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Transforming Teaching and Learning Through Student-Faculty Partnership

Somik Ghosh[1], Kofi A.B. Asare[1], and Doyle Phillips[1]
[1]University of Oklahoma

This paper examines the DUET Program at the University of Oklahoma, a student-faculty pedagogical partnership designed to transform teaching and learning in higher education. Inspired by collaborative models from Bryn Mawr and Haverford Colleges, the program challenges traditional hierarchies by positioning students and faculty as equal pedagogical partners. Through qualitative analysis of three case examples, the authors explored how the DUET Program enhances classroom engagement, promotes participation equity, and improves instructional practices. Findings reveal that the iterative partnership process enables sustainable pedagogical innovation through collaborative inquiry and mutual learning. The analysis demonstrates that while student-faculty partnerships offer valuable pathways for pedagogical development, sustaining such initiatives requires ongoing institutional commitment, dedicated resources, and integration with faculty development infrastructures.

Keywords: Student-faculty partnerships, pedagogical innovation, higher education

Introduction

Traditional hierarchies in higher education have only considered students as recipients of knowledge and faculty as the sole authorities in the classroom. These structures often disregard student voices, reinforce power imbalances, and discourage inquiry and learning. This view not only limits pedagogical innovation but also overlooks a critical resource for improving teaching, which is the first-hand experiences and perspectives of students themselves. Recognizing that meaningful educational transformation requires looking beyond the hierarchical barriers, the University of Oklahoma has established the Developing Understanding and Engagement Together (DUET) Program as an initiative that places students and faculty as equal pedagogical partners in improving teaching and learning.

Inspired by the Teaching and Learning Institute at Bryn Mawr and Haverford Colleges (https://tli-resources.digital.brynmawr.edu), which pioneered student-faculty pedagogical partnerships, the DUET Program operates on the premise that teaching excellence emerges not from faculty expertise alone, but from the collaborative integration with student feedback. By creating a structured program for students and faculty to work together as collaborators for improving teaching and learning, the program challenges conventional hierarchy and generates insights that neither group could achieve independently. The students and faculty taking part in the DUET program at the University of Oklahoma are referred to as student fellows and faculty fellows, respectively. This program yields

mutual benefits, where the student fellows develop meaningful connections with faculty fellows, enhancing their sense of belonging on campus and confidence in interacting with faculty. Simultaneously, faculty fellows gain a deeper understanding of student experiences and perspectives, leading to more responsive and inclusive pedagogical practices. For new faculty in particular, these partnerships provide invaluable insights that accelerate their development as effective educators (Cook-Sather et al., 2014).

This paper presents the design, implementation, and outcomes of the DUET Program at the University of Oklahoma as experienced by the authors, who participated as faculty fellows in the program. Through three case examples, the authors present how faculty-student partnerships transform pedagogical practices and classroom dynamics. Specific strategies emerged from these partnerships, including techniques to enhance student engagement, promote participation equity, and foster inclusive classroom environments. Additionally, the paper discusses practical challenges encountered when implementing pedagogical changes within existing course structures and offer actionable recommendations for sustaining student-faculty pedagogical partnerships in higher education.

Literature Review

This literature review explores how the DUET Program at the University of Oklahoma compares to other student-faculty partnership programs in higher education. The review covers three main areas: first, explore why student-faculty partnerships matter for improving education and how DUET relates to similar programs; second, review proven teaching strategies that come from these partnerships and show how they connect to real classroom practices; and finally, discuss the framework of the DUET programs to familiarize the readers with the various steps of the program.

Student-Faculty Partnership in Higher Education

Student-faculty partnership represents a paradigm shift in higher education pedagogy, moving away from hierarchical models. Cook-Sather et al. (2014) define student-faculty partnership as "a collaborative, 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" (p. 6-7). This definition acknowledges that while students and faculty bring different forms of expertise to the partnership, both perspectives are equally valuable for improving teaching and learning. Healey et al. (2014) expanded this framework by advocating that partnership operates as a relationship in which all participants actively engage and benefit from the process of collaborative learning and working together.

The DUET Program at the University of Oklahoma draws inspiration from the pioneering Students as Learners and Teachers (SaLT) Program at Bryn Mawr and Haverford Colleges, one of the most extensively documented partnership initiatives in higher education. The SaLT Program, directed by Cook-Sather, has demonstrated that pedagogical partnerships foster a sense of belonging for both students and faculty, particularly for those traditionally marginalized in higher education, through three dynamic processes: doing meaningful work together, creating spaces for exploration and growth, and engaging in ongoing mutual affirmation (Cook-Sather & Bala, 2022). Like DUET, the SaLT Program pairs students with faculty from outside their disciplinary areas, ensuring fresh perspectives. This cross-disciplinary pairing model has been adopted by numerous institutions internationally, demonstrating its scalability and adaptability across diverse educational contexts (Bovill, 2019).

