

Change Leadership Toolkit

# Case Studies: University of Georgia

College of Engineering, School of Electrical and Computer Engineering



An Addendum to the

# **Change Leadership Toolkit:**

A Guide for Advancing Systemic Change in Higher Education

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# CHANGE LEADERSHIP TOOLKIT CASE STUDY OVERVIEW

These Case Studies accompany the Change Leadership Toolkit and demonstrate what it looks like in action to use Leader Moves to promote systemic institutional change. Each case highlights a few key Leader Moves and includes an overview of each institution, the leader at the forefront of the change process, and a description of the Leadership Context and Levers used to achieve the change goal. Collectively, these Case Studies showcase the combinations of Leader Moves and Levers that leaders can use to drive change across different types of institutions. It is important to note that given the lengthy time period for changes and keeping the document brief, these are just examples of Moves, Levers and Context elements and are not fully inclusive of the leaders' change processes.

In any systemic change project, there are a variety of conditions that may influence the Moves leaders choose to make, the Levers they may use, and the ultimate change that is made. As a result, for these Case Studies, we chose to represent leaders in different roles, institutions with varying characteristics, and various types of change projects in order to reflect this diversity and showcase how the Toolkit is useful in a variety of situations. Visit our Change Leadership Toolkit Case Studies web page to see other examples, <a href="https://pullias.usc.edu/clt-case-studies/">https://pullias.usc.edu/clt-case-studies/</a>.



# **Expanding Teaching Support for Engineering Faculty to Promote Evidence-Based Instruction**

#### About the Institution

The University of Georgia (UGA) is a public land-grant research university with its main campus in Athens, Georgia. Founded in 1785, it is one of the oldest public universities in the United States. With an enrollment of 39,147 students, it aims to provide a variety of academic programs and support. As of 2020, their student demographics consisted of 66.7% White, 9.48% Asian, 8.22% Black or African American, 5.72% Hispanic or Latino, 4.06% Two or More Races, 0.115% American Indian or Alaska Native, and 0.0715% Native Hawaiian or Other Pacific Islanders. UGA has established a variety of programs and services both within student and academic affairs with the goal of supporting the overall success of students from minoritized identities.

#### **CASE STUDY HIGHLIGHTS**

- Leader Role(s) and Agency: John Morelock, Associate Director of the Engineering Education Transformations Institute (EETI), and faculty member whose research focuses on institutional change, pedagogy and educational development.
- Goals of Change: Change the culture around teaching and learning in the School of Engineering to support the widespread use of evidence-based instructional practices, expand faculty engagement with professional development around teaching and learning and continue this work in the changing environment of the COVID-19 pandemic.
- Level/Scope of Change: College-wide
- Institutional Type: State Public, Research 1
- Moves Highlighted:
  - Create Vision, Expectations and Pacing (V)
  - Develop Strategy and Resources (S)
  - •Communicate Effectively (C)
  - •Sensemake and Learn (SL)
- Context:
  - Externalities
  - Physical and Financial Resources
- Levers:
  - Lever Category 1: Campus (system) culture, norms and networks
  - Lever Category 7: Funding streams and sources

## Setting the Stage: About the Project

This Case Study describes efforts to change the culture around teaching and learning at the University of Georgia (UGA) through the Engineering Education Transformations Institute (EETI). EETI works across the three schools within UGA's College of Engineering. John Morelock, Associate Director of EETI, was a key change agent in these culture change efforts, which were designed to promote a culture of using evidence-based instructional practices and normalize faculty engagement with professional development (PD) around teaching and learning. While all the Case Studies in this series feature aspects of Context and Levers that shaped the change project, these aspects of the change leadership ecosystem are especially prominent in this case.

John's efforts to promote culture change were super-charged when the COVID-19 pandemic hit. The move to online instruction changed both the scope of the change project (to focus on evidence-based online instruction specifically) and helped rapidly expand faculty engagement with PD on teaching and learning. Many EETI faculty were teaching online for the first time and needed lots of support in transitioning their courses to a virtual environment. The COVID-19 pandemic was thus an important aspect of Leadership Context (externalities) that John and his team at EETI had to navigate to adjust and quickly scale their work.

