Constraints and Creativity

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May 24, 2021
College Park, MD

UNIVERSITY OF
MARYLAND

A thought experiment

Introduction

"Freedom doesn't make it easier to create – *constraints do*."

Taken from: https://fortheinterested.com/start/

Constraints + Support = Creativity

Constraint 1

Teaching and Learning from Home

March 30, 2020 until "at least April 10, 2020"

In just **fourteen working days**, the University of Maryland College Park shifted from an almost entirely face to face institution to one that offers courses **entirely or almost entirely online.**

This represented:

4,119 courses

37,961 students

4,870 faculty

9,130 staff

Shift in Course Modality

Over 85% of student and faculty respondents reported teaching and learning **entirely or almost entirely online** during the Fall 2020 semester.

■ **Undergraduate Students**　■ **Graduate Students**　□ **Faculty**

Fall students and faculty: Overall, how would you describe the delivery of your course content this semester?
Spring Students: Before the transition to remote learning, in what learning environment did you take your courses?
Spring Faculty: Excluding the classes that transitioned to remote instruction in Spring 2020, how do you usually teach your courses?

Spring 2020　　　　　　　　**Fall 2020**

% Selected
N undergraduates = 3,984 | N graduates = 936 | N faculty = 1,569

% Selected
N undergraduates = 3,648 | N graduates = 922 | N faculty = 1,205

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Constraint 2

Time

"It takes me almost twice as long to teach online as it does in person, because I am having to re-do preparation to shift material to an online format, and then record lectures, and then be available to students for questions during regular lecture time.

I have also taken over all of the grading from my TA, to increase the amount of interaction and feedback my students get from me and therefore mitigate some of the effects of the loss of class time."

Constraint 3

Increased Stress

Faculty Comments

"There is a great burden put on instructional faculty. We have to learn new technology, develop online teaching skills, support our students - both on a personal level and with technology issues, take care of our other job duties, be available for our children, share spaces with other members of our households (including tech times), and find time to care for ourselves."

Faculty Comments

"What I wasn't prepared for was the stress level of my students (and myself) juggling multiple responsibilities during a pandemic. Neither I nor they performed at our best, but we're doing okay."

"Things have gone fairly well though I am now feeling a great deal of Zoom fatigue and being at home all the time. I also feel quite exhausted after spending virtually all summer taking workshops, training TAs, working with other faculty to redesign courses and so forth. It feels like it's been a long haul with no breaks in sight."

Faculty | Well-being

For faculty, **balancing family, household, and work responsibilities** and **managing care for relatives** were more difficult in the fall compared to the spring, while **maintaining teaching productivity** less difficult.

Maintaining research productivity remained difficult for nearly 7 in 10 faculty in the fall.

Faculty | Well-Being by Gender

More women faculty than men reported difficulty **balancing family, household, and work responsibilities** and **maintaining motivation for work**.
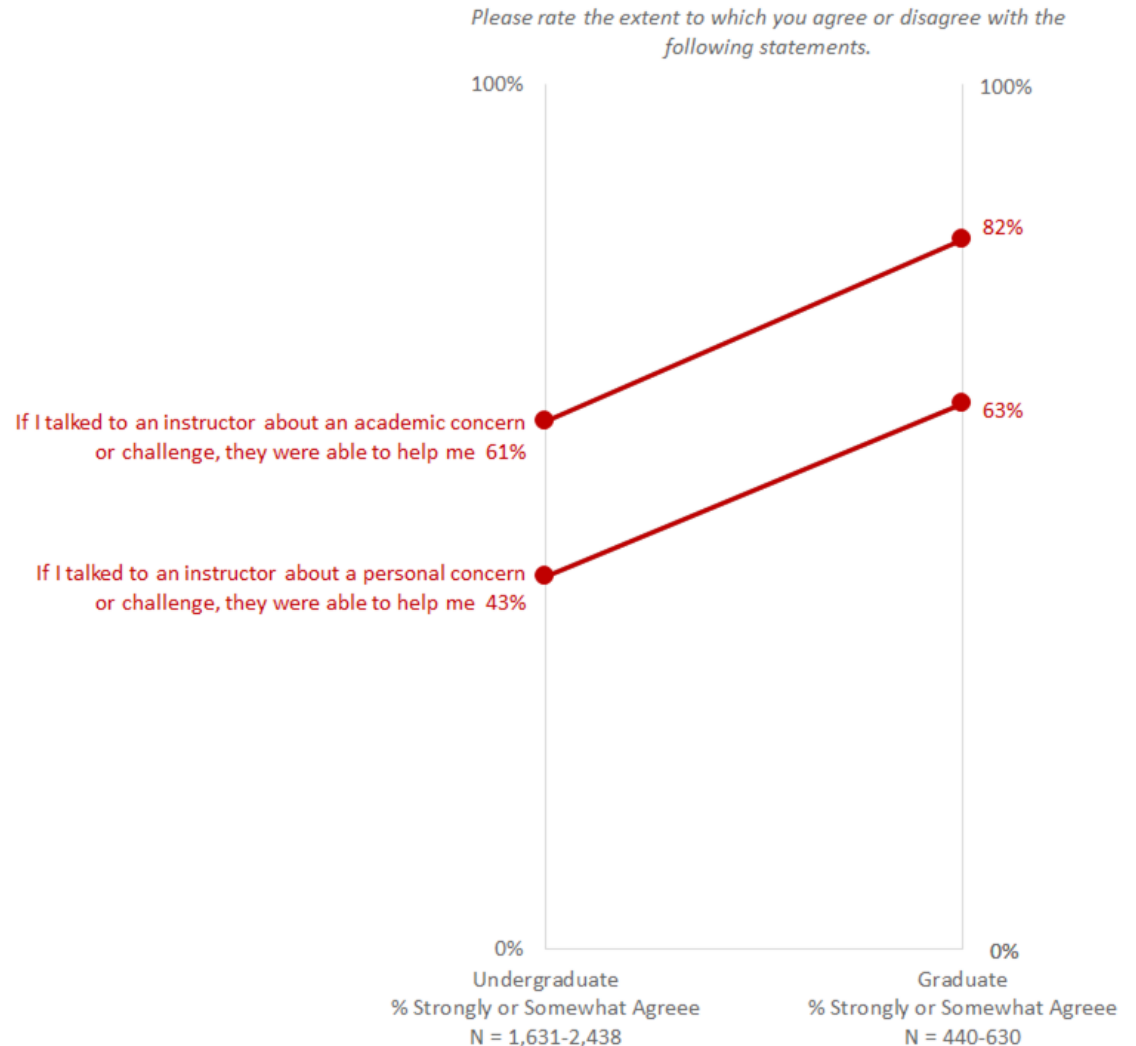
Student Comments

"My mental health has gotten very bad since school started and while 2 of my professors are really understanding, it still doesn't take off any of the stress from school combined with stress from covid, and the political environment in the country right now."

