

Digital Learning: Higher Education During COVID

Excerpts

JANUARY 2021

GA Grunwald Associates LLC

<https://grunwald.com/reports>

Background

In Spring 2020, colleges and universities required teaching and learning from home because of the COVID-19 pandemic. The challenges in creating effective online education have become salient to all educators and administrators. This survey was originally conducted with a Grunwald Associates partner, and we are now making excerpts available to others.

Study Objectives

01

STUDENT ATTITUDES

How is the change to digital learning affecting student decisions and the perceived value of higher education?

02

TEACHING PRACTICES

What are the advantages of courses designed originally to be online over courses abruptly transitioned?

What approaches were transported over to online learning after the abrupt transition?

What were the problems?

What aspects were successful?

03

FACULTY PROFESSIONAL DEVELOPMENT

What professional development have faculty experienced and to what level of success?

What strategies can better support faculty?

04

DIVERSE STUDENT POPULATION

How do the challenges in digital learning differ among student populations?

Survey Sample



n=1,002

All Students

- Age 18+
- Students from across the US
- Attended a public or private college, university, community college, vocational, or trade school
- Undergraduate student, either part-time or full-time
- Participated in an online course in Spring 2020, either intended to be online or transitioned to online



n=500

All Faculty

- Faculty from across the US
- Worked at a public or private college, university, community college, vocational, or trade school
- Undergraduate-serving institutions (may or may not serve graduate students)
- Role of professor, lecturer, or department head
- Actively taught courses in Spring 2020
- Taught at least one online course in Spring 2020 to undergraduates, either intended to be online or transitioned to online

20-minute Online Survey

Surveys were initiated via panels in which participants agree to participate in exchange for points as payment



Data collected

August 18 – September 12, 2020

Methodology Overview

Grunwald Associates developed a detailed online survey to explore online teaching methods, course outcomes, education priorities, student goals, and resources available during the Spring 2020 online transition.

The emphasis is a comparison of courses – those abruptly transitioned to online versus those intended to be online before the transition. The analysis investigates the role of intentional design and preparation in digital learning.

The survey includes parallel questions for students and faculty to capture both dimensions of the joint learning experience in higher education.

Course Assignment Methodology

01

COURSE INFORMATION

Faculty and students described all online courses they taught or took in Spring 2020 according to:

Design: Intentionally online (per original plan before the online transition), or Transitioned online (adapted due to COVID-19)

Size: Breakout by classes with 20 or fewer students, 21 to 40 students, 41 to 100 students, or more than 100 students

Subject: STEM, humanities, social science, arts, other

02

COURSE ASSIGNMENT

Students and faculty were assigned to one of their courses to evaluate in more detail

Those with *any* course originally designed to be online were assigned to rate one online course

Those with *all* transitioned courses were assigned to rate one transitioned course

Subsequent assignments filled as evenly as possible categories of size and topic

Respondents provided the name of the course as a concrete reference for all following questions (e.g., “Physics 102,” “Photojournalism,” “Developmental Psychology”)

03

COURSE PERCEPTIONS

Subsequent questions were grounded in the specifics of the one chosen course. Information collected included:

- Additional course information: level, instruction style, teaching assistant (TA)
- Level of success in course
- Select course elements and outcomes (e.g., ability to learn, student-professor interaction, student engagement, faculty engagement)
- Teaching methods used
- Success of teaching methods
- How methods deliver on educational priorities
- Challenges faced

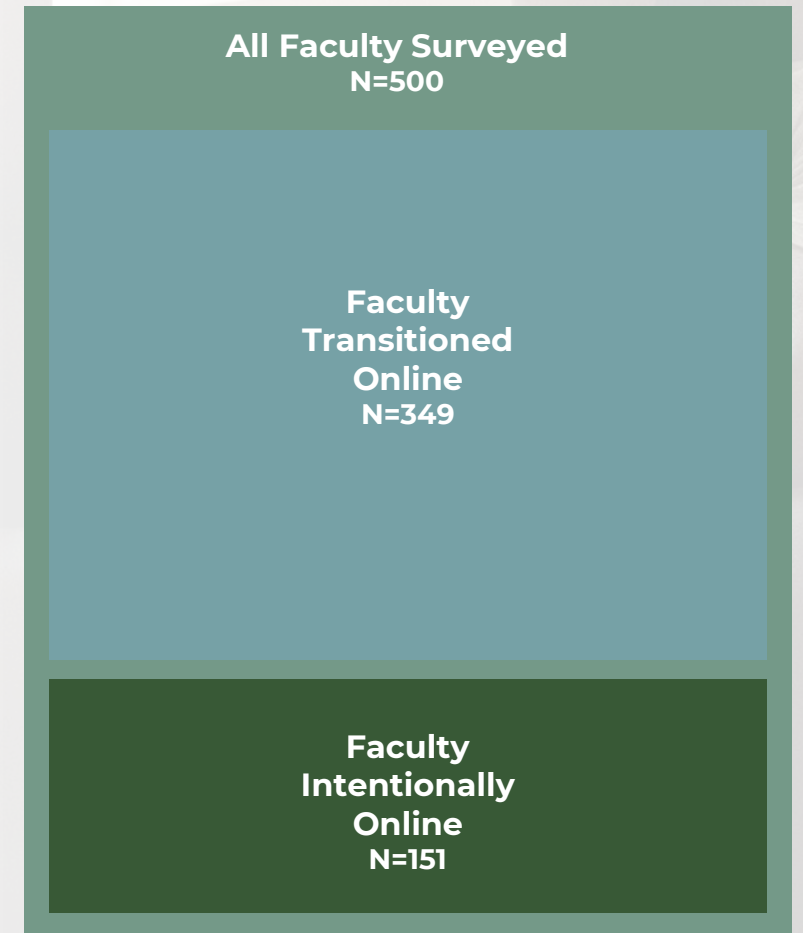
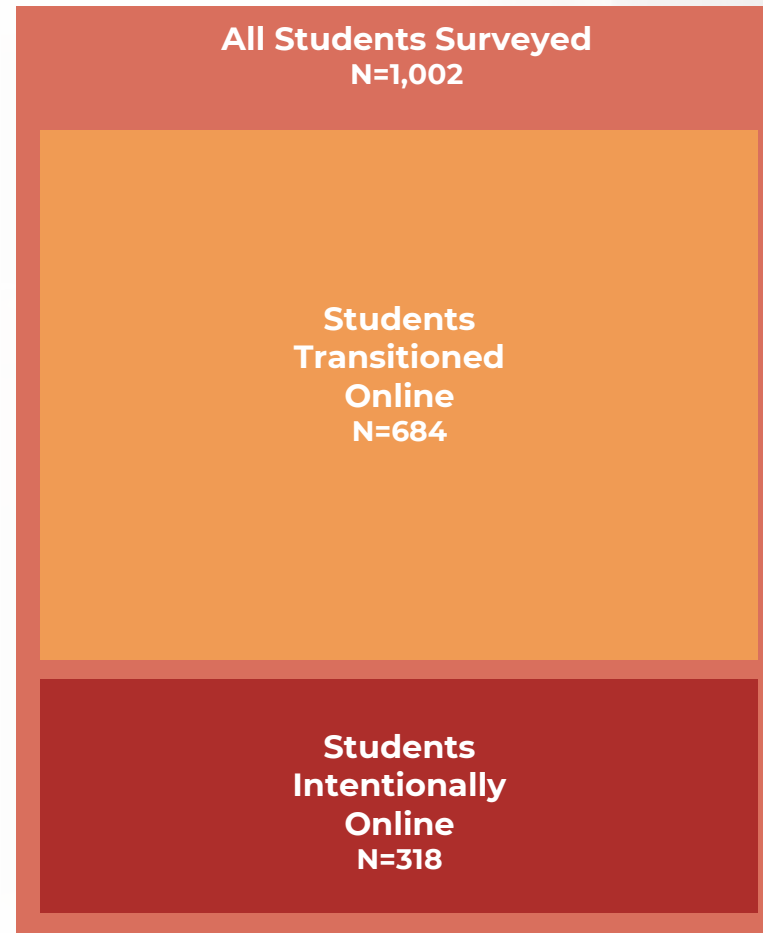
Sample Groups

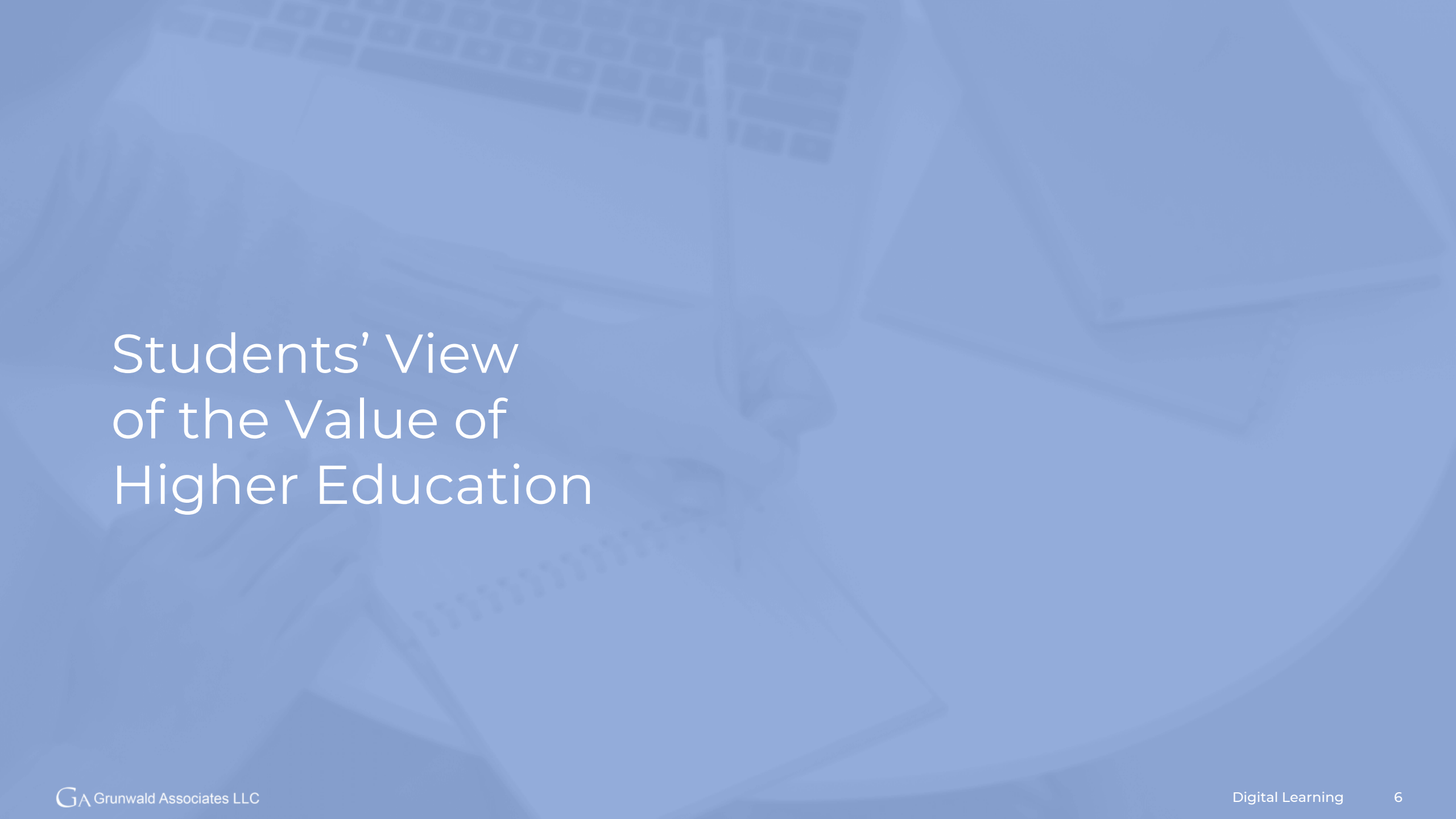
Category is based on courses taken or administered in the Spring 2020 term

“Transitioned Online” indicates all Spring 2020 courses were intended to be taken/taught face-to-face

“Intentionally Online” indicates at least one course in Spring 2020 was intended to be online before the transition and one of those courses was evaluated

Throughout, “significant differences” indicates differences between groups significant at the 90% level; Z-tests conducted for percentages, T-tests for means



The background of the slide is a light blue-tinted photograph of a student's desk. It shows a laptop keyboard at the top, several papers scattered across the surface, and a pen resting on one of the papers. The overall scene is slightly out of focus, creating a soft, academic atmosphere.

Students' View of the Value of Higher Education

Students are focused on getting through their classes and longer-term priorities

TOP EDUCATION PRIORITIES FOR STUDENTS, RANKED #1-5

Total Students (N=1,002)

Short-term
Longer-term

- | | |
|-----|---|
| #1 | Passing my classes (55%) ◆ |
| #2 | Making progress in my career (47%) |
| #3 | Finding a job (45%) |
| #4 | Making enough money to support myself/my family (41%) |
| #5 | Learning relevant skills for the workplace (39%) |
| #6 | Feeling confident I'm making the right life decisions (38%) |
| #7 | Learning something interesting (34%) |
| #8 | Deciding what career I want (32%) |
| #9 | Paying for school (29%) ◆ |
| #10 | Balancing school with other obligations (27%) |

Most of students' strongest priorities pertain to how their education impacts their future

◆ Passing classes and paying for school are more important to **students intentionally online**, the only two statistically significant differences. The overall ranking is very similar between groups.

Top 10 of 16 items presented; Items #11-16 are priorities for under 25% of Students
Q1 Which of the following are most important to you in your education? Please rank your top 5.

All student priorities are impacted by the pandemic

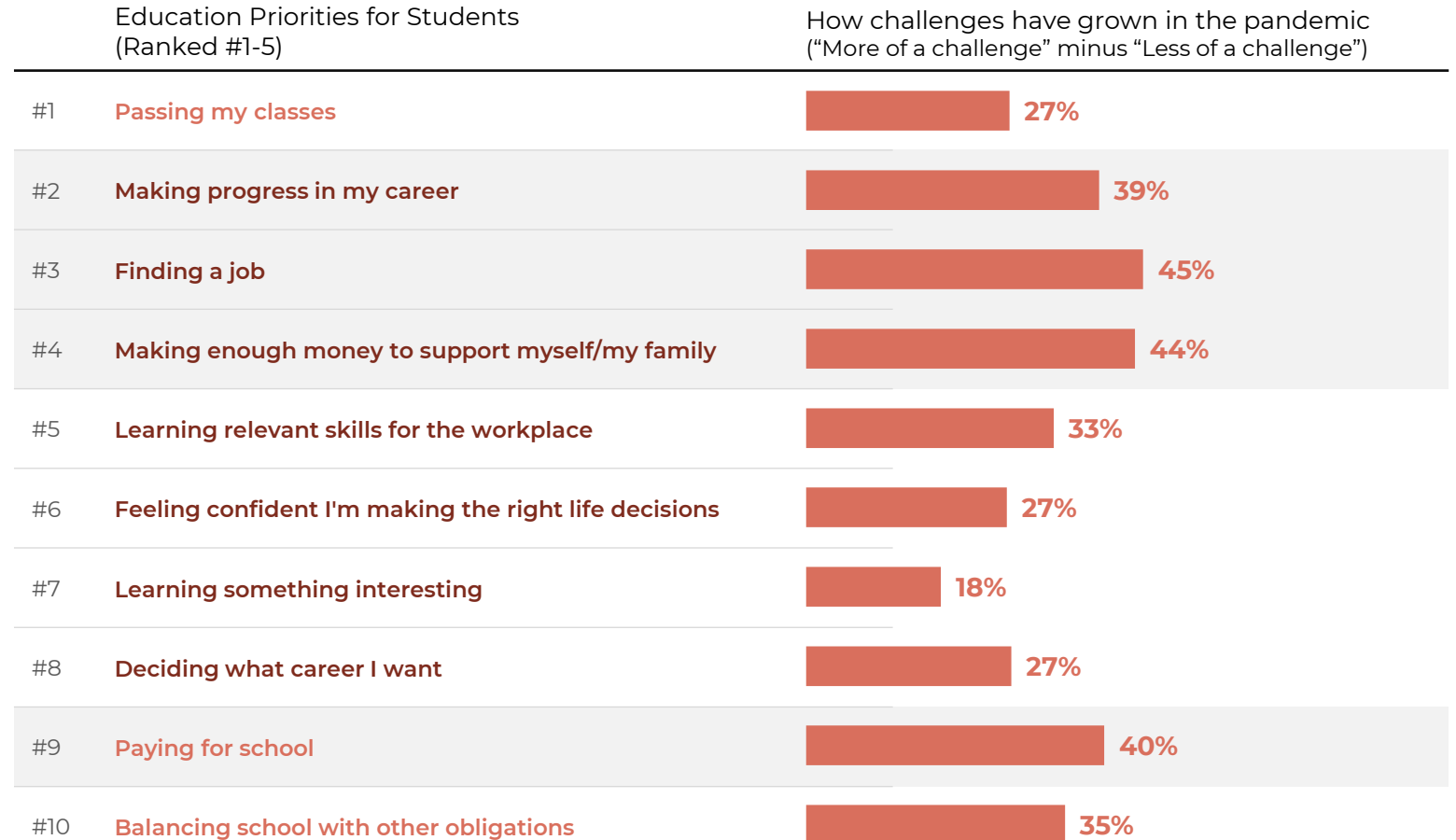
Students anticipate the strongest negative impact on their careers and livelihoods; many are currently struggling to pay for school

STUDENT PRIORITIES AND THE EFFECTS OF THE COVID-19 PANDEMIC

Among Total Students (N=1,002)

Short-term

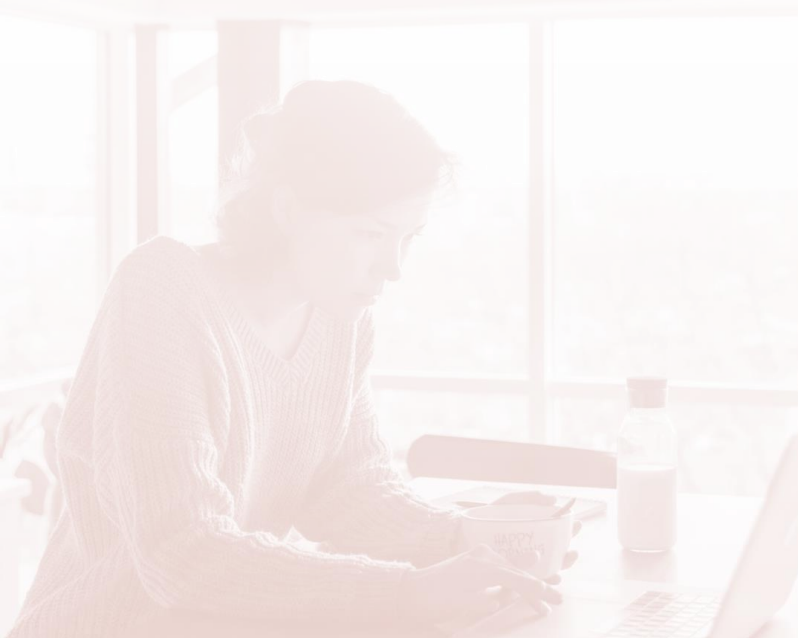
Long-term



Q1 Which of the following are most important to you in your education? Please rank your top 5.

Q26 Below are your top 5 priorities for your education that you mentioned earlier. Has the COVID-19 pandemic affected how challenging they are for you? (More of a challenge/No change/Less of a challenge)

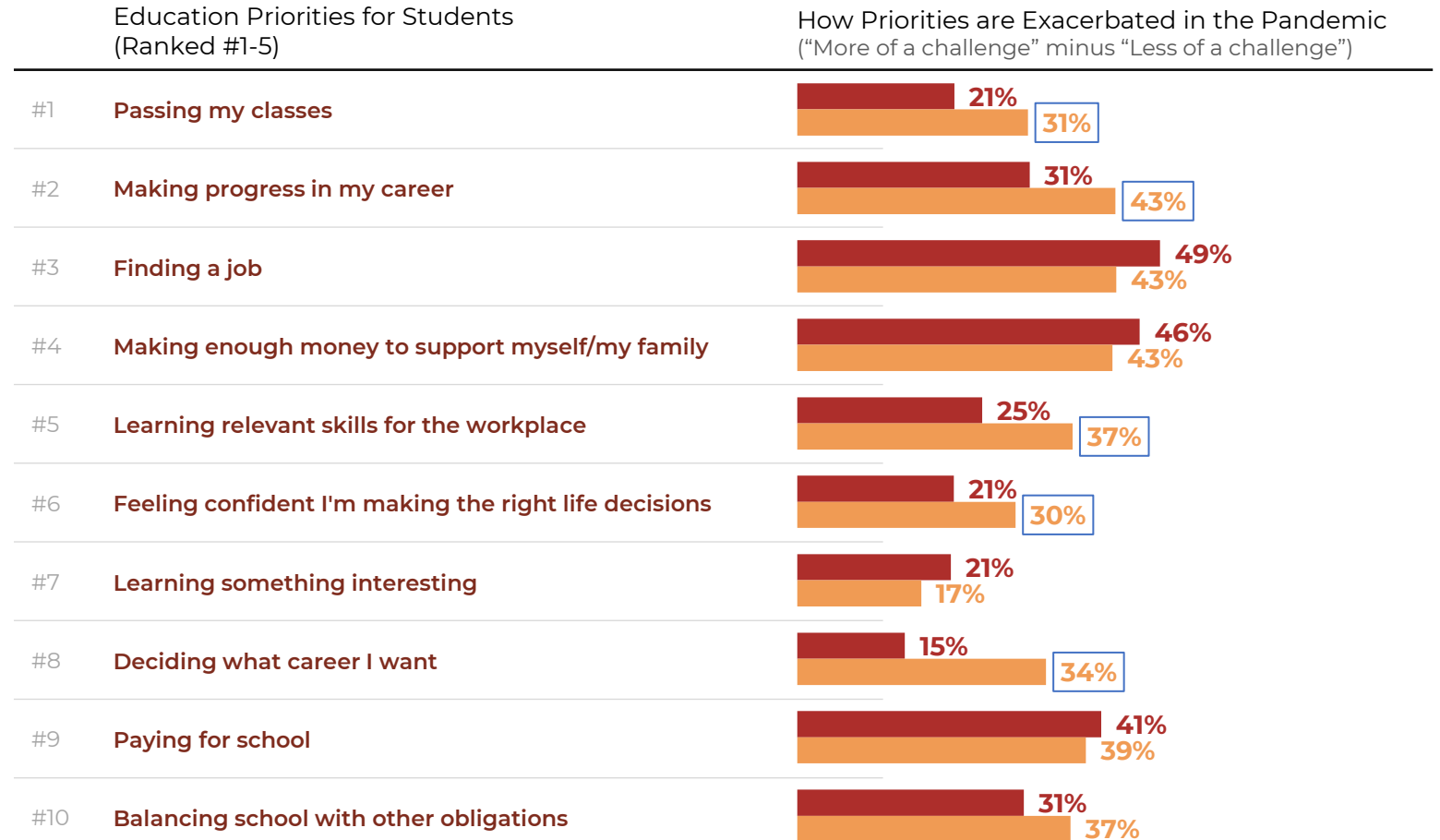
Students transitioned online feel stronger effects of the pandemic on their decisions and training for the future



■ Students Intentionally Online
 ■ Students Transitioned to be Online

STUDENT PRIORITIES AND THE EFFECTS OF THE COVID-19 PANDEMIC

Bases Vary, Among Students Who Ranked Education Priority Among Top 5 (N=99-330)



Q1 Which of the following are most important to you in your education? Please rank your top 5.

Q26 Below are your top 5 priorities for your education that you mentioned earlier. Has the COVID-19 pandemic affected how challenging they are for you? (More of a challenge/No change/Less of a challenge)



Differences Between Transitioned and Planned Online Classes

Section Key Findings

01

40% of transitioned faculty were not satisfied with the courses they taught; far more than faculty who had planned to be online. They were specifically much more dissatisfied with lower division courses.

02

Faculty and students differed significantly in their views on both the ability of students to learn, and the quality of instruction: transitioned faculty reported that student learning was sharply impacted, and so was the quality of instruction. Students were much more positive about both.

03

Students who were intentionally online valued personal interaction less and were therefore less concerned about the impact of the pandemic on student engagement with materials, peers, and faculty.

04

Students and faculty engaged in humanities and social sciences were generally more positive about their experiences; those in STEM and the arts less so.

Course Assignment and Analysis

ALL SPRING 2020 ONLINE COURSES



Students took an average of **3.6 courses online** in the Spring 2020 term

18% were intentionally online

82% were supposed to be in-person



Faculty taught an average of **2.9 courses online** in the Spring 2020 term

21% were intentionally online

79% were supposed to be in-person

Q13. (Design of All Courses) Please expand on the following details about each course: (Originally designed to be online / Adapted to be online due to COVID-19 shutdown)

QS12. Please think of how things changed (if at all) at your college or university in Spring 2020 due to the COVID-19 shutdown. In your Spring 2020 term, how were each of the courses ultimately taught?

