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Professional Staff Making a Difference: Cultural Change in Higher Education

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Abstract

Higher education scholarship is focused largely on professors who guide students in their learning and students who participate in the educational process. The contributions of professional staff (i.e., those supporting the work of faculty and students) have not been as well understood, particularly those who reside in academic departments. We explore the work and impact of three staff-led problem-solving teams within an academic unit at one U.S. public university. Professional staff led these three grassroots teams on co-operative education, mentorship, and intercultural competency; in each, staff represented the majority of team members. We report on our research on these teams between 2017–2019 which culminated in interviews with 20 team members. We applied cultural models' theory to orient our data collection, analysis, and validation. In this theory, interviews help uncover the existence and extent of a sense of "sharedness" with the potential to reveal a consensus view of the culture, hence the name "cultural models." Interview statements are validated against other data—two sets of drawings interviewees created during the interviews. Through interviewee discourse and drawings, we describe the internal dynamics and connections accessed by members of these three teams. By specifying *how* staff were able to work together and what the cultural models illustrated about organizational-culture change, we help fill the gap in the higher education literature about this university subculture.

Keywords Professional staff · Cultural change · Higher education · Professional development skills · Cultural models · Drawings

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Colleges and universities have many stakeholders. Much scholarship in higher education is typically focused on faculty (professors) who guide students in their learning (Manning, 2013; Tierney, 2008) and students who participate in the educational process (Astin, 1993; Blum, 2016). The emphasis on professional staff[1] has been evolving from a group with little decision-making authority (Allen-Collinson, 2007; Scott, 1978; Szekeres, 2011) to one devoting increasing attention to undergraduate students (Graham, 2012; Locke & Guglielmino, 2006). Consequently, pedagogy centers prominently in this literature, with changes in curriculum and instructional practices emerging frequently (Finelli et al., 2014; Manning, 2013).

Students experience learning beyond their coursework. Co-curricular activities (e.g., internships, tutoring) (Finelli et al., 2012; Stiwine & Jungert, 2010) enable students to gain and hone their professional development skills (Kovalchuk et al., 2017; Martini et al., 2019). Many industry and government leaders have called for career-ready graduates who possess leadership, communication, and teamwork skills (ABET Engineering Accreditation Commission, 2019; Danielson et al., 2011; European Commission, 2017).

Staff often play an underappreciated role in creating and assessing academic activities. Indeed, staff within academic units are often charged with developing and updating programs and policies in which students participate. There are many unanswered questions about how these tasks are done (e.g., by individuals or teams, as a result of assigned work or bottom-up initiative). Cultural features of such work also are insufficiently explored. In our earlier study of 12 grassroots problem-solving teams, the only teams that were successful were staff-led (Rodríguez-Mejía et al., 2020). Inspired by this prior work, we decided to explore the internal workings of staff work roles and initiatives as well as their contributions to organizational-culture change.

Literature Review

A Changing Role for Staff

Staff within academic departments are entrusted with the day-to-day management of operations and support of professors and students. Because they fill diverse job functions, their roles have been viewed in opposition to the faculty's and labeled "non-academic;" in essence, staff have been defined "by what they are not" (Allen-Collinson, 2007, p. 301). Early research reported their relative status vis-à-vis faculty in which professional staff were characterized as "residual" (Gornitzka & Larsen, 2004, p. 297) and "largely invisible" (Szekeres, 2004, p. 7). At the turn of this century, Pitman (2000) argued that staff roles in the education of students were ignored. At that time, empowerment arose as an issue because of staff desire for more inclusion in decision-making, the establishment of open channels for communication, and

[1] Subsequent uses of the phrase "professional staff" will be shortened to "staff," consistent with the terminology in U.S. colleges and universities.

being able to disagree with other members of their units, including faculty, without being reprimanded (Malaney & Osit, 1998); Locke and Guglielmino's (2006) later study revealed similar results.

Increasingly, universities have been taking on capitalistic characteristics and been viewed as "more corporate" (Szekeres, 2006, p. 133) and bureaucratized (Schneijderberg & Merkator, 2013) with attention to productivity, efficiency, and commercialization. As new structures and performance standards have been established (Baltaru, 2019; Graham, 2012), the nomenclature "professional staff" has emerged (Sebalj et al., 2012), staff credentialing has improved (Szekeres, 2011), and staff roles have risen and become more visible, including educational activities and research (Schneijderberg & Merkator, 2013). Staff have specialized in functions such as Student Affairs (sometimes called Student Services) whose work ranges from academic advising to admissions, to diversity and inclusion, to campus life and beyond (https://www.bestcollegereviews.org/faq/what-is-student-affairs/). Such staff support the academic, professional and personal growth of students (Buyarski, 2004; Schuh et al., 2017; www.naspa.org). Indeed, as early as the late 1980s, McComas (1989, p. 7) argued that "the potential for the most dramatic reform of undergraduate education lies in aggressive leadership provided by student affairs professionals" together with other administrators (see also Creamer and Winston Jr., 1999; Gaston-Gayles et al., 2005, and Merkle & Artman, 1983).

Staff "potential" to affect change, attributed to their campus leadership (McComas, 1989), has been coalescing for decades now as the culture of higher-education institutions has undergone change (Gornitzka & Larsen, 2004; Szekeres, 2004). Attitudes toward staff are shifting. For example, Paine (2013) argued that staff were well positioned to serve as student advocates and contribute to their professional formation. Another shift seemed to be underway as well: more references to academically based staff appeared in the literature. Finelli et al. (2014) emphasized the value of the instructional-consultant staff role. Gray (2015) discovered that academics perceived departmental staff as cooperative problem solvers in contrast to central staff (e.g., HR, finance). Hiring patterns to secure more staff with particular skills have changed as well. Gibbs and Kharouf (2020) identified qualities in professional services staff (e.g., specialist knowledge, strong relationships) that contribute to university performance. Baltaru (2019) found that universities that moderately increased their proportion of staff see higher levels of student degree completion. Moreover, joint work involving both staff and faculty on particular initiatives has emerged. For example, when professors and staff participated in workshops together (Lindman & Tahamont, 2006) or worked with a specific student population (Chang et al., 2019), collaboration and programmatic change resulted.

Locke and Guglielmino (2006, p. 215) found that staff members comprised "a distinct subculture that perceived, experienced, responded to, and influenced planned change differently from other subcultural groups." They ended up being more committed to their work as they saw the fruits of it. The question remains, however, how do staff make their impact? Kezar et al., (2011, p.148) emphasize "everyday leadership" among staff and faculty. Although such leaders do not receive explicit support from their university to advance change, they employ a combination of tactics: accessing members of their networks, mentoring students, garnering resources

and support, using data effectively, and partnering with key external stakeholders. Unfortunately, the processes by which these tactics are activated remains a mystery. Indeed, calls for greater clarity on staff roles in university change continue to emerge (Brewer et al., 2019).