Pedagogical Strategies Emerging from Partnership Models

Student-faculty partnerships generate specific, actionable teaching strategies grounded in student experiential knowledge. Healey et al. (2014) identify four areas where partnerships create pedagogical value, namely (1) learning, teaching, and assessment, (2) subject-based research and inquiry, (3) scholarship of teaching and learning, and (4) curriculum design. Existing research demonstrates that pedagogical approaches fostering partnership lead to supportive learning relationships with increased student engagement (Crawford et al., 2015; Pauli et al., 2016). These kinds of partnerships could positively impact classroom climate and participation equity. For instance, Cook-Sather (2014) documented how faculty partners learn to recognize and respond to subtle engagement patterns invisible from the instructor's vantage point, such as how distraction spreads socially or how student confidence fluctuates during public reasoning. These insights enable targeted interventions that create more inclusive learning environments.

Active learning strategies emerge naturally from partnership work, as student partners help faculty understand which pedagogical approaches genuinely engage learners. Smith et al. (2005) and Jayathilaka et al. (2025) mentioned the different pedagogies of engagement, including cooperative learning, problem-based learning, and active learning techniques. Partnership models provide faculty with real-time feedback on these strategies' effectiveness. Student partners observe whether wait time after questions allows adequate processing, whether instructor movement throughout the classroom promotes equitable participation, and whether formative assessments genuinely inform student learning (Cook-Sather et al., 2014). The iterative nature of partnership work supports continuous pedagogical refinement. Bovill et al. (2011) emphasized that meaningful change occurs through incremental adjustments informed by regular dialogue rather than wholesale curricular overhauls. Weekly observation and debrief cycles, as implemented in programs like SaLT, create structures for sustained reflection and experimentation.

Framework of the DUET Program

The DUET Program has a structured partnership model that pairs faculty fellows with student fellows from outside their disciplinary areas. Each partnership is designed to function throughout an entire academic semester, providing sufficient time for observation, reflection, implementation of changes, and assessment of their impact. Both the faculty fellows and the student fellows received a stipend to participate in the program, but no academic credits.

Weekly Engagement Cycle

The core of the DUET Program lies in its weekly engagement cycle, which creates regular touchpoints for observation, dialogue, and collaborative learning (Figure 1). Each week, the student fellow attends one class session taught by their faculty fellow partner, observing classroom dynamics, teaching strategies, student engagement patterns, and instructional approaches. Following the classroom observation, student fellow and faculty fellow meet for a one-hour debrief session where they discuss what the student observed, share different perspectives on teaching and learning, and collaboratively identify potential areas for improvement or experimentation. These one-on-one meetings provide a dedicated space for honest, reflective conversation about teaching practices (Figure 1). In addition to the weekly observations conducted by the assigned student fellow, a different student fellow attends each class session to provide a second touchpoint of observation and dialogue for collaborative learning.

Additionally, student fellows participate in weekly one-hour group meetings with other student fellows in the DUET program from across the university. These peer meetings serve multiple purposes, such as allowing students to share insights and experiences from their individual partnerships, learn from each other's observations across different disciplines and teaching contexts, develop their skills as pedagogical observers, and build a community of practice among student participants. partnership.

Faculty Community and Collaborative Learning

Faculty fellows engage in biweekly small group meetings with other faculty fellows participating in the program (Figure 1). These biweekly meetings provide faculty with opportunities to discuss the pedagogical changes they are considering based on student feedback, share implementation strategies and challenges, learn from colleagues' experiences across different disciplines, and receive peer support as they experiment with new teaching approaches. The biweekly structure balances the need for regular faculty community engagement with the practical time constraints faculty face. Importantly, student fellows could attend these faculty small group meetings upon request, creating opportunities for cross-partnership learning.