COURSE ASSIGNMENT

Those with *any* course originally designed to be online were assigned to rate an intentionally online course

Those with *all* transitioned courses were assigned to rate a transitioned course

32% of Students rated courses designed to be online (Intentionally Online, N=318)

68% of Students rated courses transitioned to be online (Transitioned Online, N=684)

30% of Faculty rated courses designed to be online (Intentionally Online, N=151)

70% of Faculty rated courses transitioned to be online (Transitioned Online, N=349)

QUESTIONS

Course Information:

- Size
- Topic
- Level
- Instruction Style
- TA

Personal assessment of success

Course outcomes:

- Ability for students to learn
- Quality of instruction
- Faculty engagement
- Student engagement
- Faculty/student interaction
- Student attendance
- Faculty control of technology
- Students learning from each other
- Interaction with TA (as applicable)

Teaching methods

- Methods used

- Efficacy of teaching methods used

- How teaching methods delivered on learning experiences

Challenges faced

Many students say they are successful when instructors are accessible and provide appropriate resources for success

Some students attribute their success to their personal effort

Q17C. Please describe in as much detail as you can, what made [COURSE] successful? Please focus on how the course was implemented (e.g., style of teaching, assignments) rather than the material.

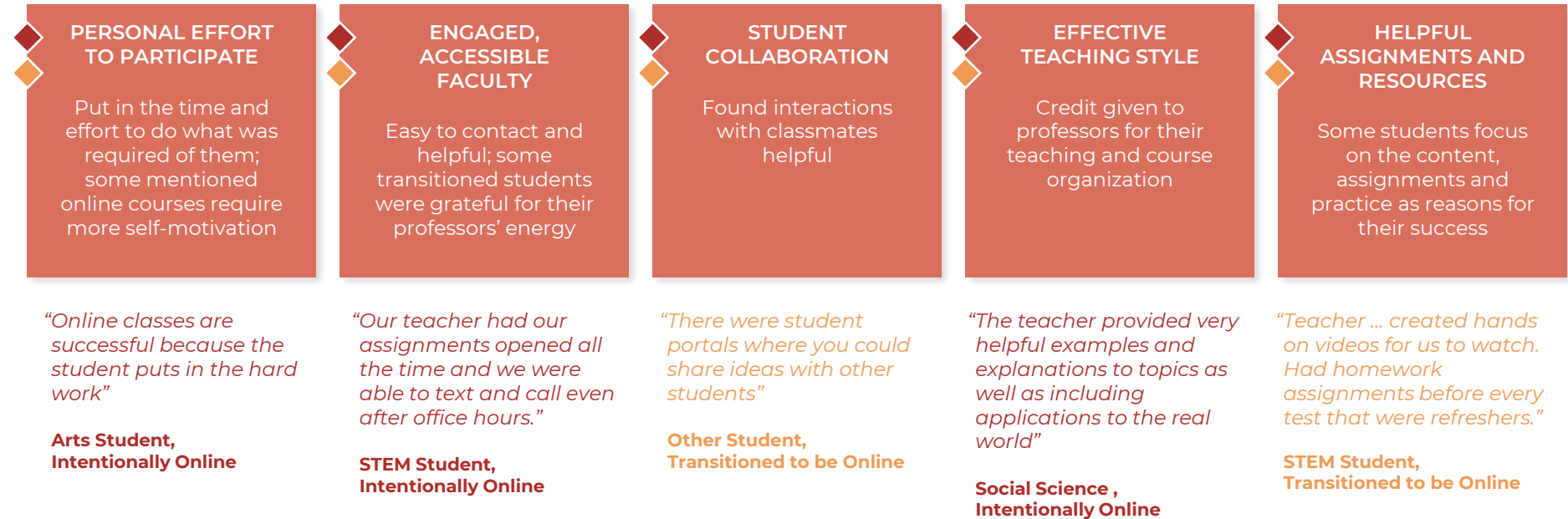
Explanations mentioned by:

◆ Students Intentionally Online

◆ Students Transitioned to be Online

OPEN-ENDED EXPLANATIONS FOR SUCCESS BY STUDENTS (Exceeded personal standards of success/Met standards of success and was satisfied)

Among Students Who Did Not Meet Personal Standards of Success (N=175)



Many students say they are not successful when they cannot put in the right amount of work

Some attributed their lack of success to digital learning and/or the pandemic, others could have put in more effort

Q17C. Please describe in as much detail as you can, what made [COURSE] not as successful as you had hoped? What was missing that would have made it better?

Explanations mentioned by:

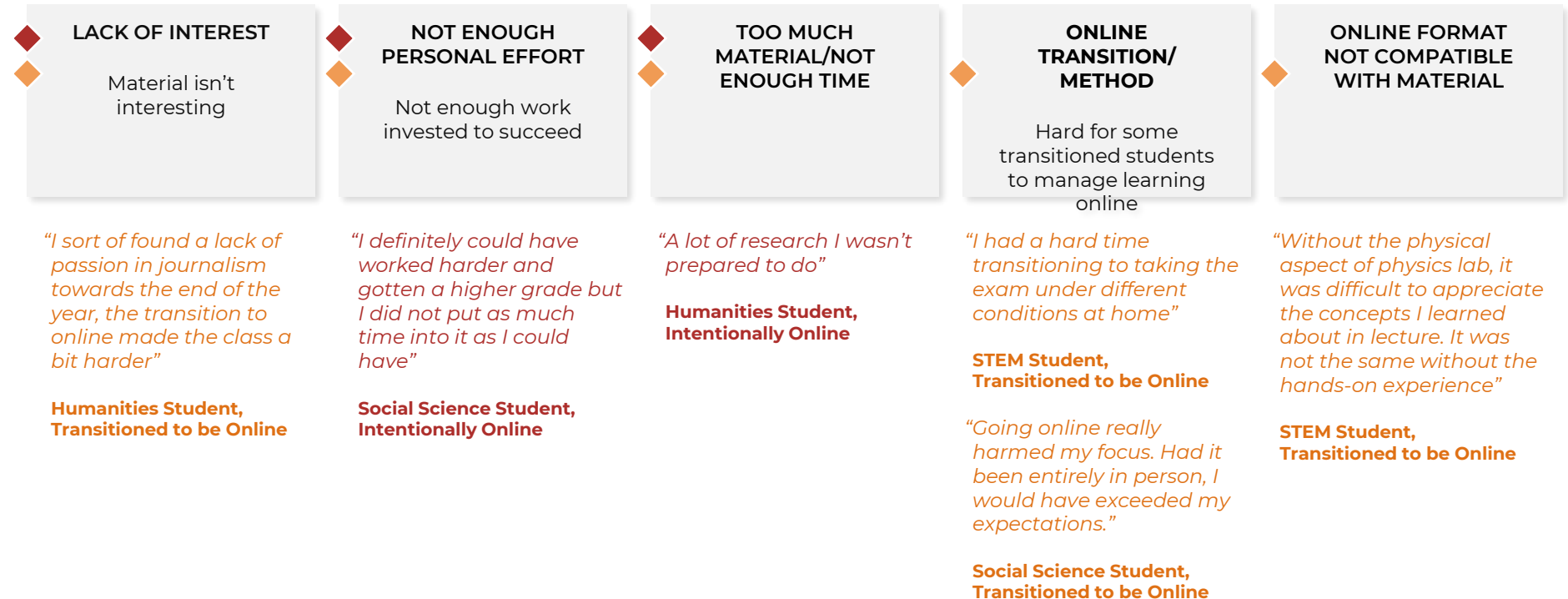
◆ Students Intentionally Online

◆ Students Transitioned to be Online

OPEN-ENDED EXPLANATIONS FOR LACK OF SUCCESS BY STUDENTS

(Met my standards of success but could have done better/Fell far short of my personal standards of success)

Among Students Who Did Not Meet Personal Standards of Success (N=175)

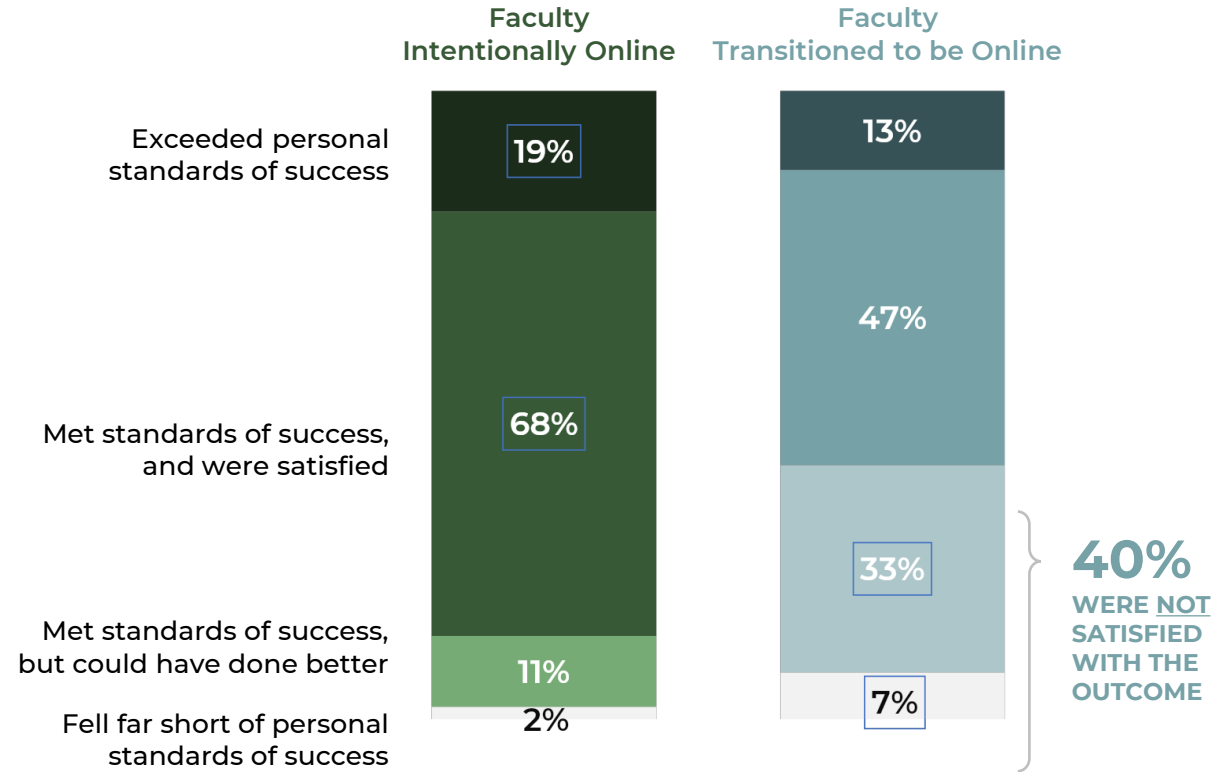


Faculty who were transitioned fell short of their personal expectations

Unlike students, faculty who transitioned to online courses had different views of their success than their online peers who taught courses intended to be online. 40% were not satisfied with the outcome, compared to 13% of faculty with courses that were designed to be online.

SATISFACTION OF PERSONAL STANDARDS OF SUCCESS

Among Faculty Intentionally Online (N=151), Faculty Transitioned to be Online (N=349)



"I was unequipped to handle the changes brought on by the pandemic ... my students were also overwhelmed. It was reflected in the quality of their final essays ... the opposite of all past semesters."

Humanities Faculty, Transitioned to be Online

More faculty were dissatisfied with STEM and humanities courses*

□ Indicates statistically significant difference with the other Faculty group at 90% confidence level
 *Significantly more dissatisfied at 90% confidence interval than faculty rating Social Science courses; Not enough ratings for Arts courses to measure
 Q17b. Considering your personal standards of success, how did you do with [COURSE] in Spring 2020?

Transitioned faculty found it hard to engage their distracted students

Other challenges included students' personal obligations, access to technology, and transitioning material online quickly

Q17C. Please describe in as much detail as you can, what made [COURSE] not as successful as you had hoped? What was missing that would have made it better?

OPEN-ENDED EXPLANATIONS FOR LACK OF SUCCESS BY TRANSITIONED FACULTY

Faculty Transitioned to be Online who met standards of success, but could have done better or Fell far short of personal standards of success (N=161)

DISTRACTED STUDENTS

Emotional and practical distractions such as work and childcare

"Students were so shocked it is hard to imagine what might have kept those precarious students moving in the right direction."

**Humanities Faculty,
Transitioned to be Online**

COURSE NOT AMENABLE TO DIGITAL LEARNING

Course style and activities require hands-on activities and/or personal interaction

"Moving a speech class online, normally filled with person-to-person exercises and speeches delivered to a live audience, does not provide the best training environment"

**Humanities Faculty,
Transitioned to be Online**

DIGITAL LEARNING ITSELF IS A CHALLENGE

Not being in person is harder to engage

"Keeping your students engaged and motivated is not an easy task. And learning from home the challenge becomes even bigger."

**Social Science Faculty,
Transitioned to be Online**

LACK OF RESOURCES

Students didn't have access to appropriate technology, or administration could have supported more

"A lot of my students had difficult situations such as limited wi-fi, sharing a computer with siblings, high stress, etc. I think if I had more time to develop video lessons and changed the types of assessments I could have gotten more engagement."

**Humanities Faculty,
Transitioned to be Online**

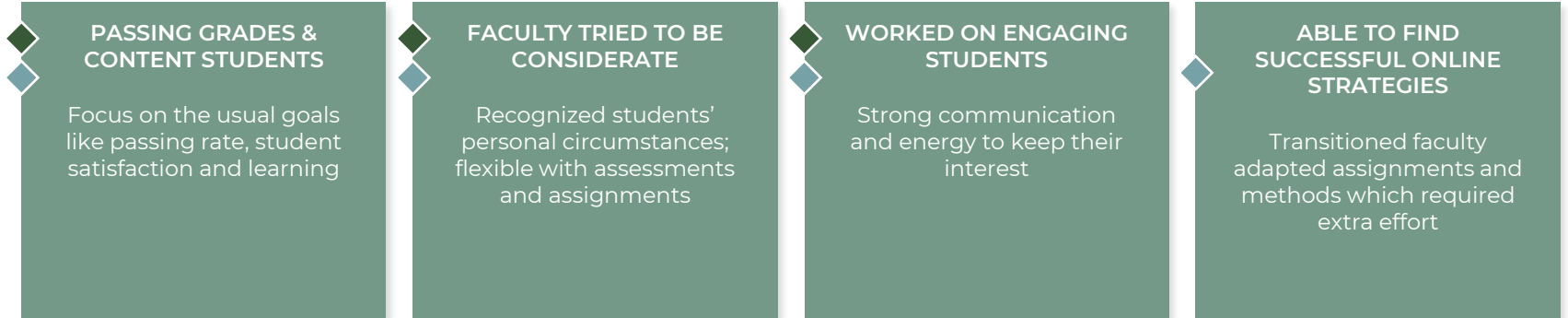
Faculty comments on the elements of success

Q17C. Please describe in as much detail as you can, what made [COURSE] successful? Please focus on how the course was implemented (e.g., style of teaching, assignments) rather than the material.

- Explanations mentioned by:
- ◆ Faculty Intentionally Online
 - ◆ Faculty Transitioned to be Online

OPEN-ENDED EXPLANATIONS FOR SUCCESS BY FACULTY

Among Faculty Who Met Or Exceeded Personal Standards of Success (N=339)



"The large majority of students passed the course, especially noteworthy given everything else that is going on in the world"

Social Science Faculty, Intentionally Online

"Due to Covid issues, [I] tried to be extra understanding of the stressors on my students"

Humanities Faculty, Intentionally Online

"...cut down material covered, cut down number of assessments, cut down homework, allowed students to submit work late with little penalty"

STEM Faculty, Transitioned to be Online

"I was able to keep a large class engaged - even after moving online ... and foster an environment where we supported each other during a hectic time"

Social Science Faculty, Transitioned to be Online

"We started out on the ground, as usual. Did a pivot to Blackboard Discussion Board, which is effective, but very hard to prepare for. Two weeks later, pivoted again to Zoom, and it's been utterly fabulous."

Humanities Faculty, Transitioned to be Online

Ability to learn ranked higher in courses intended to be online, according to both faculty and students

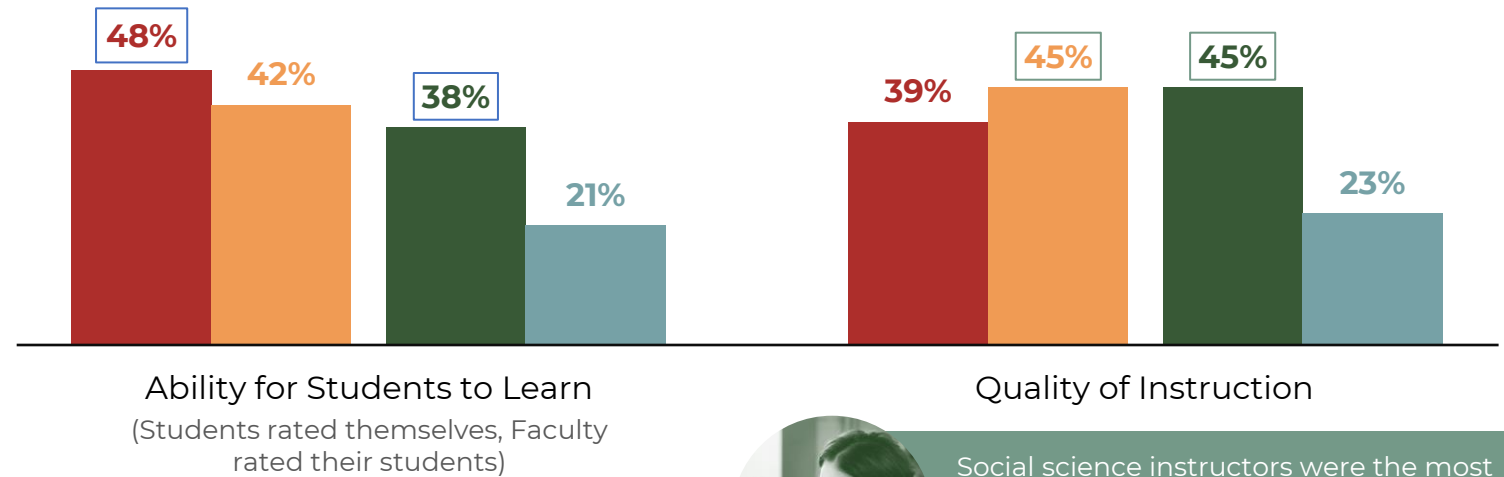
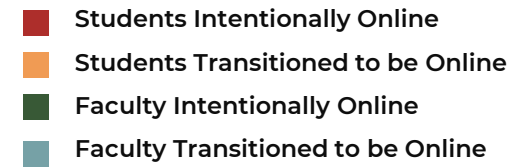
More students who were transitioned liked the quality of instruction..... But transitioned faculty were dissatisfied with all outcomes

“Students explored their own interest areas and demonstrated that they could apply sociological concepts to contemporary social problems. Students were active with great discussions. COVID-19 offered the opportunity to explore a social problem in real time which is quite rare.”

Social Science Faculty, Intentionally Online

LEARNING & INSTRUCTION QUALITY Course Outcomes - Evaluations of “Great”

Among Students Intentionally Online (N=318),
Students Transitioned to be Online (N=684),
Faculty Intentionally Online (N=151),
Faculty Transitioned to be Online (N=349)



Social science instructors were the most satisfied with their quality of instruction* and social science students reported highest rates of “ability to learn”***

□ Indicates statistically significant difference with the other Student/Faculty group at 90% confidence level; differences comparing Students to Faculty not indicated

*Significantly higher at 90% confidence interval than STEM and Humanities courses rated by Faculty, **Significantly higher at 90% confidence interval than Humanities courses rated by Students Q22. Please rate each of the following overall in [COURSE].

Students appreciate faculty engagement during the transition to digital. But faculty themselves were more critical.

Transitioned students rated faculty involvement significantly higher than designed online students.

Transitioned faculty rated both faculty engagement and student engagement significantly

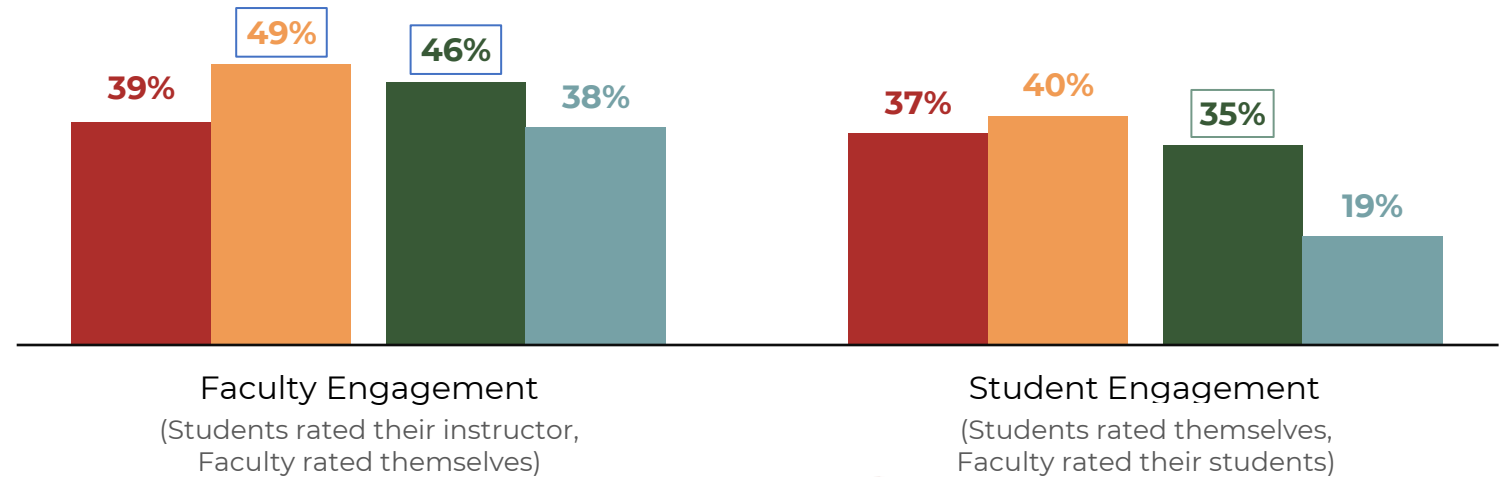
"We used YouTube videos and the whole class time unlike other teachers. It was successful because the teacher was enthusiastic and kept the joy alive.."

Arts Student, Transitioned Online

ENGAGEMENT
Course Outcomes – Response = Great"

Among Students Intentionally Online (N=318),
 Students Transitioned to be Online (N=684),
 Faculty Intentionally Online (N=151),
 Faculty Transitioned to be Online (N=349)

- Students Intentionally Online
- Students Transitioned to be Online
- Faculty Intentionally Online
- Faculty Transitioned to be Online



STEM and Arts students reported the highest rates of personal engagement*

□ Indicates statistically significant difference with the other Student/Faculty group at 90% confidence level; differences comparing Students to Faculty not indicated
 *Significantly higher at 90% confidence interval than students rating Social Science courses
 Q22. Please rate each of the following overall in [COURSE].

For students, ratings of some course elements differed by subject, but none differed by course size or year of study

RATING OF COURSE ELEMENTS BY STUDENTS

Among Total Students (N=1002)

	40 or fewer students N=684	41+ students N=318	STEM N=286	Humanities N=202	Social Science N=258	Arts N=174	Lower-level N=530	Upper-level N=458
"Great" Ability to Learn	42%	47%	43%	39%	49%	41%	44%	44%
"Great" Quality of Instruction	44%	41%	46%	40%	40%	46%	41%	46%
"Great" Personal (Student) Engagement	39%	40%	41%	39%	33%	45%	41%	37%
"Great" Faculty Engagement	47%	42%	41%	48%	47%	49%	44%	48%
Exceeded standards of success/Met them and were satisfied	83%	85%	80%	88%	82%	88%	84%	84%
Fell short of standards of success/ Met them but could have done better	17%	15%	20%	12%	18%	12%	16%	16%

 Indicates statistically significant difference with at least one other type of course at 90% confidence level

Q22. Please rate each of the following overall in [COURSE].

Q17b. Considering your personal standards of success, how did you do with [COURSE] in Spring 2020?