Accessing Cultural Models

Cultural models' theory can be defined as an integrated understanding of or perspective on a particular culture or subculture (Paolisso et al., 2013), often through its contextual and situational features. As a cognitive approach to culture, cultural models' theory involves a shared view or experience with culture (Ross, 2004). Researchers examine the perspectives of study-participants (in our case, staff) about fundamental cultural elements. Typically, such perspectives are revealed in discourse captured during interviews. Study-participant discourse can help expose the existence of a sense of "sharedness" (Strauss & Quinn, 1997, p. 122). Researchers then "compile a consensus view of the culture," a view that can be validated with other data (e.g., other interviews, surveys) (Briody et al., 2020).

Study-participant perspectives are characterized in prose based on interviews and conversations with researchers in the cultural models' literature. While this research has yielded rich descriptive material on how cultural groups understand the world around them, our approach to cultural models offers an innovative visual extension of their value. In our earlier work, we created visual images to represent cultural phenomena based either on our own understanding of the culture as researchers (Briody et al., 2018) or on the cultural patterns described by our study participants (Briody et al., 2019). In this article, we seek to enrich cultural models' theory by incorporating interviewee discourse *and* drawings as reflections of their perspectives. Drawings represent an alternative means of expression and have the potential to portray content that does not initially appear in study participant verbal statements.

Thus, by soliciting two sources of conceptual data during an interview (i.e., statements and drawings), it is possible to gather distinctive yet complementary data. Comparisons can be made between the statements and drawings so that each can be validated by the other. Moreover, illustrations by study participants, along with their verbal statements, are richer and clearer than either method used alone (Briody et al., 2021). We anticipate that themes of collaboration and cooperation will appear in staff cultural models—both in their statements and in their drawings—due to their salience in staff literature (Gibbs & Kharouf, 2020; Lindman & Tahamont, 2006; Szekeres, 2011). However, *how* these themes (and others) will be characterized in interviewee comments and drawings remains an open question.

We present an analysis of three staff-led grassroots teams at a large, public U.S. university. Formed between 2016 and 2017, these teams engaged in problem solving to improve student outcomes. The initiatives of these three teams were institutionalized successfully, that is, they were fully integrated into university policies and practices (Rodríguez-Mejía et al., 2020). Cultural change evident in initiative institutionalization "produces a cohesive pattern of change" blended into the "organizational structure, beliefs and expectations, and behavior rather than being a 'cosmetic' or

Table 1 Data Collection Attributes by Grassroots Team

	Flex Co-Op	Mentorship	Intercultural Competency	Total
Number of Interviews	8	6	6	20
Average Duration (in minutes)	18.9	17.8	25.5	21
Number of Drawings	16	12	12	40

transitory change" (Briody et al., 2010, p. 8). We explore the internal dynamics of these staff-led teams and the wider network of connections that contributed to team input. We were interested in both the similarities and differences across the three teams since we knew from our earlier research that there was a high degree of consistency between the team's purpose and the job duties of individual staff members (Rodríguez-Mejía et al., 2020). Our research questions are designed to explain the success of these teams:

RQ1. How do professional staff interact and collaborate with each other?
RQ2. What do cultural models reveal about staff impact on organizational-culture change?

Data and methods

This article is based on a five-year project that examined organizational-culture change in an Engineering School (ES). In our ethnographic study, we used mixed methods including individual interviews, focus groups, documents, surveys, and observations (Fetterman, 2020; LeCompte & Schensul, 2010). Here we focus specifically on team-member statements and drawings. All interviewees provided informed consent. To protect confidentiality, we used pseudonyms in their statements and drawings.

In January 2020, we conducted 20 brief phone interviews, 21 min on average (See Table 1). Based on individual interest, interviewees chose to participate in one of three teams targeting bachelor students:

- Flex Co-Op (on co-operative education)
- Mentorship (on ES mentorship initiatives)
- Intercultural Competency (on intercultural learning and professional development).

Since we possessed comparatively less prior knowledge about the Intercultural Competency team's work, our interviews with this team's members were longer in duration than those with members of the other teams. Additionally, we requested and obtained two drawings from participants during the interviews as described below.

Table 2 Selected Sample Characteristics by Team

	Team Role	Highest Degree	Campus Unit	Position Rank
Flex Co-Op	Leader	BS	ES	Director
Flex Co-Op	Member	MS	Dept. B	Associate Director
Flex Co-Op	Member	MS	Univ. Office	Assistant Director
Flex Co-Op	Member	PhD	Dept. C	Director
Flex Co-Op	Member	PhD	Dept. E	Post Doc
Flex Co-Op	Member	PhD	ES	Professor
Flex Co-Op	Member	PhD	ES	Associate Head
Flex Co-Op	Member	–	ES	Student (3rd Year)
Mentorship	Leader	BS	ES	Director
Mentorship	Member	MS/MBA	ES	Lecturer
Mentorship	Member	BS	ES	Program Coordinator
Mentorship	Member	PhD	ES	Senior Lecturer
Mentorship	Member	MS	ES	Director
Mentorship	Member	–	ES	Student (4th Year)
Intercultural Competency	Leader	PhD	ES	Lead Instructor
Intercultural Competency	Member	MA	Univ. Global Office	Associate Director
Intercultural Competency	Member	PhD	Univ. Center	Director
Intercultural Competency	Member	MA	Univ. Center	Associate Director
Intercultural Competency	Member	PhD	College E	Assistant Program Director
Intercultural Competency	Member	PhD	Univ. Center	Specialist

Sample Characteristics

Our sample consisted largely of staff, and to a far lesser extent, faculty and students. Table 2 illustrates selected sample characteristics by team. The team with the most role differentiation was Flex Co-Op which included five staff, two faculty and one student; at some meetings, employer representatives also participated. Mentorship and Intercultural Competency exhibited significantly less role diversity, though Mentorship had one student.

Relevant for our analysis was that 16 of the 20 interviewees were staff, and of those, 11 were staff in academic departments. Because of its specialized nature, Intercultural Competency had more PhDs among its staff than the other teams and only two of its six members resided in academic departments. All three teams had a mix of participants with master's and PhD degrees, while Flex Co-Op and Mentorship also included at least one student. Highest degree did not predict

team leadership since both Flex Co-Op and Mentorship had staff leaders who hold bachelor's degrees.

Type of campus work unit varied across our sample. Both Flex Co-Op and Intercultural Competency drew from multiple campus units. Flex Co-Op participants worked in four different academic departments and one university-wide office, while members of Intercultural Competency stemmed from one academic department, one college of the university, a global subgroup of a university-wide office, and one university-wide center. By contrast, all Mentorship members were affiliated with ES. Participants in Flex Co-Op and Mentorship held a range of jobs from entry-level (e.g., Program Coordinator, Specialist) to higher-ranking ones (e.g., Lead Instructor, Director); differences in rank corresponded to early-career and mid/late-career positions.

