

## **A case study of tensions in student-faculty partnerships for departmental change work**

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Students as Partners (SaP) is a pedagogical approach that considers students co-creators of an educational environment along with faculty, rather than passive participants. While an increasing body of literature evidences a multitude of positive outcomes from the SaP approach, there remains limited research on the challenges that arise in such collaborations. Quan et al. (2021) outlined such challenges in a paper showing that different members of a Departmental Action Team (DAT), in which students, staff, and faculty collaborate on a change effort, had different perspectives of their partnership. In this work, we confirm and expand upon those findings in a case study of another DAT. Our case study DAT comes from the first cohort of the Departmental Action Leadership Institute (DALI), a workshop series that supports faculty members in physics departments facing major challenges or opportunities. We find that all points of disconnect from Quan et al. are present in our case study. Additionally, we identify three specific areas of differing perspectives between faculty and students: motivation, commitment duration, and information transparency. We present evidence of these tensions with interviews from faculty, student, and alumni DAT members. Finally, we discuss how these tensions may be navigated by faculty seeking to partner with students in departmental change work.

## I. BACKGROUND

The Effective Practices for Physics Programs (EP3) Initiative aims to support undergraduate physics departments in change efforts via the EP3 Guide [1] and the Departmental Action Leadership Institute (DALI) [2]. First launched in 2021, the DALI hosts teams of physics faculty in a year-long series of workshops on sustainable institutional change and the facilitation practices needed to lead teams in such efforts. Each participating program sends a team of two "change leader" faculty members to the DALI, who concurrently establish and facilitate a Departmental Action Team (DAT) at their home institution [3, 4]. These DATs are composed of faculty, students, and/or staff, in addition to the two DALI-participating change leaders. These department members collaborate to address a broad departmental issue (e.g., retention, curriculum) for at least a year.

A central principle of the DAT model is that students are part of the educational process. This value of this principle is illustrated by the growing body of research on "students as partners" (SaP) [5]. SaP describes an approach for faculty to collaborate with students in the creation of educational environments, rather than see them as passive participants. Importantly, the collaboration features a "reciprocal process through which all participants have the opportunity to contribute equally, although not necessarily in the same ways, to curricular or pedagogical conceptualization, decision-making, implementation, investigation, or analysis" [6]. The literature on SaP reports a wide range of positive outcomes for both students and faculty, including building trust, increased engagement, and learning opportunities [7].

While there is increasingly strong evidence of the value of SaP in higher education, a systematic review of SaP literature identifies several aspects of the approach that require further study [5]. One such aspect was that of challenges in faculty/student collaborations, a greater understanding of which would "help to complete the narrative around these complex relationships." Indeed, while studies on the benefits of SaP are required to make a compelling case for the inclusion of students in departmental change, knowledge of the difficulties that arise in such partnerships can be invaluable to navigating them effectively. This utility is exemplified by Quan et al. [8], which unpacks challenges faced by students and faculty as they partner on a DAT. In doing so, they find students and faculty can hold different views of their partnership, and subsequently, have different views on the work as well as power dynamics. Our study complements Quan et al.'s exploration of challenges in DAT collaborations, identifying additional points of tension in student-faculty partnerships on DATs.

## II. CONTEXT AND METHODS

This paper is part of a broader study that aims to understand the extent to which participation in the DALI and use of DATs can transform the culture of physics departments.

One thread of this project has focused on change leaders' experiences with student partnership in their DATs, and has produced findings on the positive outcomes of these partnerships [9]. This paper continues that thread by examining tensions that arose in their partnerships, drawing from a second case study department in the same 2021 cohort of DALI change leaders. We note that while the tensions presented later in this work were present across all three case study departments in the cohort (including Hemlock University, the case study presented in [9]), for the sake of brevity, we will focus on only one exemplary case study department.