For faculty, ratings of some course elements differed by subject and year of study, but not by course size

RATINGS OF COURSE ELEMENTS BY FACULTY

Among Total Faculty (N=500)

	40 or fewer students N=436	41+ students N=64*	STEM N=164	Humanities N=141	Social Science N=99*	Arts N=43*	Lower-level N=282	Upper-level N=209
"Great" Ability of Students to Learn	26%	25%	23%	31%	30%	-	23%	30%
"Great" Quality of Instruction	30%	27%	30%	24%	41%	-	26%	35%
"Great" Student Engagement	23%	27%	23%	26%	28%	-	21%	29%
"Great" Personal (Faculty) Engagement	39%	48%	40%	43%	42%	-	39%	41%
Exceeded standards of success/Met them and were satisfied	68%	67%	66%	63%	81%	-	64%	74%
Fell short of standards of success/ Met them but could have done better	32%	33%	34%	37%	19%	-	36%	26%

 Indicates statistically significant difference with at least one other type of course at 90% confidence level

*Interpret base sizes below N=100 with discretion; Base size for Arts courses too small to report

Q22. Please rate each of the following overall in [COURSE].

Q17b. Considering your personal standards of success, how did you do with [COURSE] in Spring 2020?

Connection and compassion emerged in Spring 2020 in response to the national crisis



“Class became asynchronous but more connected, exercises changed from observing NYC tourists, to observing family during the pandemic. We wrote to COVID, did more creative brainstorming journals.

My outreach became more personal. While students predictably had to ask for extensions, many were first responders or essential workers. Suddenly many of them promised not to disappoint me. That shift made connections and corrections easier.”

**Humanities Faculty,
Transitioned to be Online**



Teaching Practices and Perspectives in the Context of the Pandemic

Section Key Findings

- 01** There were disconnects between students and faculty: methods most highly rated by students were rated lower by faculty and also used less by them, such as one-on-one video conferences with students. Conversely, students disliked some tools that were widely used by faculty such as email. Faculty tended to prefer asynchronous communication, while students preferred to connect in real time.
- 02** Some methods that faculty thought most effective – such as collaborative projects – were not widely used. Some that were used quite widely – such as prerecorded lectures – were not seen as effective by students.
- 03** Transitioned faculty used methods that were more closely analogous to traditional teaching methods, such as live online lectures and live discussions via video. These methods were also highly rated as teaching tools by transitioned faculty.

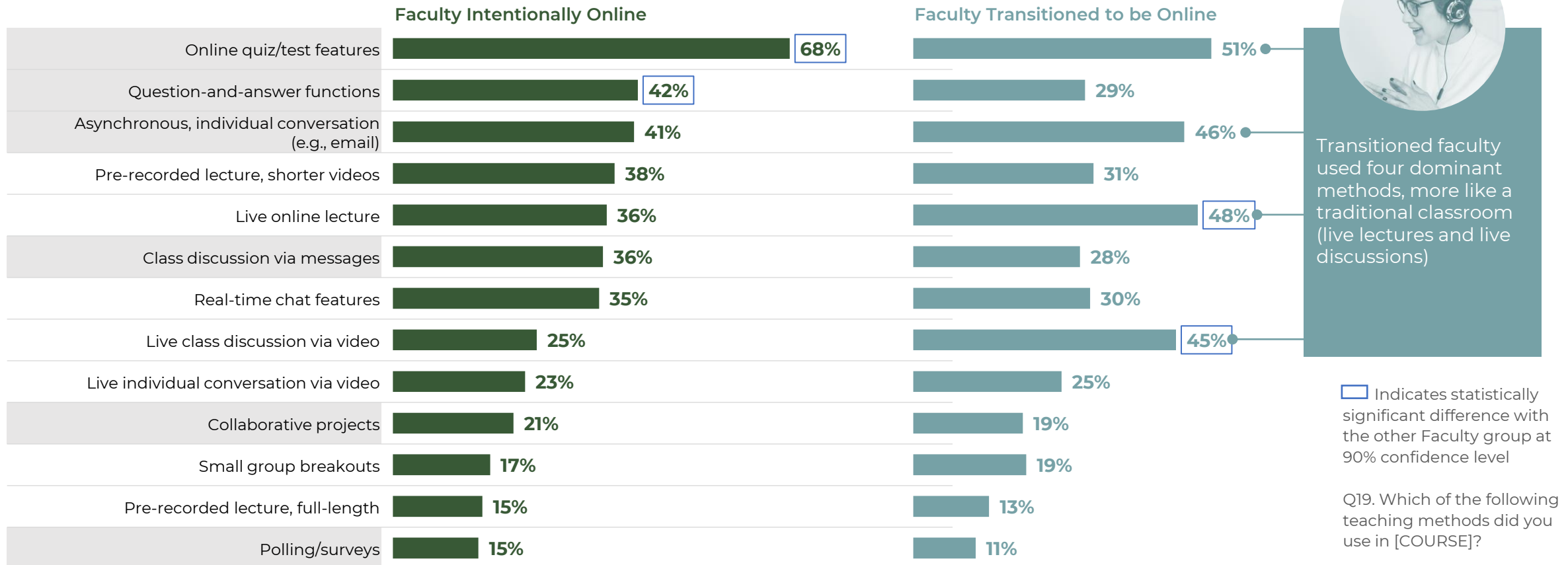
- 04** Faculty that taught intentionally online courses tended to depend less on analogues for traditional courses and used more digital-native methods such as online quizzes.
- 05** Student and faculty aspirations were different: faculty highly valued engagement, while students were focused on functional priorities like good grades.

Transitioned faculty relied more on traditional instructional methods using digital platforms

 = Selected Interactive Methods

ONLINE TEACHING METHODS USED

Among Faculty Intentionally Online (N=151), Faculty Transitioned to be Online (N=349)

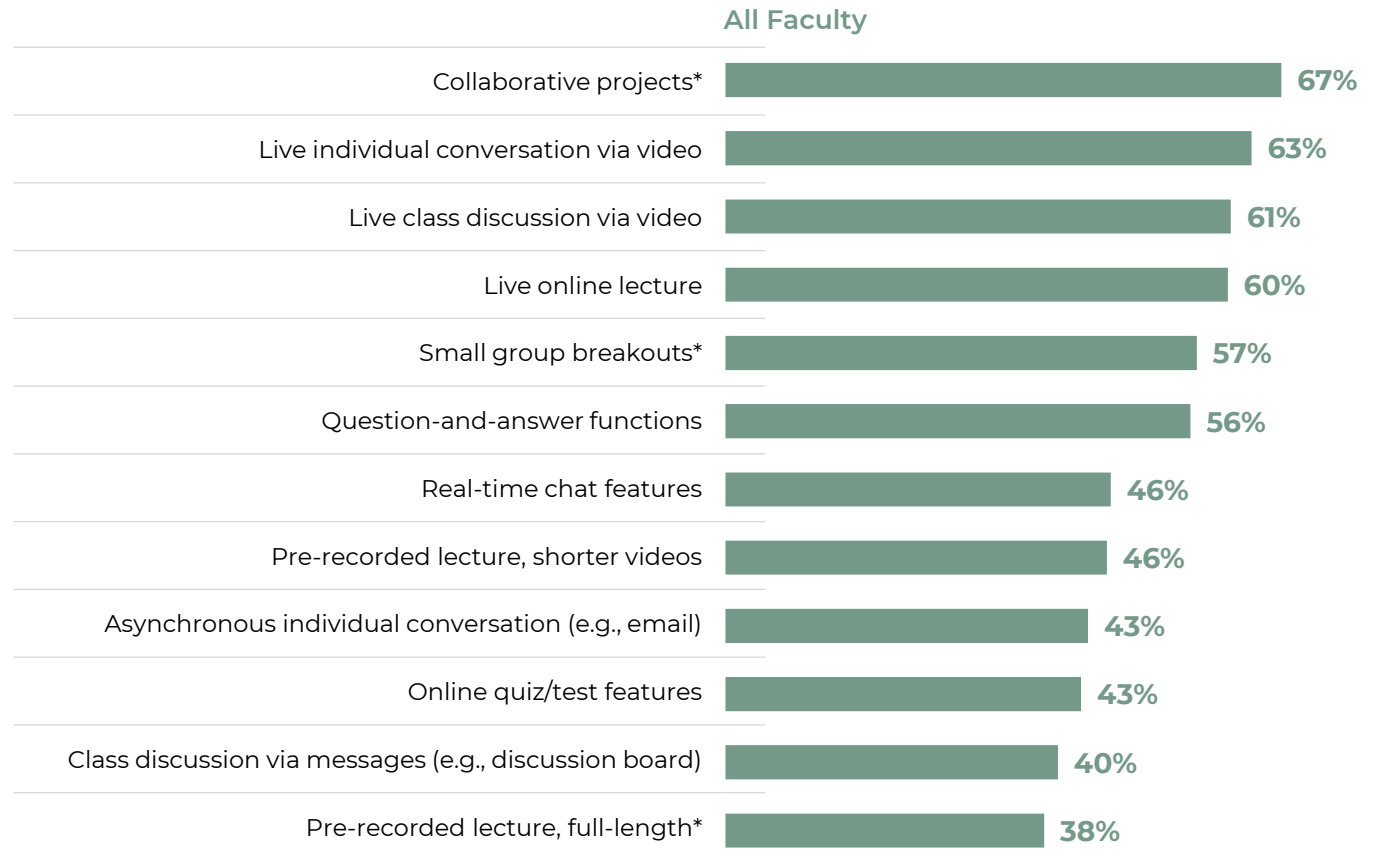


Collaborative and live activities are most effective, according to faculty but only 20% use them

Conversely the 2 methods most used by faculty intentionally online are rated quite low

METHOD EFFICACY FOR LEARNING Strongly Agree – Rated by Faculty

Among Faculty Using Instruction Method, Bases Vary (N=68-279)



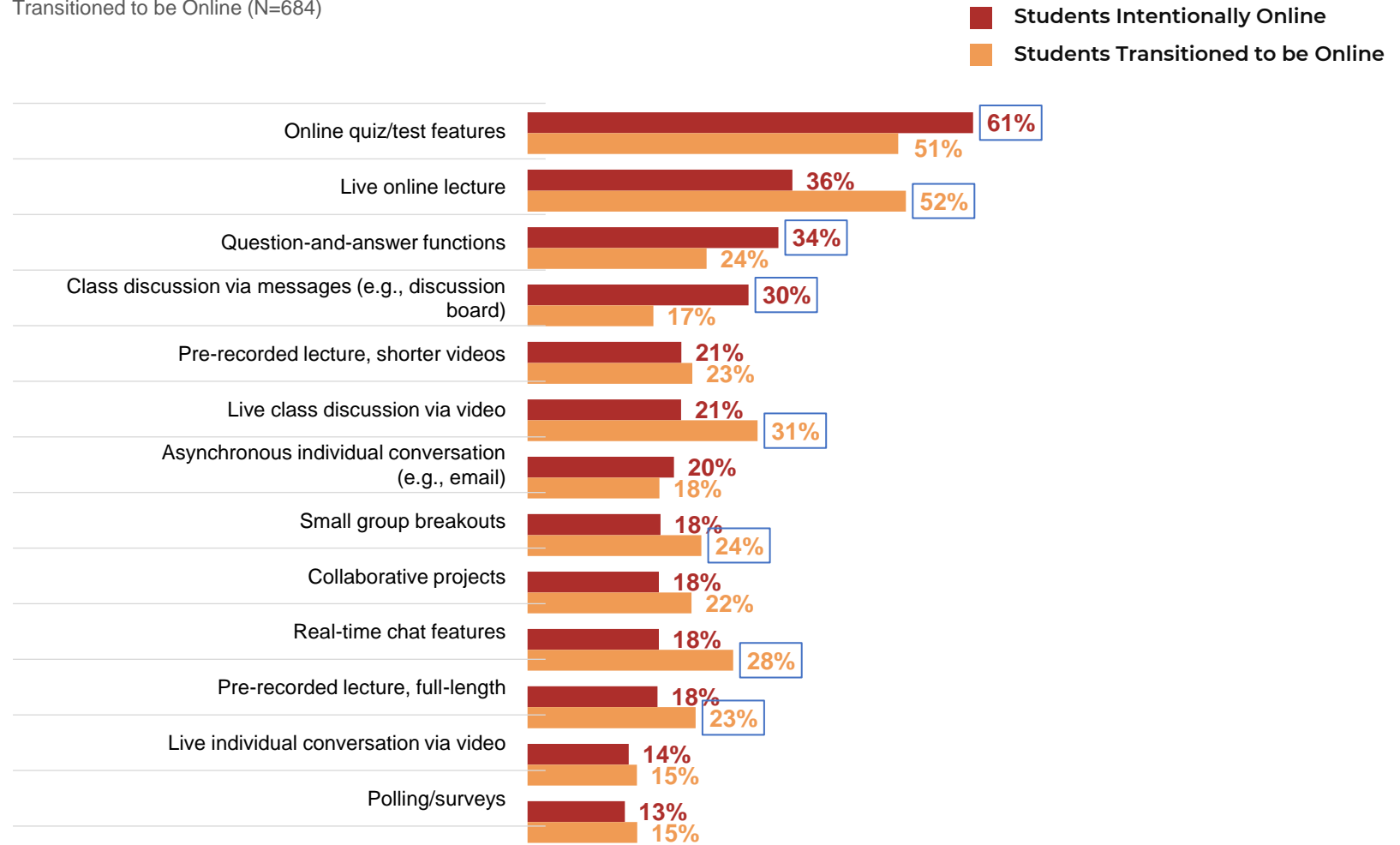
*Interpret with discretion: Collaborative projects (N=96), Small group breakouts (N=92), Pre-recorded lecture, full-length (N=68)
Polling/surveys not shown (N=59)
Q20. How much do you agree or disagree that each of the following teaching methods helped the students learn in [COURSE]?

Students who were transitioned reported more live lectures and live discussions



TEACHING METHODS USED

Among Students Intentionally Online (N=318), Students Transitioned to be Online (N=684)



 Indicates statistically significant difference with the other Student group at 90% confidence level
 Q19. Which of the following teaching methods did your instructor use in [COURSE]?

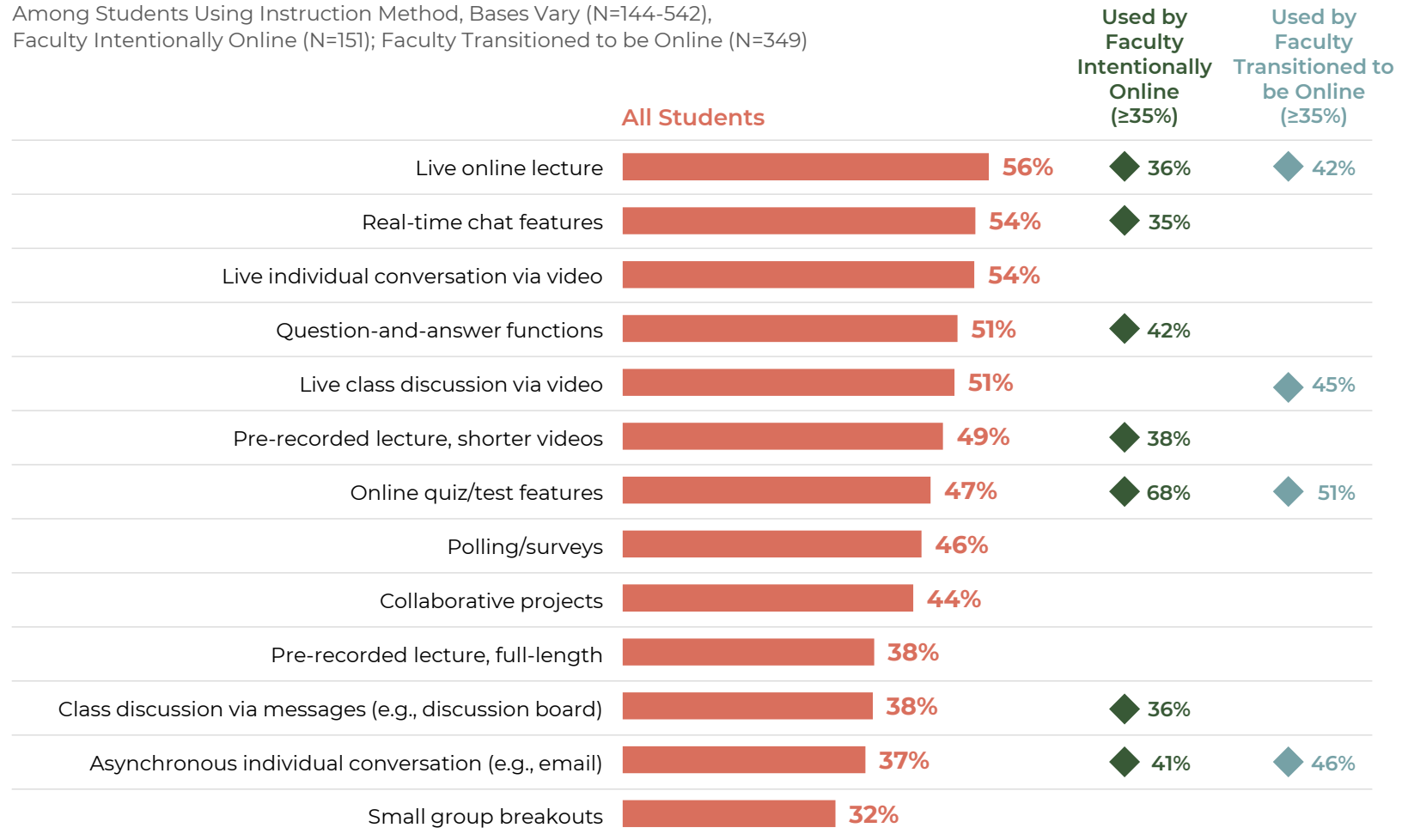
Faculty use of specific methods is not closely aligned with student ratings

Faculty persist with email and small group breakouts, despite student negative views.

Why does this chart

METHOD EFFICACY FOR LEARNING Strongly Agree – Rated by Students

Among Students Using Instruction Method, Bases Vary (N=144-542),
Faculty Intentionally Online (N=151); Faculty Transitioned to be Online (N=349)



Q20. How much do you agree or disagree that each of the following teaching methods helped you learn in [COURSE]?

Students and faculty have largely distinct goals for course experiences

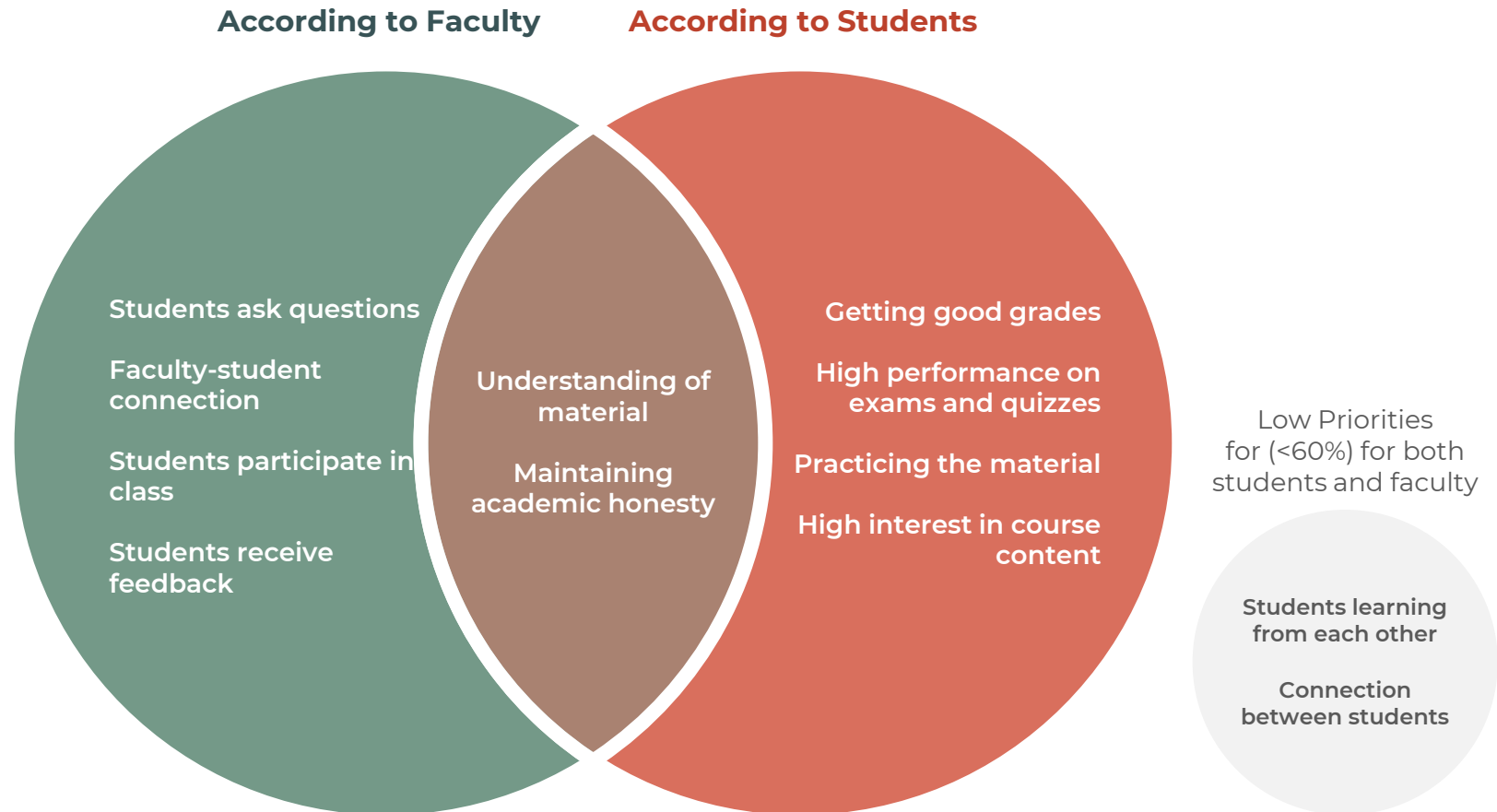
Faculty value interaction and connection in the classroom while students are focused on assessments and course content; they both agree that comprehension is the primary goal and prioritize academic honesty.

Notably, both faculty and students don't see students learning from each other or student collaboration as important learning experiences.

MOST IMPORTANT COURSE LEARNING EXPERIENCES



Very Important; Items >60%

Among Total Faculty (N=500), Total Students (N=1,002)














See Appendix slides 71 and 73 for full lists with percentages for Faculty and Students; 60% is the mean for both lists combined Q2. Now, focusing in more detail on your courses, how important are each of the following to you in your/your students' education?

Summary: teaching methods and learning experiences

 Faculty Intentionally Online
 Faculty Transitioned to be Online

SUMMARY: TEACHING METHODS AND LEARNING EXPERIENCES

Among Students Who Use and Find Method Effective, Bases Vary (N=140-299)

	Question-and-answer functions	Pre-recorded lecture, shorter videos	Class discussion via messages	Real-time chat features	Online quiz/test features	Asynchronous, individual conversation (e.g., email)	Live online lecture	Live class discussion via video
Summary of Method Strengths	Strong for performance outcomes and interacting with the material	Good for assessment performance	Only benefit is class participation	Strong on interactions like questions, feedback and faculty-student connection	Some benefits for grades	Good for questions and feedback	Good for questions and understanding	Many strengths, including engaging with the material and participation
Faculty Who Use Method (≥35%)					 	 	 	
# of Top Learning Experiences (>45% Students Agree)	9	4	1	6	2	3	5	11
Examples of Top Learning Experiences (Rated Highest by Students)	<ul style="list-style-type: none"> Understand material Practice material Get good grades Perform well on exams and quizzes Participate Ask questions 	<ul style="list-style-type: none"> Understand material Perform well on exams and quizzes Practice material Get good grades 	<ul style="list-style-type: none"> Participate 	<ul style="list-style-type: none"> Ask questions Faculty-student connection Receive feedback Understand material Participate 	<ul style="list-style-type: none"> Get good grades Perform well on exams and quizzes 	<ul style="list-style-type: none"> Ask questions Receive feedback 	<ul style="list-style-type: none"> Ask questions Understand material Get good grades 	<ul style="list-style-type: none"> Ask questions Receive feedback Understand material Practice material Participate Faculty-student connection

Refer to appendix pages 69 and 70 for full data and base sizes

Q21. In [INSERT COURSE], how much did [TEACHING METHOD] help you to... (Please select one response per item)

Q19. Which of the following teaching methods did you use in [COURSE]?