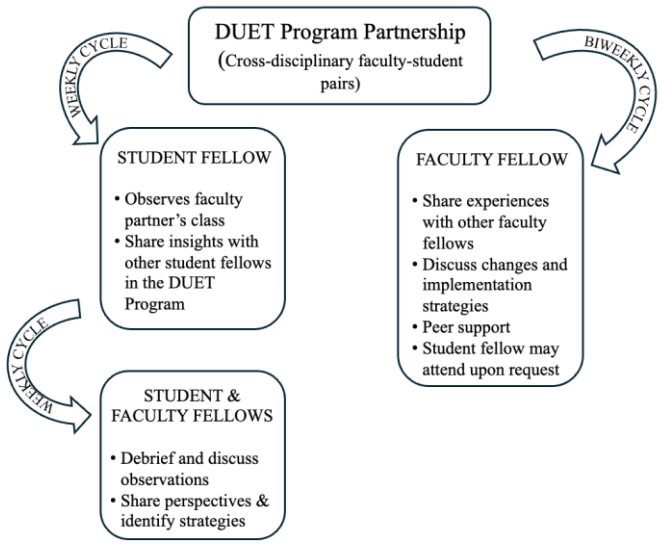

Figure 1: Flowchart of the DUET Program

Method

This study uses a qualitative multiple case study framework informed by expert observation and reflective practice. Each faculty–student partnership in the DUET Program is treated as an individual case, with student fellows providing systematic classroom observations and faculty fellows engaging in structured reflection and pedagogical adjustment. Cross-case analysis is used to identify shared patterns, challenges, and lessons learned.

Participant Context and Selection

This paper draws on the experiences of the authors who were faculty fellows in the DUET Program during the Fall 2024 and Fall 2025 semesters. Faculty fellows were recruited through campus-wide announcements, and participation was voluntary. The announcement recommended two faculty from the same college, but it was not mandatory. The program aimed to create a diverse cohort representing different academic fields, course levels, and teaching contexts to capture a broad range of pedagogical challenges and innovations.

Each of the authors was paired with student fellows from outside their disciplinary area. This cross-disciplinary pairing was intentional, designed to help student fellows focus on pedagogical approaches and classroom dynamics rather than course content. Student fellows were undergraduate students recruited through university-wide announcements and were selected based on their interest in teaching and learning, communication skills, and commitment to attending weekly class sessions and meetings throughout the semester.

Data Collection

Data was comprised of the weekly observation notes, weekly partnership debrief discussions, student feedback surveys, and reflection reports prepared by the authors during Fall 2024 and Fall 2025 semesters.

Weekly Observation Notes & Partnership Debrief Discussions

Each week, student fellows attended one class session taught by their faculty partners and documented detailed observations of classroom interactions, teaching strategies, student engagement patterns, instructional approaches, and overall classroom climate. These observation notes focused on pedagogical elements such as questioning techniques, wait time, instructor movement, student participation patterns, rapport-building efforts, and responses to student questions.

Following each classroom observation, the authors and their student partners met for structured one-hour debrief sessions. During these meetings, student fellows shared their observations, authors reflected on their intentions and perceived outcomes, identified patterns, discussed challenges, and explored potential pedagogical adjustments. The authors documented key themes, insights, and action items from these debrief sessions, creating a running record of the partnership dialogue throughout the semester.

Student Feedback Surveys

The authors collected feedback from their students to assess (between the three courses, there were 77 students) the impact of pedagogical changes and gather student perspectives on the learning environment. For example, one of the authors conducted an anonymous mid-semester survey to gauge student perceptions of course effectiveness and classroom climate. He also implemented a post-exam survey following the second course examination, asking students to rate exam difficulty, report any technical issues, and reflect on their preparation strategies. These surveys provided direct student input on the learning experience and allowed faculty to assess whether implemented changes were having the intended effects.

Faculty Reflection Documents

At the conclusion of the semester, each author prepared a comprehensive reflection document summarizing their DUET experience. These reflection reports detailed the author's initial goals for participating in the program, specific objectives they hoped to achieve, strategies implemented based on student partner feedback, observed outcomes and evidence of impact, challenges encountered during implementation, and plans for future pedagogical development. These reflection documents are the primary data source for the case examples presented in this paper. In the following sections, case examples are presented that capture the authors' experiences in the DUET Program, highlighting the specific pedagogical strategies that were implemented through the student-faculty partnerships.

Case 1: Estimating Course - Enhancing Engagement and Participation Equity

One of the authors' participations in the DUET Program centered on his junior-level Estimating course, a construction course delivered primarily through traditional lecture format and hands-on activities. Having taught this course for over 10 years and having recently implemented significant course revisions, the author joined the DUET Program to prevent teaching stagnation and gain fresh perspectives on his instructional approaches. Through initial conversations with his student fellow, the author identified two primary goals for the partnership: (1) increasing student engagement by encouraging active participation, meaningful discussions, and (2) timely assignment completion, and improving class dynamics by ensuring equitable participation across all students while creating a safe and inclusive space where students felt comfortable sharing diverse opinions and perspectives.