"COVID-19 has been significantly impactful on me as a transfer student. I feel very isolated from my fellow classmates and instructional staff. Being new at the university, especially as an older transfer student, during the pandemic feels like a uniquely difficult experience."

Academic Experience

A higher percentage of graduate student than undergraduate student respondents indicated that their **instructors were able to help them with either personal or academic concerns or challenges**.

Please rate the extent to which you agree or disagree with the following statements.

If I talked to an instructor about an academic concern or challenge, they were able to help me 61%

If I talked to an instructor about a personal concern or challenge, they were able to help me 43%

82%

63%

Undergraduate
% Strongly or Somewhat Agree
N = 1,631-2,438

Graduate
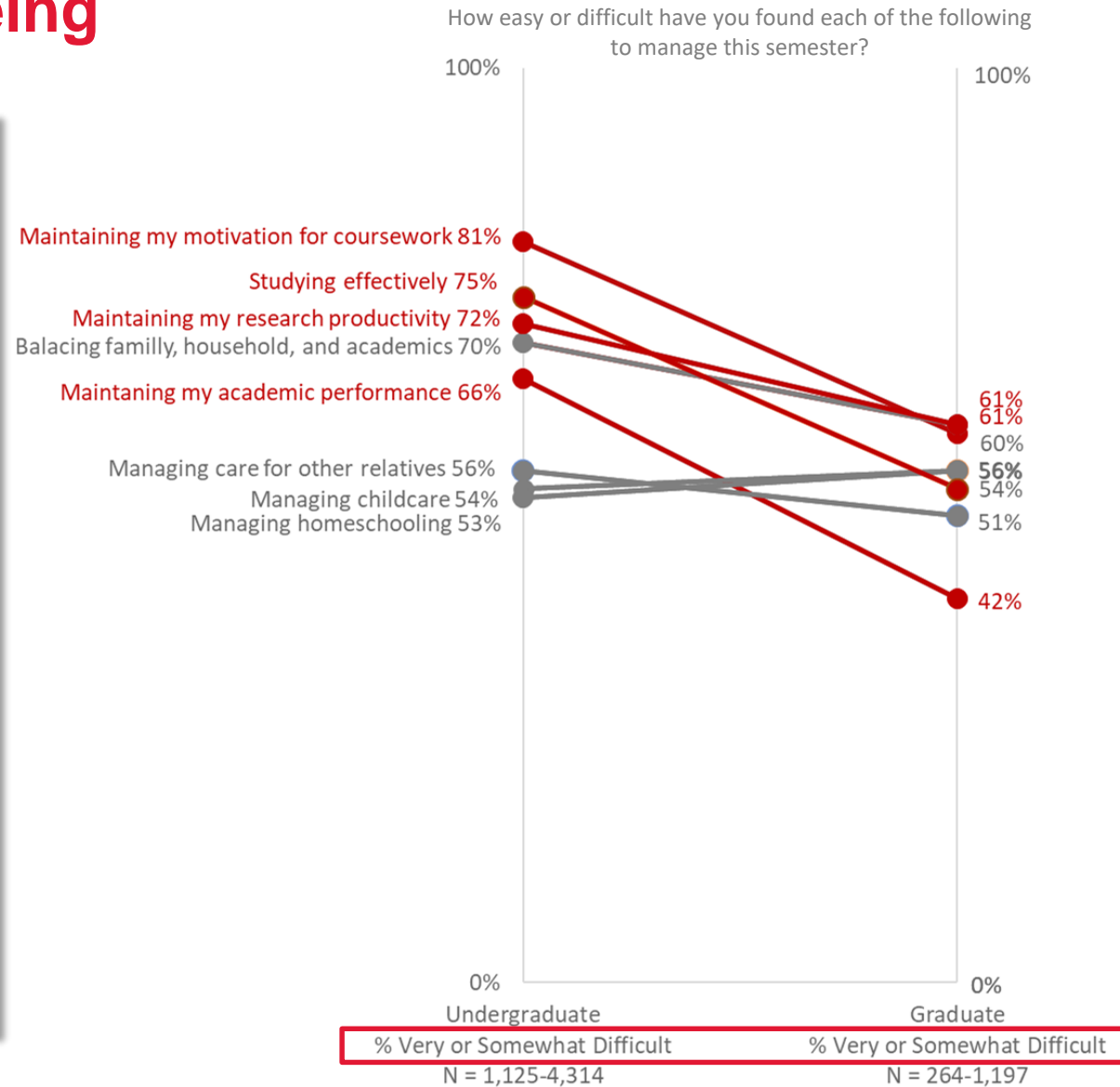% Strongly or Somewhat Agreee
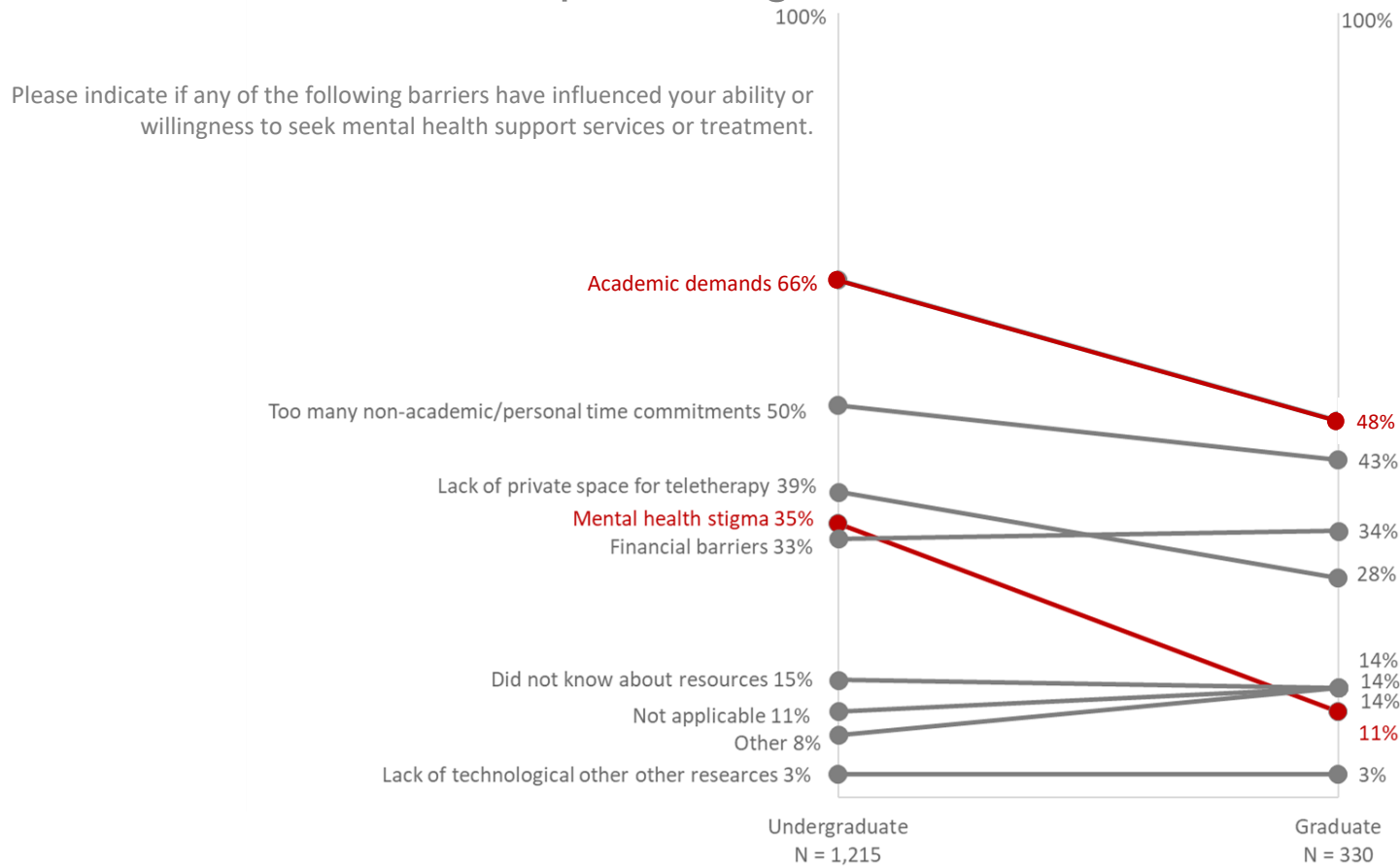N = 440-630