In Detail (1 of 2): Student experiences with online teaching methods used by faculty intentionally online

THE METHOD "HELPED A LOT"

- ◆ 56%+ Students agree
- ◆ 46-55% Students agree

IN DETAIL: EXPERIENCES WITH ONLINE TEACHING METHODS USED BY FACULTY INTENTIONALLY ONLINE



Among Students Who Use and Find Method Effective, Bases Vary (N=140-299)

			ONLINE METHODS MOST USED BY FACULTY INTENTIONALLY ONLINE						
			Online quiz/test features	Question-and-answer functions	Asynchronous, individual conversation (e.g., email)	Pre-recorded lecture, shorter videos	Live online lecture	Class discussion via messages (e.g., discussion board)	Real-time chat features
LEARNING	IMPORTANT TO FACULTY	Ask questions		◆	◆		◆		◆
		Faculty-student connection			◆				◆
		Participate in class		◆				◆	◆
		Receive feedback		◆	◆				◆
EXPERIENCES	IMPORTANT TO STUDENTS	Get good grades	◆	◆		◆	◆		
		Perform well on exams and quizzes	◆	◆		◆	◆		
		Practice the material		◆		◆	◆		◆
		Increase student interest in course content		◆					
EXPERIENCES	IMPORTANT TO BOTH	Understand the material		◆		◆	◆		◆
		Maintain academic honesty		◆					
EXPERIENCES	LEAST IMPORTANT	Learn from other students							
		Connect with other students							

Refer to appendix slides 66 and 67 for full data and base sizes






















Note, the same conclusions emerge from the Faculty evaluations (slide 68) though the faculty are more reserved in their agreement of helpfulness for any method Q21. In [INSERT COURSE], how much did [TEACHING METHOD] help you to... (Please select one response per item)

In Detail (2 of 2): Student experiences with online teaching methods used by faculty transitioned to online

THE METHOD “HELPED A LOT”
 56%+ Students agree
 46-55% Students agree

IN DETAIL: EXPERIENCES WITH ONLINE TEACHING METHODS USED BY FACULTY TRANSITIONED ONLINE

Among Students Who Use and Find Method Effective, Bases Vary (N=140-299)

		ONLINE METHODS MOST USED BY FACULTY TRANSITIONED ONLINE				
		Online quiz/test features	Live online lecture	Asynchronous, individual conversation (e.g., email)	Live class discussion via video	
LEARNING EXPERIENCES	IMPORTANT TO FACULTY	Ask questions				
		Faculty-student connection				
		Participate in class				
		Receive feedback				
	IMPORTANT TO STUDENTS	Get good grades				
		Perform well on exams and quizzes				
		Practice the material				
		Increase student interest in course content				
	IMPORTANT TO BOTH	Understand the material				
		Maintain academic honesty				
	LEAST IMPORTANT	Learn from other students				
		Connect with other students				

Refer to appendix slides 66 and 67 for full data and base sizes

Note, the same conclusions emerge from the faculty ratings (slide 68) though the faculty are more reserved in their agreement of helpfulness for any method Q21. In [INSERT COURSE], how much did [TEACHING METHOD] help you to... (Please select one response per item)

The background of the slide is a light blue monochromatic image. It depicts a person from a high-angle perspective, sitting at a desk. The person's hands are visible, typing on a laptop keyboard. Several sheets of paper are scattered on the desk, some overlapping the laptop. A pen lies on one of the papers. The overall scene suggests a professional or educational setting, consistent with the title 'Learning from the Spring 2020 Transition'.

Learning from the Spring 2020 Transition

Section Key Findings

01 Students were highly challenged by the lack of connection to other students and by the psychological and emotional distractions. This is significantly more important for transitioned students--and indeed faculty.

02 Students and faculty adapted effectively to the technical challenges of shifting online. Only about 20% of students had significant functional problems with their classes. That said, the shift online was (unsurprisingly) disruptive to more than 80% of students.

03 Student and faculty views on workloads and communications differed sharply: faculty overall believed they had reduced the workload and increased their availability; students believed the workload had increased and had not connected more to faculty.

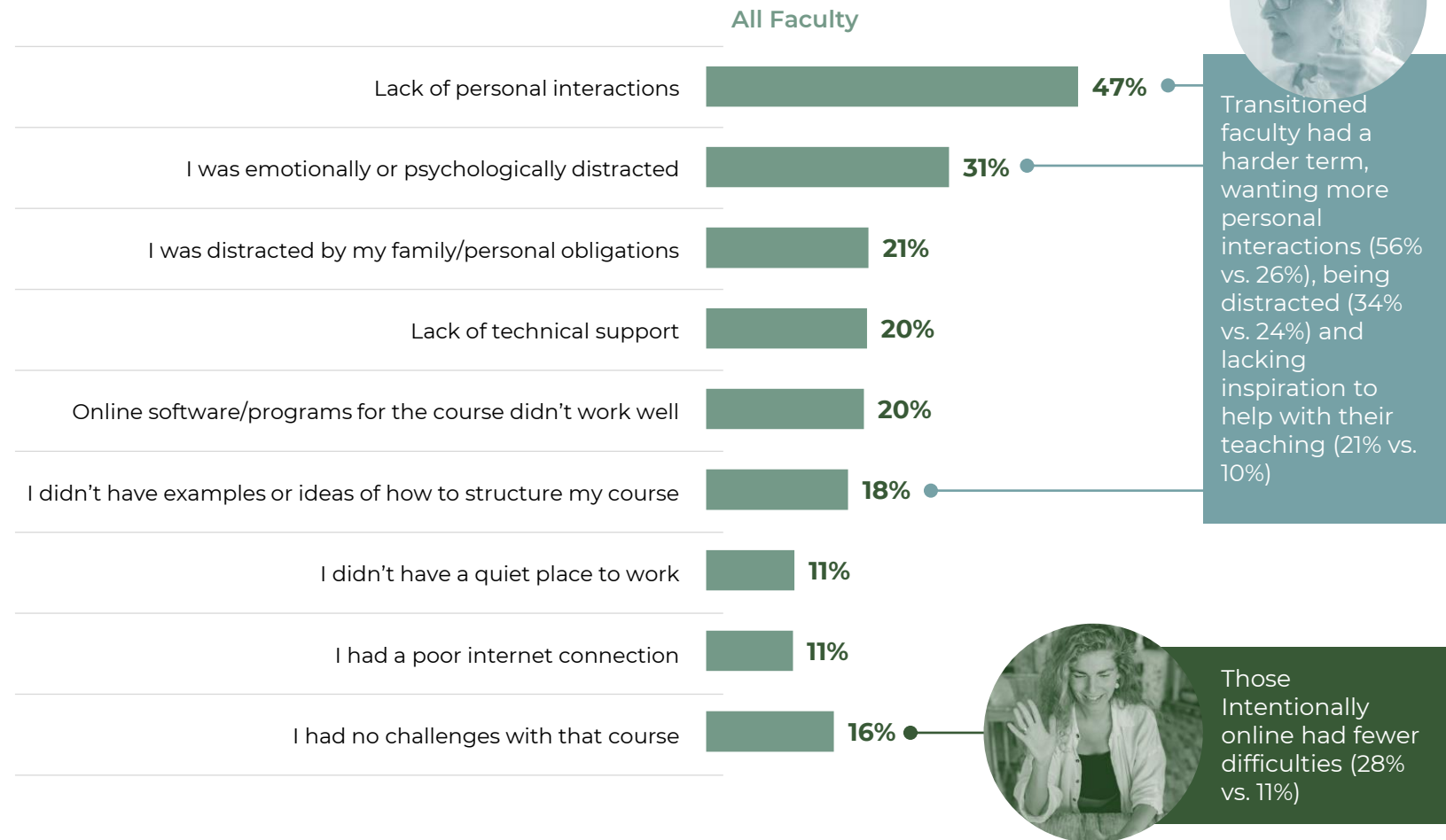
04 Students had concerns about the fall semester. Transitioned students were especially concerned about connecting to other students and issues related specifically to their courses; intentionally online students worried more broadly about income and job stability. Transitioned faculty had many more concerns about Fall 2020 as well.

According to faculty, their biggest course challenges in Spring 2020 were the lack of personal interactions and emotional or psychological distractions, along with logistical issues

Many faculty that were intentionally online still had challenges – only about 1 in 4 reported no additional difficulties.

CHALLENGES IN SPRING 2020

Among Total Faculty (N=500), Faculty Intentionally Online (N=151), Faculty Transitioned to be Online (N=349)



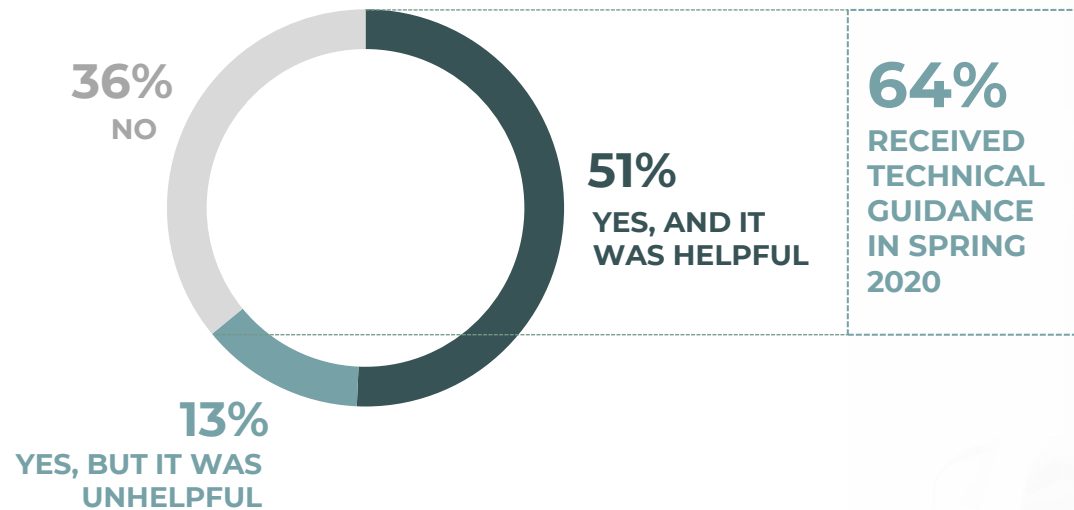
Differences mentioned are all statistically significant at a 90% confidence level and are exhaustive Q18. Which of the following were challenges for you in [COURSE] in Spring 2020?

About half of faculty received transition support that was helpful

PROFESSIONAL DEVELOPMENT AVAILABLE

Among Faculty Reporting That They Transitioned To Online (N=359)

Spring 2020 Received Technical Guidance



Faculty with **over 20 years** of experience received technical guidance at a significantly higher rate (72% vs. 61%) than their younger counterparts

Q23. Did you receive any guidance or technical assistance to help you adapt to online instruction?

Faculty want suggestions applicable to their specific courses and resources for ongoing advice

OPEN-ENDED STRENGTHS AND WEAKNESSES OF SUPPORT IN TRANSITION

Among Faculty Reporting That They Transitioned To Online (N=359)

WHAT WORKED

AVAILABLE AND VARIED SUPPORT

Resources for asking questions and getting more material

"The college offered virtual trainings, resource pages, and even content to help instructors adjust.."

**STEM Faculty,
Transitioned Online**

ONLINE TEACHING BEST PRACTICES

For communicating well, fostering engagement, and using the tools effectively

"I got advice about creating engagement in online courses. That helped in the live sessions and engaging with discussion board topics."

**Humanities Faculty,
Transitioned Online**

INSTRUCTION ON PLATFORM FUNCTIONS

Learned the basics quickly for how to use relevant programs and functions

I learned all the basics to get up and running with Zoom in one afternoon"

**Social Science Faculty,
Transitioned Online**

"It helped me understand how to use CANVAS to create quizzes and post grades"

**STEM Faculty,
Transitioned Online**

WHAT DIDN'T WORK

NEEDED MORE TAILORED INFORMATION

Some needed more detail on applying tools to their specific needs

"I would have liked specific pedagogical applications of the technology. I was left to figure out how to implement it in effective ways."

**Humanities Faculty,
Transitioned Online**

"What was shared was geared towards lecture courses and not lab courses"

**STEM Faculty,
Transitioned Online**

INSUFFICIENT SUPPORT AND PREPARATION

Some needed more information, sooner, with places to go for help

"Having support through the transition instead of having to figure it all out as I went along"

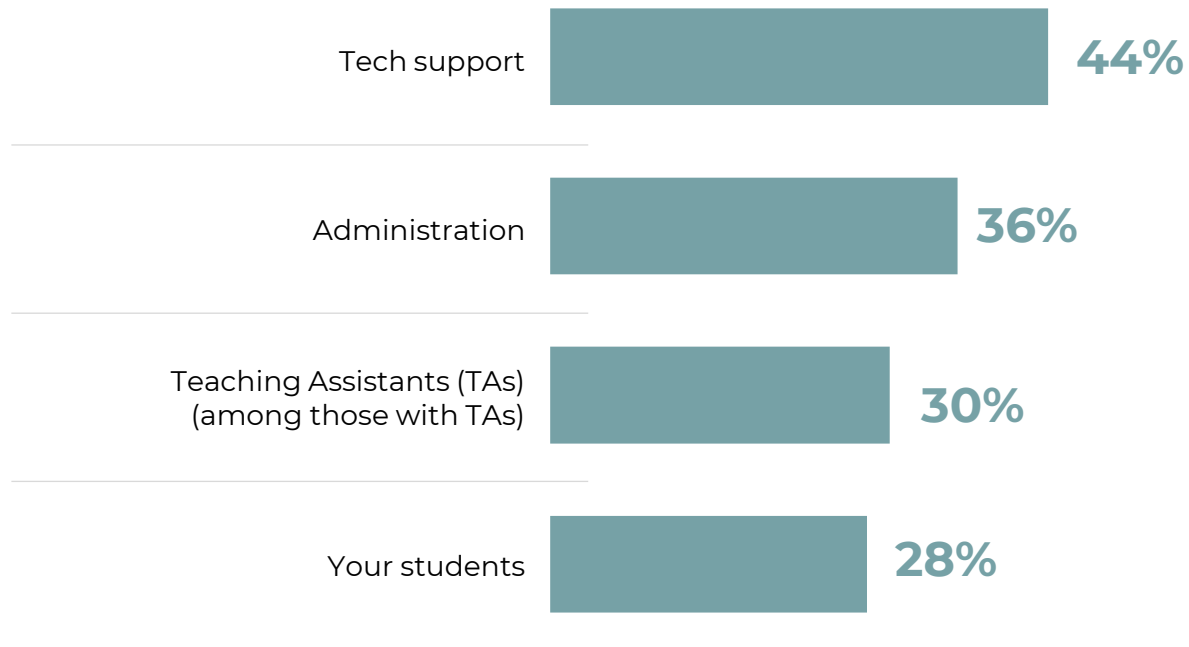
**Arts Faculty,
Transitioned Online**

Q24. You said you received helpful assistance to adapt to online instruction. How was it helpful? / You said you received assistance to adapt to online instruction, but it wasn't helpful. What would have been helpful for you in your transition?

Faculty said that tech support was more accessible than administrators or their own students

ACCESSIBILITY DURING TRANSITIONING TO ONLINE INSTRUCTION, VERY ACCESSIBLE

Among Faculty Transitioned to be Online, As Applicable, Bases Vary (N=145-359)



"[Training] helped to focus my efforts on the most effective ways of communicating the information to my students, plus tech support was readily available to deal with any technical issues I encountered."

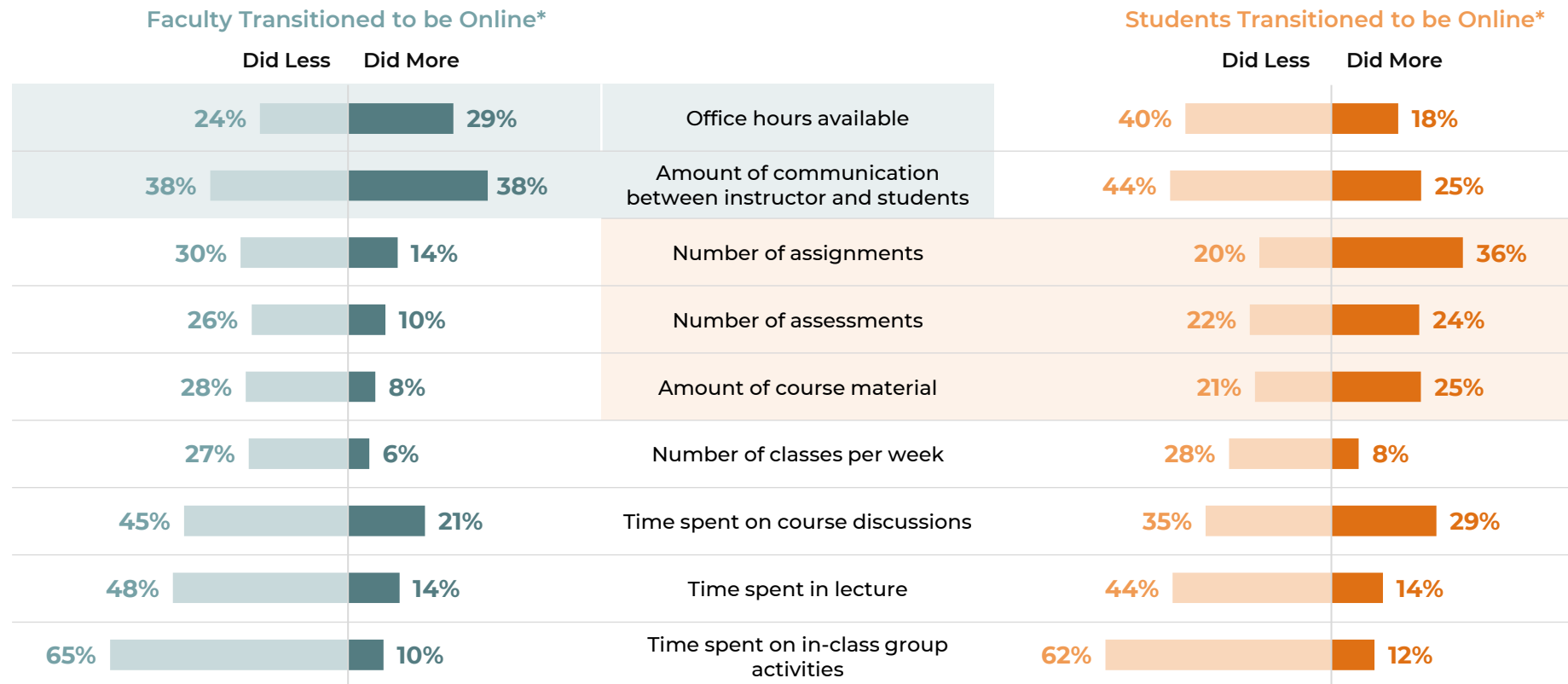
**STEM Faculty,
Transitioned Online**

Q4. During the transition to online instruction, how accessible were each of the following (if applicable)?

Disconnect: Transitioned faculty reported they reduced the students' workload... but transitioned students thought their workload increased and communications with instructors went down.

COURSE CHANGES FOR FACULTY AND STUDENTS TRANSITIONED TO ONLINE

Among Faculty Transitioned to be Online (N=359), Students Transitioned to be Online (N=550)



The top faculty activities indicate that, on average, faculty were doing **more office hours and about equal student communications** because of the online transition

The net positive activities for students all involve **course material**

*"No Change" responses not shown

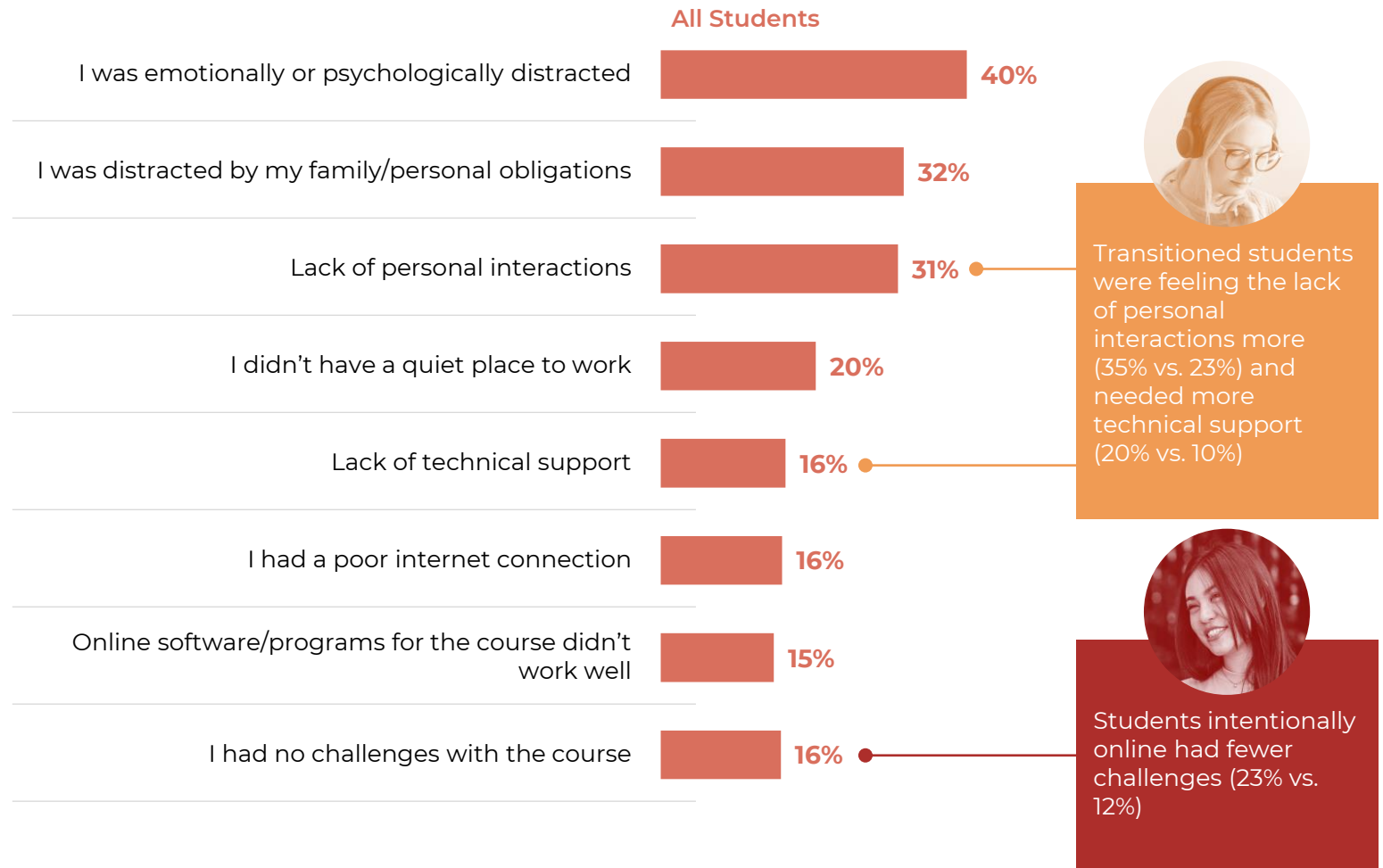
Q5. How did the following change in your courses after the transition to online?

Students were distracted from their coursework in Spring 2020

3 in 4 students taking courses intentionally online experienced disruptions. That was true for 86% of transitioned students.