John and the EETI team applied for and received an NSF RAPID Grant to help them in their efforts to support evidence-based online instruction. The team used a novel research software called SenseMaker to capture and analyze real-time data on the impact of the pandemic on student learning experiences, which in turn shaped their approach to faculty support during this time. While the impact of COVID-19 on university operations and the RAPID grant were time-limited — spanning only the eight months of 2020 during which UGA operated primarily online — the broader changes made during this time have continued to resonate throughout EETI and across the College of Engineering at UGA. This has resulted in a greater and more sustained level of engagement with evidence-based instructional practices and with ongoing development around teaching for faculty across the College of Engineering. Some of these longer-term changes include the ongoing use of virtual labs even in inperson courses; successful experimentation with mastery grading approaches in some foundational STEM courses; and a deeper understanding across STEM faculty of how students learn and solve problems in their courses.

#### **Change Leader Moves**



### **Overview of Leader Moves**

John and his team made a number of Leader Moves as they worked to change the culture around teaching and learning for engineering faculty. First, they worked to create a vision for the shift to online instruction that was aligned with their existing goals of promoting the use of evidence-based instructional practices. By connecting their longer-term goals with the immediate needs of transitioning to online-only classes, John and the team were able to expand the reach of EETI and support significantly more faculty than they had prior to the COVID-19 pandemic (*Create Vision, Expectations, and Pacing*). Additionally, John identified and secured resources to support this larger group of faculty-and their expanded focus on evidence-based practices in online education-through acquisition of a National Science Foundation (NSF) RAPID grant (*Develop Strategy and Resources*). Clear and frequent communication from the EETI team to faculty, students, and stakeholders at all levels of the institution was crucial as they navigated the ever-evolving changes associated with the pandemic and shifted their focus as necessary (*Communicate Effectively*). As part of their communication efforts, the EETI team used novel approaches to gathering data on what was happening in online and eventually in-person classrooms, sharing these data in biweekly community meetings, and seeking feedback on how best to support instructional improvement (*Sensemake and Learn*). Below we highlight some of the key Moves that John and his team at EETI made during this project.

# Create Vision, Expectations and Pacing

EETI had a previously established mission around promoting the use of evidence-based instructional practices and helping support faculty data use in the classroom to improve instruction. When the COVID-19 pandemic hit and UGA shut down its in-person operations, John and his team at EETI were expected to support faculty in the College of Engineering as they transitioned to online instruction. John saw an opportunity in that moment to ensure that EETI's original mission would not be cast aside in favor of the immediate technical and logistical needs of faculty moving their courses to a virtual format. He connected his vision for the shift to online instruction to EETI's existing efforts to promote evidence-based instructional practices and foregrounded research on effective online teaching as his team worked with faculty to make the shift. He also framed the vision externally to faculty by using a diversity, equity and inclusion (DEI) lens to emphasize support for minoritized students in engineering specifically. This framing helped build a sense of urgency and importance, as faculty cared deeply about DEI issues even if they had not previously shown interest in using EETI's services to change their instruction.

### **Develop Strategy and Resources**

John and the team also used key Moves in the Develop Strategy and Resources category in order to support this expansion of their work. In particular, they were able to obtain new resources to support the project through their award of an NSF RAPID grant. The grant paid for a new software program called SenseMaker that helped the team gather data on student experiences with online courses to better inform their faculty

development and support strategies. In particular, data gathered through SenseMaker helped the team adapt their strategy to students' realities around online learning infrastructure (lack of reliable internet and quiet learning spaces, for example). This tool also helped expectations more broadly around the use of evidence in instructional decision-making, whether gathered through SenseMaker or via other means.

The grant also helped support new infrastructure in classrooms to support online or hybrid courses. Additionally, EETI sponsored "community-led projects" among engineering faculty — essentially small-scale experiments with new virtual or hybrid instructional approaches. Some of these projects, such as the use of virtual labs and mastery grading approaches, showed evidence of effectiveness and were then used for inperson courses, as well, once the campus reopened. Overall, the new resources that John and the EETI team were able to secure helped build an infrastructure of support for online and hybrid teaching that has persisted well beyond the initial days of the pandemic and has had ripple effects into traditional in-person courses, as well.