Students | Well-being

Three in four undergraduate students and one in two graduate students expressed difficulty **maintaining motivation for coursework** and **studying effectively** in the fall.

More undergraduates than graduates reported difficulty **maintaining their academic performance**.

How easy or difficult have you found each of the following to manage this semester?

Maintaining my motivation for coursework 81%
Studying effectively 75%
Maintaining my research productivity 72%
Balacing family, household, and academics 70%
Maintaning my academic performance 66%

Managing care for other relatives 56%
Managing childcare 54%
Managing homeschooling 53%

61%
61%
60%
56%
54%
51%
42%

Undergraduate
% Very or Somewhat Difficult
N = 1,125-4,314

Graduate
% Very or Somewhat Difficult
N = 264-1,197

Students | Mental Health

Mental health stigma and academic demands were cited as barriers to seeking treatment to a larger percentage of undergraduate students compared to graduate students.

Please indicate if any of the following barriers have influenced your ability or willingness to seek mental health support services or treatment.

100% — 100%

Academic demands 66% → 48%

Too many non-academic/personal time commitments 50% → 43%

Lack of private space for teletherapy 39% → 34%

Mental health stigma 35%

Financial barriers 33% → 28%

Did not know about resources 15% → 14%

Not applicable 11% → 14%

Other 8% → 14%

11%

Lack of technological other other researces 3% → 3%

Undergraduate
N = 1,215

Graduate
N = 330

Note that this item was only asked of respondents who said they had considered seeking mental health resources as a result of the COVID-19 pandemic but have not yet.

Supports

Access to Technology

Technology Resources

Students and faculty had the hardware and software necessary to learn and teach during the Fall 2020 semester.

Through the Student Crisis Fund, Terrapin Tech continued its **laptop** loan program and provision of **mobile hotspots** to students, faculty, and staff.