Based on feedback from the student fellow, the author implemented several strategies across three areas. To build a safe and inclusive atmosphere, the author arrived early to establish rapport, used probing questions with positive reinforcement, allowed adequate wait time after posing questions, and reiterated student questions for the entire class. To foster active participation, the author integrated brief breaks for discussions or polls, provided consistent positive reinforcement, and engaged in informal conversations before and after class. To ensure participation equity, the author adopted a 360-degree teaching approach by moving throughout the classroom, intentionally engaging with quieter students in all areas of the room, and incorporating humor and relatable real-world examples to make technical content more accessible.

Case 2: Introduction to Construction Data Analytics and Innovation – Sustained Engagement in Experiential Learning of New Technologies

This course, Introduction to Construction Data Analytics and Innovation, was developed to immerse students in experiential learning focused on emerging digital technologies and innovation in construction, such as artificial intelligence (AI), robotics, digital twins, and data analytics. As a newly created offering, the author's primary instructional goal was to sustain student engagement while ensuring meaningful application of concepts through experiential learning. This goal stemmed from the recognition that students' confidence in navigating unfamiliar software and data-centric workflows can significantly influence participation and performance (Carbonell-García et al., 2025; Wolverton et al., 2020). Accordingly, in collaboration with the DUET student fellow, the program emphasized psychological safety, student–student and student–instructor collaboration, and iterative learning. The student fellow's observations focused on student interactions with course materials, the classroom environment, and peers, examining three dimensions: engagement patterns during and after class, student stress related to new workflows and software, and the depth of conceptual understanding demonstrated through applied tasks and interactions.

The iterative nature of the DUET partnership led to multiple pedagogical adjustments during the semester and in the subsequent course offering. Early observations indicated that students were comfortable asking questions, though engagement declined when cognitive load increased during new software instruction. In response, the author and student fellow implemented strategies such as increased instructor movement, real-time comprehension checks, and collective discussion of answers. The student fellow also noted that while students benefitted from personalized clarifications, they sometimes treated them as shortcuts rather than opportunities for independent reasoning. This led to changes, including tutorial-linked quizzes and clearer expectations for office hour interactions to ensure coaching functioned as scaffolding rather than solution-giving. Mid-semester feedback revealed stress related to perceived workload, particularly due to the intensity of early modules. In response, the author visualized the course workload curve to clarify the course roadmap and normalize pacing. In the subsequent offering, early modules were extended over three additional weeks to reduce the anxiety reported in the initial course.

Case 3: Preconstruction Services – Equitable Engagement using Problem-Based Learning

The course, Preconstruction Services, was the focal point chosen by this author as the basis for participation in the DUET Program. It is a senior-level course that was previously taught using a combination of lectures, in-class group work, a collaborative assignment completed with 4th year architectural students, and three exams given during the course of the semester. Being a new instructor to the course and entering the second year of teaching the course, the author wanted to find a better way to engage the entire class and provide a more interactive, enhanced learning experience for all students. Joining the DUET Program provided the author with an opportunity to approach this opportunity for revision in a way that would be more student-focused focused with the intention of improving the overall learning experience of the students. During the initial visit with his student fellow, the author identified the following goals for the partnership: (1) increasing the equitable engagement of all students through the inclusion of problem-based learning activities, (2) improving the clarity of assignment instructions, and (3) enhancing the clarity of the utilized grading rubrics.

The cyclical framework of the DUET collaborative partnership led to many pedagogical changes early in the semester. To show respect for the student's time, the author was in the classroom well ahead of the class start time to allow for a prompt start. To provide the opportunity for equitable engagement, the curriculum strategy was shifted away from the traditional lecture setup, and any lectures were more instructional to provide direction for team activities in which all team members had to play an active role. These activities included situational type problems that presented a problem that occurred on a construction jobsite that needed a solution. The requirement of each team was to assign each member the role of a different participant of the construction party, such as owner, architect, general contractor, and subcontractor, to arrive at an agreeable solution and then each team would defend their solution in the class. Based on feedback from the student fellow, the equitable engagement improved when the author spent time with each team and asked scaffolding type questions to potentially guide their critical thinking based on the situational problem they were working on. After all teams had presented their solutions to the problem, the author would add closing remarks using personal experiences from the field.

Data Analysis

Data analysis followed a thematic approach in three stages: individual author review of their own data sources (observation notes, debriefs, surveys, and reflections) to identify context-specific themes; collaborative analysis where faculty fellows collectively identified cross-cutting patterns and shared

challenges across partnerships and disciplines; and synthesis of findings into practical recommendations organized by audience.