Gathering Drawings During the Interview

We opened the interviews by collecting some general information including the participants' job function at the university, interest in their team's work, and role on their team. In the remainder of the interview, we followed a describe-draw-explain sequence. First, we asked participants to describe their team's internal dynamics. Next, we asked them to draw a conceptual image representing those dynamics. Finally, we encouraged them to explain what they had drawn and why. Our research group recently demonstrated the value of this sequence in soliciting additional detail from interviewees at each step (Briody et al., 2021). We repeated this same process twice during the interview. On the second round, we sought their accounts of connections external to the team which team members had tapped. We also asked about factors facilitating team success and the challenges they encountered.

Data Analysis

Using content analysis for the text and visual analysis for the drawings, two of us coded the interviewee responses and drawings to identify cultural themes and patterns (Bernard et al., 2017; LeCompte & Schensul, 2013). We analyzed each team's data separately, first comparing each interviewee's responses with their drawings, and then examining each team's set of drawings with their interview accounts. Consistent with a cultural models' approach, we compared our results and resolved any differences after both of us had completed our independent analyses of the data. We also analyzed all study participant statements across the three teams collectively, which led to the emergence of shared themes. We then assessed those common themes based on whether they exhibited a presence that was dominant, limited, or not evident.

Background

Between 2016–2017, our research group invited ES faculty, staff, and students to contribute to a number of grassroots teams to tackle various issues within ES organizational culture (e.g., bachelor research, TA [teaching assistant] training); no other

campus units engaged in similar grassroots problem-solving teams. Eventually, 12 ES teams were convened with the participation of volunteers. The teams initially worked with a facilitator who was trained in the Strategic Doing (SD) process, an approach that emphasized the rapid formation of collaborative groups and a dedication to solving specific departmental issues using measurable goals (Morrison et al., 2019). However, SD lost its staying power over time—both its emphasis on its key principles and its facilitators—resulting in team self-management for most of their time together.

Teams began coalescing as the grassroots problem-solving concept was promoted within ES. The topical focus for three of the 12 teams arose from an experiential learning strategic planning session organized by an ES staff member in Summer 2017. All three had the potential to affect student learning and performance positively and help students prepare for their future careers. Two of these three staff-led teams, Flex Co-Op and Intercultural Competency, expanded team membership through other staff volunteers; in both cases, these teams needed buy-in, advice, or expertise that resided in campus units beyond ES. Table 3 outlines selected team characteristics, including the initial framing questions which guided the work of each team. Team duration and participation varied. Flex Co-Op and Mentorship routinely had high participation levels compared to Intercultural Competency. Mentorship completed its work by 2018, with Flex Co-Op and Intercultural Competency following in 2019 and 2020 respectively.

Flex Co-Op Team Results

Co-operative education programs (or co-ops) enable students to alternate between semesters of study and employment while seeking their degree. The university offered three-term and five-term options in which students were placed with the same employer three (or five) different semesters interspersed with semesters of study. Because many students wanted to work at more than one company, and because the five-term completion rate had plummeted, the Flex Co-Op team was assembled to see if it could develop a "flexible" program.

Guided Collaboration

Members of Flex Co-Op specified the importance of collaboration by talking about traits in their team such as "sharing openly," "cross-communication," "engagement," "trust and respect," "nonjudgmental listening," and "willingness to open up." Seven of the eight illustrations about internal team dynamics depict members of the team being physically linked to one another in a specific space. Team members are usually shown seated around a table. In four of these eight illustrations, collaboration is depicted through lines and arrows representing the interchange of ideas and information during their meetings.

Team members recognized leadership's importance. The team leader was a source of "institutional knowledge" related to team goals while the SD facilitator constantly

Table 3 Selected team characteristics

	Initial Team Framing Question	Team Duration	Average Number of Members
Flex Co-Op	How could university Co-Op Programs be more flexible for students and of higher impact?	2017–2019	9
Mentorship	How could ES leverage its extensive, extremely successful alumni network to grow, develop, and mentor current ES bachelor students?	2017–2018	7
Intercultural Competency	What would it look like if ES students possessed exemplary intercultural competencies by graduation?	2017–2020	3

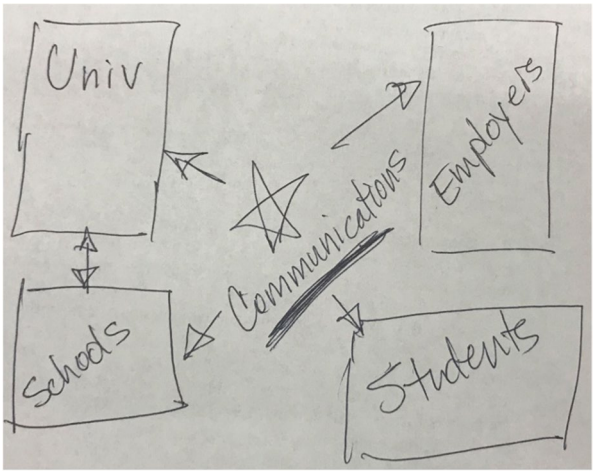

Fig. 1 A five-pointed star with the word "Communications" under it emits arrows in four directions leading to four rectangles labeled "Univ" (University), "Employers," Schools," and "Students" respectively, while a double-sided arrow connects "Univ" and "Schools"; the arrows symbolize the importance of information sharing with these four stakeholder groups

fueled and focused the discussion. The team leader stated: "We had a combination of facilitators because I specifically didn't want to lead that team because I had a very strong opinion on what direction we should go (in) and I wanted to have everybody speak openly." The use of SD principles declined: "as we progressed and we did a pilot that was successful, and we transitioned into implementation mode, we didn't feel like we needed a facilitator."

Outreach

Interviewees connected with others outside their team, functioning as an information chain and accumulating input to guide team decision making. One staff member reported that by contacting other universities, "We found out that our very traditional, rigid program was fairly unusual." The team leader pointed out that they had "a lot of regularly-scheduled meetings that communicate with faculty and staff…So, we would give presentations at those meetings on a regular basis in terms of, 'Here's where we are on implementing the Flex Co-Op Program' and answer their questions and get approvals." One staff member reported: "I spent a lot of time…talking to the employers at the Career Fair about what Flex Co-Op is." Fig. 1 illustrates team-member outreach to co-op employers and others.