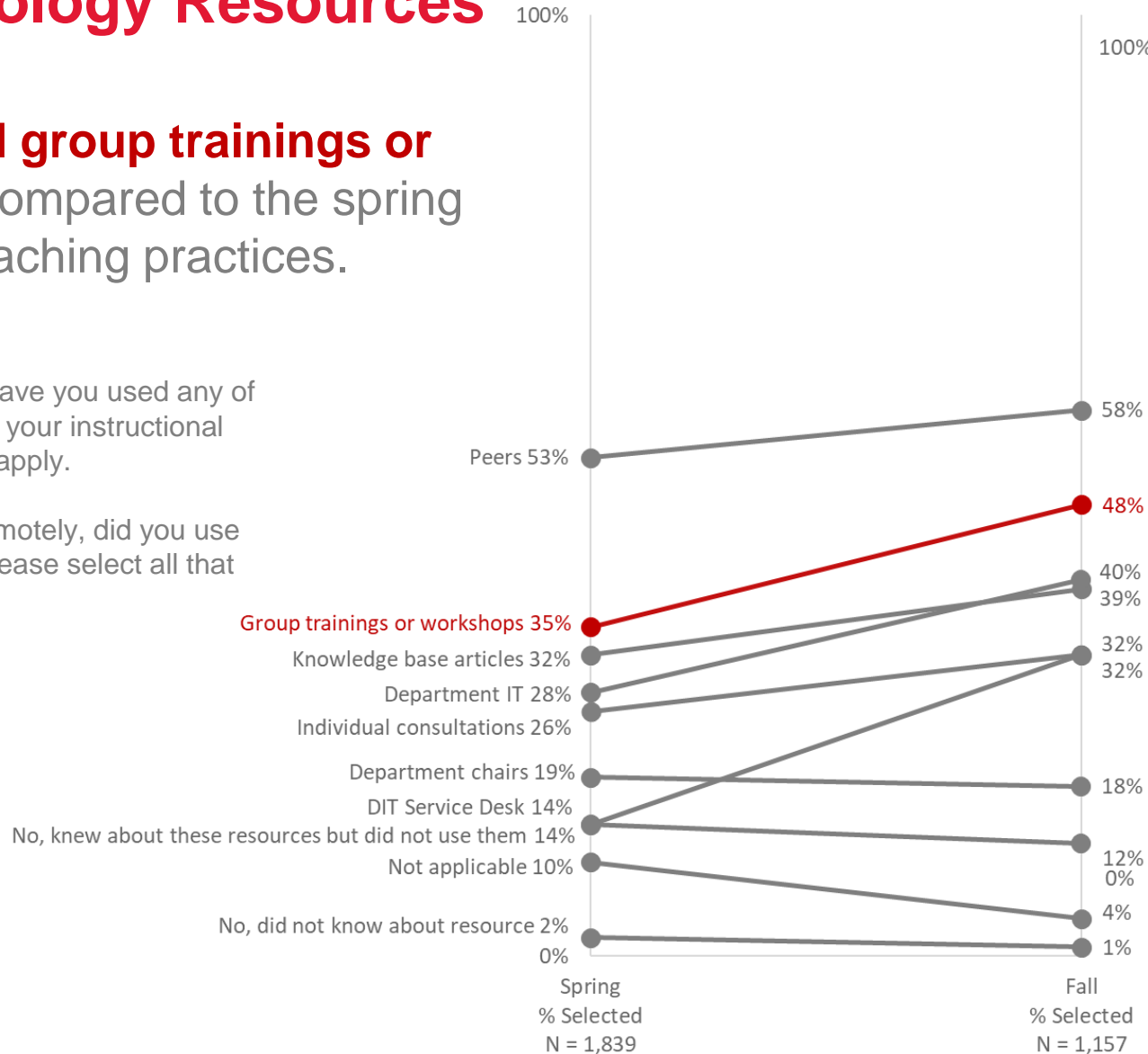# New Technological Resources

Supports

Trainings & Consultations

TLTC Trainings Increased Dramatically

Area of Workshop Focus Mar to Aug 2019-2020
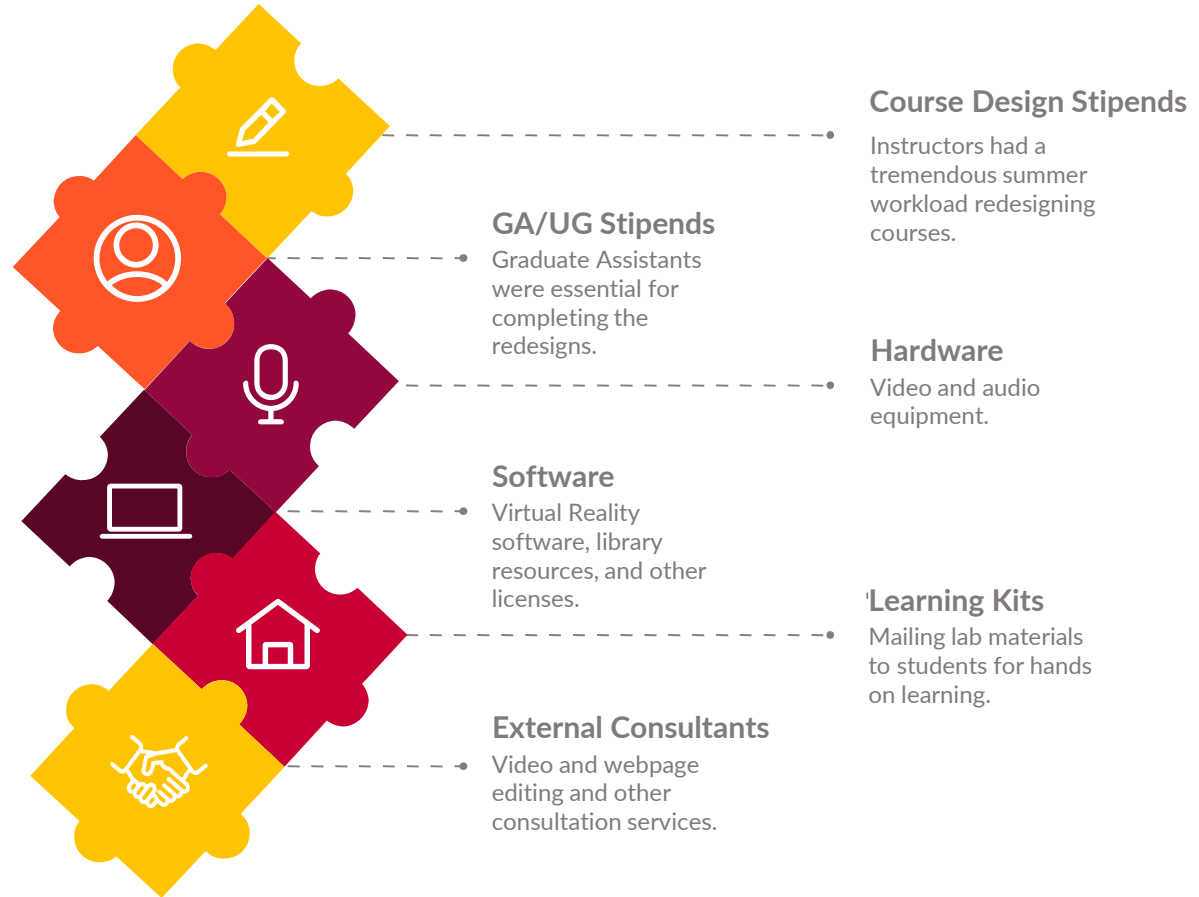