### **Communicate Effectively**

John noted that Communication Moves were important for both transparency as he and his team promoted evidence-based online instructional strategies and to generate buy-in for faculty to take advantage of the resources EETI was providing. John and his team had to be careful to emphasize that EETI's traditional focus on in-person instructional support would not be going away despite this COVID-related shift to online instruction support. Messaging focused on the idea that these new resources were not only in response to pandemic-

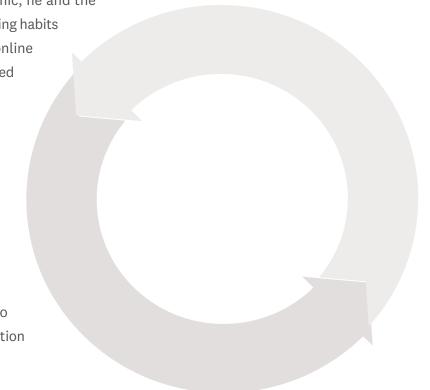
driven changes but were also broadly about improving teaching and learning, and they were driven by evidence of effectiveness. Additionally, John often attended faculty meetings to stay up-to-date on information from the larger University System of Georgia (USG) on its pandemic responses and used this information to more effectively support professional development for engineering faculty. Knowing what was happening systemwide and institution-wide in response to COVID-19 helped John consider instructors' "needs, desires, [and] concerns with institutional messaging about Fall/Spring 2020 teaching" and then develop support from EETI in a way that was responsive to these concerns.

As John planned regular professional development sessions to support faculty during this time, he made a particular effort to find times that worked for the largest number of people as a way to ensure that faculty felt included in decision-making. During these sessions he created spaces to have transparent and inclusive conversations about faculty experiences with students in the online classroom and how to best support faculty needs. Other avenues of communication were through EETI's open forums, where faculty would bring up challenges they experienced in teaching and would work collaboratively on how to address them. During these forums, faculty also highlighted effective/innovative teaching and learning techniques and collaboratively built them into an online learning resource repository. This collaborative approach to improving teaching and learning has persisted even as instruction has shifted back to an in-person format.

### Sensemake and Learn

John also used Sensemake and Learn Moves to help faculty across the College of Engineering understand the importance of using evidence-based teaching practices as they transitioned to online instruction. John noted that during the earliest months of the pandemic, he and the

EETI team "helped faculty negotiate their teaching habits with the requirements and best practices of online learning." The EETI team ensured that they shared "specific practices that were uncommon [for] in-person learning but worked well for online learning (e.g., ways of doing exams without hyper-vigilant proctoring)." By educating faculty specifically on evidence-based teaching practices in an online setting — and calling out how these may differ from in-person practices — John and the EETI team helped faculty in the College of Engineering adapt to their new environment while also promoting their larger goal of improving instruction across the College.



Additionally, as noted earlier in this Case Study, while the EETI team already had a history of encouraging data collection and use to drive instructional decision-making, they experimented with new forms of data as their context shifted during the early days of the pandemic. Specifically, they used a qualitative software tool called SenseMaker, which asks people to share a short narrative of something that happened and how it impacted them — in this case, students shared stories about their experiences with online learning. This rich source of data helped the team make more informed decisions about instruction and instructional support during this pandemic context, while also capturing larger issues and needs that could be addressed once the initial emergency had passed. John and the team released regular reports and presented at regular open forum meetings to share in real time what was happening in the classroom, what students were experiencing, and what else could be done to support students in this transition and beyond. The team also shared results at College and departmental meetings, which John says were "invaluable" in sharing the project progress and connecting emerging themes about the online instructional experience with broader goals of the College.

"The work EETI does has led to a local education system abundant with individuals who make scholarly teaching and the scholarship of teaching and learning a priority when it comes to local decision making."

— John Morelock

# **Focus On: Leadership Context**

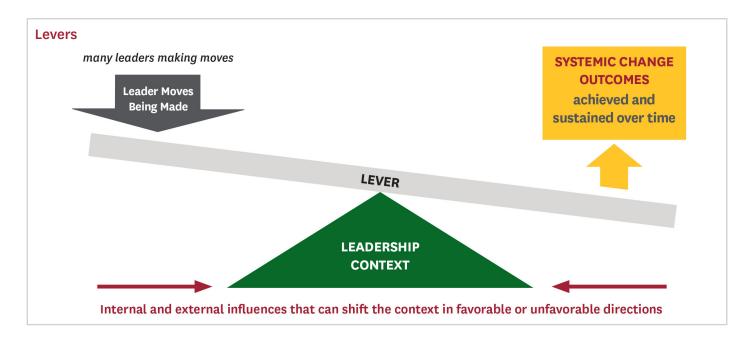
Leadership Context involves the set of internal and external influences that shape a leader's change landscape, influence the Moves made, and provide opportunities or challenges to consider when developing a change strategy.