Managing Resistance

Initially, some team members did not accept the rationale for a flexible program. The Flex Co-Op team had a mix of members who came from five different academic units whose co-op programs were distinctive, as well as an existing set of employers used to the status quo. One team member commented, "One of our sister Schools…had always had very strong participation like in the five-term co-op and (was not) really so open to the Flex idea." A professor argued, "Companies have

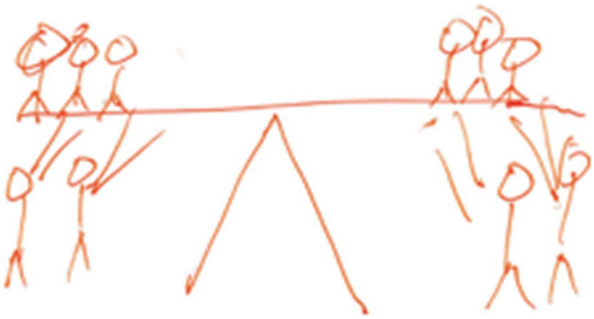

Fig. 2 A fulcrum, along with two people on either side of it, balance a platform holding three people on each side; those supporting the platform represent the team members while those standing on the platform represent the stakeholders

invested in this student and why would they want to give them up after a couple of work sessions?" We observed tension across those representing the five "siloed" academic units, as well as with the employer representatives—all of which had to be addressed with care.

Team members in favor of Flex Co-Op worked hard to answer their colleagues' questions and address their concerns. For example, one team member stated the team "didn't force (Flex Co-Op) on any employers, but (we) told them what it was about, why we were doing it, why it might be advantageous to them, and sought out employers that were intrigued enough that they wanted to try it." The team's end goal was to reach agreement that the Flex Co-Op idea had merit and should be implemented as a university-wide option. Figure 2 illustrates one team member's illustration which symbolizes how the team coped with resistance. It shows a platform on a pivot with the Flex Co-Op team on top "coordinating and creating balance on a precarious platform" while the various stakeholders "brace and support it and stabilize it."

Arriving at Consensus

As the weeks turned into months and initial team opposition waned, a cultural model of collaborative problem solving arose revealing a negotiation and consolidation of ideas. As this staff member recalled, "It never felt like an argument. It always felt like, 'Oh, have we taken this into account? Oh, have we taken that into account?'" Similarly, another participant pointed out, "As time went on and these people all saw the benefits of what we were trying to do…It wasn't all at once. So, we brought them along." The faculty team member illustrated the team-leader "driver" who is "behind the wheel of this thing" (see Fig. 3). He continues, "It's got to be [a very large car] like a Pontiac Bonneville—you know, 1968…She is talking to people when she stops the car. They get in the car, they talk more, and by the end of the trip, there are probably 20 people in the car."

Eventually Flex Co-Op launched its pilot in Spring 2018 and one year later was implemented as a university-wide initiative. As the university website explains, "students and employers commit to a minimum of 2 work sessions, then either have the option to keep going for 1–3 additional terms, or to start a work session rotation with a new student/employer for a minimum of 2 work sessions." Several team

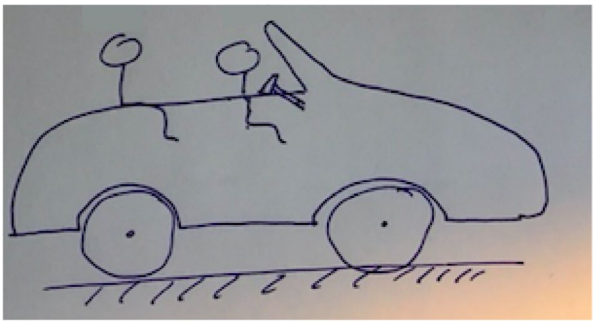

Fig. 3 A car carrying a driver and one passenger is moving along a road; the driver represents the team leader while the passenger symbolizes the various team members

members continue to attend co-op advisory council meetings to support other innovative developments and challenges.

Mentorship Team results

The Mentorship team, emerging from a previously unsuccessful program that brought together ES faculty and students, was plagued by technical problems for many months. Initially it focused on attracting alumni. The focus pivoted to student-peers as mentors shortly after the team was formed. Team leadership remained steady, though it had to contend with some team-member turnover due to unsolved technical issues.

Persistence Despite Challenges

Mentorship illustrations provide a chronological glimpse into the work of the team. Figure 4 presents a graphical illustration of the team's trajectory to "success" by the team leader. In it, the team's journey was marked with ups and downs. A notable period, identified as the "crash," took place in Summer 2018. One issue involved setting up a website:

> We thought, 'We can connect students who want to be mentored with students who want to be mentors or alumni that want to be mentors…And everyone's going to flock to this website and it's going to be awesome!' Well, it's (sic) kind of a dud. It…did not work at all…That was when I was kind of getting disconnected from the team.

The matching platform that paired mentors and mentees and was managed by central staff was a second issue. One staff member emphasized the difficulties in "getting the platform to work and that being kind of a frustrating process because of the IT (information technology) resource and the (team) turnover."

However, the internal dynamics of the five core team members reflected a strong sense of resilience. One team member indicated that it was due to certain members' "commitment to not fail." Another individual stated that some team members "were okay with challenges, setbacks, whatever, because we just saw them as bumps in

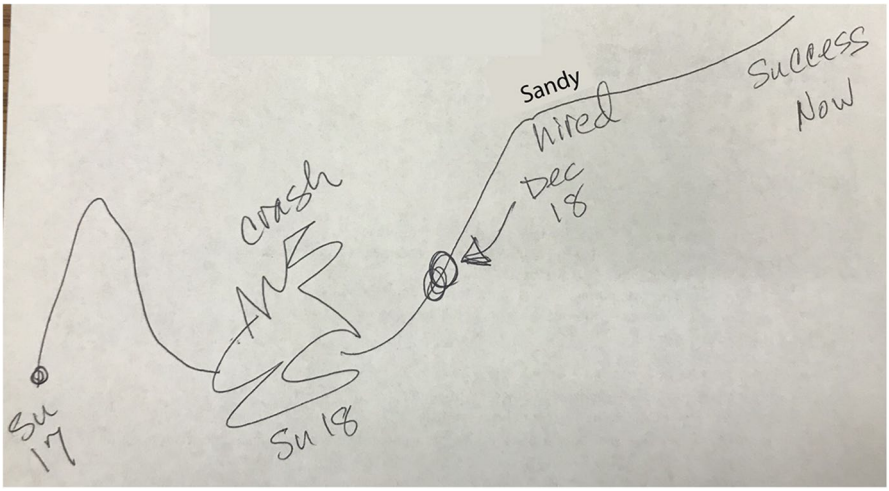

Fig. 4 A circuitous line is marked by key dates and events in the team's evolution; the team began in summer 2017, crashed in summer 2018, hired "Sandy" in December 2018, and ends with the word "success"

the road that we just had to work through. We kind of had our eyes on a longer-term goal and vision." The main goal, as one team member described, was "serving the students."

Leadership Qualities

Two leaders played prominent roles in the team's evolution. One was the team leader who explained, "I felt like (Mentorship) was too important to not implement, and we had to find a way." Another team member stated, "The team leader…had the agenda…kept us all on track, made sure that we were reviewing our action items and making progress. And when we weren't making progress, she would help hold us accountable." Yet, despite significant effort, "our team couldn't do it on our own. We just didn't have enough time (in our work schedules) dedicated to doing it."