Workshop Group / Year
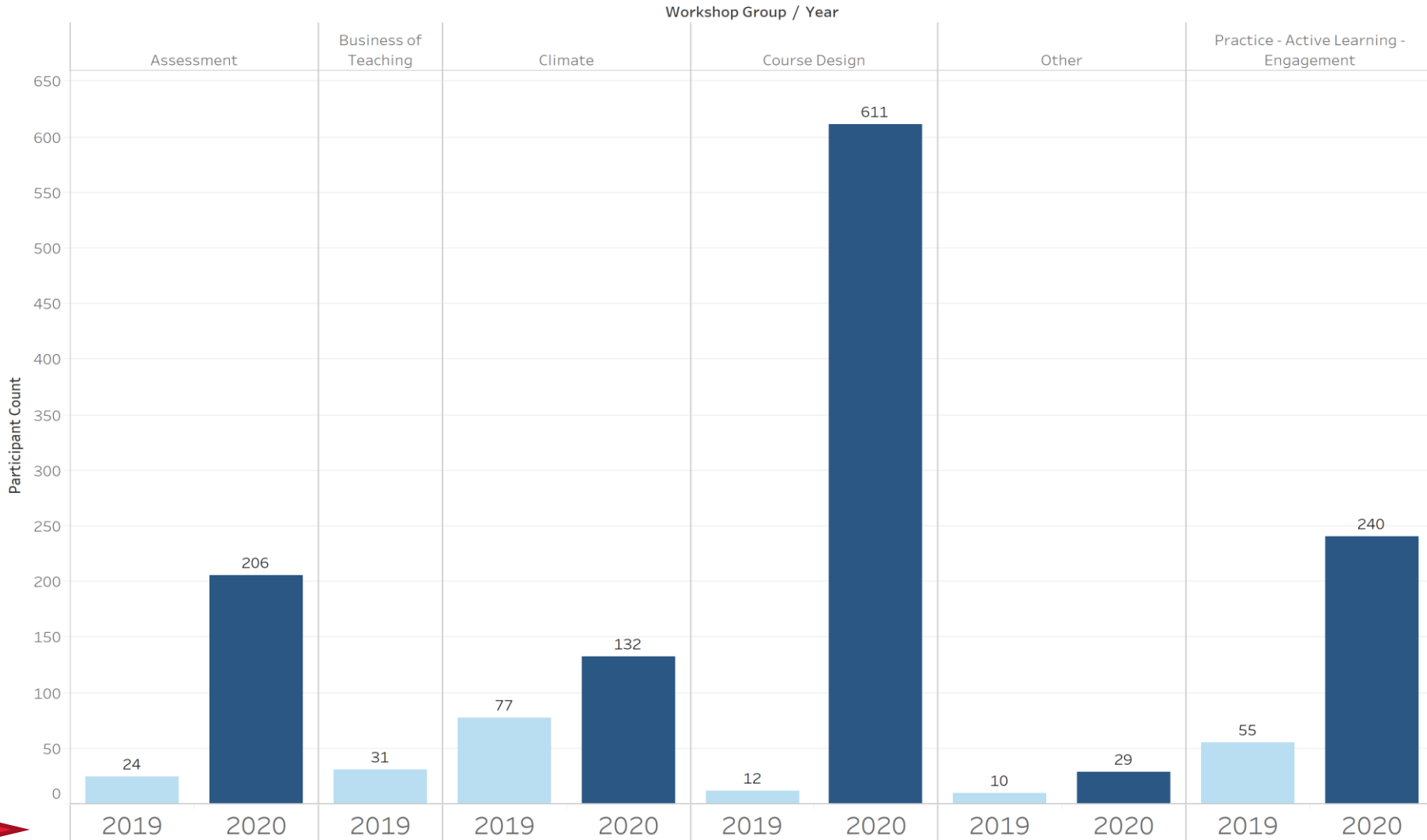
Supports

Teaching Innovation Grants

What was funded?

The most common request was for funding for instructors to do the major lift necessary to build online courses. Here are some other categories of funding.

Course Design Stipends

Instructors had a tremendous summer workload redesigning courses.

GA/UG Stipends

Graduate Assistants were essential for completing the redesigns.

Hardware

Video and audio equipment.

Software

Virtual Reality software, library resources, and other licenses.

Learning Kits

Mailing lab materials to students for hands on learning.

External Consultants

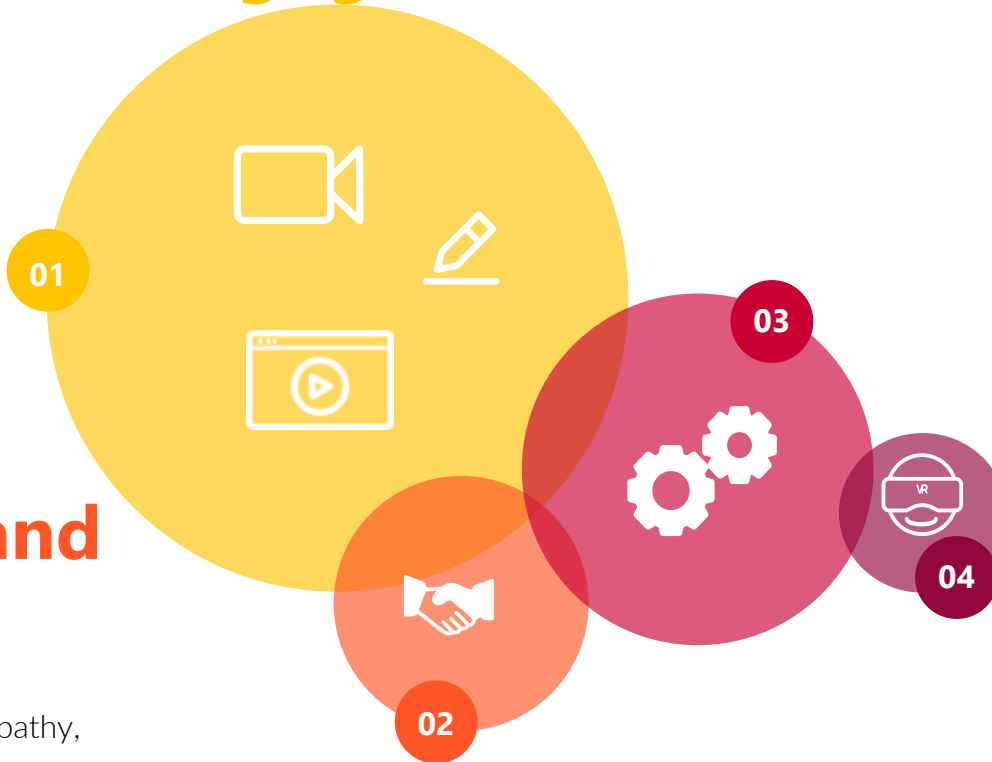Video and webpage editing and other consultation services.

Benefits of the Grants

What came from the 285 Projects

1. Reusable Pedagogical Assets

- Instructional videos, quiz banks, discussion boards and other materials
- 216 Projects

01

2. Equity and Access

- Focus on flexibility, empathy, accessibility
- 35 Projects

02

3. Reusable Hardware and Software

- Cameras, computers, and other tools.
- Software for 3D modeling, music notation, simulations, and other applications
- 89 Projects

03

4. Paradigm Shifts

- Creative solutions using VR, avatars, and other cutting-edge technology
- 18 Projects

