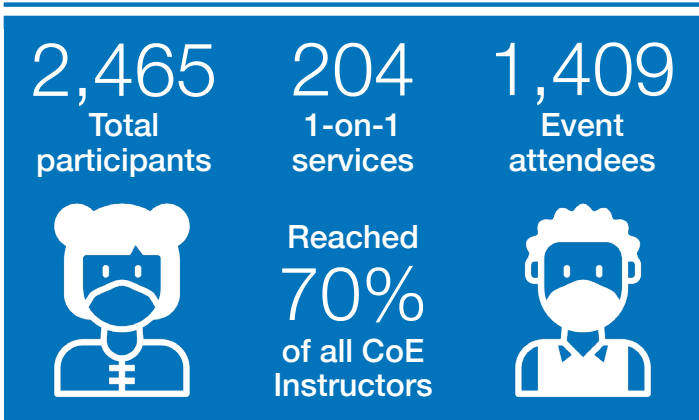




# 2020 - 2021 Annual Highlights

Since 2004, the Center for Research on Learning and Teaching in Engineering (CRLT-Engin) has promoted evidence-based practices in engineering that enable students and instructors from diverse backgrounds and social identities to learn and thrive. In response to the COVID-19 global pandemic, the shift to remote teaching, and social unrest, CRLT-Engin created ongoing programming to support the needs of College of Engineering (CoE) instructors through the use of faculty Communities of Practice (CoP), an inclusive teaching in remote settings teaching circle, and learning cohorts for new student instructors.

## By The Numbers

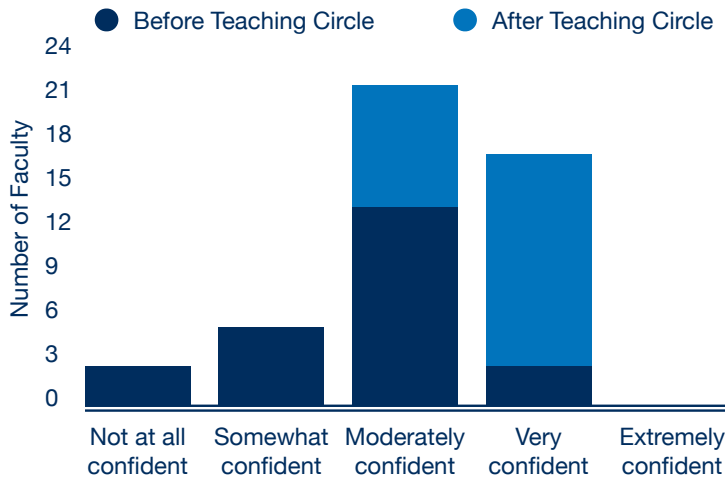


## COVID-19 Pandemic Response



## Diversity, Equity, & Inclusion

Participants Increased Their Confidence in Their Ability to Use Inclusive Teaching Methods



## Communities of Practice (CoP) and Teaching & Learning Symposium

During Summer 2020, CRLT-Engin collaborated with CoE faculty to lead 4 CoPs designed to address the remote-teaching needs of faculty teaching in labs, design courses, lecture-based courses, and ENGR 100. Nearly 40 faculty participated across these CoPs. The ENGR 100 CoP continued working throughout the academic year to create the new version of the *ENGR 100 Course Guide for Instructional Teams*.



100%

of CoP respondents indicated that the experience was valuable to them.

CRLT-Engin, CAEN, and Nexus collaborated for a January 2021 Symposium on Engineering Teaching and Learning focusing on remote teaching lessons learned and best practices.

### Co-facilitators:



Gren Agresar



Tim Chambers



Cindy Finelli



Gail Hohner



Tershia Pinder-Grover

## Inclusive Teaching in Remote Settings Teaching Circle

In Winter 2021, CRLT-Engin launched an inclusive teaching learning community for 27 faculty. This teaching circle focused on evidenced-based practices for building rapport, creating transparent assignments, and designing inclusive assessments in remote contexts. It also allowed faculty to reflect on their social identities and their students.