A "turning point" came in December 2018 (see Fig. 4). The team proposed to ES departmental leadership hiring a new staff member, "Sandy," whose responsibilities would include managing Mentorship activities. Figure 5 shows five double-sided arrows in a circle with Sandy's name. While the arrows indicate team collaborative interactions, the positioning of Sandy's name at the top suggests his level of authority and responsibility. For peer mentoring, Sandy created a blog to serve as the matching platform. The team leader emphasized that Sandy "personally fixed it himself and made it light years better such that the next pilot…was truly successful. And that really turned that team around." Her view also was shared by others regarding the alumni mentor program: "Sandy brute-forced a lot of…the matching process," meaning that he made the matches by hand. With these changes, teammember resolve strengthened, and the initiative rebounded.

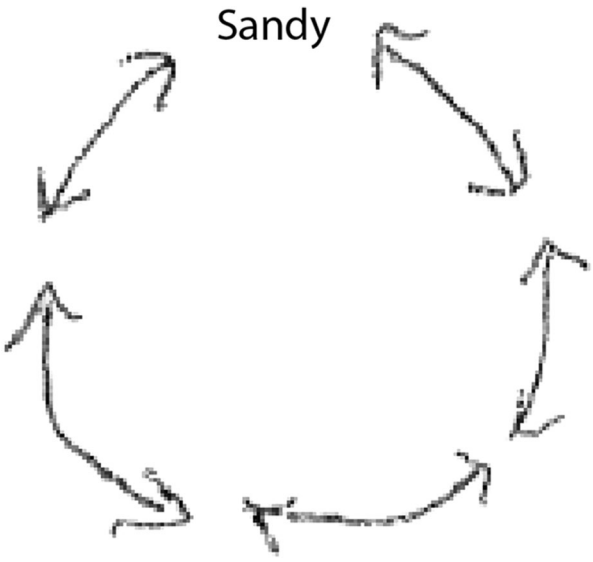

Fig. 5 Five double-sided arrows arranged in a circle with the name "Sandy" at the top of the circle; the arrows symbolize the team members while "Sandy" represents the team leader

Ongoing Strategizing to Secure Participants

To gain a foothold in ES student and alumni populations, team members exhibited their cultural model by drawing on input from their connections outside their immediate team. One staff member commented, "Right directly on the team…each of them kind of reached back into their own world, own organization." The goal was to identify people and units within universities that had industry connections. For example, ES' philanthropic contact was helpful according to one team member: "We also had someone from the advancement office that was kind of our connection into alumni and (consequently)…industry…(since) most of them (alumni) are working in industry somewhere."

Other brokering patterns appeared as well. Academic advisors, two of whom were part of the core group, were initially involved in recruiting mentees. As peer mentoring got up and running, these advisors helped find mentors among upperclassmen. One staff member pointed out, "Anytime I'm trying to find more students to be mentors or kind of get the word out, I always go to the academic advisors in ES." ES honor society members also played a crucial brokering role. A staff member explained, "The students…were going back and talking with their organization… trying to just get…broader opinions…They helped us do a survey as well with some students to try to get some data around what students were looking for." As Sandy reported:

> The goal is for the program to kind of recruit for itself…students are mentees in their (2^{nd}) year and then they're mentored by an alumni (during 3^{rd} year), and then they see the value of those two, then they'll want to sign up to be a mentor (during 4^{th} year)…The goal is to…create that cyclical pattern of mentors coming into the program.

The Mentorship team continues but now performs a different function. Two of the original team members and a rotating set of students serve in an advisory capacity to Sandy, who is responsible for all ES Mentorship.

Intercultural Competency Team results

Several university initiatives associated with intercultural learning had acquired resources and support from high-ranking university administrators. Training campus units to disseminate intercultural learning is considered a priority for the university and all engineering schools. Staff members responsible for these initiatives knew each other, advised each other, and collaborated occasionally. This team emerged when an ES lecturer wanted to intersperse intercultural learning into a few ES 2nd-year courses. The lecturer, referred to as Marc or the team leader, secured the support of the ES Head who suggested he work with the university's Intercultural Education Group (IEG). Three IEG staff joined his team along with two team members from two other campus departments.

Focus on Own Role

Understanding the work of this grassroots team was difficult, involving repeated comparisons between team-member statements and their corresponding illustrations. Ultimately, two clues emerged. First, individual work duties seemed more prominent in our discussions compared to work done as a team. For instance, one team member spent the majority of time speaking about his own work obligations. Another team member talked about her responsibilities on the team "in terms of consulting on what instruments would be best to use [to measure intercultural competence], what protocols and those kinds of things." Yet, immediately following her statement, she spoke at length about her own organization's work. This same pattern held for the team leader. His intercultural learning goals complemented those of other university units. He explained, "I've been working with (IEG) on a smaller scale with just my class for a while." An IEG team member confirmed, "Marc has a tendency to drop into the office and talk to whoever because he knows we all understand this pretty well."

Collaboration Outside the Team

A second clue was that three interviewees collaborated individually with the team leader rather than as part of a larger team. One participant stated, "I primarily worked with Marc…(and) of course, his TAs (teaching assistants) that I trained." Another explained, "I really enjoyed actually working with the team and I told Marc even like whenever he would want to meet again or something, "Let me know and I'll be very happy (to help)." Describing her drawing (see Fig. 6), a third participant stated: "There's a circle for Marc and…a few lines below that is four circles…(which represent each) person as a project lead (at IEG), depending on which year…I've got lines

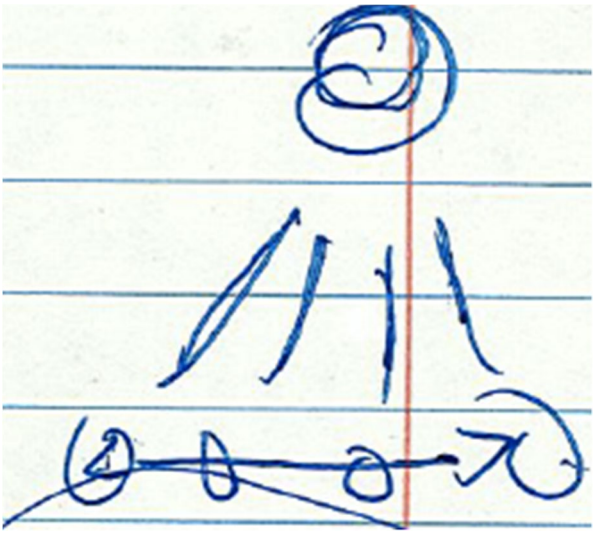

Fig. 6 A large circle at the top is connected by lines to four smaller circles, which, in turn, are connected to each other by a line; the large circle represents the team leader depicted in a hierarchical arrangement with four others

that go between Marc on each of these people and then a line that connects the people along the bottom. Discussions go back to Marc."