04
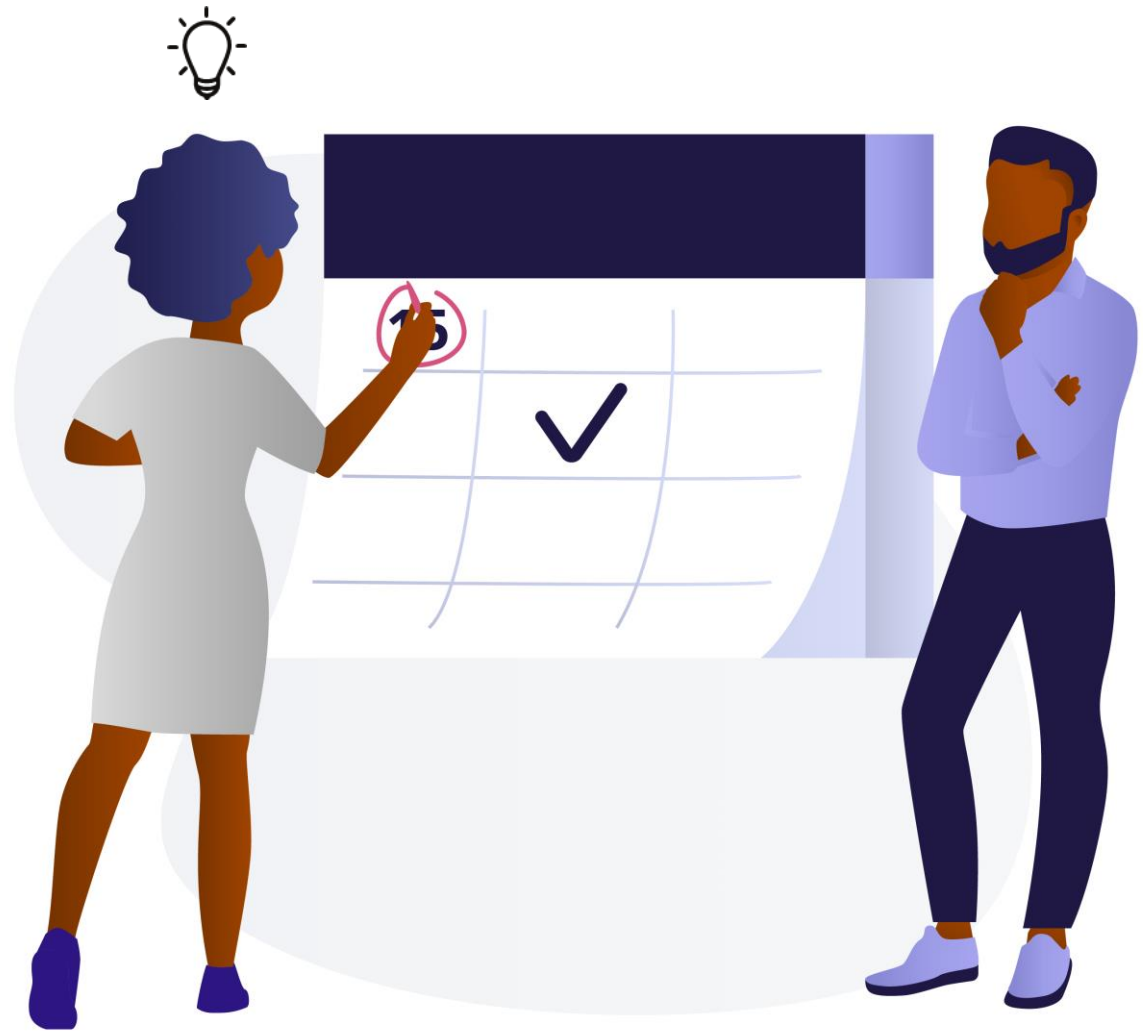
Faculty Comments

"I am also very happy with the proactive role by the university, as a recipient of the Teaching Innovation Grant, my work on my teaching project has definitely enabled me to be a much better teacher in the online setting."
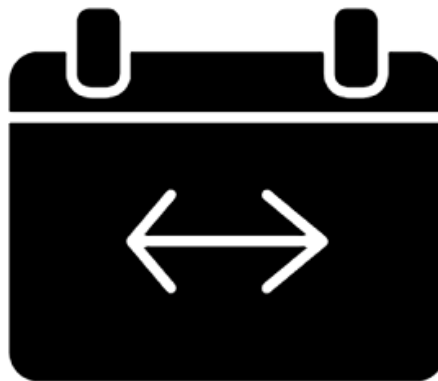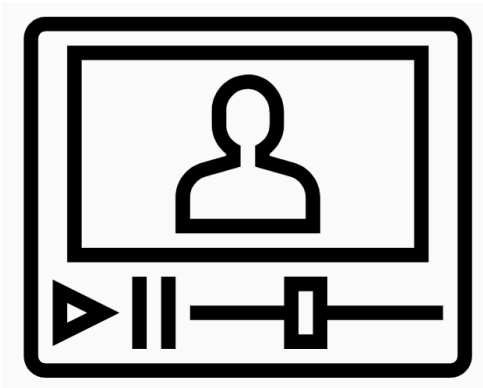
Creativity

Faculty | Course Technology

Approximately a third of faculty respondents **adopted a new instructional practice during the pandemic**, the most common being creating asynchronous video lectures, allowing for flexibility on deadlines, and designing open-book/open-note assignments

Undergraduate Students | Academic Experience

Undergraduate students reported that instructors engaged in practices both to create a positive classroom climate, such as **creating welcoming environments for students that were conducive to learning,** and **easing the burden of navigating multiple online experiences**.
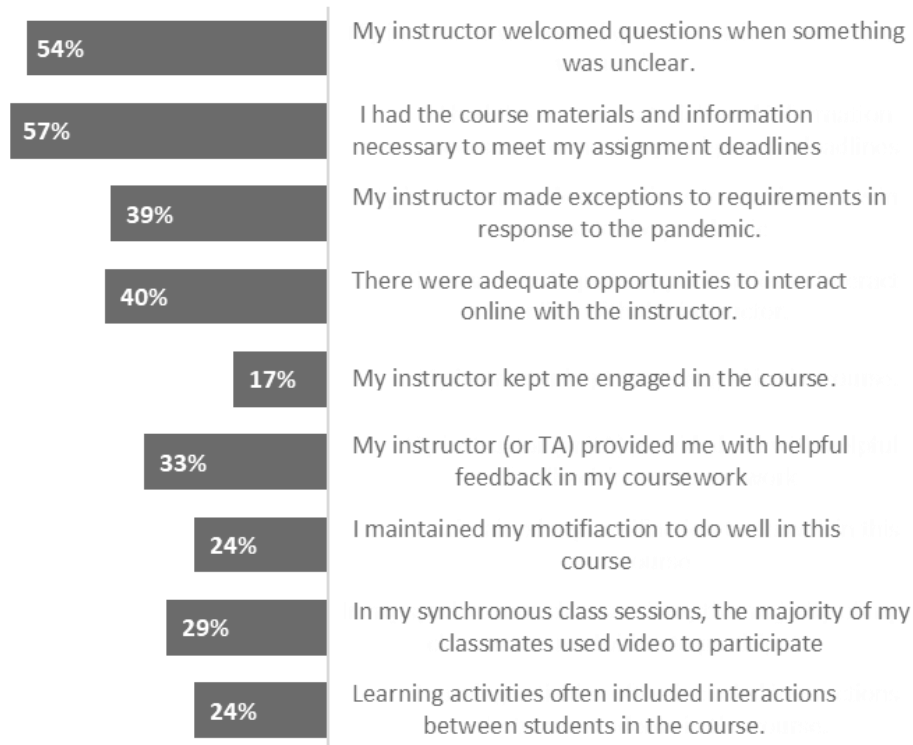
Over **70% of undergraduate students** indicated that they hope that their instructors continue to engage in most course management-related instructional practices in the future.
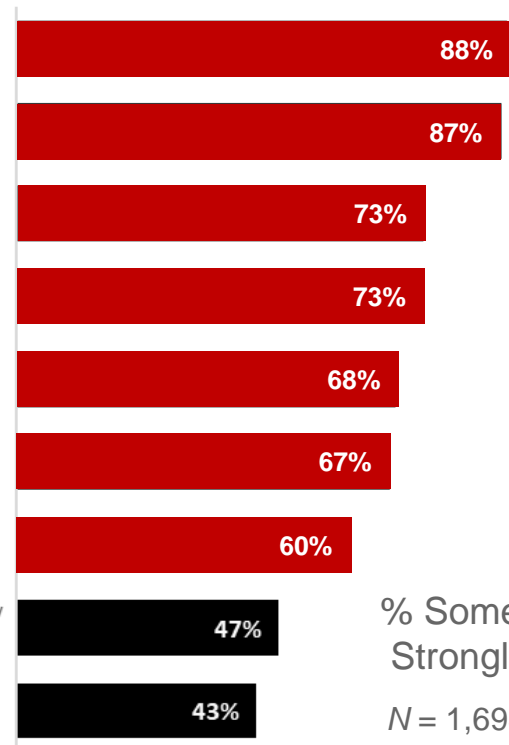
Most effective online transition

Students reported that courses that made the most effective online transition had **open communication with the instructor and clear expectations**.