CHALLENGES ENCOUNTERED IN COURSE

Among Total Students (N=1002), Students Intentionally Online (N=318), Students Transitioned to be Online (N=684)

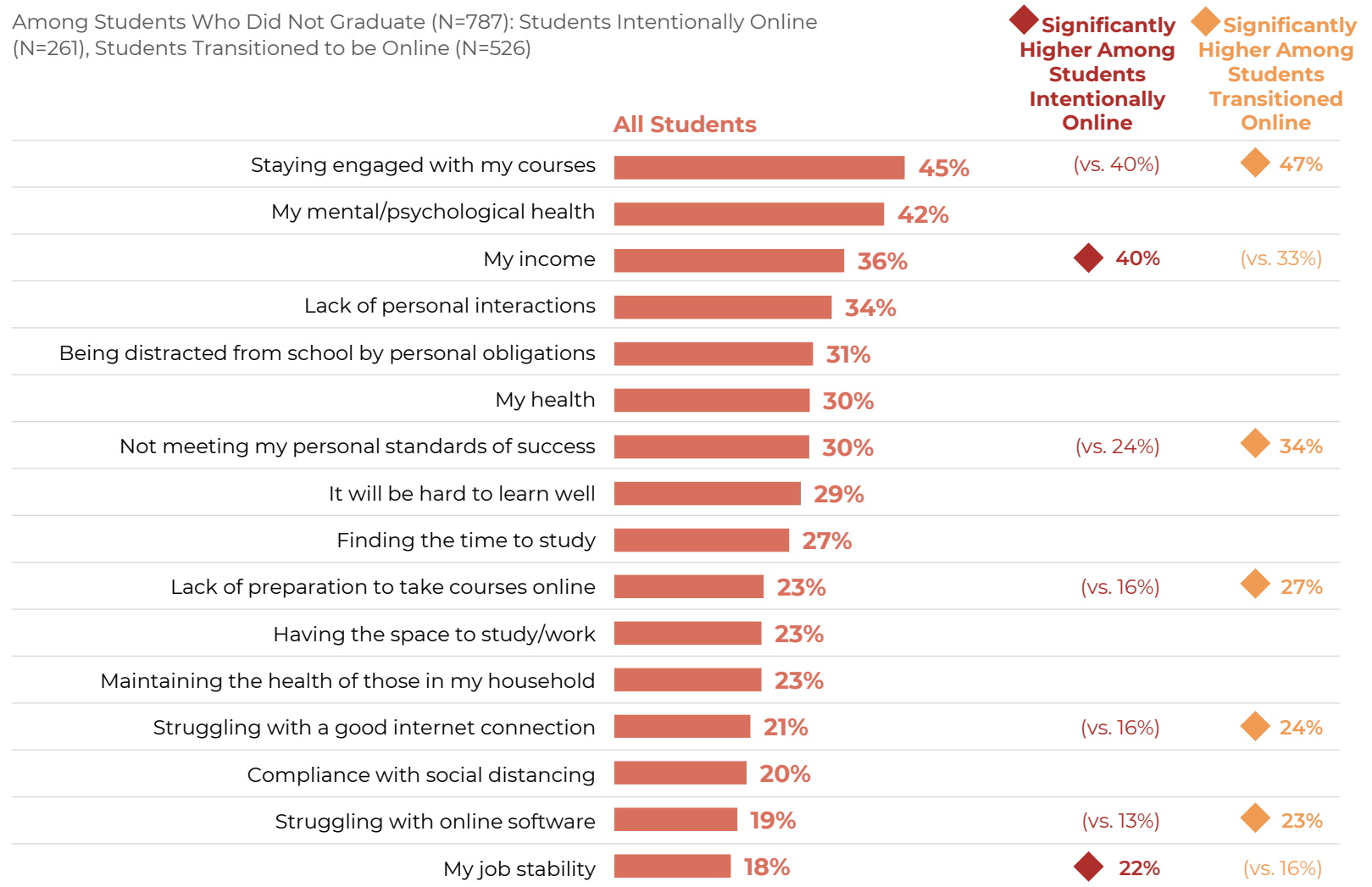


Differences mentioned are all statistically significant at a 90% confidence level and are exhaustive Q18. Which of the following were challenges for you in [COURSE] in Spring 2020?

Anticipating Fall 2020, transitioned students are more worried about the course mechanics and outcomes while students intentionally online are more concerned about income

CONCERNS FOR THE UPCOMING 2020 FALL TERM

Among Students Who Did Not Graduate (N=787): Students Intentionally Online (N=261), Students Transitioned to be Online (N=526)



All statements shown as comparison between the two groups are statistically significant at a 90% confidence level
 Concerns under 18%: Not having appropriate tech support (10%), None, I have no concerns (6%; significantly higher among students intentionally online 8% vs. 4%)

Q29. Which of the following are concerns you have for the upcoming Fall term of 2020?

Transitioned faculty have multiple concerns about upcoming fall courses, including lack of personal interactions and teaching quality

CONCERNS FOR THE UPCOMING 2020 FALL TERM

Among Total Faculty (N=500); Faculty Transitioned to be Online (N=349); Faculty Intentionally Online (N=151)

	All Faculty	Faculty Intentionally Online	Significantly Higher Among Faculty Transitioned Online
Lack of personal interactions	44%	(vs. 26%)	52%
Not meeting my personal standards of success	33%	(vs. 21%)	38%
It will be hard to teach well	29%	(vs. 19%)	34%
Maintaining the health of those in my household	29%		
My health	28%		
My mental/psychological health	27%		
Struggling with the online software/programs	27%	(vs. 15%)	32%
Compliance with social distancing	25%	(vs. 18%)	28%
Staying engaged with my teaching	25%		
My job stability	22%		
Not having appropriate technical support	19%		
My income	19%		
Being distracted by my family/personal obligations	18%		
Lack of training to teach courses online	17%	(vs. 7%)	22%
Struggling with a good internet connection	17%	(vs. 12%)	19%

All statements shown as comparison between the two groups are statistically significant at a 90% confidence level; none are significantly higher among Faculty Intentionally Online

Concerns under 17% among Total Faculty: Having the space to work (14%), Finding the time to work (11%), None, I have no concerns (6%; significantly higher among Faculty Intentionally Online 10% vs. 4%)

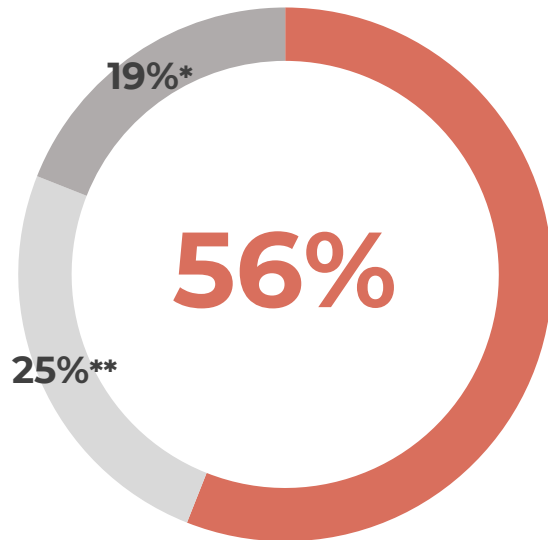
Q29. Which of the following are concerns you have for the upcoming Fall term of 2020?

Despite the Spring 2020 challenges, half of students are more open to digital learning

ATTITUDES REGARDING COLLEGE/UNIVERSITY EDUCATION, % WHO AGREE

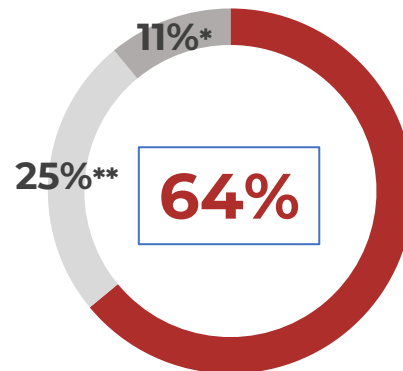
Among Total Students (N=1002), Students Intentionally Online (N=318), Students Transitioned to be Online (N=684)

“I now think more highly of online education than I did before COVID-19”

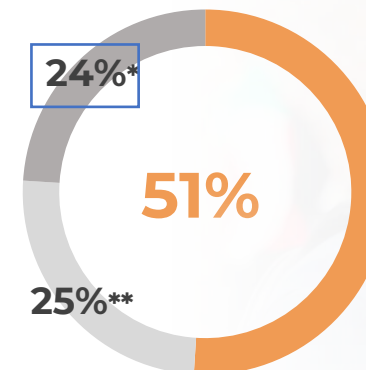


This perspective is even stronger for students who were intentionally enrolled in online courses

Students Intentionally Online



Students Transitioned to be Online



□ Indicates statistically significant difference with another Student group within the comparative set at 90% confidence level

*Agree much more “I now think more *poorly* of online education than I did before COVID-19”

**Agree somewhat more “I now think more *poorly* of online education than I did before COVID-19”

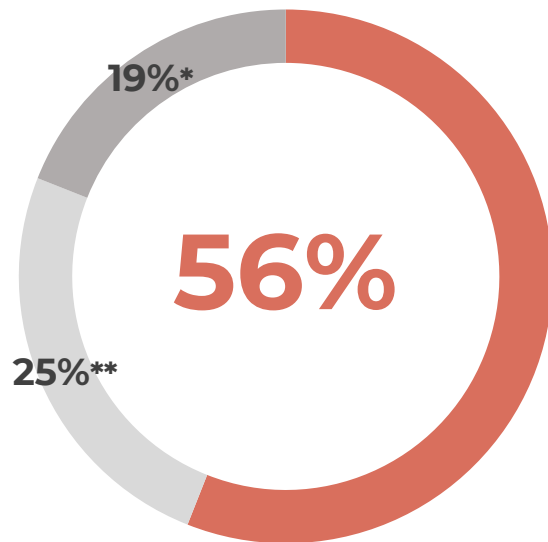
Q3. Consider each of the following pairs of statements. Which do you agree with more when it comes to a college/university education?

First-generation students and those at open-access schools have a more positive view of digital learning

ATTITUDES REGARDING COLLEGE/UNIVERSITY EDUCATION, % WHO AGREE

Among Total Students (N=1002)

“I now think more highly of online education than I did before COVID-19”



*Agree much more “I now think more *poorly* of online education than I did before COVID-19”
 **Agree somewhat more “I now think more *poorly* of online education than I did before COVID-19”

RACE/ETHNICITY				
Caucasian N=533	African American N=124	Hispanic N=195	Other/Asian/Multiple N=150	
54%	61%	58%	53%	
22%* / 24%**	16%* / 24%**	15%* / 27%**	17%* / 30%**	
YEAR IN SCHOOL		FIRST GENERATION		
First Year N=412	Second Year N=290	Third Year or Higher N=300	First Generation N=352	Not First Generation N=650
57%	52%	56%	62%	52%
19%* / 24%**	24%* / 23%**	14%* / 29%**	16%* / 22%**	21%* / 27%**
SELECTIVITY				
Highly selective N=161	Somewhat selective N=676	Not selective/ open access N=165		
55%	54%	64%		
23%* / 22%**	19%* / 27%**	15%* / 21%**		

 Indicates statistically significant difference with another Student group within the comparative set at 90% confidence level

Q3. Consider each of the following pairs of statements. Which do you agree with more when it comes to a college/university education?

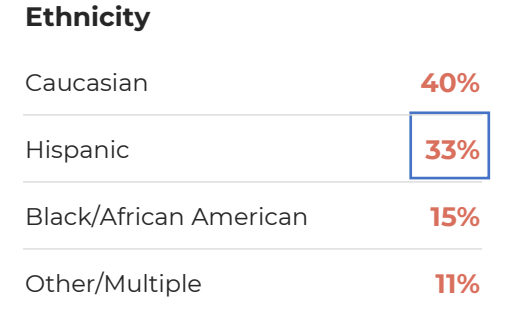
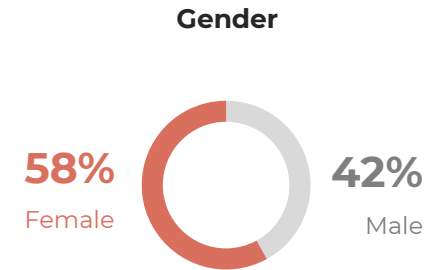
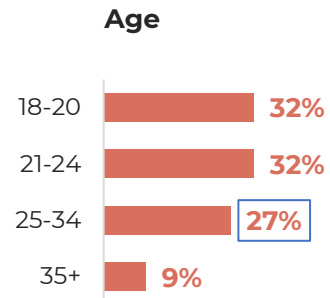
First Generation Students (1 of 2)
 Older than non-first-generation students, more often Hispanic, and may have more demands at home

Indicates statistically significant higher value than Non-First-Generation Students at a 90% level

Questions: S1, S2, S3, S4, Q30, Q31, Q32, Q33, Q42

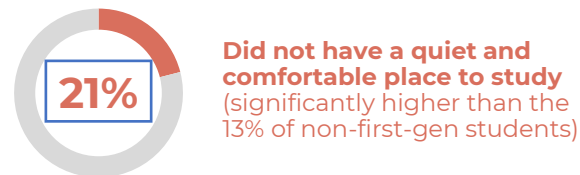
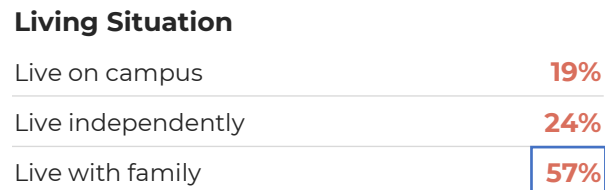
DEMOGRAPHICS

Among First Generation College Students (N=352)

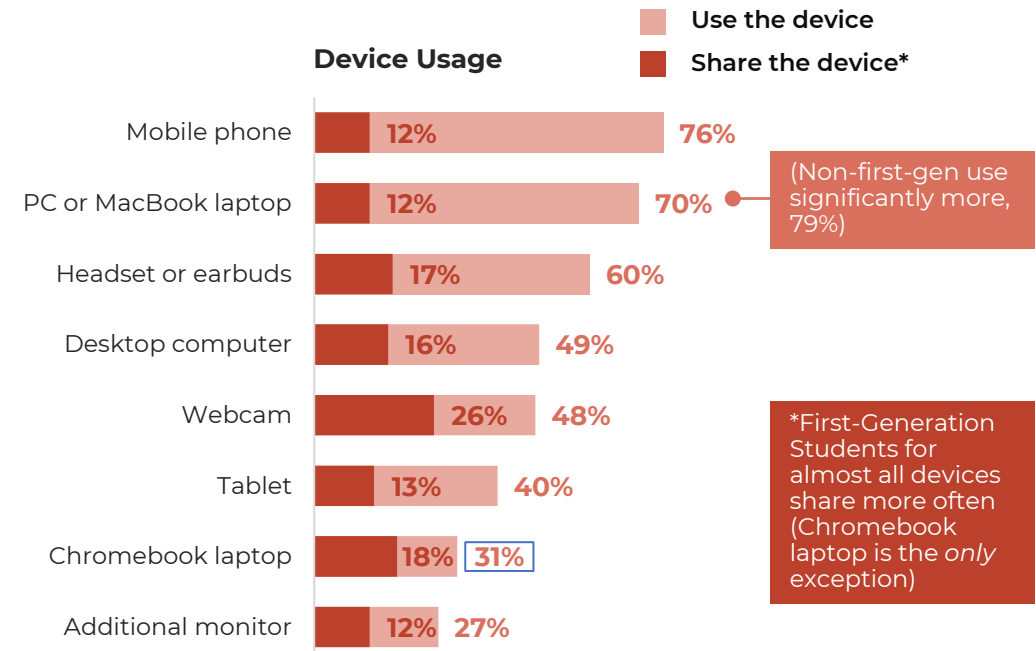


LIFESTYLE

Among First Generation College Students (N=352)



Device Usage



First Generation Students (2 of 2)
 Higher interest and success with digital learning; other reactions and performance in Spring 2020 similar to non-first-gen students

 Indicates statistically significant higher value than Non-First-Generation Students at a 90% level

* Significantly higher than First Gen Students Transitioned to be Online

Questions: Q43, DRVADM2018, HV10, Q40, Q1, Q3, Q17b, Q22 ("Great"), Q18, Q29

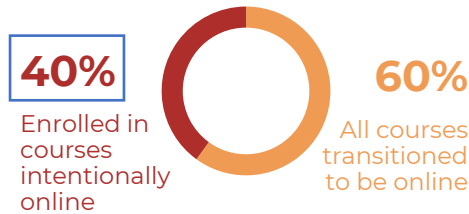
EDUCATION

Among First Generation College Students (N=352)

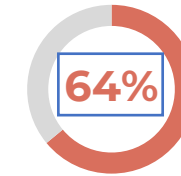
Selectivity of School

Highly selective	19%
Somewhat selective	61%
Not selective/open-access	20%

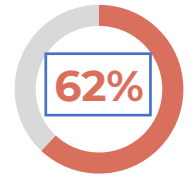
Online Courses



PELL grant recipients (significantly higher than the 25% of non-first-gen)



Agree "I now think more highly of online education than I did before COVID-19" (significantly higher than the 52% of non-first-gen)



SPRING 2020 PERFORMANCE & GENERAL ATTITUDES

Among First Generation College Students (N=352)

	All First Gen Students	First Gen Students, Intentionally Online	First Gen Students, Transitioned to be Online
Met Personal Standards in Spring 2020 (Net)	85%	88%	83%
Exceeded Personal Standards	33%	42%*	28%
Met Personal Standards and Were Satisfied	51%	46%	55%

Overall, **no** significant differences between First Generation and Non-First-Gen students in Spring 2020 course ratings (e.g., personal engagement, faculty engagement, ability to learn)

Overall, **no** significant differences between First Generation and Non-First-Gen students in Spring 2020 challenges

Education Priorities

More focused on:

- Passing classes
- Paying for school
- Deciding on major
- Finding help when don't understand

Less likely to be concerned about:

- Finding a job
- Acquiring work related skills

Considerations for the Future

More concerned about:

- Income

Less concerned about:

- Staying engaged
- Mental health
- Lack of interaction
- Not meeting personal standards of success
- Lack of preparation for online courses



Deeper Dive: Differences by Gender, 1st Generation, and Student Age

Differences in Attitudes and Outcomes by Age (1 of 2)

	AGE 18-24/TRADITIONAL COLLEGE STUDENTS N=754	AGE 25+/NON-TRADITIONAL COLLEGE STUDENTS N=248
	Traditional college students have a higher interest in the social dimension of their education and more concerns about managing their	Non-traditional college students are more focused on finishing their education and are more open to online learning
ATTITUDES		
Distinct Education Priorities (Ranked #1-5)*	<ul style="list-style-type: none"> Feeling confident I'm making the right life decisions Making friends 	<ul style="list-style-type: none"> Paying for school Graduating quickly
Distinct Course Goals* (Very Important)	<ul style="list-style-type: none"> Ability to connect with other students 	<ul style="list-style-type: none"> Asking questions Participating in class
Distinct Personal & Social Concerns For Fall 2020*	<ul style="list-style-type: none"> My mental/psychological health Lack of personal interactions Compliance with social distancing 	None
Distinct Course/Technical Concerns For Fall 2020*	<ul style="list-style-type: none"> Staying engaged with my courses It will be hard to learn well Not meeting my personal standards of success Lack of preparation to take online courses Not having appropriate technical support 	None
Agree with "A degree is a great value for the money"	56%	58%
Agree with "I now think more highly of online education than I did before COVID-19"	53%	62%

*Items shown are those significantly different statistically at a 90% level from other group

Questions: Q1, Q2, Q29, Q3

Section Key Findings

- 01** First generation students were more open to online education, as were students at open access institutions. There were no significant differences between 1st generation and other students regarding course ratings or the challenges posed by the pandemic.
- 02** Older students were much more satisfied with their experiences in Spring 2020, especially their ability to learn and their personal engagement. Key issues were paying for school and graduating quickly. Younger students reported more challenges because of the pandemic; they also had more concerns about Fall 2020.
- 03** Female students had significantly different education priorities, course goals, personal and social concerns for the fall semester, and more concerns about courses. They also faced more technical challenges such as finding a quiet place to study.
- 04** There were few significant differences by race, ethnicity, and institution selectivity although students at 4-year colleges reported more concerns about peer interaction as well as technical challenges like poor internet connections.

Differences in Attitudes and Outcomes by Age (2 of 2)

	AGE 18-24/TRADITIONAL COLLEGE STUDENTS N=754	AGE 25+/NON-TRADITIONAL COLLEGE STUDENTS N=248
	Traditional college students have more worries about navigating digital learning	Non-traditional college students have more positive views of course outcomes, resources and teaching methods
CHALLENGES		
Distinct Course Challenges In Spring 2020*	<ul style="list-style-type: none"> Emotional or psychologically distracted Lack of personal interactions 	None
Did Not Have A Quiet Place To Work	17%	16%
Unreliable Internet	10%	8%
SUCCESES		
"Great" Ability To Learn	41%	51%
"Great" Personal Engagement	35%	47%
"Exceeded My Personal Standards Of Success"	35%	35%
Distinct Views On Resources "Very Accessible" During The Transition To Online Instruction	None	<ul style="list-style-type: none"> Your professors Teaching assistants (TAs)** Tech support Fellow students
Distinct Preferences For Teaching Method, "Strongly Agree" It Helped Them Learn	None	<ul style="list-style-type: none"> Live online lecture Real-time chat feature** Live class discussion via video** Online quiz/test features Discussion board**

*Items shown are those significantly different statistically at a 90% level from other group

**100>N>65, interpret with discretion

Questions: Q18, Q30, Q31, Q22, Q17b, Q4, Q20

Differences in Attitudes and Outcomes by Gender (1 of 2)

	FEMALE N=648	MALE N=342
	More focused goals for coursework (e.g. interest in course material, understanding the material), and were much more concerned about Fall 2020 particularly with issues outside of school	Social interaction is a higher priority
ATTITUDES		
Distinct Education Priorities (Ranked #1-5)*	<ul style="list-style-type: none"> • Passing my classes • Balancing school with other obligations 	<ul style="list-style-type: none"> • Making friends • Deciding on major • Performing competitively
Distinct Course Goals* (Very Important)	<ul style="list-style-type: none"> • Understanding of material • Getting good grades • High performance on exams/quizzes • Maintaining academic honesty • Practicing the material • Ability to connect with instructor 	<ul style="list-style-type: none"> • Ability to learn from other students
Distinct Personal & Social Concerns For Fall 2020*	<ul style="list-style-type: none"> • My mental/psychological health • My income • Being distracted by my personal obligations • My job stability 	None
Distinct Course/Technical Concerns For Fall 2020*	<ul style="list-style-type: none"> • Staying engaged with my courses/teaching • Not meeting my personal standards of success • It will be hard to learn well • Finding the time <u>and</u> space to study • Struggling with online software/programs 	None
Agree with "A degree is a great value for the money"	60%	52%
Agree with "I now think more highly of online education than I did before COVID-19"	57%	54%

*Items shown are those significantly different statistically at a 90% level from other group

Questions: Q1, Q2, Q29, Q3

Differences in Attitudes and Outcomes by Gender (2 of 2)

	FEMALE N=648	MALE N=342
	More mental challenges faced in Spring 2020; more positive views of professor accessibility and some teaching methods	Challenges are more technical than psychological
CHALLENGES		
Distinct Course Challenges In Spring 2020*	<ul style="list-style-type: none"> Emotional or psychologically distracted Distracted by personal obligations Didn't have a quiet place to work 	<ul style="list-style-type: none"> Lack of technical support Online software didn't work well
Did Not Have A Quiet Place To Work	22%	9%
Unreliable Internet	10%	9%
SUCCESSES		
"Great" Ability To Learn	44%	44%
"Great" Personal Engagement	38%	40%
"Exceeded My Personal Standards Of Success"	34%	37%
Distinct Views On Resources "Very Accessible" During The Transition To Online Instruction	<ul style="list-style-type: none"> Your professors 	None
Distinct Preferences For Teaching Method, "Strongly Agree" It Helped Them Learn	<ul style="list-style-type: none"> Live class discussion via video Online quiz/test features Pre-recorded lecture, full class-period length 	<ul style="list-style-type: none"> Polling/surveys

*Items shown are those significantly different statistically at a 90% level from other group

Questions: Q18, Q30, Q31, Q28b, Q22, Q17b, Q4, Q20

Differences in Attitudes and Outcomes for Students at 4-Year Institutions by Type of Online Course

	4 YEAR – INTENTIONALLY ONLINE N=202	4 YEAR – TRANSITIONED TO BE ONLINE N=496
	More concerned with their obligations outside of school	Faced more challenges in Spring 2020, and anticipate more concerns for the future, both emotional and technical
ATTITUDES		
Distinct Education Priorities (Ranked #1-5)*	<ul style="list-style-type: none"> • Passing my classes • Paying for school • Balancing school with other obligations 	<ul style="list-style-type: none"> • Learning something interesting • Making friends
Distinct Course Goals* (Very Important)	None	None
Distinct Personal & Social Concerns For Fall 2020*	<ul style="list-style-type: none"> • My job stability 	<ul style="list-style-type: none"> • Maintaining the health of those in my household
Distinct Course/Technical Concerns For Fall 2020*	None	<ul style="list-style-type: none"> • Not meeting my personal standards of success • Lack of preparation to take online courses • Struggling with internet connection • Struggling with online software/programs
CHALLENGES		
Distinct Course Challenges In Spring 2020*	None	<ul style="list-style-type: none"> • Lack of personal interactions • Lack of technical support • Poor internet connection • Online software didn't work well
Did Not Have A Quiet Place To Work	15%	16%
Unreliable Internet	9%	9%
SUCCESES		
"Great" Ability To Learn	45%	39%
"Great" Personal Engagement	36%	39%
"Exceeded My Personal Standards Of Success"	39%	32%

*Items shown are those significantly different statistically at a 90% level from other group

Questions: Q1, Q2, Q29, Q18, Q30, Q31, Q28b, Q22, Q17b

Differences in Attitudes and Outcomes for Students at 2-Year Institutions by Type of Online Course

	2 YEAR – INTENTIONALLY ONLINE N=74 ⁺	2 YEAR – TRANSITIONED TO BE ONLINE N=104
	Few distinct priorities from 2-year students transitioned online, except for their interest in supporting themselves and their family	Few distinct priorities or concerns different from 2-year students intentionally online except for their interest in connection with their instructors and other students
ATTITUDES		
Distinct Education Priorities (Ranked #1-5)*	<ul style="list-style-type: none"> • Making enough money to support myself and my family 	<ul style="list-style-type: none"> • Making friends
Distinct Course Goals* (Very Important)	None	<ul style="list-style-type: none"> • Getting good grades • Ability to connect with instructor • Ability to learn from other students • Ability to connect with other students
Distinct Personal & Social Concerns For Fall 2020*	None	None
Distinct Course/Technical Concerns For Fall 2020*	None	<ul style="list-style-type: none"> • Lack of preparation to take online courses
CHALLENGES		
Distinct Course Challenges In Spring 2020*	None	None
Did Not Have A Quiet Place To Work	22%	18%
Unreliable Internet	13%	9%
SUCSESSES		
“Great” Ability To Learn	56%	45%
“Great” Personal Engagement	37%	39%
“Exceeded My Personal Standards Of Success”	33%	39%

