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Professional Development for Non-Tenure-Track Faculty at the University of Georgia DeLTA Project in STEM

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Multi-Level Action Teams

Faculty Mentoring

✓ Learning Community

✓ Assessment

The University of Georgia (UGA) is a public, research-intensive, four-year university in Athens, Georgia enrolling about 30,000 undergraduates each year. UGA employs nearly 2,700 faculty, including instructional, research, and public service faculty; roughly 41% of these are non-tenure-track faculty (NTTF). The vast majority of faculty across career tracks are employed full time. The institution works to limit the number of teaching-focused NTTF to make up no more than 20% of total instructional faculty, with some exceptions based on institutional needs. While UGA offers a promotion for NTTF from the rank of lecturer to senior lecturer, all NTTF are employed through annual contracts, regardless of rank or length of employment at UGA. Promotion to senior lecturer requires at least six years of service and evidence of instructional excellence. More specific criteria for promotion and any responsibilities associated with the role of senior lecturer are determined at the department level and then approved by the dean.

The Scientists Engage in Education Research (SEER) Center at UGA provides a centralized place for interdisciplinary research on improving teaching and learning in STEM disciplines. SEER is one of six research centers that make up the Owens Institute for Behavioral Research, which provides a mentoring program for faculty, periodic colloquia, sponsorship for faculty for internal and external awards, and comprehensive grant services. SEER includes 21 core faculty members, several of whom make up an executive committee that provides oversight and guidance for the center's research projects and activities.

In addition to being a home for grant-funded projects in STEM education, SEER offers occasional opportunities for professional development of faculty, all of which are open to NTTF. Past initiatives have included invited speakers, poster sessions for faculty to share research, and a variety of workshops on topics including effective teaching, the use of different statistical software for data analysis, and designing educational research studies.

DeLTA Project: Multilevel Action Teams

DeLTA (department and leadership teams for action) is a grant-funded project within SEER that aims to transform undergraduate STEM education at UGA by working at multiple levels simultaneously. With a \$3 million grant from the

National Science Foundation, the five-year DeLTA project focuses on five core commitments to facilitating change: design educational experiences to achieve clear and measurable learning outcomes; base education decisions on evidence, including students' conceptions, capabilities, and attitudes; actively collaborate and communicate about undergraduate education; foster continuous teaching improvement; and promote inclusion and diversity. The DeLTA project team includes 13 tenure-track faculty (TTF) from eight departments across STEM and STEM education fields.

In order to advance education reform, the DeLTA project is employing three levels of action teams within seven STEM disciplines. Instructional action teams (IATs) bring together faculty from different SEM disciplines to focus on improving instruction in introductory courses. Leadership action teams (LATs) bring together departmental leaders to rethink policies and practices related to the ways that departments evaluate and recognize teaching for promotion and tenure. And strategic action teams, comprised of faculty, department heads, and deans, are being created as opportunities arise to engage at the institutional level to support advances in institutional policies and practices related to the role and measurement of teaching and learning. At the institutional level, DeLTA members are working on issues such as promotion guidelines and rewards for NTTF, the teaching evaluation system, and how institutional resources are allocated in support of improving student learning, work that's being facilitated in part by a team member who has previously served as the Associate Provost for Faculty Affairs at the institution.

Action teams are gaining in popularity as an approach to the professional development of faculty and institutional leaders that facilitates measurable change. Therefore, this case study focuses on the course- and department-level actions that have been created as part of the DeLTA project, as well as on the approaches to assessment being used.

Learning Communities

In this section, we describe the design and implementation of both IATs and LATs. These action teams (i.e., at the course- and department- levels) serve as a form of a learning community for participants, engaging them in sustained opportunities for learning and discussion with a cohort of peers.

Instructional Action Teams

Project team members are acting as facilitators for a number of instructional action teams (IATs) consisting of about 5-8 faculty participating, including quite a few NTTF. Facilitators determine which faculty they want to invite to participate based on the goals of the team. Therefore, some IATs are discipline specific, with a collaborative focus on redesigning a particular course. Other IATs are intentionally interdisciplinary, with participants working to create better alignment across courses. Participants are mixed across career tracks.

The project coordinator provides a number of guidelines and resources for IAT facilitators to support successful interactions within teams. For instance, facilitators are advised to ask questions rather than judge, to monitor constructive and destructive behaviors, and to attend to the inclusion of all voices in discussions. The coordinator also asks facilitators to identify when additional resources could be useful and collaborates with staff in UGA's Center for Teaching and Learning to provide workshops or other materials when appropriate.

Meetings follow a structured format, beginning with learning to deepen participants' understanding of readings or other concepts, activities related to meeting the group's goals, reflections on progress, and identification of goals to be met before the next meeting.

Leadership Action Teams

Leadership action teams (LATs) include 13 department chairs from STEM disciplines. LATs are designed to create more evidence-based approaches to departmental practices related to faculty evaluations and policies related to how teaching is rewarded. While participants focus primarily on improving practice within their units, LATs also offer the opportunity to create better alignment in policies and practices across departments. In order to engage as many department heads as possible, each LAT meeting is held twice, with one meeting generally in the morning and the other in the afternoon.

Meetings combine large-group learning and discussions with work focused within smaller LATs. For instance, in the first year of the project, meetings were focused largely on evaluations of teaching. To guide these efforts, the project team employed a three "voices" framework developed at CU Boulder, which defines the voices as student ratings of instruction, peer evaluations of faculty, and individual instructor reflections. Thus, during meetings, the large group learned about the framework and discussed how it might play out within their departments. Then faculty moved into one of three smaller LATs focused on each voice; participants were encouraged to choose a LAT based on the needs and priorities of their department. At the end of each meeting, chairs are asked to identify a specific action they will take before the next meeting. These actions might include forming a committee within their department, talking to their faculty about their needs, or putting a peer evaluation rubric in place.