Least effective transition course | | Most effective transition course

| Statement	Least effective	Most effective
My instructor welcomed questions when something was unclear.	54%	88%
I had the course materials and information necessary to meet my assignment deadlines	57%	87%
My instructor made exceptions to requirements in response to the pandemic.	39%	73%
There were adequate opportunities to interact online with the instructor.	40%	73%
My instructor kept me engaged in the course.	17%	68%
My instructor (or TA) provided me with helpful feedback in my coursework	33%	67%
I maintained my motifiaction to do well in this course	24%	60%
In my synchronous class sessions, the majority of my classmates used video to participate	29%	47%
Learning activities often included interactions between students in the course.	24%	43%

% Somewhat or Strongly agree

N = 1,698-5,231

Still thinking about the ONE course that you felt made the LEAST/MOST EFFECTIVE TRANSITION to remote learning, please rate the extent to which you disagree or agree with the following statements. For the course you have in mind, after the course transitioned online.
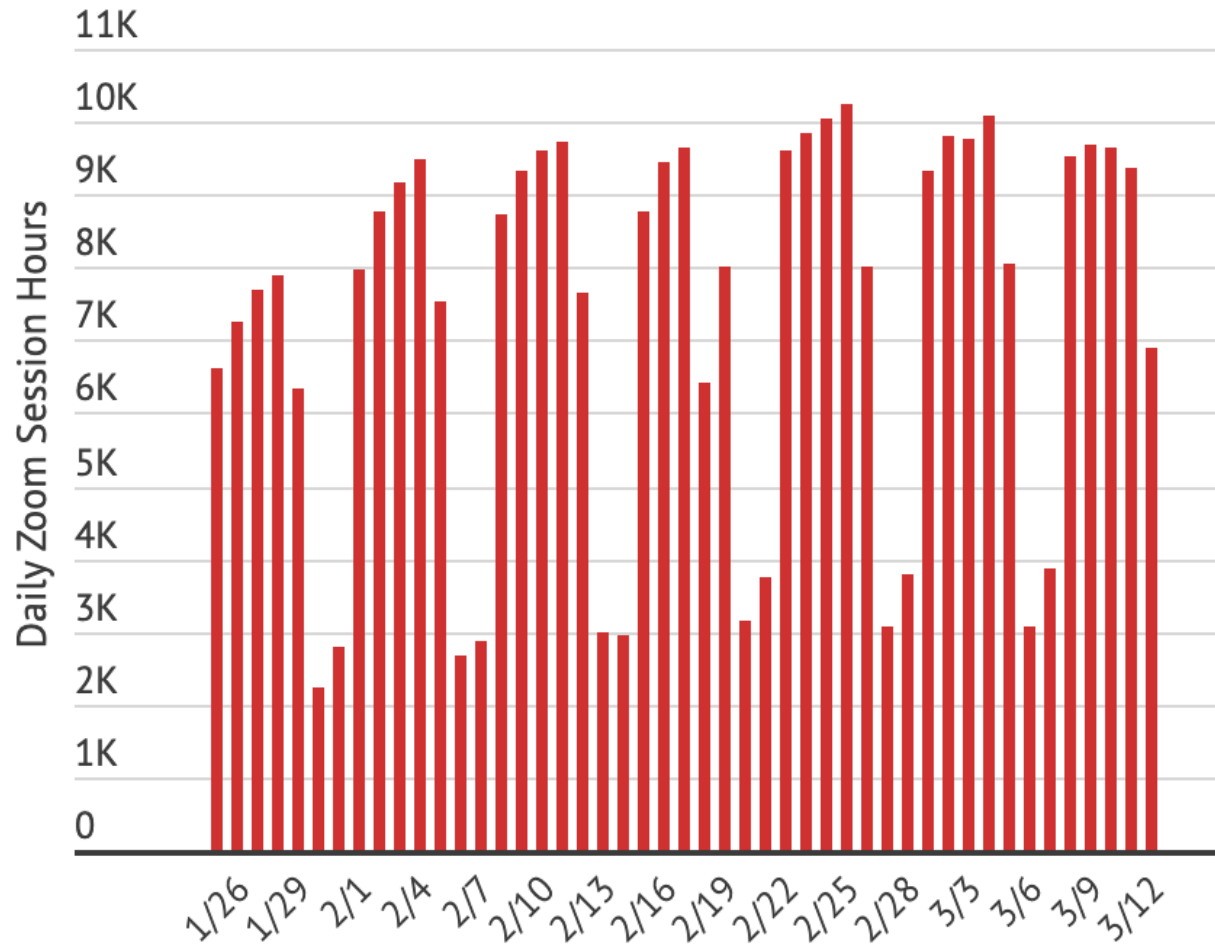
Panopto