### Participants:

- Received a CRLT-Engin consultation
- Revised a course syllabus for inclusivity
- Created an in-class activity or assignment

*[The CoP] helped me deal with the stress of teaching under COVID as I now have a community of people I can ask for advice, rely on for help, and share successes and failures.*

Lab CoP Participant

# One-on-One Services

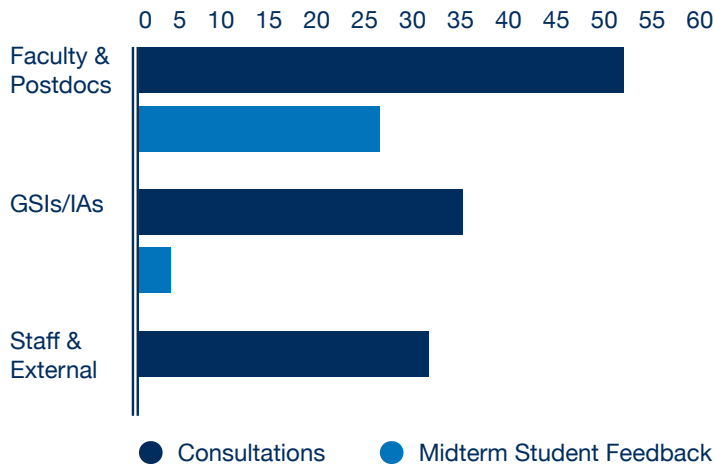
CRLT-Engin consultants meet with faculty, graduate student instructors (GSIs), and undergraduate instructional aides (IAs) to discuss a variety of teaching topics and gather midterm student feedback (MSF).



1,645

engineering students offered feedback this academic year.

Number of Services



# New Instructor Orientations

## Student Instructor Orientations

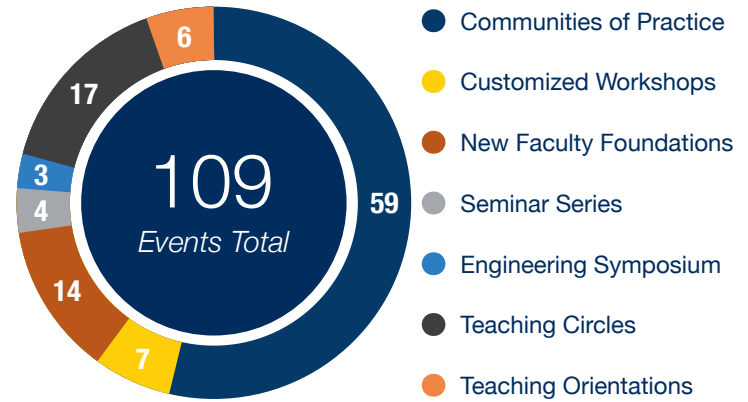
New this year, CRLT-Engin converted our GSI and IA teaching orientations into an online Canvas course. Also, all new GSIs/IAs participated in small Learning Cohort communities that covered topics such as inclusive teaching, building rapport, and active learning. In addition, CRLT-Engin also provided (for the first time) supplementary training in remote teaching for returning GSIs/IAs.



## New Faculty Orientation

CRLT-Engin piloted an online orientation Canvas site with resources for new faculty. Highlights include an inclusive teaching module, a panel discussion with U-M engineering undergraduate students about their experience, and a panel discussion with experienced faculty about starting a research group and various approaches to effective teaching.

# Teaching & Learning Programs



## Experiential Learning Teaching Circle

Over 30 faculty engaged in this new teaching circle, facilitated by CRLT-Engin and ADUE. This teaching circle led participants through 12 experiential learning competencies, ways to provide and assess experiences in and outside the classroom, and strategies to foster environments where students could engage in authentic practice and effectively reflect on and communicate those experiences.



## CRLT Players - Making Groupwork Work in STEM

This new synchronous seminar incorporated materials and videos (featuring the CRLT-Players theater troupe) to help participants design successful group activities. It also included ways to use student feedback to optimize classroom design.

*I have more ideas about how to successfully implement group work in STEM and also how to facilitate positive group dynamics for everyone.*

Workshop Participant



Image from the edX MOOC *Inclusive STEM Teaching Project* shot in 2019