*Items shown are those significantly different statistically at a 90% level from other group

⁺Interpret values with base sizes N<100 with discretion

Questions: Q1, Q2, Q29, Q18, Q30, Q31, Q28b, Q22, Q17b

Differences in Attitudes and Outcomes of Students by Year in School

	FIRST YEAR N=412	SECOND YEAR N=290	THIRD YEAR OR HIGHER N=300
	The most vulnerable year – with more concerns about managing their studies in the fall	More engagement and strategies for their schoolwork, and more success in their courses	Focused on finishing school; less vulnerable to disruption
ATTITUDES			
Distinct Education Priorities (Ranked #1-5)*	<ul style="list-style-type: none"> Deciding on my major 	None	<ul style="list-style-type: none"> Finding a job Paying for school
Distinct Course Goals* (Very Important)	None	<ul style="list-style-type: none"> Understanding the material Practicing the material Receiving feedback 	None
Distinct Personal & Social Concerns For Fall 2020*	<ul style="list-style-type: none"> Being distracted by personal obligations Maintaining the health of those in my household 	<ul style="list-style-type: none"> Being distracted by personal obligations Maintaining the health of those in my household Compliance with social distancing 	None
Distinct Course/Technical Concerns For Fall 2020*	<ul style="list-style-type: none"> Finding the time to study Having the space to study Struggling with internet connection Struggling with online software programs 	<ul style="list-style-type: none"> Lack of preparation to take courses online 	None
CHALLENGES			
Distinct Course Challenges In Spring 2020*	<ul style="list-style-type: none"> Lack of technical support 	<ul style="list-style-type: none"> Lack of technical support 	<ul style="list-style-type: none"> None / (Fewest to report problems)
Did Not Have A Quiet Place To Work	17%	15%	17%
Unreliable Internet	9%	9%	11%
SUCCESES			
"Great" Ability To Learn	43%	49%	41%
"Great" Personal Engagement	39%	40%	37%
"Exceeded My Personal Standards Of Success"	33%	43%	31%

*Items shown are those significantly different statistically at a 90% level over one or both of the other years

Questions: Q1, Q2, Q29, Q18, Q30, Q31, Q28b, Q22, Q17b

Differences in Attitudes and Outcomes for Transfer Students

*Items shown are those significantly different statistically at a 90% level from Non-Transfer Students

Questions: Q1, Q2, Q29, Q18, Q30, Q31, Q28b, Q22, Q17b

TRANSFER STUDENT N=231	
Focused on finishing up school and facing distractions in their lives outside of school	
ATTITUDES	
Distinct Education Priorities (Ranked #1-5)*	<ul style="list-style-type: none"> • Passing my classes • Paying for school • Graduating quickly • Finding help when I don't understand my work
Distinct Course Goals* (Very Important)	None
Distinct Personal & Social Concerns For Fall 2020*	<ul style="list-style-type: none"> • My income • Being distracted by personal obligations
Distinct Course/Technical Concerns For Fall 2020*	<ul style="list-style-type: none"> • Having the space to study
CHALLENGES	
Distinct Course Challenges In Spring 2020*	<ul style="list-style-type: none"> • Psychologically distracted • Distracted by personal obligations
Did Not Have A Quiet Place To Work	15%
Unreliable Internet	13%
SUCSESSES	
"Great" Ability To Learn	46%
"Great" Personal Engagement	37%
"Exceeded My Personal Standards Of Success"	31%

Differences in Attitudes and Outcomes by Institution Selectivity

	HIGHLY SELECTIVE N=161	SELECTIVE/SOMEWHAT SELECTIVE N=676	NOT SELECTIVE/OPEN ACCESS N=165
	Opportunity for personal interaction is a key concern, but otherwise these students seem to be dealing well	Attitudes are balanced between a practical focus on income and having the college experience	Spring 2020 was a challenge with lower-than-expected course performance and more life obligations to juggle
ATTITUDES			
Distinct Education Priorities (Ranked #1-5)*	<ul style="list-style-type: none"> Making progress in my career Performing competitively Making friends 	<ul style="list-style-type: none"> Making enough money Paying for school Making friends Performing competitively 	<ul style="list-style-type: none"> Passing my classes Making progress in my career Making enough money Balancing school with other obligations Paying for school
Distinct Course Goals* (Very Important)	<ul style="list-style-type: none"> Learning from other students Connecting with other students 	<ul style="list-style-type: none"> Maintaining academic honesty Interest in course content Learning from other students Connecting with other students 	<ul style="list-style-type: none"> Understanding the material Getting good grades Maintaining academic honesty Interest in course content
Distinct Personal & Social Concerns For Fall 2020*	<ul style="list-style-type: none"> Lack of personal interactions 	None	<ul style="list-style-type: none"> My income
Distinct Course/Technical Concerns For Fall 2020*	<ul style="list-style-type: none"> Finding the time to study 	None	None
CHALLENGES			
Distinct Course Challenges In Spring 2020*	<ul style="list-style-type: none"> Lack of technical support 	None	<ul style="list-style-type: none"> None / (Fewest to report problems)
Did Not Have A Quiet Place To Work	14%	16%	20%
Unreliable Internet	9%	9%	12%
SUCSESSES			
"Great" Ability To Learn	47%	44%	42%
"Great" Personal Engagement	42%	38%	40%
"Exceeded My Personal Standards Of Success"	38%	37%	25%

*Items shown are those significantly different statistically at a 90% level over one or both of the other school categories

Questions: Q1, Q2, Q29, Q18, Q30, Q31, Q28b, Q22, Q17b

Differences in Attitudes and Outcomes by Institution Location

	CITY N=567	SUBURBS N=225	RURAL N=118
	A relatively practical focus in Spring 2020	Concerns about mental health, course engagement, and a place to study are higher than other groups for Spring and in anticipation of Fall 2020	With a higher focus than average on simply passing, they had the hardest time learning in Spring 2020
ATTITUDES			
Distinct Education Priorities (Ranked #1-5)*	<ul style="list-style-type: none"> Learning relevant skills for the workplace 	<ul style="list-style-type: none"> Feeling confident about my decisions Making enough money 	<ul style="list-style-type: none"> Passing my classes Meeting the expectations of others
Distinct Course Goals* (Very Important)	None	<ul style="list-style-type: none"> High performance on exams and quizzes Understanding the material 	None
Distinct Personal & Social Concerns For Fall 2020*	<ul style="list-style-type: none"> Lack of personal interactions My income 	<ul style="list-style-type: none"> My mental health Being distracted by personal obligations 	<ul style="list-style-type: none"> Being distracted by personal obligations
Distinct Course/Technical Concerns For Fall 2020*	None	<ul style="list-style-type: none"> Staying engaged Struggling with online programs It will be hard to learn Lack of preparation to take course online 	<ul style="list-style-type: none"> Having the space to study
CHALLENGES			
Distinct Course Challenges In Spring 2020*	<ul style="list-style-type: none"> None / (Fewest to report problems) 	<ul style="list-style-type: none"> Lack of personal interaction Psychologically distracted Distracted by personal obligations Didn't have a quiet place to work 	<ul style="list-style-type: none"> Online programs didn't work well Lack of personal interaction (Fewer problems to report than suburban students)
Did Not Have A Quiet Place To Work	15%	24%	11%
Unreliable Internet	9%	15%	4%
SUCCESES			
"Great" Ability To Learn	45%	45%	35%
"Great" Personal Engagement	39%	38%	39%
"Exceeded My Personal Standards Of Success"	37%	32%	35%

*Items shown are those significantly different statistically at a 90% level over one or both of the other school locations

Questions: Q1, Q2, Q29, Q18, Q30, Q31, Q28b, Q22, Q17b



Appendix Sample and Methodology

Additional Student Sample Details: Data Weighting Explanation

Student data were weighted on the four following variables, using iterative proportional fitting to align with the targets shown.

- Gender (male, female)
- Age (18-20, 21-22, 23+)
- Race/Ethnicity (White, Black/African American, Hispanic, Other/Multiple Ethnicities)
- Control of Institution (Public, Private Non-Profit, Private For-Profit)

The margin of error of the total student sample is +/- 3.10%, the design effect is 1.21, weights range from 0.26 to 1.99.

	Unweighted Distribution	Weighting Targets	Weighted Distribution
AGE x GENDER			
18-20 Male	11%	15%	15%
18-20 Female	29%	18%	18%
21-22 Male	9%	11%	11%
21-22 Female	15%	12%	12%
23+ Male	14%	19%	19%
23+ Female	20%	24%	24%
Other	1%	1%	1%
ETHNICITY			
White	53%	52%	52%
Black/African American	12%	15%	15%
Hispanic	19%	23%	23%
Other/Multiple Ethnicities	15%	11%	11%
CONTROL OF INSTITUTION			
Public	60%	72%	72%
Private Non-Profit	26%	15%	15%
Private For-Profit	5%	4%	4%
Control Not Available/not weighted	9%	9%	9%

Additional Sample Details: Course Descriptions after Course Assignment

*Topic and Level also included option of "Other"

Q11./Q12. Please expand on the following details about each course. As best as you can, please try to assign your courses to one of the Topic categories. Please select one response per drop-down menu. Please do this for each course. Size (drop-down menu), Topic (drop-down menu)

Q15. What level was [COURSE]? / Q16. What style of instruction did COURSE use? / Q16B. Did [COURSE] have a TA or TAs?

	FACULTY COURSE DESIGNED TO BE ONLINE N=151	FACULTY COURSE TRANSITIONED TO BE ONLINE N=349	STUDENT COURSE DESIGNED TO BE ONLINE N=318	STUDENT COURSE TRANSITIONED TO BE ONLINE N=684
SIZE				
20 or fewer students	42%	46%	44%	31%
21-40	45%	42%	36%	31%
41+ students	13%	13%	20%	38%
TOPIC*				
STEM	33%	33%	23%	32%
Humanities	25%	30%	22%	19%
Social Science	26%	17%	31%	23%
Arts	8%	9%	13%	20%
LEVEL*				
Lower-level	52%	58%	50%	55%
Upper-level	48%	39%	47%	44%
STYLE OF INSTRUCTION				
Primarily lecture	17%	21%	26%	31%
Primarily discussion	13%	9%	20%	12%
Mix of lecture and discussion	48%	49%	40%	37%
Lab, performance, other participation	23%	21%	14%	20%
TA				
Course had a TA	26%	21%	35%	47%

Additional Sample Details: Institution Characteristics

All respondents were asked to identify their institution from a list of 6,527 institutions available from The Integrated Postsecondary Education Data System. 91% of all respondents (both student and faculty) were able to identify their institution. Using the institution ID, additional institution characteristics were appended to the survey data.

Variables shown here: QCONTROL(HD2019) - Control of institution; QINSTSIZE(HD2019). Institution size category; QLOCALE(HD2019) -Degree of urbanization (Urban-centric locale)

Selectivity is based on QDVADM01(DRVADM2018). Percent admitted – total, when available, otherwise supplemented with self-reported classifications from Q43. Which of the following would you say best applies to your college/university in terms of its application process?

	All Faculty N=454	Faculty Intentionally Online N=137	Faculty Transitioned Online N=317	All Students N=910	Students Intentionally Online N=281	Students Transitioned Online N=629
CONTROL						
Public	62%	60%	63%	79%	81%	78%
Private not-for-profit	33%	34%	32%	17%	13%	19%
Private for-profit	5%	7%	4%	4%	6%	3%
SIZE						
Under 1000	8%	9%	8%	4%	3%	5%
1000-4999	24%	25%	24%	16%	15%	16%
5000-9999	18%	21%	17%	16%	21%	13%
10,000-19,999	21%	20%	22%	25%	23%	26%
20,000+	27%	24%	28%	39%	38%	39%
SELECTIVITY						
Highly selective	13%	15%	11%	14%	12%	14%
Somewhat selective/ Selective	63%	54%	67%	69%	63%	72%
Not selective/open- access	24%	30%	22%	18%	25%	14%
URBANICITY						
Large city	28%	21%	30%	30%	26%	31%
Midsized/Small city	30%	31%	30%	32%	37%	30%
Suburb	23%	23%	23%	24%	25%	23%
Town/Rural	19%	24%	16%	14%	12%	15%



Appendix Additional Data

- ◆ 56%+ Students agree
- ◆ 46-55% Students agree

How to Read: Evaluation of Online Teaching Methods on Learning Experiences

Students and Faculty were assigned up to three online teaching methods they found helpful in their course

They rated each method on the full list of course learning experiences

The results are organized in the following table which can be used to contrast the strengths of different online teaching methods

Online Teaching Methods, organized by usage among Total Faculty, high to low

Learning Experiences, organized by who values them most

		Online quiz/test features (N=299)	Live online lecture (N=281)	Asynchronous individual conversation (e.g., email) (N=140)	Live class discussion via video (N=177)	Question-and-answer functions (N=190)	Pre-recorded lecture, shorter videos (N=168)	Real-time chat features (N=166)	Class discussion via messages (N=162)	Live individual conversation via video (N=130)	Collaborative projects (N=168)	Small group breakouts (N=177)	Pre-recorded lecture, full-length (N=189)	Polling/surveys (N=123)
IMPORTANT TO FACULTY	Ask questions	36%	47%	53%	59%	52%	34%	61%	42%	62%	53%	48%	38%	44%
	Faculty-student connection	30%				45%	39%	59%	37%	55%	40%	37%	39%	42%
	Participate in class	35%				53%					55%	48%	40%	50%
	Receive feedback	37%	43%	47%	56%	48%					59%	43%	42%	40%
IMPORTANT TO STUDENTS	Get good grades	50%	49%	36%	48%	57%					59%	48%	54%	39%
	Perform well on exams and quizzes	49%				55%					47%	42%	54%	38%
	Practice the material	45%				57%					51%	39%	48%	42%
	Increase student interest in course content	34%				46%					51%	40%	48%	45%
IMPORTANT TO BOTH	Understand the material	45%	54%	42%	54%	58%					55%	52%	56%	47%
	Maintain academic honesty	45%	44%	34%	50%	48%					47%	41%	51%	47%
LEAST IMPORTANT	Learn from other students	24%	37%	38%	43%	36%					48%	44%	31%	42%
	Connect with other students	26%	40%	41%	46%	35%	30%	45%	39%	47%	54%	49%	32%	38%

Shading indicates response ranges to show patterns of strengths

How to read a single cell:
56% of Students who had live class discussions via video think they "help a lot" with receiving feedback

- An example of how to use the table:
1. According to students, collaborative projects deliver well on almost all learning outcomes
 2. The strengths of collaborative projects are in receiving feedback and getting good grades
 3. Collaborative projects are one of four methods that help develop connection between students

Student Ratings: Strengths of Online Instructional Methods

Students were assigned up to 3 teaching methods each, based on methods that were used in their course (Q19) and that they rated positively (Strongly/Somewhat agree at Q20)

Shading shows strengths- 40% is average for Students and Faculty combined and the same shading is used for both tables

Shading indicates response ranges to show patterns of strengths; shading does not correspond to statistical significance; given the base sizes, differences of ~10+ points are statistically significant

Q21. In [COURSE], how much did [TEACHING METHOD] help you to... (Please select one response per item)

THE METHOD "HELPED A LOT"

◆ 56%+ Students agree

◇ 46-55% Students agree

		Online quiz/test features (N=299)	Live online lecture (N=281)	Asynchronous individual conversation (e.g., email) (N=140)	Live class discussion via video (N=177)	Question-and-answer functions (N=190)	Pre-recorded lecture, shorter videos (N=168)	Real-time chat features (N=166)	Class discussion via messages (N=162)	Live individual conversation via video (N=130)	Collaborative projects (N=168)	Small group breakouts (N=177)	Pre-recorded lecture, full-length (N=189)	Polling/surveys (N=123)	
LEARNING EXPERIENCES	IMPORTANT TO FACULTY	Ask questions	36%	47%	53%	59%	52%	34%	61%	42%	62%	53%	48%	38%	44%
		Faculty-student connection	30%	44%	46%	53%	45%	39%	59%	37%	55%	40%	37%	39%	42%
		Participate in class	35%	40%	39%	53%	53%	42%	50%	48%	58%	55%	48%	40%	50%
		Receive feedback	37%	43%	47%	56%	48%	35%	59%	44%	61%	59%	43%	42%	40%
	IMPORTANT TO STUDENTS	Get good grades	50%	49%	36%	48%	57%	52%	45%	45%	57%	59%	48%	54%	39%
		Perform well on exams and quizzes	49%	47%	37%	47%	55%	61%	40%	38%	50%	47%	42%	54%	38%
		Practice the material	45%	47%	36%	53%	57%	52%	48%	34%	45%	51%	39%	48%	42%
		Increase student interest in course content	34%	41%	34%	46%	46%	41%	43%	38%	47%	51%	40%	48%	45%
	IMPORTANT TO BOTH	Understand the material	45%	54%	42%	54%	58%	63%	55%	42%	59%	55%	52%	56%	47%
		Maintain academic honesty	45%	44%	34%	50%	48%	45%	45%	40%	51%	47%	41%	51%	47%
	LEAST IMPORTANT	Learn from other students	24%	37%	38%	43%	36%	24%	44%	43%	43%	48%	44%	31%	42%
		Connect with other students	26%	40%	41%	46%	35%	30%	45%	39%	47%	54%	49%	32%	38%

Faculty Ratings: Strengths of Online Instructional Methods

Faculty were assigned up to 3 teaching methods, based on what they implemented (Q19) and rated positively (Strongly/ Somewhat agree at Q20)

Shading shows strengths- 40% is average for Students and Faculty combined and the same shading is used for both tables

Shading does not correspond to statistical significance; given the base sizes, differences of ~11+ points are statistically significant

*Interpret base sizes below N=100 with discretion

Q21. In [COURSE], how much did [TEACHING METHOD] help your students to... (Please select one response per item)

THE METHOD "HELPED A LOT"

- ◆ 56%+ Faculty agree
- ◆ 46-55% Faculty agree

		Online quiz/test features (N=109)	Live online lecture (N=97*)	Asynchronous individual conversation (e.g., email) (N=141)	Live class discussion via video (N=104)	Question-and-answer functions (N=104)	Pre-recorded lecture, shorter videos (N=108)	Real-time chat features (N=118)	Class discussion via messages (N=118)	Live individual conversation via video (N=116)	Collaborative projects (N=88*)	Small group breakouts (N=87*)	Pre-recorded lecture, full-length (N=62*)	Polling/surveys (N=52*)	
LEARNING EXPERIENCES	IMPORTANT TO FACULTY	Ask questions	26%	54%	57%	57%	52%	21%	56%	42%	76%	50%	48%	23%	40%
		Faculty-student connection	23%	36%	40%	46%	36%	20%	47%	33%	65%	48%	46%	21%	38%
		Participate in class	27%	34%	18%	53%	41%	20%	41%	42%	47%	57%	53%	23%	44%
		Receive feedback	28%	40%	47%	42%	40%	18%	42%	44%	60%	45%	45%	19%	46%
	IMPORTANT TO STUDENTS	Get good grades	42%	33%	18%	24%	36%	20%	29%	15%	34%	30%	29%	27%	35%
		Perform well on exams and quizzes	32%	36%	16%	29%	38%	29%	23%	8%	43%	33%	21%	34%	31%
		Practice the material	39%	40%	19%	41%	35%	24%	25%	26%	43%	52%	48%	24%	38%
		Increase student interest in course content	25%	32%	18%	39%	40%	26%	36%	25%	38%	49%	44%	32%	44%
	IMPORTANT TO BOTH	Understand the material	37%	47%	38%	48%	41%	47%	42%	33%	62%	47%	46%	52%	33%
		Maintain academic honesty	27%	31%	16%	24%	36%	9%	30%	15%	36%	36%	25%	16%	37%
	LEAST IMPORTANT	Learn from other students	18%	27%	16%	37%	33%	14%	30%	30%	32%	56%	61%	15%	31%
		Connect with other students	18%	32%	17%	38%	29%	13%	32%	27%	42%	52%	57%	26%	37%

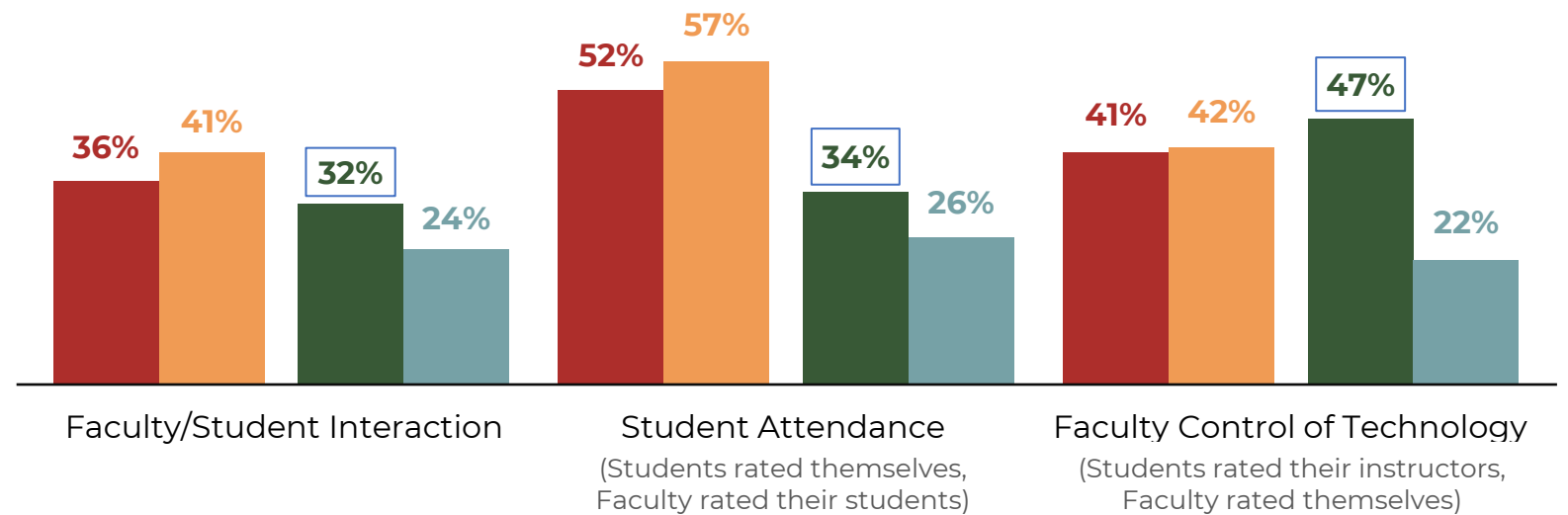
The faculty who had intended to teach online courses were more satisfied with interactions, attendance and the technology

Students in both types of courses rated their interactions, attendance and faculty control of technology similarly

INTERACTIONS, ATTENDANCE, CONTROL OF TECHNOLOGY
Course Outcomes - Evaluations of "Great"

Among Students Intentionally Online (N=318),
 Students Transitioned to be Online (N=684),
 Faculty Intentionally Online (N=151),
 Faculty Transitioned to be Online (N=349)

- Students Intentionally Online
- Students Transitioned to be Online
- Faculty Intentionally Online
- Faculty Transitioned to be Online



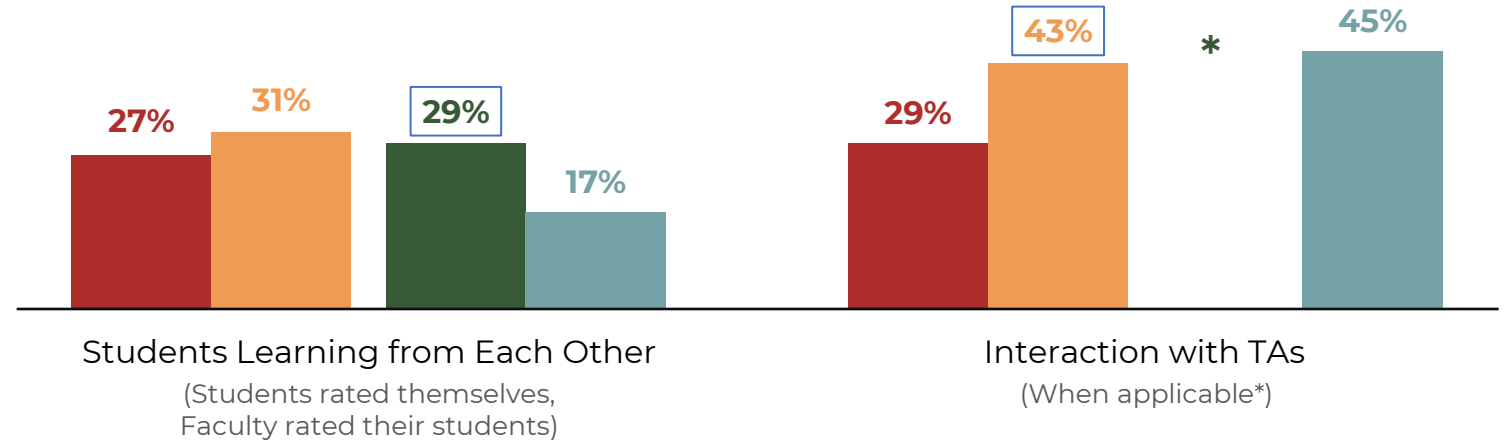
□ Indicates statistically significant difference with the other Student/Faculty group at 90% confidence level; differences comparing Students to Faculty not indicated
 Q22. Please rate each of the following overall in [COURSE].