Typically there were **over 6,000** more hours of Panopto lectures delivered per day in Spring 2021 compared to Spring 2020. This represents **291,006 hours of lectures** and **33 years** of use)
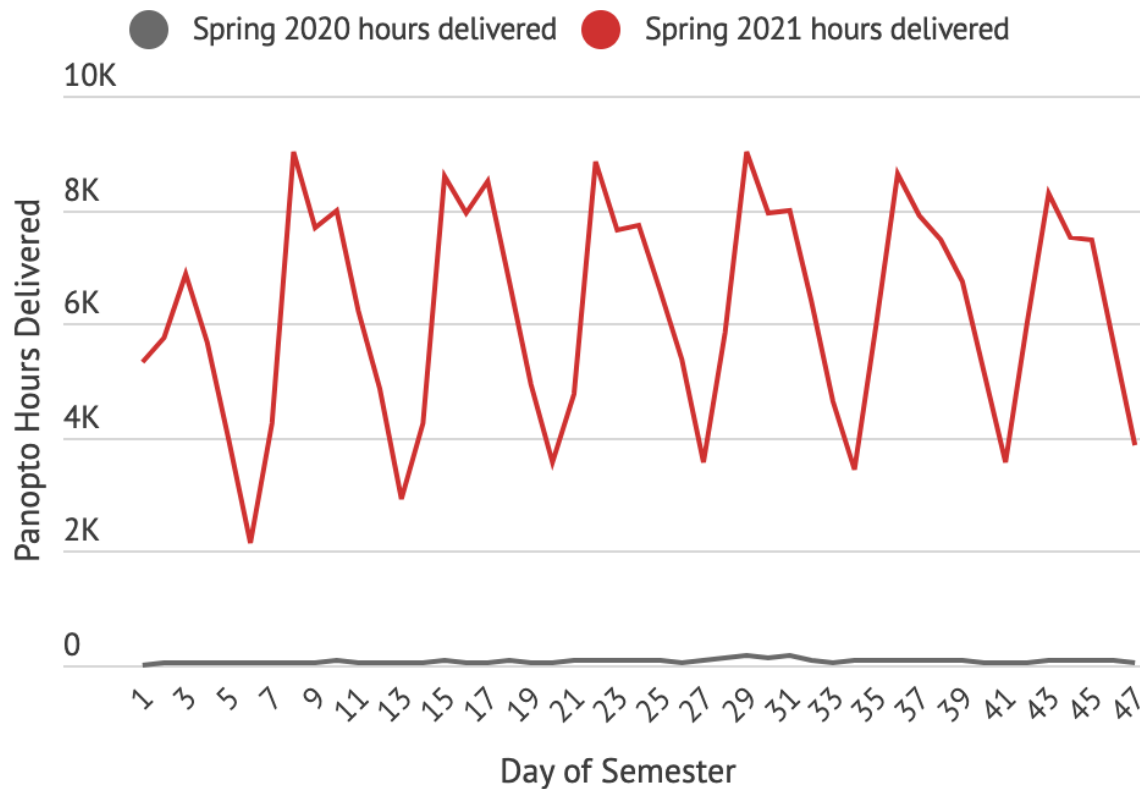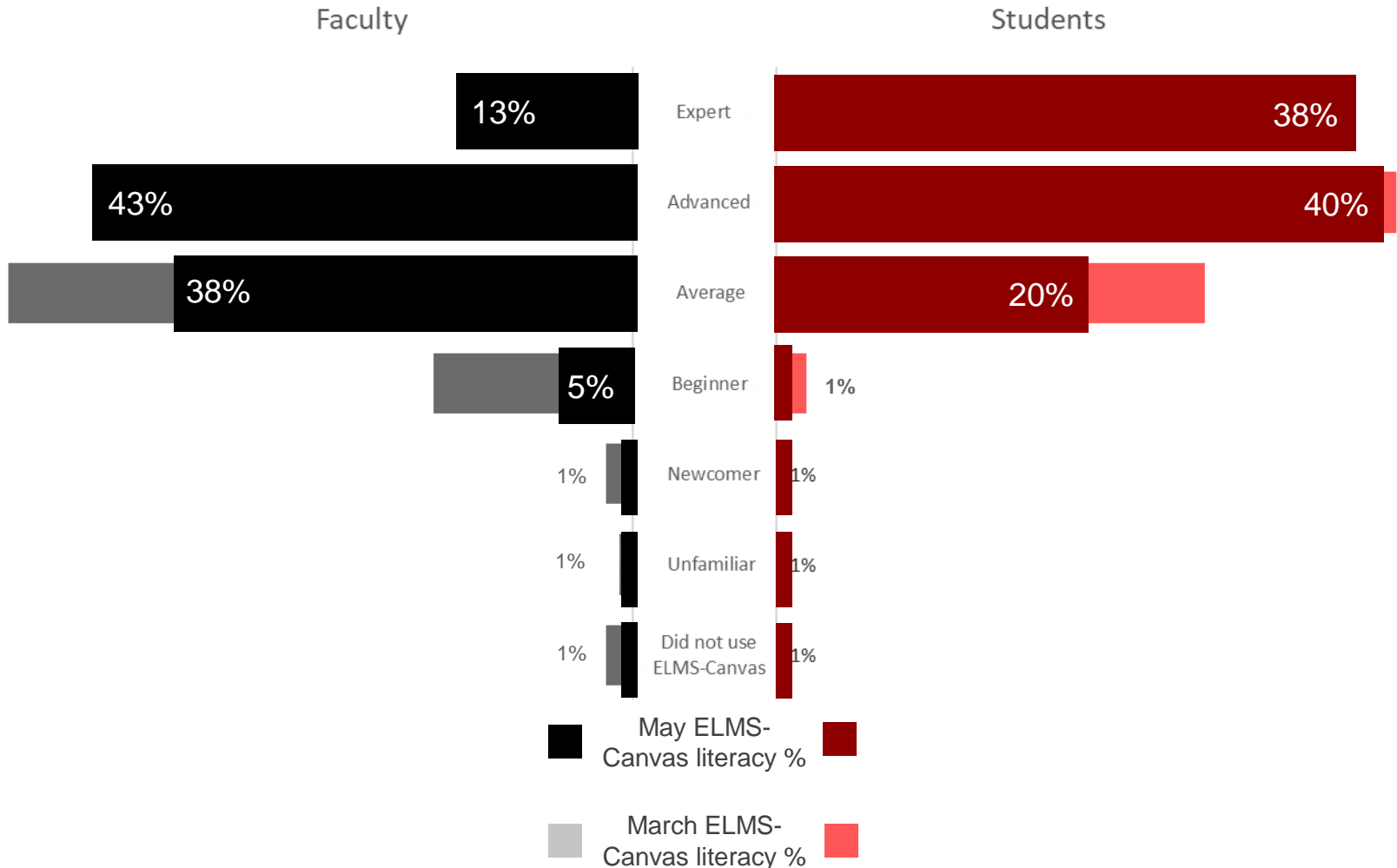
Zoom

There has been a total of **over 343,000 meeting hours** held within the platform representing **39 years of meeting time** since January 25, 2021

ELMS-Canvas literacy

Faculty

Students

13%	Expert	38%
43%	Advanced	40%
38%	Average	20%
5%	Beginner	1%
1%	Newcomer	1%
1%	Unfamiliar	1%
1%	Did not use ELMS-Canvas	1%

■ May ELMS-Canvas literacy %

■ March ELMS-Canvas literacy %

Please select which statement best reflects your level of ELMS-Canvas literacy

N = 485

N = 4,482

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Looking Ahead

Conclusions

Educators are constrained by many factors

1. Training
2. University and departmental policies
3. Curricular goals
4. Semesters
5. Enrollments

Our Challenge

1. Choose a set of constraints for your work
2. Set parameters for your vision
3. Establish rules for what you will and won't do
4. Pin yourself in
5. Find your frame

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ITL Sessions on Innovations

Today:

- Creative Assessment Strategies
- Leveraging Technology to Support Experiential Courses
- Engaging Learners in Classes Big and Small

Tomorrow:

- Keynote: Promoting New Learning Experiences at UMD
- Becoming an Anti-Racist Educator
- Designing for Accessible and Equitable Learning

Register: https://itlconference.umd.edu/