In collaboration with participants, the project team also identified three departments to pilot new practices related to each voice. Thus, as LAT meetings continue, participants benefit from new resources developed as part of these pilot efforts, examine the data collected, and discuss the challenges and ongoing changes experienced within each department. This approach allows for shared learning while acknowledging the reality that departments and departmental leaders have different levels of readiness for change and capacity for engaging in this work.

The project team is also using an additive approach to LATs, such that at the same time pilot work on teaching evaluations is being conducted, departmental leaders are also starting to engage with other topics related to the five core commitments, including departmental policies and practices related to diversity, equity, and inclusion. As with teaching evaluations, participants are working in smaller LATs focused on specific dimensions of diversity and inclusion they have identified as a priority for their department, as well as engaging in learning as a large group related to issues such as how to analyze course grade data using an equity lens.

Integrating Work Across Levels

At the beginning of the DeLTA project, action teams at each level worked fairly independently. There are different influences shaping the work at each level; for instance, the role of politics is most relevant at the institutional level, while understanding the student population is most important at the course level. Separating participants with different roles therefore allows for a simpler and more narrowly focused approach to change. The multilevel structure also likely creates spaces where participants feel more comfortable engaging in the work that is necessary for change. For instance, department leaders may be reticent to ask questions, share opinions, and be vulnerable in spaces that are shared with colleagues they are overseeing. Similarly, instructional faculty may be hesitant to engage in spaces where they feel their knowledge or actions may be evaluated by department or college leaders. These risks may be compounded for faculty and department heads with marginalized identities and roles, including NTTF.

As the project continues, however, the project team is starting to integrate participants across levels more intentionally. For instance, department heads brought a colleague from their department to a recent LAT meeting in order to develop allyship and facilitate buy-in for change within individual departments. The project team is also creating opportunities for some IATs to present their work at a LAT in order to raise the visibility of faculty's work with their department head, which can be particularly important for the NTTF who have participated in IATs.

Assessment

The DeLTA project is using a multi-pronged, longitudinal approach to assessing change that results from their efforts. For instance, they have created a survey to collect quantitative data from all faculty within the eight STEM disciplines included in the study using a pre-test/post-test design. The survey measure participants' attitudes towards instructional change in STEM and their use of evidence-based practices related to the five core commitments of the project. Through this data, they hope to gain insights into how the project shapes beliefs and practices not just among participants but also among those who do not engage in any teams, capturing broader changes that might occur as a result of dispersion and the changing policies and practices implemented by department chairs. They are also using a journey map for the different individuals involved in their project as participants will not all change at the same time or in the same ways.

Best Practices for Supporting the Success of NTTF

While this list is not exhaustive, we highlight several ways that the DeLTA project supports the success of NTTF in STEM.

- The project aims to create greater transparency and consistency across STEM disciplines in how effective teaching is defined, evaluated, and rewarded, which will have the most impact on NTTF who are in teaching-focused roles.
- Instructional action teams (IATs) offer the opportunity for NTTF to develop and strengthen relationships with other faculty in their own and similar disciplines.
- NTTF may also be more motivated to engage in IATs as they are often more connected at the department level than at the institution level.
- IATs also offers leadership opportunities for NTTF participants within their department as they share their work on improving teaching and learning within specific courses.
- Given the varying cultures and norms across STEM disciplines, LATs may be an effective means of raising awareness
 among departmental leaders about where their departmental policies and practices fall short, motivating them to
 alter policies and practices that are less effective than those of peer departments.
- Strategic action teams are working at the institution level to transform policies and practices to be more supportive of NTTF.

Professional Development for Course-Level Change: Design Summary

In this section, we highlight the design of the instructional action teams, as they effectively support the professional development of full-time NTTF through sustained opportunities for learning and community related to teaching effectiveness.

PURPOSE AND OBJECTIVES: To facilitate the improvement of introductory-level courses in STEM.

PARTICIPANTS: 5-8 faculty chosen by a facilitator to work collaboratively on redesigning a course or several courses.

DELIVERY MODE: in-person meetings.

STRUCTURE AND LENGTH: Meeting are held every other week over an academic semester.

CONTENT: A structured format for meetings that combines learning and deepened understanding of concepts, activities to apply and integrate learning, reflection, and goal-setting. Specific content is based on the objectives of each IAT.

FACILITATION: Facilitated by a member of the DeLTA project team who is a faculty member within one of the included STEM disciplines. Facilitators have training, resources, and support to support their success, including proactive monthly check-ins with members of the project team.

DELIVERABLES: Participants individually create a plan for achieving their goals during the first meeting, are expected to complete readings or engage with resources between meetings, and regularly reflect on their progress towards achieving group and individual goals.

ASSESSMENT: Formative assessment: Mid-year check-in with facilitator including a write-up of the project. Summative assessment: Evaluation of FLC conducted through survey. There was also a post-FLC check-in about three months after the FLC had ended where faculty reflected on the success of their newly implemented practice or program.

COMPENSATION AND RECOGNITION: Participation is not compensated. However, the project team is working to help raise the visibility of participants within their departments and with departmental leaders.

Additional Resources

Center for STEM Learning at CU Boulder. (n.d.). Teaching quality framework. https://www.colorado.edu/teaching-quality-framework/about-tqf [three "voices" framework for evaluating teaching effectiveness].

SEER Center. (n.d.) DeLTA framework. https://seercenter.uga.edu/research/current-projects/delta-project/ [overview of DeLTA project].

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