The most significant contextual factors in John's case were the externalities of the COVID-19 pandemic and the College's existing physical and financial resources. The COVID-19 pandemic — specifically its ensuing lockdowns and the shift to virtual operations on campus — presented both challenges and opportunities for John and the EETI team. With the EETI team, John was able to use the sense of urgency provided by pandemic modality shifts to secure a RAPID grant and make moves in the Create Vision, Expectations and Pacing (V) category to guide faculty on how to navigate these instructional changes. Simultaneously, the team was able to develop a data collection system via SenseMaker to capture — in real time — student needs and how that would translate to faculty support. The team learned fairly quickly that their existing technological and data infrastructure (physical and financial resources) were not sufficient to meet the needs of faculty and students in this new environment. This resource context influenced John's use of Developing Strategy and Resources (S) Moves, as he and the team decided to seek outside funding to support their work with faculty, and Sensemake and Learn (SL) Moves, as they sought new ways to understand faculty and student experiences with online instruction.



### Focus On: Levers

When leaders engage in systemic change efforts, they are faced with many opportunities to amplify change. In the Toolkit, these opportunities are referred to as Levers. A Change Lever is an opportunity that can be leveraged or that can be "pulled upon" or manipulated to advance or accelerate the desired change. In this case, John used two major Levers to help with the change project:



- 1. Lever Category 1: Campus (system) culture, norms and networks: John leveraged the existing networks he and the EETI team had built throughout the College of Engineering to support as many faculty as possible in the transition to online operations. The EETI team already had a history of supporting faculty development for in-person instruction, so they were able to also leverage existing formats and spaces for engagement such as community forums and one-on-one meetings with faculty. Through these existing networks and spaces, John and the team were able to communicate widely about effective, evidence-based approaches to online instruction.
- 2. Lever Category 7: Funding streams and sources: The NSF RAPID grant was a key Lever for change. Without the funding provided by this grant, John and his team would not have been able to provide the level of support and professional development for faculty that they did during the shift to online instruction. John mentioned that faculty had the opportunity to try new and different instructional approaches because the intent of the grant was to support innovation in instruction. The programming from the NSF grant provided a "friendly place for non-tenured faculty [especially]" to engage in trying new teaching and learning approaches without risk. He adds that the NSF RAPID grant was the "most influential in making this work happen and long-term impact" to support student success.

## **Key Takeaways**

While the COVID-19 pandemic was an externally-driven change of unprecedented scope and scale, it is surely far from the last external event that will require creative and flexible responses from institutions of higher education. This Case Study illustrated the ways in which leaders can remain faithful to their mission and goals and even expand their reach as they respond to outside forces beyond their control. John and the EETI team were able to support significantly larger groups of faculty in improving their teaching even as they transitioned to an online teaching format during the early days of the COVID-19 pandemic. Because so many more faculty were utilizing the services and resources of EETI, the Institute was able to expand its audience and drive change that continued even after the campus reopened and in-person instruction resumed. John shared, "the work EETI does has led to a local educational system abundant with individuals who make scholarly teaching and the scholarship of teaching and learning a priority when it comes to local decision-making." The Moves John and his team made during this time laid the groundwork for ongoing change to the teaching and learning environment in the College of Engineering at UGA.

### Reflections to Help You Ignite Change

This Case Study provides an example of how John and his team used the Moves outlined in the Change Leadership Toolkit to enact systemic change at his institution. We offer the following questions to get you thinking more deeply about Leadership Context, Leader Moves, and Levers:

- How did Leadership Context shape Leader Moves in this case?
- How did this Case Study help you to better understand Levers and how they can help motivate or amplify change?
- → What stands out for you in terms of significant Leader Moves that were made?
- → What influence did the leader role and/or agency have on the project?
- → What did you learn that you can apply to your campus change initiative? How might you use the Toolkit to advance change leadership on your campus?