According to their faculty, students learn better from each other in courses designed for online

ADDITIONAL INTERACTIONS
Course Outcomes - Evaluations of “Great”

Among Students Intentionally Online (N=318),
Students Transitioned to be Online (N=684),
Faculty Intentionally Online (N=151),
Faculty Transitioned to be Online (N=349)

- Students Intentionally Online
- Students Transitioned to be Online
- Faculty Intentionally Online
- Faculty Transitioned to be Online



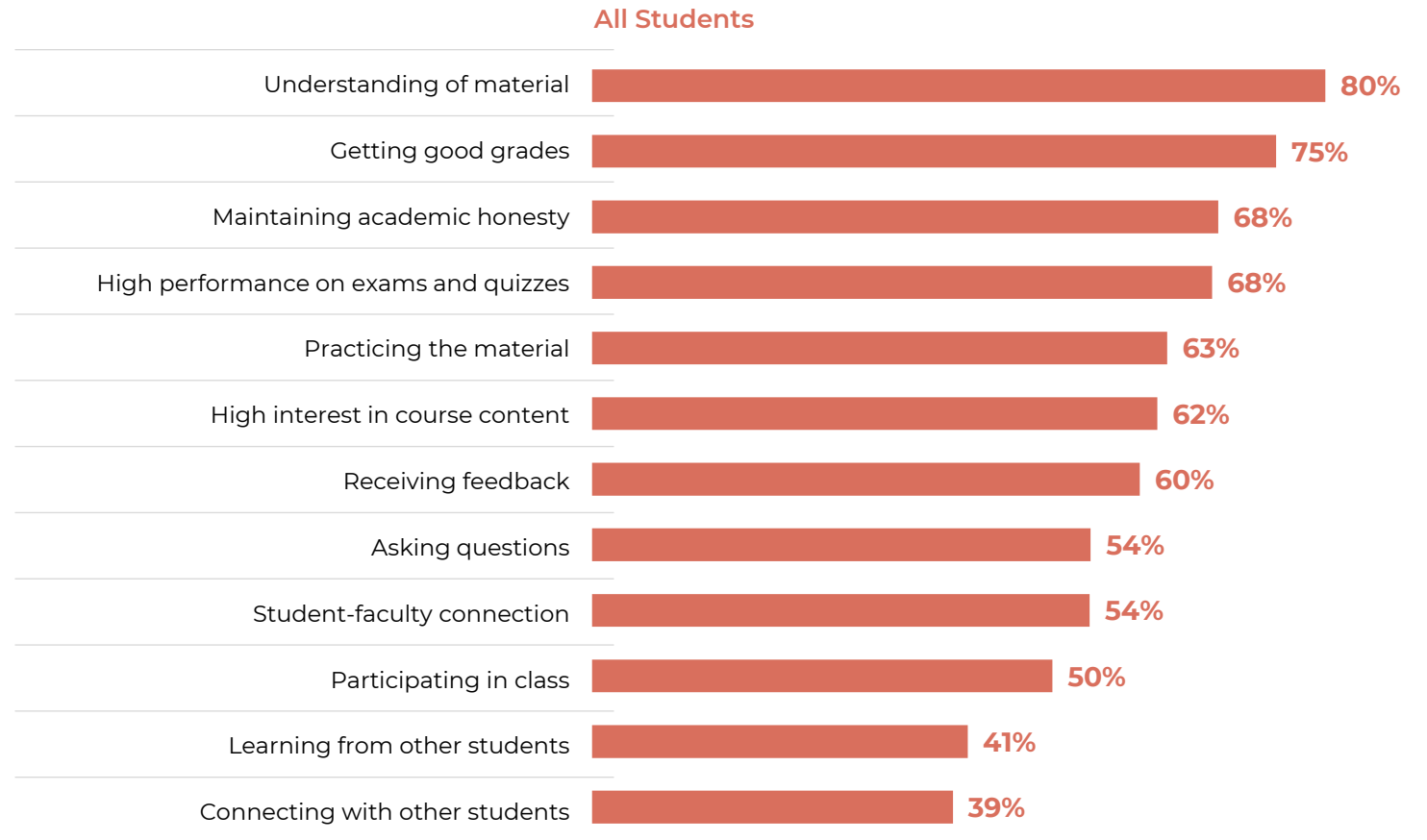
□ Indicates statistically significant difference with the other Student/Faculty group at 90% confidence level; differences comparing Students to Faculty not indicated

* Base sizes for those who had TAs: Students Intentionally Online (N=117), Students Transitioned to be Online (N=308), Faculty Intentionally Online (N=39, not shown), Faculty Transitioned to be Online (N=75) – interpret with discretion Q22. Please rate each of the following overall in [COURSE].

Students want to understand the material and receive good grades

**LEARNING EXPERIENCES FOR STUDENTS
Very Important – Rated by Students**

Among Total Students (N=1,002)



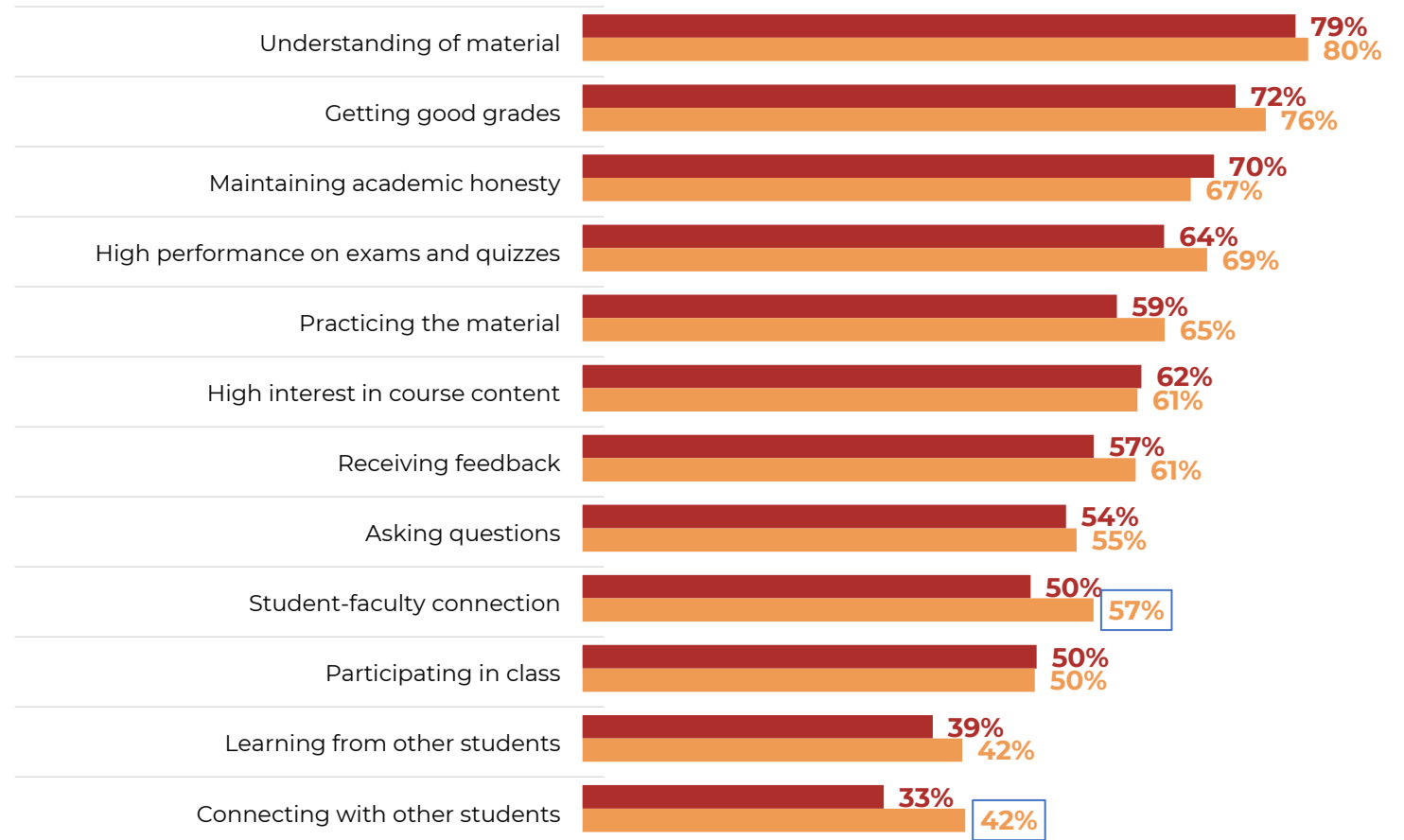
Q2. Now, focusing in more detail on your courses, how important are each of the following to you in your education?

Students intentionally online and transitioned generally have the same priorities, except transitioned students place greater value on personal connections

**LEARNING EXPERIENCES FOR STUDENTS
Very Important – Rated by Students**

Among Students Intentionally Online (N=318),
Students Transitioned to be Online (N=684)

■ Students Intentionally Online
■ Students Transitioned to be Online

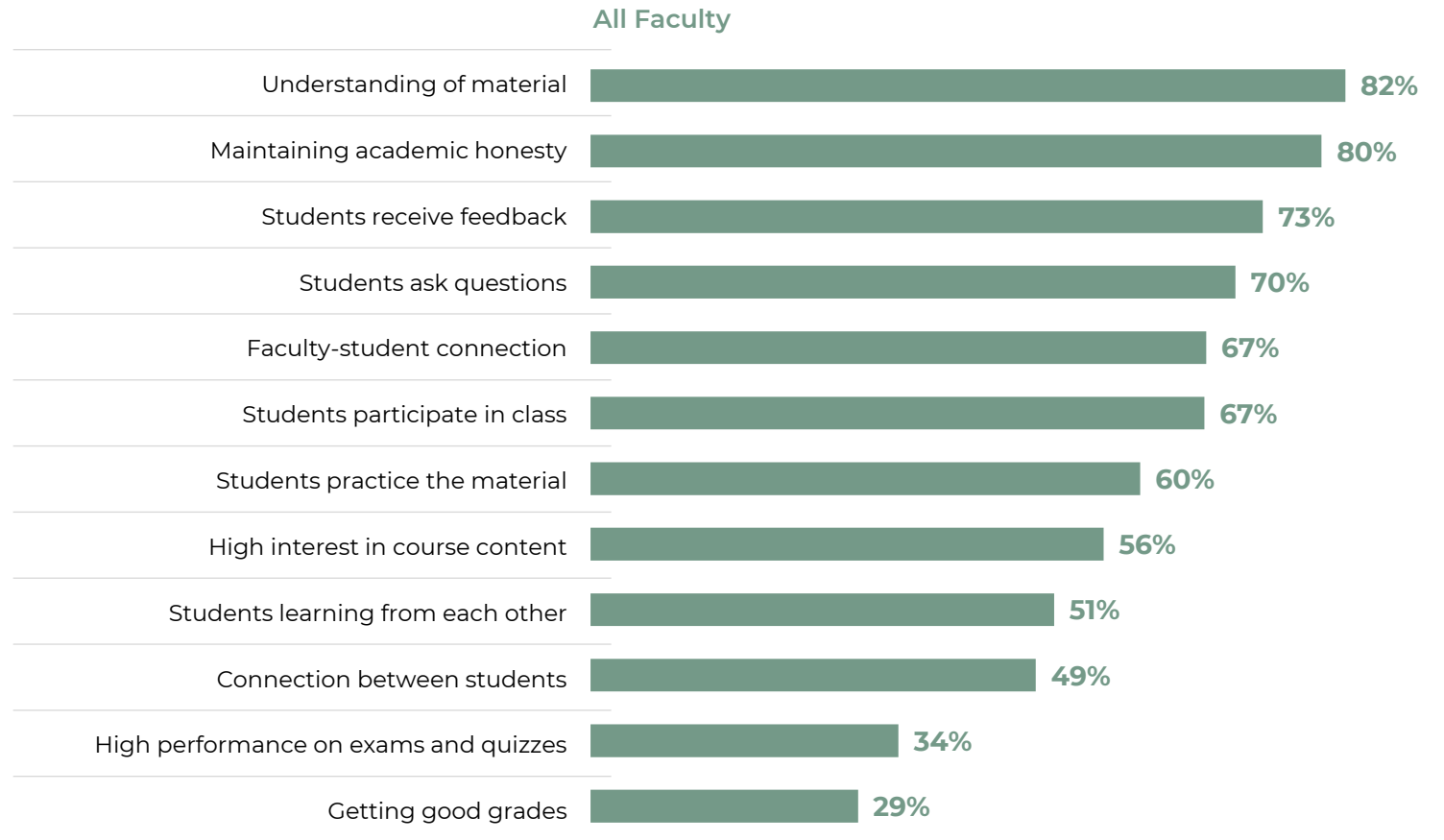


□ Indicates statistically significant difference with the other Student group at 90% confidence level
Q2. How important are each of the following to you when it comes to your students' education?

In addition to understanding and academic honesty, faculty want students to be interacting with the material

LEARNING EXPERIENCES FOR STUDENTS
Very Important – Rated by Faculty

Among Total Faculty (N=500)



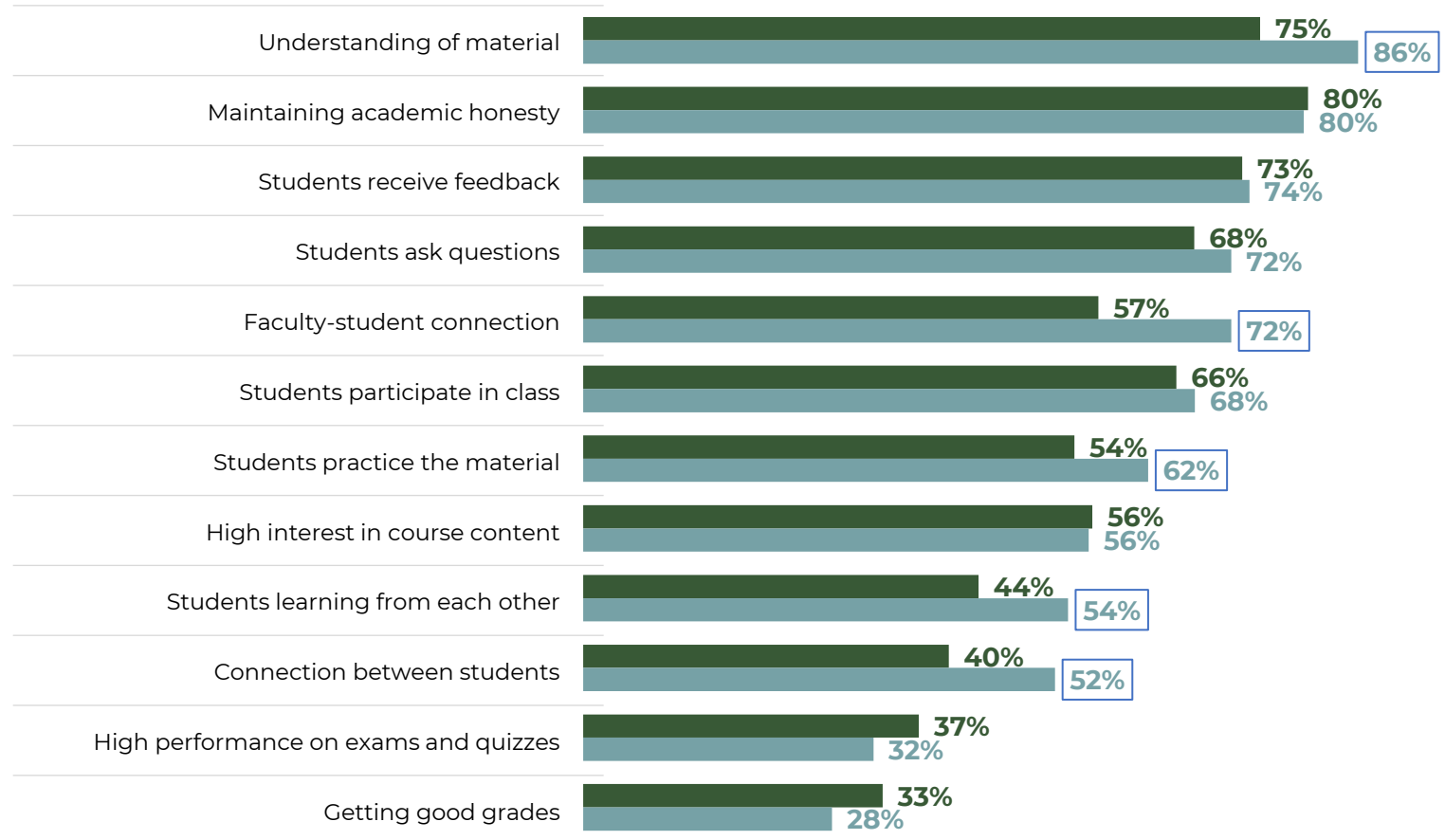
Q2. How important are each of the following to you when it comes to your students' education?

Faculty who normally teach in-person place greater value on student understanding of the material, along with students' connections with each other and with faculty.

■ Faculty Intentionally Online
■ Faculty Transitioned to be Online

**LEARNING EXPERIENCES FOR STUDENTS
Very Important – Rated by Faculty**

Among Faculty Intentionally Online (N=151),
Faculty Transitioned to be Online (N=349)



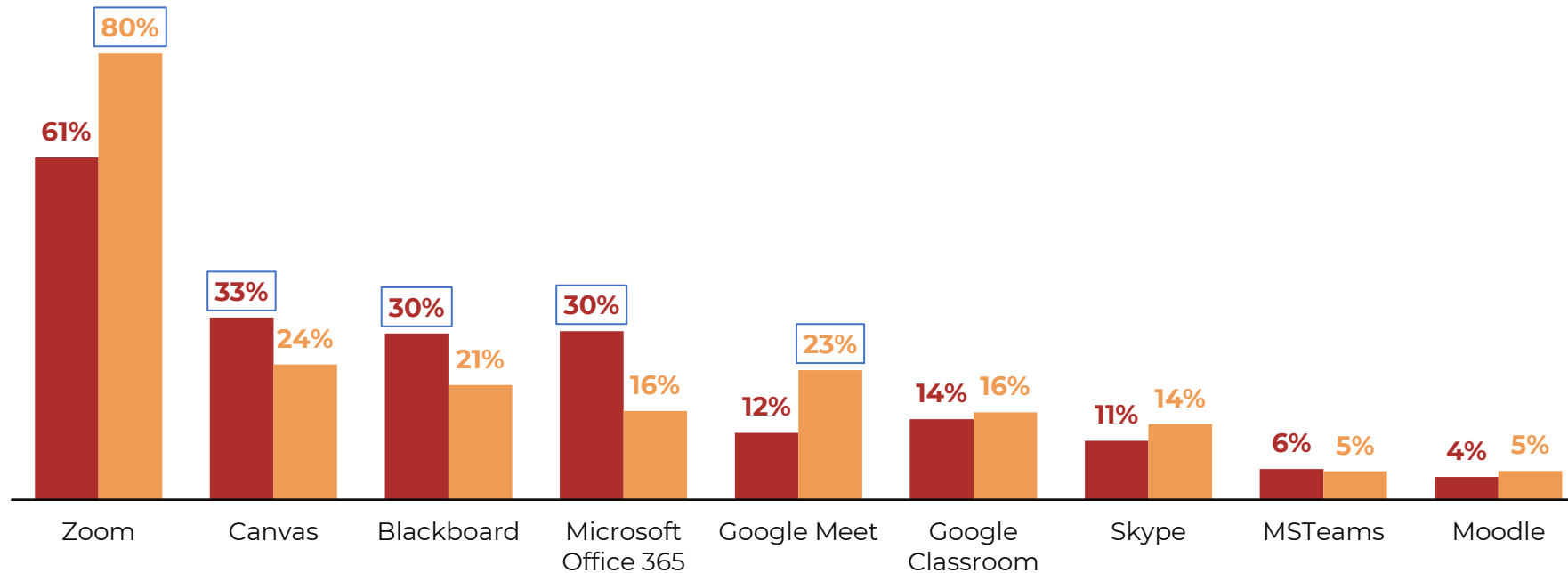
 Indicates statistically significant difference with the other Student group at 90% confidence level
 Q2. How important are each of the following to you when it comes to your students' education?

Zoom and Google Meet are used among transitioned students; Canvas, Blackboard and Office 365 are used by more students intentionally online

■ Students Intentionally Online
■ Students Transitioned to be Online

USAGE OF PLATFORMS - AMONG STUDENTS

Among Students Intentionally Online (N=318), Students Transitioned to be Online (N=684)



Platforms with less than 5% usage overall not shown:
TalentMS (1%), RingCentral (1%)

Q9. What platforms did you use in Spring 2020 for your courses?

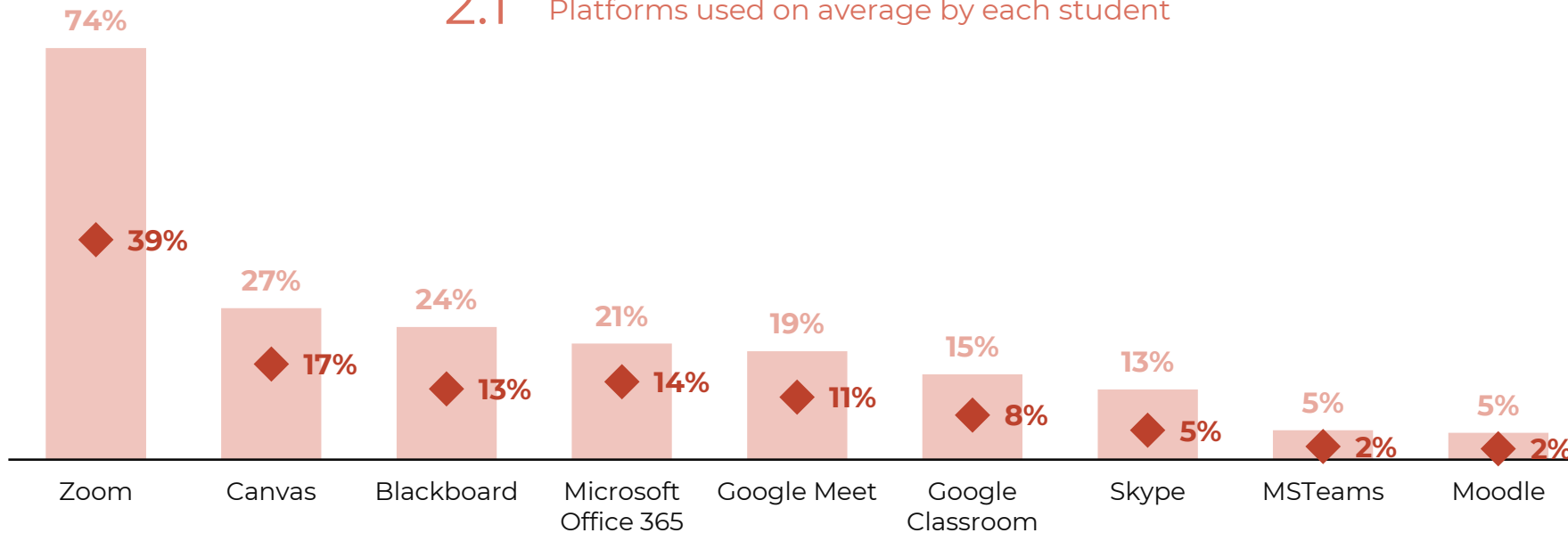
No platform garners extremely high satisfaction, but Microsoft Office 365 and Canvas do best among students

Used Platform in Spring 2020
Very Satisfied with Platform

USAGE & SATISFACTION OF PLATFORMS - AMONG STUDENTS

Among Total Students (N=1,002)

2.1 Platforms used on average by each student



Platforms with less than 5% usage: TalentMS (1%), RingCentral (1%)

Q9. What platforms did you use in Spring 2020 for your courses?