Findings

Outcomes and Lessons Learned from Case 1

The implemented strategies yielded observable improvements in classroom dynamics throughout the semester. Based on student fellow observation notes and weekly debriefs, the author noted increased student participation in class discussions with greater equity across the classroom, as previously disengaged students began contributing more frequently. Additionally, requests for deadline extensions decreased over time, suggesting increased student motivation and commitment to the course. While mid-semester survey feedback was positive, the response rate was low, and post-exam surveys revealed that students primarily relied on practice problems and review materials for exam preparation.

The partnership experience highlighted several important lessons for future teaching practice. First, the author recognized the need to incentivize survey completion to gather more comprehensive student feedback for ongoing course improvement. Second, the iterative nature of the partnership underscored that continuous, incremental adjustments throughout the semester were more effective than one-time wholesale changes. Finally, the cross-disciplinary perspective proved invaluable, as having a student fellow from outside the construction discipline brought fresh insights focused on pedagogical approaches rather than technical content expertise.

Outcomes and Lessons Learned from Case 2

The ongoing feedback loop confirmed that student engagement remained consistently high and that small course design choices, such as pacing breaks, peer-to-peer answers, and micro-affirmations, contributed meaningfully to comfort and participation. The student fellow’s external lens helped surface the behavioral nuances that are not as visible from the instructor's perspective. Some of these include how distraction spreads socially or how confidence fluctuates when students are prompted to articulate their reasoning publicly. One significant takeaway was that the instructional environment benefited from relational warmth and structured accountability. When either dimension was absent, engagement dipped. Another key lesson was differentiation. What appeared initially to be a need for more help was, in some cases, a need for clearer boundaries around independent thinking. Adjustments to office hour expectations reinforced learner autonomy and improved quality of student preparation.

Outcomes and Lessons Learned from Case 3

The changed curriculum approach resulted in an overall improvement in the classroom dynamics and learning environment. The observation notes from the student fellow showed an increase in overall student interest and engagement, involving asking questions and general participation with their respective team members. A mid-semester survey showed a positive reaction to the direction the overall course was taking by moving away from the typical exam structure and utilizing problem based learning activities requiring them to engage in critical thinking and exposing them to real-world situations.

The partnership experience provided the author with valuable insights based on a student's perspective for additional ways to improve the course in future offerings. The author learned that when implementing major changes in a course's curriculum, engaging the students in feedback and suggestions can offer good insights into implementing the changes. The overall collaborative approach on a consistent basis increased awareness of simple aspects in teaching that may get overlooked at times, but are extremely important to the student's learning, such as timeliness to class, the use of scaffolding type questions that guide and not give direct answers, and to better enhance critical thinking make sure examples do not provide too much detail requiring the students to be more active in their learning environment. The perspective from the student fellow provided the framework for continued pedagogical improvements in teaching strategies and implementation practices.

Conclusions

The DUET Program demonstrates that meaningful educational transformation in higher education sometimes requires going against the traditional hierarchical structures and embracing students as legitimate pedagogical partners. Through the three case examples presented, this paper illustrates how structured student-faculty partnerships yield tangible improvements in classroom engagement, participation equity, and instructional responsiveness. The experiences of the faculty fellows reveal that cross-disciplinary student observation provides unique insights unavailable through traditional faculty development models or student evaluations alone, as student fellows focus on pedagogical dynamics rather than content expertise.

Several critical findings emerged from the three case examples presented in this paper. First, the iterative nature of weekly observation and debrief cycles enables continuous, incremental pedagogical refinement rather than sporadic wholesale changes. Second, the external perspectives provided by student fellows bring out behavioral and engagement patterns that instructors cannot readily observe from their positions, including how distraction spreads socially, how confidence fluctuates during public reasoning, and how equitable participation varies across classroom spaces. Third, successful implementation requires balancing relational warmth with structured accountability, as either element alone proves insufficient for sustained engagement.

The DUET Program's structured framework, including weekly partnership meetings, peer learning communities for students, and biweekly faculty collaboration, creates a comprehensive ecosystem for pedagogical innovation. This model moves beyond isolated teaching improvement efforts toward systemic cultural transformation that values student voice and experiential knowledge as essential components of educational excellence. However, sustaining such partnerships requires institutional commitment, including dedicated resources, recognition of faculty time investment, and integration with broader teaching development initiatives. While these findings demonstrate the promise of the DUET model, this study has limitations. The cases draw from a small number of faculty fellows at a single institution, which may limit the generalizability of the findings. Additionally, the reliance on faculty reflections and student observations introduces potential subjectivity, as participants were actively invested in the success of the partnership. Future work should incorporate additional data sources, such as longitudinal student performance measures or external classroom observations, to strengthen validity. As higher education continues to evolve, programs like DUET offer vital pathways for honoring both faculty expertise and student experience in the co-creation of transformative learning environments.

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