Maple College (pseudonym) is a state college in the North-Eastern United States serving predominantly local, low-income communities. The undergraduate physics program, which exists within a larger physical sciences department, employs 5 faculty members, and graduates 2-4 majors per year. The two faculty change leaders, Morgan and Misha, are both tenured professors who have been at Maple for 16 and 7 years, respectively. They applied to the DALI with the goal of increasing the recruitment of physics majors, citing a greatly reduced budget and low math preparation as critical challenges. In addition to the two change leaders, their DAT was established with three more physics faculty members (including the department chair), a faculty member from Maple College's department of education, two students and a recent alumnus of the program. This work draws on data from interviews with Morgan and Misha as well as a subset of the DAT members. Each change leader was interviewed three times over the course of their year in the DALI. The two students, the alumnus, and the education faculty member were each interviewed once following the conclusion of the DALI, approximately a year after the DAT was established. The only non-change leader members represented in this paper are Megan (a 4th year who graduated a week after her interview) and Mike (who graduated shortly after the DAT was established, but stayed on for a year as an alumnus). The dates and participants of our interviews are summarized in Table 1.

TABLE I. Case Study Timeline

Date	Data Collected
March 2021	First change leader interviews
June 2021	Second change leader interviews
February 2022	Third change leader interviews
April/May 2022	DAT member interviews

Interviews were approximately 1 hour long each and conducted over Zoom with semi-structured protocols. Interview questions centered experiences on the DAT (e.g. "How are difference of opinion resolved on the DAT?", or "What roles have students played in the decision making process?") and expectations of the change effort ("Is there anything you think could impede your team's success?"). The recordings of these interviews were transcribed and reviewed for segments dis-

cussing the partnership between students and faculty. From these segments, we identified points of tension between student and faculty experiences, either via contradicting perspectives (e.g., faculty report X while students report Y) or one party's espoused confusion at the other party's behavior (e.g., faculty member doesn't understand why students do Z). In considering these discrepancies in perspectives, we draw on Quan et al.'s use of crystallization as an analysis perspective, assuming that differing perspectives between different members are simultaneously true, each representing different facets of the partnership [10]. Below, we outline three of these tensions and how they came up in Maple's DAT.

### III. FINDINGS

We find that all three points introduced by Quan et al. ("members of a partnership can hold different perspectives about the partnership", "members attend to different aspects of their work when thinking about partnership", and "power dynamics are more and less visible depending on roles") are present in our case study of Maple College's DAT. To continue this exploration of ways in which students and faculty's perspectives differ on change work partnerships, we share three additional tensions identified in our case study.

#### A. Members of a partnership are motivated by different factors

One discrepancy between student and faculty expectations is motivation. Early on, Misha (change leader) expressed an assumption that she would be highly motivated in the DAT's work compared to students, who are "not gonna think all day about that," presumably because of their other commitments. However, by the third interview, Misha revisited this assumption, expressing surprise to have found the opposite to be true:

*Oddly enough, the students are very enthusiastic. They seem to be more interested, which is kind of weird because we thought that the faculty would be more interested because this is primarily a faculty job to do... We can't tell the students to, do a lot of work in addition to everything they have, but faculty, we're supposed to do this work. So I don't know, but the faculty seem to miss more meetings and stuff. —Misha, Interview 3*

Here, Misha reveals her expectation that the central motivation for faculty's involvement in the change effort: it is "a faculty job" which they're "supposed to do". She contrasts this with students, whose participation is voluntary, and therefore, surprising when they exhibit a high level of motivation. She mentions here that students are more "interested" than faculty, and later expounds on this, reporting students as having better attendance and being more responsive than faculty. She claims this is the case even for alumni members, who,

according to Misha "have no skin in the game," again, emphasizing their lack of obligation towards the change effort.

While faculty members are largely motivated by a sense of duty to their jobs and subsequently expected low motivation from students, student members communicated a wide range of motivations for their involvement, a central one being their desire to seize the rare opportunity to improve the educational experiences of future students:

*[Participating on the DAT] was difficult, because I am a full-time student and I have a full-time job outside of campus...but at the same time, I felt good that I was doing this because it felt like I was, in a way, putting my name out there with all these other faculty, alumni, or teachers, but I was hoping the future generation of college like, improve their program, making their journey a little bit easier than mine was and maybe have them go all the way through without quitting. So it was both a lot of pressure but also felt very good. —Megan*

Here, Megan (a student) conveys the faculty expectation (that students are very busy and have other concerns), but emphasizes that she nonetheless is highly motivated to contribute to the work of the DAT. In addition to being known by faculty, her contribution is driven largely by her own experience in the program and the possibility of helping students who will come after her. While this is generally students' central motivation on DATs, Megan shares a number of other motivations, including the acquisition of institutional knowledge that is helpful to her and her peers (sometimes called "navigational capital" [11]), and making a good impression and connections with faculty members.