Emergence of a Network, not a Team

Intercultural Competency exhibited some differentiating features in comparison with both Flex Co-Op and Mentorship. Foremost among them was the lack of team-specific details in the drawings and in descriptions of their drawings. Five out of the six drawings did not depict the existence of a team. For example, Fig. 7 illustrates those entities belonging to the professional network of a particular team member (James).

Even the team leader, responsible for bringing together intercultural-learning specialists to help him with his own initiatives, drew a network. The intercultural competency experts who were part of his network all knew each other due to prior consultations and projects on which they had worked. They were willing to assist him, but no one described the group as a collective intent on achieving a central goal. Consequently, the dynamics of this team represented a sharp contrast with the other teams given that much of the work, at any given time, was done by various pairs or a small subset of team members. As one staff member put it, "Marc, Helen, and I were all interested in developing global competency amongst Engineering students. We worked on many of (our) own initiatives and worked together when our paths collided to so to speak."

Strategizing Around the "Technical"

Unlike Flex Co-Op and Mentorship, Intercultural Competency involved curricular changes—the purview of the faculty even though this team had no tenure-track faculty (or student) participation. Marc spearheaded this integration of intercultural

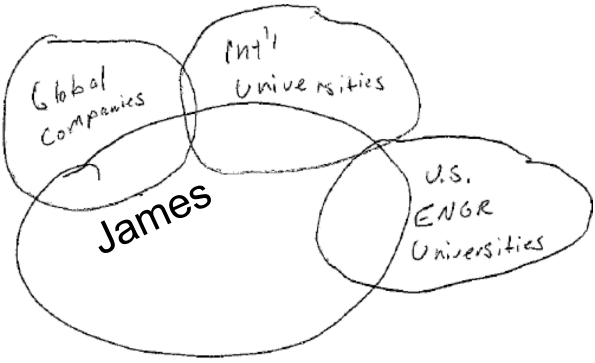

Fig. 7 A Venn diagram of one team member's professional connections illustrated by partial overlapping circles with global companies, international universities, and U.S. engineering universities

learning into ES coursework. His reliance on his faculty relationships and persuasive abilities was "real challenging," partly a function of the time required to modify existing courses and partly the perception that courses were already "jam-packed" with material. Other interviewees suggested that intercultural competency can be a "difficult sell…because engineers are very much into technical things," or "this sort of nebulous area of the intercultural, or the global, or diversity (and) inclusion—those kinds of things—they're not always comfortable with it."

Despite the obstacles, intercultural learning is underway in ES. Several courses have lab sections run by trained TAs which include examples and exercises related to cultural differences. Moreover, evaluations of intercultural competence are conducted among 2nd and 4th year students, with additional activities planned for the near-term. To date, intercultural learning in ES has been successful. First, as one individual expressed, "there was a mandate that came out of the Faculty Senate that all (bachelor's) programs had to embed intercultural learning into them." Second, the intercultural learning network continued its push for intercultural-learning acceptance and adoption by tapping into and relying upon their various connections to assist them. Staff routinely tried to 1) secure endorsement from senior administrators so they "have that support moving down the ranks," 2) "meet (instructors) where they already are," providing customized course suggestions, 3) create ready-to-use "modules" that instructors "don't have to teach," and 4) lean on PhDs working as staff instructors who value intercultural learning to help persuade faculty. All such efforts have been running in parallel with numerous university-wide interests.

Shared results across teams

The discourse and drawings provided valuable insight into team variation. Our next step involved an analysis of the set of interviewee statements to identify themes and subsequent team commonalities. Unlike the earlier analyses, this one focused exclusively on discourse. The goals included 1) allowing freely elicited themes to emerge, and 2) comparing these themes across teams as a single collective. We organized the emerging themes into four categories related to team

Table 4 Commonality of themes by grassroots team

	Flex Co-Op	Mentorship	Intercultural Competency
Team structure			
Keeping the team size small	○	○	○
Purposefully selecting a functionally-diverse team	●	●	
Having a leader(s) keep the team on track	●	●	○
Using Strategic Doing skills	○	○	○
Team-member interactions			
Speaking openly and with equal voice	●	○	
Listening/respecting/trusting	●	○	
Being open-minded	○	○	
Working together	○	●	
Engaging in a high level of cross-communication	○	○	
Providing valuable input	●		○
Process outcomes			
Demonstrating dedication, commitment, and perseverance related to team goals	●	●	●
Problem solving	●	●	●
Arriving at consensus	○	●	
Tasks outside meetings			
Gathering input, benchmarking data	●	○	
Communicating, persuading, and involving all stakeholders	●	●	●
Getting buy-in and approval	○	○	○

●, dominant presence; ○, limited presence.

functioning: team structure, team-member interactions, process outcomes, and tasks outside meetings. Table 4 compares these themes by team.

Several themes commanded a "dominant" presence in study participant statements, characterized on Table 4 by a dark circle with four solid dots. Between five and 20 mentions were associated with these themes. Members of all three teams identified the importance of *demonstrating dedication, commitment and perseverance related to team goals*. For example, a Mentorship team member commented, "Everyone volunteered because they had an interest and a desire to work on this." Similarly, a representative from Intercultural Competency remarked, "I think all of us who were involved weren't doing it because we got roped into it or were assigned the task in a top (down) way. We were all obviously invited in but were innately passionate about the particular project that we were working on."

Such dedication complemented the *problem solving* that routinely occurred across the three teams. Team members were tasked with isolating and exploring issues, identifying and agreeing on approaches to potential solutions, and implementing and evaluating a given solution. All team members raised questions repeatedly as they explored options and worked to address their potential consequences. This statement by an Intercultural Competency team member describes

this pattern: "Okay, What's the intercultural learning outcome? How can we put that into a thing that will seem important to engineering students? What's an activity that we can do that will help them move forward on a skill of intercultural competence?" In all team discussions, "the pros and cons" were deliberated until a potential solution emerged with a decision to "give (it) a shot." When solutions were rejected, problem solving was exhibited in a return to the "drawing board."

A third theme, *communicating, persuading, and involving all stakeholders,* was viewed as playing a critical role in team success. A Flex Co-Op team member reflected, "We went out and interviewed our own students from our programs. We talked to industry reps" while another commented, "We all have our own Co-Op employers that we work with continually that we needed to inform… about, 'Here's what Flex Co-Op is, and here's what it means to you, and here's why you want to be involved.'" Accessing pre-existing relationships was often a useful strategy as this Intercultural Competency team member pointed out: "We tend to start with those champion faculty members and on a smaller scale, work with just their students, and then eventually try to rope in more faculty members so that it becomes a sustainable part of a curriculum."

