled with a shortcoming involving another student, which Student D credits as the moment their relationship was solidified:

[Faculty Partner D] got flustered and upset and then I told her to take a break, to breathe, go back to her office. And then ten minutes later she came back, and we sat down and we had a quite extensive conversation and she was asking me what I would have done or what I would have wanted to see. And she was asking me for help. . . . then the next week, she implemented everything that I had talked about or mentioned. . . . from there not only were we talking about ways to fix the research class but we started figuring out how to make the classes that I was actually a student in better and how that could evolve for her as a professor as well.

In the end, the program showed the limitations of the driver's seat analogy, which suggests that only one person can drive the car, that is, have agency over the situation. The CTL scholars were neither strictly drivers nor passengers but rather fellow travelers in what turned out to be a remarkable journey. And that journey continues. Even after graduation, through the obstacles that arose from COVID-19, and without the accountability of the CTL Scholars program, the partners not only maintained but continued to thrive in their relationships. This could be due to the more personal connection that was created as opposed to the temporary and limiting relationship most students have with their professors. For example, one partner commented: "I think a very big moment for me was when [Faculty Partner D] not only was my professor, but she also was like a colleague."

Once the role barriers came down, remarkable events occurred. A faculty member invited their student partner to a lunch outing with colleagues, suggesting that the student was equal and belonged. Most of the students abandoned the habit of referring to their professor by their title and instead addressed them by first name. Students were welcomed into faculty offices, where the partners shared the space and collaborated.

These relationships extended beyond the student-faculty teams. Because faculty trusted their student partners to be the face and leader of the experiment portions of the study, the CTL student scholars could speak one-on-one with participants and share details about the program and research process. It is expected that the next rendition of the program will include more students in varied majors due to increased awareness and having the current cohort of

CTL scholars as role models. This kind of word-of-mouth, peer-to-peer dissemination is especially salient for small campuses, where most students know each other and their faculty in ways not always possible in larger campuses.

## DISCUSSION

Multiple scholars have attested to the need to find models of students-as-partners programs that are both adaptable and adaptive across a wider range of institutional contexts (Mercer-Mapstone et al., 2017). The present study seeks to contribute to that line of inquiry through the explication and qualitative evaluation of a students-as-partners program implemented on two smaller campuses that are part of a large, public research university system located in the northeastern part of the United States. In this model, student-faculty pairs worked together over the course of an academic year to re-design a course, collect evidence on the effectiveness of the redesign, then publish the results as a SoTL project. Our findings suggest that, for those professor-student pairs who persisted, the experience was transformative.

A key qualifier in the statement above is the emphasis on the pairs who persisted. Not all of the pairs succeeded in submitting work for publication. The program started with eight teams, one of which dropped out in the early stages because the course to be redesigned was canceled. In the other case, at the urban campus, efforts to identify an appropriate student partner were stymied by a much smaller student population overall and a larger percentage of non-traditional students whose personal and professional schedules were not compatible with course schedules. Of the six students who did participate in the program, four could be classified as non-traditional, including one participant who declined to be interviewed for this study because they had contracted COVID-19 (this person did recover). Our experiences suggest that existing students-as-partners models may need to be reconsidered if they are to include more heterogeneous student populations, including both non-traditional and first-generation students.

Indeed, several of the students who participated in the CTL Scholars program were also first-generation college students with little prior knowledge of or experience in research. Our findings suggest that it is unlikely any of these students would have sought out research experiences on their own, nor did any of them choose to participate in the program for conventional utilitarian reasons, that is, application to graduate school or direct career connections. Rather, their motivations varied based on their prior experiences, a factor highlighted by the adult learning literature, and by their intrinsic desire to simply engage in experiences—and relationships—that are new. This finding has important implications for increasing equity and access to student participation in both SoTL and undergraduate research more broadly, regardless of institutional context.

The participating students were also all either third- or fourth-year students, which was unintended. The initial plan had been to target first- and second-year students, with the rationale that if such students could be involved in SoTL early in their academic careers, that research experience would increase their sense of belonging while also preparing them for more advanced discipline-based research in the third and fourth years of study. From a practical perspective, this also meant that the program would not compete with other

undergraduate research initiatives, making it less likely to face resistance from other professors and administrators.

The prospect of working with unknown students was, however, resisted by participating faculty. Both campuses have relatively small student populations, and faculty do see students in their respective programs regularly, so they wanted to select student partners with whom they had pre-existing and trusted relationships. These relationships take time to build up, so the professors all nominated more advanced students. On one hand, these previously existing relationships eliminated the need to spend precious program time on the professor-student pairs getting to know each other, but, on the other hand, these prior ties may have made it harder to re-negotiate these relationships, at least at the onset of the program.

As the findings above suggest, these renegotiated relationships provided the central benefit of the program for the participating students, even in the one case where a student worked with a professor who had previously been a stranger to them. Several large-scale research projects, both qualitative and quantitative, have emphasized the power of meaningful relationships as a factor in student success (Felten & Lambert, 2020; Miller et al., 2019), and a long-standing literature supports the role of faculty mentors in improving the success of at-risk students (Santos & Reigadas, 2004; Wallace et al., 2000).

In the case of CTL Scholars, the initial relationships served as tools of inclusion, letting these students know that they were being invited into a new experience by someone who knows them, but the re-negotiated relationships went beyond the boundaries of conventional mentoring models. Our findings suggest that partnership changed the way these students viewed their own positionality vis-à-vis higher education, that is, as creators rather than consumers of their own learning, an outcome that itself transcends the student success model and hints at future directions for higher education in the post-COVID world.

Speaking of creation, the design of the CTL Scholars program was intended to provide incentives to both students and faculty in the form of scholarly productivity (e.g., conference presentations and published articles in SoTL). Unlike the process for students, the process to become a faculty participant in the program was voluntary and selective. Prospective candidates applied and were chosen by a selection committee. This may seem counter-intuitive, as many scholars have noted that SoTL work has been an especially hard sell at research universities and is often under-valued in these contexts (Boshier, 2009; Hubball et al., 2010). That said, the majority of faculty who applied to the program are classified as teaching professors, that is, they hold full-time, non-tenure track positions (Kezar, 2012) for which SoTL had only very recently been recognized as a means for achieving advancements in rank. It would appear that the CTL program embraced both students and faculty who could be described as part of the new majority in higher education. Future research could serve to integrate the respective motivations of each participant group.

Based on our findings and experiences, we argue that the long-term impact of the CTL program, particularly if the project could be repeated with new cohorts of students and professors, would potentially extend beyond the individual participants and rise to the level of changing institutional culture. This latter argument remains speculative. This was a small qualitative study, conducted by a team of two student co-researchers and one professor, at a single institution over a period of approximately 18 months. The findings presented here should be taken as providing insight into the experience rather than offering generalizable results.

Indeed, generalizability may not be a desired outcome, as our study suggests that students-as-partners programs will need to be highly adaptive to embrace the wide range of student and faculty experiences that characterize 21<sup>st</sup>-century higher education.

Our findings indicate that the students involved in the CTL Scholars program strengthened their sense of agency, gained confidence in their abilities, and navigated the process of establishing equitable partnerships with faculty members. On a philosophical level, the program joins others in the students-as-partners movement in demonstrating that the core beliefs and goals of a university can be maintained while rethinking the conventional boundaries between scholars, students, and faculty. In other words, our project does not suggest that we merely put students in the proverbial driver's seat through engagement with SoTL, but rather that we re-imagine the act of driving as a collaborative, convergent, and co-created journey towards an unknown future destination.

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