An area where this disconnect between students' self-reported high motivation and faculty's expectations of students' low motivation arose was in faculty's negotiations of student role on the DAT, which, as Misha demonstrates in the segment below, is informed largely by faculty expectations rather than students' reality:

*We have to be careful of [overburdening students] because they are not getting anything in return for this effort that they're putting in. They are graduating in a year or two, or they already graduated, so they're not really getting anything out of this. So, it really doesn't seem okay to ask more than one or two hours a week of them, because it's really a commitment, and even showing up for a meeting every two weeks every hour, like an hour every two weeks is, it's a lot of work for that. So we want to be mindful of not overburdening them. —Misha, Interview 3*

Here, Misha's approach to involving students (what she feels she can ask of them as a time commitment) is informed by an expectation of students' motivation, which flattens the

diverse benefits students themselves have reported receiving from their DAT work.

### B. Members are involved on different timescales

Another point of tension between faculty and students arose from their different durations in the department. On one side, faculty members spend many years in their positions, and as a result, exhibit a measured, long term approach to thinking about the change effort. Morgan (change leader) spoke to a perceived shortcoming of student partnership given the faculty's long-term commitment:

*One thing we're kind of worried about on curriculum decisions, ...we're not really sure that the students ... should be totally dictating what we do in the physics program because [the faculty] have to live with it for a lot longer than they do. —Morgan, Interview 2*

Morgan having to "live with" the outcomes of the DAT illustrates a fundamental difference between students and faculty in a partnership: while students can participate in the short term within their college time, faculty will potentially be stuck with the obligations and outcomes of the change work for much longer. As a result, faculty believe they will ultimately carry the bulk of the workload long term, with Misha noting this difference in involvement duration and the subsequent fact that in the end, "faculty will have to implement whatever it is that we decide".

Conversely, students demonstrate a higher sense of urgency, along with a frustration at faculty's lack thereof:

*One thing that I would like [the faculty] to change is maybe a sense of urgency. I think that they're planning everything for the future, like they just keep saying in the future, in the future, in the future. And I appreciate that they're even trying, but I think a sense of urgency would be more appreciated. —Megan*

Megan illustrates here the attitude that comes with students' inherently short-term participation on DATs: as they have a limited time to participate, they are disillusioned by faculty's emphasis on a future they may not be around for.

While this disconnect between students' and faculty's sense of timeliness created concern in both parties for the pace of the other, both parties also revealed glimmers of sympathy for the other's position that could help mitigate negative outcomes of this tension. On the student side, Megan conceded after the above segment that changes involving, for example, department budgets, take significant amounts of time and are therefore solely in the realm of faculty's ability. This reframing of the faculty's lack of "urgency" positions faculty as able to make changes students can't because of their limited time in the department. Similarly, Morgan revisited her

opinion of how much student input should inform long term changes in her final interview. Reflecting on the value of student input over the first year of the DAT, she says:

*It really made us start thinking about, oh maybe there are some real problems or real missed opportunities maybe would be a better way to put it in our curriculum, that would both make our current students feel more comfortable, and hopefully, then make a whole program more attractive to prospective students. —Morgan, Interview 3*

This establishment of a through-line between current students and future students reframes student input from a fleeting, transient perspective faculty will be stuck with implementing, to a perspective representative of a lineage of students that, collectively, exist in the department for just as long as any one professor, if not longer.

### C. Members share and withhold information differently

A final point of tension between student and faculty DAT members is the differences in their expected transparency with regard to information. While there is some common experience between faculty and students in a department that leads to a body of shared information, each group has unique information as well, specific to their position and experiences.

For example, student members bring unique knowledge of students' needs, obligations, and challenges, which change leaders on the DAT cite as one of the most valuable aspects of the DAT model. Morgan speaks to how this unique student knowledge was essential in many aspects of the data collection process:

*[Students] were really helpful with...the whole focus group planning. [They] focus in on the questions that they felt would be most important... They did have pretty strong opinions about what should be asked in that focus group and also the best ways to make the other students feel comfortable and open up and what they thought people would feel comfortable with and what they wouldn't ...They also just bring a different perspective in terms of...things that they're curious about and think are important that we just were like, oh yeah maybe we should think about that. —Morgan, Interview 2*