Having a leader(s) keep the team on track was a fourth theme shared in common across the three teams; its presence was not as dominant in Intercultural Competency. Referring to the team facilitator, a Flex Co-Op team member stated, "I thought she was a very effective person keeping everyone focused, keeping everyone on the ideas and the tasks." A Mentorship team member offered this comment about its team leader, "I give her a lot of credit for bringing in all the information and all the stakeholders and just driving the process forward." Leadership direction and guidance helped ensure that the teams' work progressed.

Other freely elicited themes did not appear as frequently in study participant statements. We characterized their presence as "limited" since there were between one and four mentions of them; these themes are indicated by the lighter circular symbol with three open dots. Three additional themes had a limited presence across all three grassroots teams. First, *keeping the team size small* was identified as helpful to the collaboration. Second, *using Strategic Doing skills* played a role in launching the grassroots teams. Third, *getting buy-in and approval* enabled the teams to complete their work.

Some teams did not mention every theme associated with Table 4. Part of the explanation for this pattern is related to the variation across teams, illustrated in the results sections incorporating the discourse and drawing analyses of the individual teams. Another explanation is that some themes were not "top of mind," despite playing some role in team functioning. For example, no one on Mentorship explicitly mentioned the theme *providing valuable input.* Yet, we should probably not assume that such input was *not* part of Mentorship functioning. It may have been that each team member's contributions were not notably different in quality and that their contributions were typically considered valuable.

Discussion

Identifiable staff Characteristics

We begin with RQ1: How do professional staff interact and collaborate with each other? We singled out four characteristics based on our analysis in Table 4. These characteristics were shared by the three grassroots teams.

- *Goal orientation* – Individuals self-selected into a team as volunteer members out of personal/professional interest. They "cared deeply" about and expressed "passion" for their team's work. They worked to maintain a broad perspective of the issues as they explored how the various parts (e.g., diverse and divergent viewpoints) might integrate within the whole. This quality required a focus on all stakeholders—their expectations, requirements, and capabilities—so that solutions could be developed and tested.
- *Problem solving* – All three teams faced significant challenges as they attempted to develop innovative solutions while working within existing university structures and practices. Divergent views within the teams were at play. The teams recognized that they had to adjust to changes expected of them by key stakeholders or they would fail. When one solution was unsuccessful, they offered alternative suggestions or rallied behind "Plan B." Thus, team members worked cooperatively with one another in the hopes of finding common ground and a "path forward."
- *Proactive, persuasive communication* – Team members emerged as enterprising, motivated, take-charge individuals. They acted as liaisons between their team and stakeholders beyond their team, often relying on pre-existing relationships for those initial discussions. To assist their efforts, they also "brought in Marketing," delivered PowerPoint presentations, or employed video-recorded testimonials. They learned to identify and talk about the value of their innovative work to all stakeholders.
- *Decisive leadership* – Team leaders from all three teams came across as determined, resolute, and seeking definitive results. Flex Co-Op's leader actively sought a facilitator to ensure objectivity in managing the team process. When Mentorship exhausted all avenues for addressing its technical issues, the wheels were put in motion for a paid staff position. Intercultural Competency's team leader consistently acted as decision maker to incorporate intercultural learning into ES courses. Effective leadership played a central role in team success.

Notable about this set of qualities is that staff took a clear-eyed and holistic view of their goals; this holism is consistent with Graham's (2012, p. 2) characterization of staff holding "systemic knowledge." They solicited expertise and guidance from key stakeholders. They figured out ways to move their projects forward, even in the face of setbacks. Consequently, perseverance became an essential staff characteristic as new strategies were put in place to enhance success.

Thus, staff response entailed being proactive with emergent issues, decisive in decision making, and adaptive to changing circumstances. When we consider these four qualities as a whole, the evidence of a "can-do" spirit among staff, particularly those in academic departments, is striking.

What accounts for this constellation of staff characteristics? We believe it is largely attributable to work role alignment or the "degree of consistency between the team's purpose and individual job duties" (Rodríguez-Mejía, 2020, p. 1105). Increasingly, staff are hired for their specific areas of expertise (Gibbs & Kharouf, 2020), are sought for or have the potential to acquire the appropriate credentialling (Szekeres, 2011) and are expected meet certain job performance standards (Baltaru, 2019; Graham, 2012). Other researchers such as Kezar et al. (2011) emphasize job features among staff that mirror the commonalities across our three teams (e.g., accessing members of their networks, partnering with stakeholders); the phrase "grassroots leadership tactics" emphasizes staff organizational impact (2011, p. 131).

Another critical component of a given culture or subculture is the set of beliefs, assumptions and perceptions that motivate action. Locke and Guglielmino (2006, p. 227) highlight staff "mindset," along with perceptions of planned change, as a core element of staff subculture. A commonly shared theme in our data, *demonstrating dedication, commitment, and perseverance to team goals,* reflects a system of beliefs. By demonstrating their orientation to their team members and missions (Buyarski, 2004), we see that staff not only put their beliefs on display but are also able to define who they are rather than being relegated to a definition of "what they are not" (Allen-Collinson, 2007, p. 301). Indeed, staff should not be viewed in terms of a catch-all "non-academic" category, but rather as a distinctive group of professionals engaged in both university functioning and change. Moreover, their cooperative abilities enable them to work across internal university boundaries and status hierarchies so that their colleagues feel welcomed, accepted, and energized (Gibbs & Kharouf, 2020).

Structure and Dynamics of Staff Initiatives

Now we turn to RQ2: What do cultural models reveal about staff impact on organizational-culture change? Our analysis of differences across the three teams yielded—in both interview transcripts and participant drawings—two distinctive, overarching cultural models. The first of these models is derived from the similarities between the Flex Co-Op and Mentorship teams (See Table 5). Collaboration and communication were core elements of team dynamics and interactions, paralleling "value co-creation as an outcome of collaborative processes" as described by Gibbs and Kharouf (2020, p. 11) and an "expectation of teamwork" (Buyarski, 2004, p. 121). Collaboration, or working effectively with team members, took various forms (e.g., listening, speaking openly, being open-minded) as indicated in Table 4. Communication, which involved sharing and receiving input, enabled team members to raise awareness of their team's work and gather insights for making informed team decisions. Moreover, team members employed the same collaborative and

Table 5 Dynamics and Structural Comparisons by Team

	Flex Co-Op	Mentorship	Intercultural Competency
Internal team dynamics	Collaboration and communication	Collaboration and communication	Cooperation and advice
Team-stakeholder dynamics	Addressing employment concerns	Overcoming technical obstacles	Tackling faculty resistance
Role of team members	Decision makers	Decision makers	Advisors
Role of team leader	Guide	Guide	Decision maker
Stakeholder(s)	Students; employers	Students; alumni	Faculty; ES Head

communicative attributes within their teams as they did with their external connections. In Flex Co-Op, team members addressed employment concerns arising from both students and employers. In Mentorship, they overcame technical issues that had the potential to derail their team's work.