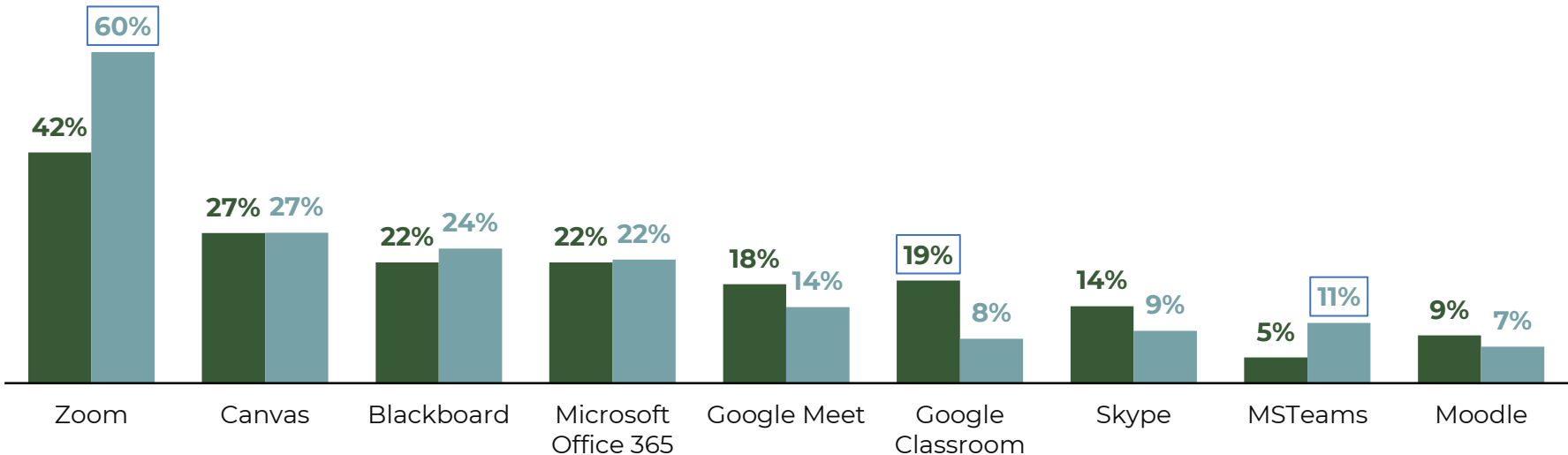
Q10. How satisfied were you with the platforms you used?

Zoom is commonly used among faculty transitioned online

■ Faculty Intentionally Online
■ Faculty Transitioned to be Online

USAGE OF PLATFORMS - AMONG FACULTY

Among Faculty Intentionally Online (N=151), Faculty Transitioned to be Online (N=349)



Platforms with less than 5% usage overall not shown: Proctoring software (4%), RingCentral (2%), TalentLMS (1%)

Q9. What platforms did you use in Spring 2020 for your courses?

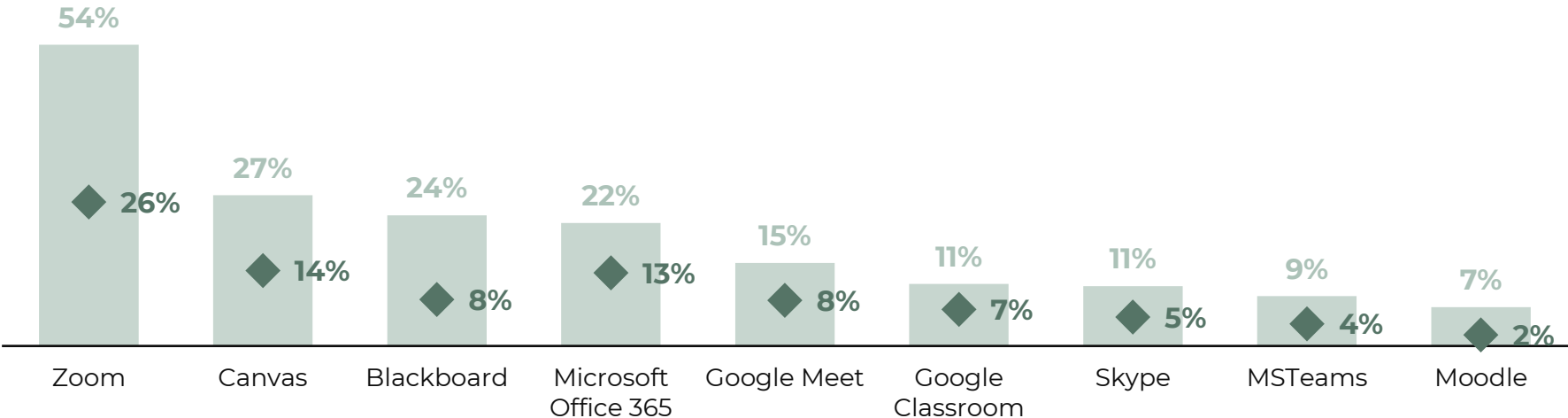
Blackboard satisfies less of its faculty users than other platforms

■ Used Platform in Spring 2020
◆ Very Satisfied with Platform

USAGE & SATISFACTION OF PLATFORMS - AMONG FACULTY

Among Total Faculty (N=500)

2.0 Platforms used on average by each professor



Platforms with less than 5% usage: Proctoring software (4%), RingCentral (2%), TalentLMS (1%)

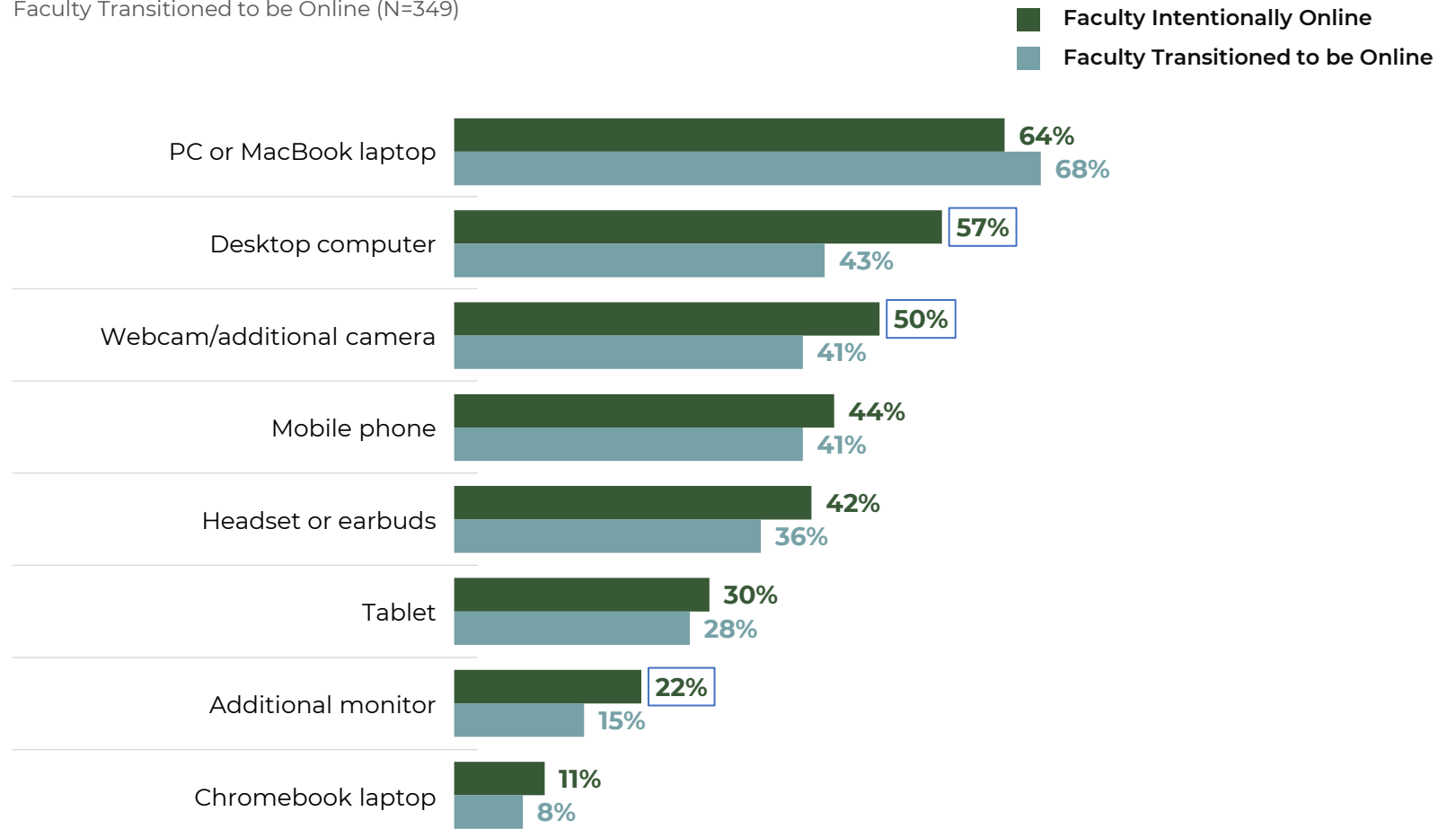
Q9. What platforms did you use in Spring 2020 for your courses?

Q10. How satisfied were you with the platforms you used?

Faculty who had planned to teach online were more likely to have a desktop, webcam and/or additional monitor

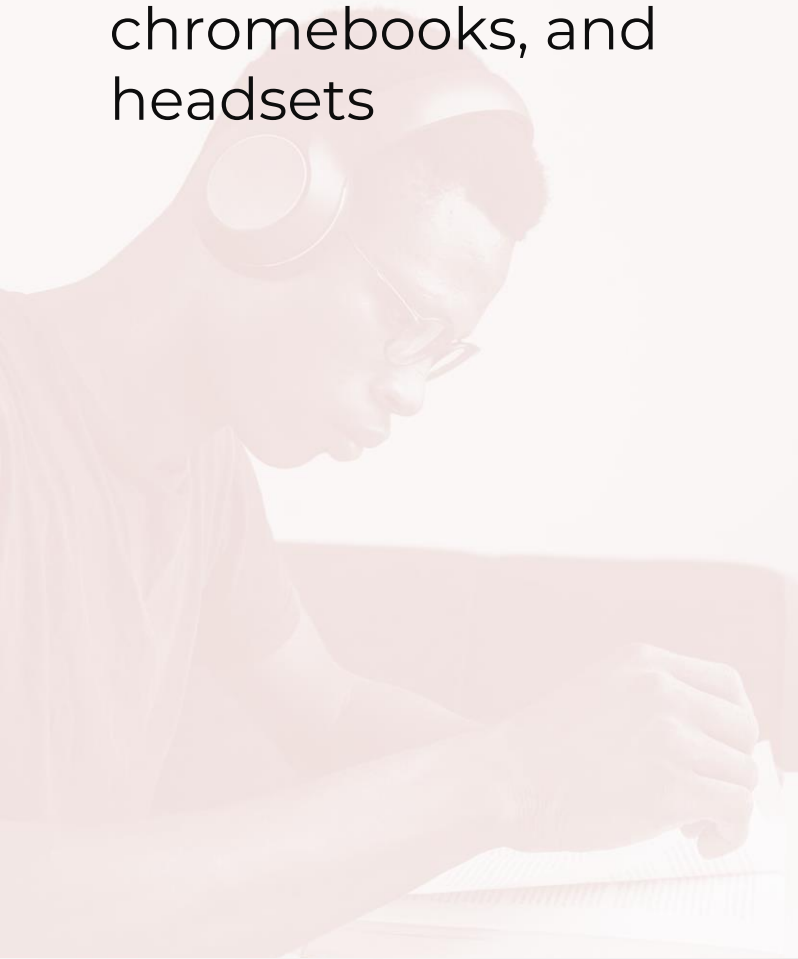
DEVICES USED

Among Faculty Intentionally Online (N=151),
Faculty Transitioned to be Online (N=349)



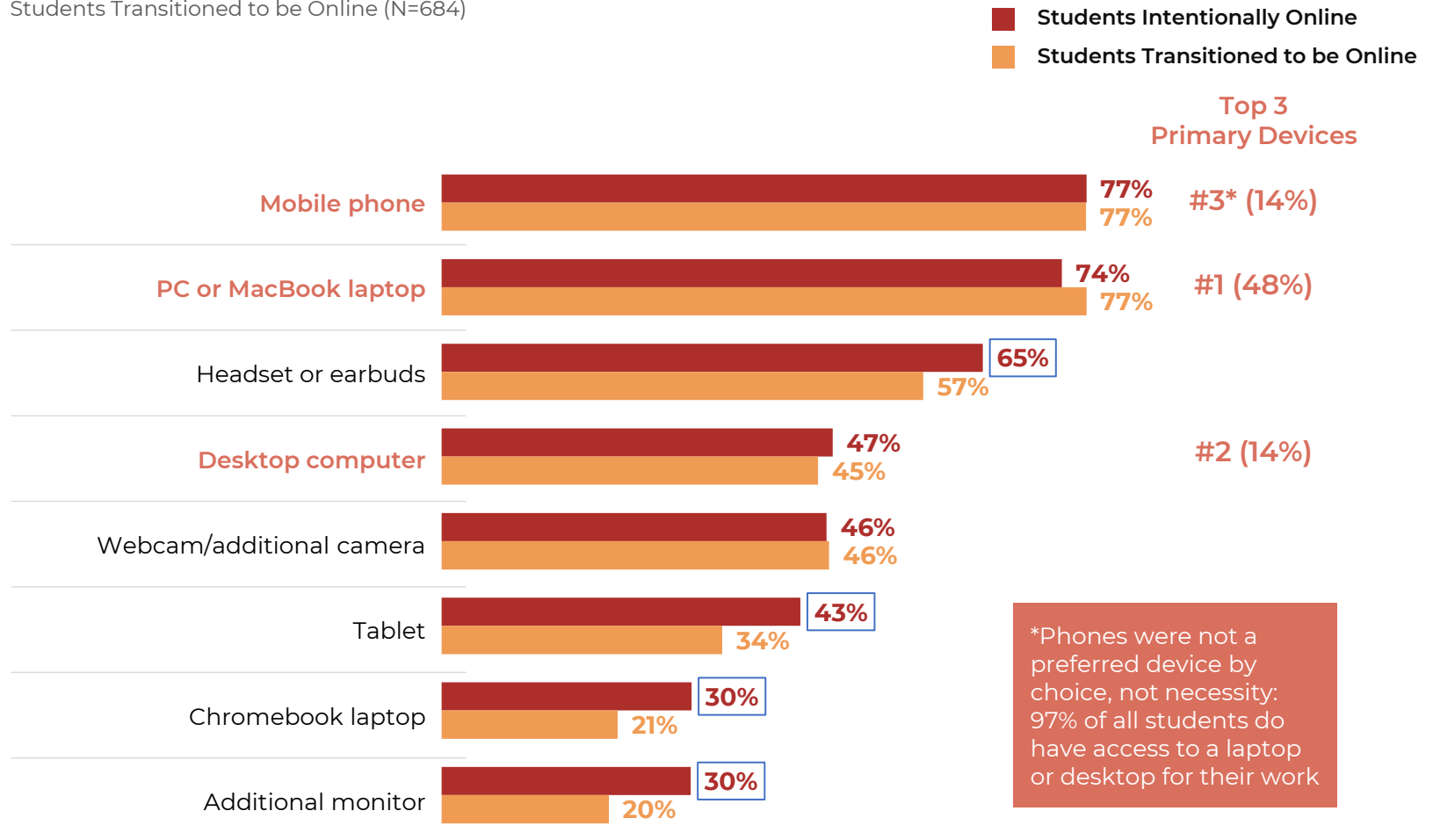
Indicates statistically significant difference with the other Faculty group at 90% confidence level
Q32. Which of the following devices did you use for your Spring 2020 courses?

More students who took courses intended to be online used tablets, chromebooks, and headsets



DEVICES USED

Among Students Intentionally Online (N=318),
Students Transitioned to be Online (N=684)



*Phones were not a preferred device by choice, not necessity: 97% of all students do have access to a laptop or desktop for their work

□ Indicates statistically significant difference with the other Student group at 90% confidence level
Q32. Which of the following devices did you use for your Spring 2020 courses? And which did you use most?

Student Device Usage and Ownership

HARDWARE USAGE AND OWNERSHIP

Among Total Students (N=1,002)

	% Who Used the Device for Coursework	DEVICE SHARING		DEVICE OWNERSHIP		
		Sole User	Shared Device	Student-Owned Device	Family-Owned Device	School-Owned Device
Mobile phone	77%	68%	8%	67%	8%	2%
PC or MacBook laptop	76%	60%	16%	59%	13%	3%
Headset or earbuds	60%	50%	10%	52%	6%	2%
Webcam/additional camera	46%	34%	12%	34%	9%	2%
Desktop computer	46%	26%	20%	27%	15%	2%
Tablet	37%	24%	13%	26%	8%	2%
Chromebook laptop	24%	15%	9%	14%	5%	3%
Additional monitor	23%	15%	8%	14%	6%	3%

Q32. Which of the following devices did you use for your Spring 2020 courses?

Q33. Among the devices that you used for Spring 2020 coursework, who else uses them?

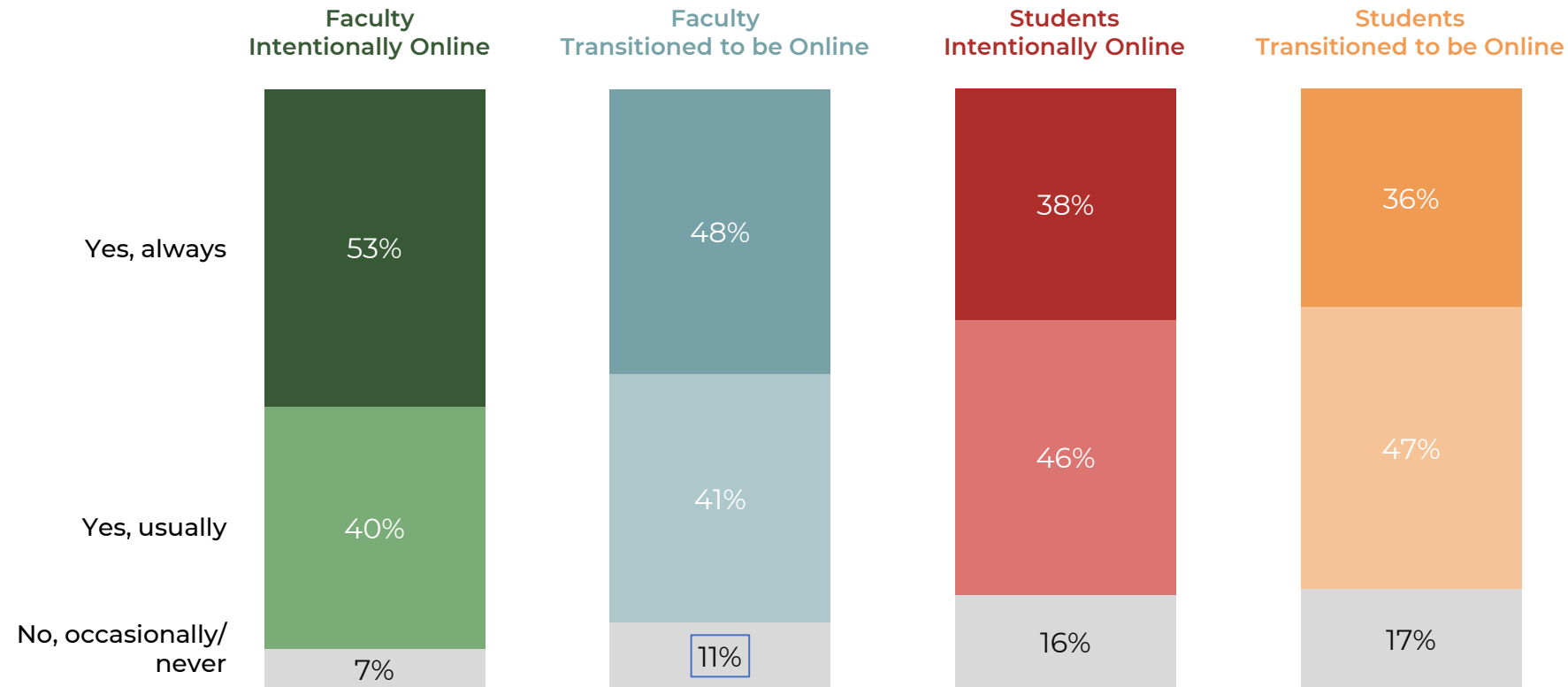
Q34. Who owns the devices you used for Spring 2020 coursework?

More Faculty who intended to be online have a quiet place to work

No differences in work environment between transitioned students and students in courses that were intentionally online

ENVIRONMENT FOR STUDYING/WORKING

Among Faculty Intentionally Online (N=151), Faculty Transitioned to be Online (N=349), Students Intentionally Online (N=318), Students Transitioned to be Online (N=684)



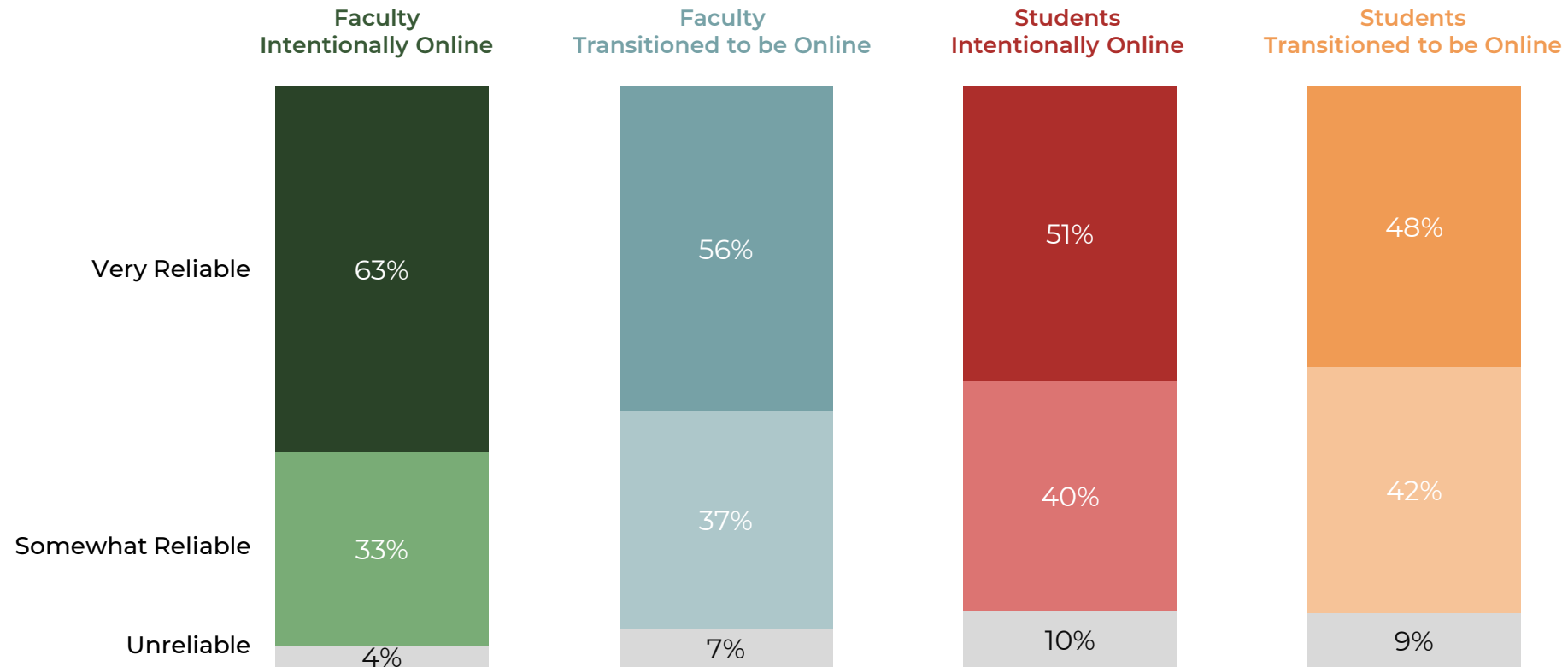
□ Indicates statistically significant difference with the other Student/Faculty group at 90% confidence level

Q30. Did you have a quiet and comfortable place to study/work in Spring 2020?

1 in 10 students don't have reliable internet

INTERNET RELIABILITY

Among Faculty Intentionally Online (N=151), Faculty Transitioned to be Online (N=349), Students Intentionally Online (N=318), Students Transitioned to be Online (N=684)



Indicates statistically significant difference with the other Student/Faculty group at 90% confidence level

Q31. How reliable was is your internet connection where you did most of your studies/teaching] in Spring 2020?