This value of student knowledge comes up across change leader and other faculty members interviews, with students' unique experiential knowledge playing key roles in determining what data to collect, how to collect it effectively, and how to analyze it, all necessarily based on their own experience as students. However, unlike student members whose willingness to share their unique knowledge with the DAT appears to be an assumed and central part of their role, faculty members are more guarded about what information they share. In

one segment, Morgan discusses this negotiation in terms of what is "appropriate" for students:

*At some point we're wondering like, are there decisions that are perhaps not appropriate to involve the students in? But we haven't, we've saved deciding that...we will cross that bridge when we get to it. —Morgan, Interview 2*

While Morgan notices this tension but leaves it open for future negotiation, Mike, who has been on the DAT both as a student and an alum and is therefore more able to see both sides, lays out the disconnect in its present state more frankly:

*There's a lot of politics that goes on with the administration versus the department, and I don't know if it's necessarily appropriate to have the students see all of that. But now that I have graduated...it's easier to see all those things because I'm not, you know, involved in the school anymore. But as a student I think it was a little tough to see the bigger picture and see what we were able to do versus what we wanted to do...They did a good job with communicating it, but it was just, it was a struggle because you don't wanna give out too much information, because again, it's just students, you know you don't wanna you know trash talk administration. —Mike*

From his vantage point having recently occupied different positions on the DAT, Mike is able to clearly articulate both the faculty concern of oversharing with students, and the student frustration of not being able to see "the bigger picture" due to a lack of information.

#### IV. DISCUSSION

Through this case study, we illustrate three points upon which students and faculty collaborating on a change effort have different perspectives. We note that, while we have shared data from a single case study department (Maple College), these three tensions arose in all three of the case study departments' DATs from the DALI's first cohort. Rather than see the ubiquity of these challenges as a shortcoming of the SaP approach, we believe that understanding the tensions inherent to a student-faculty partnership can help faculty members anticipate and/or navigate them when attempting to partner with students. As such, we wish to highlight how the differing perspectives that result in these tensions can be reconciled through early and direct communication.

For example, Misha initially expects that students, lacking the obligation for departmental work that faculty have, will have low motivation to participate on the DAT. However, she finds that students are more engaged than faculty; as Megan reports, students have a range of factors outside of

job obligation that motivate their participation. This shows us how incorrect assumptions sometimes inform how faculty approach their partnership: Misha wants to, understandably, avoid overburdening students, but her assumption may be cutting short the extent to or ways in which students are willing (and even desire) to participate. However, this also shows us how collaboration with students gives faculty an opportunity to better understand them: eventually, the students' high engagement challenged Misha's expectations of them.

By understanding the reasons students participate in change efforts, their role in a collaboration could be determined by their actual motivations, rather than faculty expectations thereof. And while this understanding occurred organically in Maple's DAT eventually, an early discussion of personal goals for involvement between team members could have avoided misperceptions between students and faculty. Similarly, the other tensions could also potentially be headed off by early, transparent discussions. For example, the point of students and faculty being in their departments for different durations (and therefore having different perceptions of a good or realistic timeline for change work) was the central complaint Megan had as a student on the DAT. However, an early conversation about anticipated timelines, constraints on time, and the difference between short and long-term change work could have alleviated this frustration.

We note that, in having these anticipatory conversations, faculty need not concede entirely to the student perspective; for example, in the case of the tension that arises from faculty withholding some information from students, there indeed may be types of information that are not appropriate for students. However, rather than let this close off the opportunity for conversation, it can be an opportunity for thoughtful examination of these boundaries. Consider: Is some information taken for granted as being inappropriate for students? Can some information be anonymized or otherwise altered such that it can be shared with students? What blindspots in students knowledge may hinder their ability to contribute to the partnership? These kinds of reflections can help reshape the boundary of shareable information in a way that increases team effectiveness while maintaining professionalism.

The EP3 Project research team hopes to continue our study of SaP in DALI-supported DATs. We are now collecting data from the third and fourth DALI cohorts, which will significantly increase our number of case studies and provide additional data for this analysis. We also hope to examine these case studies from different perspectives. Particularly, we plan to further investigate the experiences of students in these partnerships, identifying positive and/or negative outcomes they achieve through their participation.

#### ACKNOWLEDGMENTS

This work is supported by the NSF under Grant No. 1821372. We also thank the EP3 Research Team members and the study participants for making this work possible.

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