Structural similarities are also evident between the Flex Co-Op and Mentorship teams (See Table 5 and Table 4). Team leaders purposely selected a functionally diverse team. The team leader's role was influential in guiding the team, keeping it "on track," adapting to emerging challenges, addressing stakeholder concerns, and leading the team decision-making process. The resulting cultural model, exemplified artistically in Fig. 2, reflects both the dynamics and structural similarities between Flex Co-Op and Mentorship. It references interactions with a broad set of stakeholders and broker organizations. This cultural model represents *a focused team collaboration balancing input from multiple stakeholders*. It lays bare the divergent issues and perspectives that were overcome by team member persistence and ultimately resulted in consensus.

Intercultural Competency functioned differently from Flex Co-Op and Mentorship (See Tables 4 and 5). Its internal dynamics were contingent on the team leader who scoped out a series of successive projects for which he sought advice and assistance. His cooperative relationship with team members was usually limited to the individual(s) with the specialized knowledge he sought at a given point in time (Gibbs & Kharouf, 2020). Consequently, the team members—all staff—were rarely together as a group in meetings and did not engage in a decision-making capacity. The team leader encountered some resistance in persuading faculty to integrate intercultural learning into the curriculum due to their priority on technical topics. However, he was able to appeal to the ES Head for support, ultimately arriving at the solution to integrate intercultural learning into the lab curriculum. This second cultural model is reflected in Fig. 6 in which the leader performs the bulk of the work. This cultural model represents *a leader-driven initiative informed by a cooperative expert network*. Figure 6 illustrates the potential of the hierarchy to secure input and achieve goals.

Both cultural models were associated with success. From a process perspective, the staff-led teams committed to their tasks, performed them well, and when necessary, created workarounds to achieve their goals. From an outcomes perspective, the three teams achieved their goals and changed procedure and policy that affected student skill development and learning. The drawings help to enhance the critical concepts of multiple-stakeholder differentiation and commitment to resolution (see Fig. 2) as well as individual initiative and control (see Fig. 6), concepts which would have remained largely implicit when considering the interview transcripts alone.

Staff as Change Agents

Staff are on the frontlines with students in the array of student services offered centrally through the university and in departments/schools. Due to their roles, they are positioned to assess existing learning processes—both through their own observations and from key stakeholder input. Such awareness primes them to be first

responders: to address aspects of departmental and university functioning that are less-than-ideal, innovate by seeking assistance from their networks, and consolidate their knowledge and expertise to achieve a "better way." Their collective orientation appears to be heightened and enriched when they are building or deepening their work relationships (Chang et al., 2019; Gray, 2015; Lindman & Tahamont, 2006). Staff we interviewed are action-oriented practitioners—pragmatic problem solvers and developers. Their impact occurs in the near-term, meaning that the effects are felt quickly within the wider departmental and university communities.

Staff have carved out functional areas in which they have had notable influence. Our analysis reveals two broad and distinct strategies that staff followed depending on the organizational change sought. One strategy entailed a collegial set of interactions with a cross-section of the university community and focused on *co-curricular activities*. The second strategy, also emphasizing collegiality, cooperation, and persuasion, involved modifying the labs of selected ES courses (i.e., *curricular activities*). Two strategies—the first, bottom-up and the second, an integration of bottom-up and top-down—bore fruit suggesting that there is more than one path to successful institutionalization. This finding is consistent with the attitudes and commitment needed in "organizing collective action around a critical issue or organizational controversy" (Kezar et al., 2011, p. 134). The dated characterizations of staff as "invisible" (Szekeres, 2004, p. 7) or as "residual" in the university hierarchy (Gornitzka & Larsen, 2004, p. 297) do not reflect current staff attitudes, practices, and goals in cultivating and achieving organizational-culture change.

Yet, much of the literature has not emphasized this important role (Finelli et al., 2012; Kovalchuck et al., 2017; Martini et al., 2019). Perhaps even less well known is how staff emerge as leaders of department-, school-, and university-wide initiatives relating to student professionalization skills generally. Establishing the department-based grassroots teams offered a unique opportunity to delve into such longer-term issues. Consistent with Kezar et al. (2011), the ES experience revealed important insights about the valuable work of professional staff situated within academic departments. ES staff actions aligned with and were responsive to calls for enhanced professionalization skills among bachelor engineering students (ABET Engineering Accreditation Commission, 2019; Danielson et al., 2011). They also resulted in an expanded co-op program, alumni and peer mentoring programs, and engineering-based intercultural-learning opportunities, all of which contributed to well-rounded students, improved student outcomes, and enhanced student job-market readiness. In addition, staff work helped penetrate the tight faculty grip on curriculum, offering additional evidence of "overlap" across higher education roles (Schneijderberg & Merkator, 2013, p. 80) and the "blurring of traditional roles between professional and academic staff" (Graham, 2012, p. 438).

Conclusions

University culture, comprising all people working and learning on campus, merits greater research attention. Although staff roles have increased in number and visibility over the last two decades, much of the more recent literature has been focused

explicitly on central staff (e.g., student affairs, student services). Our study contributes to this literature in some important ways. First, our study was initiated in response to emergent issues in academic departments. All three team leaders were affiliated with ES and the majority of staff team members were also from academic departments. Research about staff serving in departmental and college roles in a university likely would provide a useful comparative contrast with staff in central university roles.

Second, in response to RQ1, this study led to the identification of four shared staff characteristics in our staff-led teams:

1) Demonstrating dedication, commitment and perseverance related to team goals
2) Problem solving
3) Communicating, persuading, and involving all stakeholders
4) Having a leader(s) keep the team on track.

These characteristics provide greater insight into how staff interacted and collaborated within and beyond their teams.

Third, our data collection and analysis targeted the discovery of cultural models that were based on both statements and drawings. In doing so, we demonstrate the value of study participant sketches in codifying and comparing concepts of staff work. These drawings offer an "emic" (i.e., insider) view of the dynamics and connections accessed as part of the grassroots, problem-solving teams.

Fourth, in response to RQ2, our study resulted in the discovery of two distinct cultural models of staff work:

1) A focused team collaboration balancing input from multiple stakeholders
2) A leader-driven initiative informed by a cooperative expert network.

Both cultural models enhance our understanding of staff involvement in and impact on organizational-culture change. As a result, we know that the collective work of these teams led to program and policy changes in ES and in the university. Additionally, the teams' work now has a direct effect on thousands of bachelor students each year. Finally, staff work not only links up with students on co-curricular activities, but on curricular activities as well. We conclude that staff engagement in student-related initiatives complement, rather than supplement, faculty roles in student learning. As new university roles emerge and responsibilities shift, studies of staff will continue to shape the future direction of education.

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the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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Ethics approval (include appropriate approvals or waivers) All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. The study was approved (# 1,508,016,395) by the Human Research Protection Program, Institutional Review Boards, Purdue University, W. Lafayette, IN, USA.

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