A Survey to Measure the Effects of Forced Transition to 100% Online Learning on Community Sharing, Feelings of Social Isolation, Equity, Resilience, and Learning Content During the COVID-19 Pandemic

A tech report created by the Texas A&M University Engineering Education Faculty and Friends

Tracy Hammond\textsuperscript{1,2}, Karan Watson\textsuperscript{2}, Kelly Brumbelow\textsuperscript{2}, Sherecce Fields, Kristi Shryock\textsuperscript{2}, Jean-Francois Chamberland\textsuperscript{2}, Luciana Barroso\textsuperscript{2}, Michael de Miranda\textsuperscript{2}, Michael Johnson\textsuperscript{2}, Gerianne Alexander, Melody Dee Childs, Samantha Ray\textsuperscript{1}, Lance White, Josh Cherian\textsuperscript{1}, Angie Dunn, & Bruce Herbert\textsuperscript{3}

\textsuperscript{1} Sketch Recognition Lab, Department of Computer Science & Engineering, Texas A&M University
\textsuperscript{2} Engineering Education Faculty, Texas A&M University
\textsuperscript{3} Texas A&M University Libraries
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Abstract

The vast majority of the 19.9 million students and 1.5 million faculty at U.S. colleges and universities have been suddenly forced to replace their physical classes with online class formats. Many instructors and students are not prepared nor used to teaching/learning virtually, causing a number of unwanted effects, including social isolation, exacerbated inequity, and potentially reduced learning. Thus, there is a critical need to determine what the effects are and how we can best address them. In the absence of such knowledge, the effects of the coronavirus may expand well beyond the illness and fatalities and cause irreparable damage to our nation’s students’ education and mental and physical wellness. It is a crucial time to react and collect pertinent data immediately. As such we have created a survey to measure and monitor the effects of forced transition to 100% online learning on community sharing, feelings of social isolation, equity, resilience, and learning content during the COVID-19 pandemic. We are sharing this survey as a Texas A&M University tech report so that other universities can use this survey to measure the effects elsewhere.

Introduction

The global COVID-19 pandemic has put us in an unprecedented situation as students, educators, and professionals. Our daily routines and interactions have been upended. Understanding how we are all dealing with these aspects can help us better improve our current practices and navigate the aftermath of these disruptions.

As a group of educators, we are very concerned with how all members of the university community are handling these transitions. As such, we have put together this survey to assess how the new procedures are affecting the work, studies, plans, and daily interactions of students, faculty, and staff.

Intended Survey Audience: Originally, this survey focused primarily on students but faculty and staff are heavily affected by the pandemic. You will see that the survey provides specific questions to each group as well as general questions for all.

Intended Survey Use: The survey will provide upper administration and educators information to identify how persons are reacting and what factors cause persons to respond positively or negatively. Universities can use this knowledge gained to respond and reflect in real time with the goal of improving the academic environment and create a community of sharing to help transfer this new knowledge. We expect this survey will provide unprecedented knowledge that can improve the current environment, future similar situations, and learning in general.

Survey Access: While we have included all the survey questions, we understand that people may not have the resources right now to enter it into qualtrics, so we are also happy to share with you a copy of the survey so that you may simply edit the questions for your own needs. Please email one of the authors for access.
**Survey Topics:** This survey attempts to gather information on how participants were impacted across 5 different themes.

**Community of Sharing:** How will faculty respond to the sudden change in course structure with respect to their course organization and collaboration with their colleagues? We expect faculty will create communities to help mitigate the stress and challenge of the rapid work-life balance and workspace organization changes.

**Social Isolation and Alienation:** What is the effect of the forced physical distancing on feelings of social isolation and alienation? Physical distancing does not have to result in social isolation, but to ensure this does not happen to faculty or students, explicit interventions must be enacted. Through repeated queries, surveys can help identify what is working and what is not. The questions from this section use questions from the validated questionnaires.

**Inequity:** How do inequities among students and faculty affect the success of distance learning under crisis? The digital divide (especially caused by economic, disability, family status, and technological literacy and accessibility) will be exacerbated, differentially stressing our students and faculty as reflected in their persistence to degrees, strength of learning, and productivity.

**Resiliency:** Will campus-based learning communities continue to exist when the participants are separated due to social distancing? What factors have the most impact on the students’ ability to adapt to the new teaching paradigm? H: Many of the learning communities on campus have been set up to help deliver more communities for people who often feel like outsiders on campus, strengthen communication and leadership skills, and develop innovative mind-sets, but these specific targets may not be well suited for virtual environments.

**Course Content Changes:** Will course content need to be updated to adapt the traditional in-person courses to a virtual format? More daily interactions about delivery, as well as more personal reflection on how to conclude the last third of a semester, may develop a culture where dialog about what and how we teach is a common occurrence.

**Survey Response Thus Far:** We began to roll out to the engineering student community, and within 24 hours we had 967 responses, and responses continue to roll in quickly. Many students directly emailed Dr. Hammond (who’s name was on the survey request) that they very much appreciated the survey as a place for them to have their voices heard during this otherwise alienating time. Through word of mouth we have had 111 faculty respond to the survey.

We presented our initial results (quick and dirty analysis) to the engineering education faculty just a few days after the survey went out. These initial results included detailed how the students were responding to the pandemic, along with guidelines for interacting with interactions. The engineering education faculty found this extremely useful and are looking forward to next week’s in depth analysis. We continue to present our findings to the upper administration in the College of Engineering, who are responding in real time to ensure the university is doing what it can to support the needs of the students.
Preliminary Findings and Guidance Provided to TAMU Faculty

Preliminary analysis of the survey results resulted in several recommendations being provided to the faculty of Texas A&M University to support their efforts to create effective online courses for their students during the COVID-19 pandemic.

Group Work in Online Classes

Students are struggling to envision how to collaborate with each other now.

Guidance for Instructors

- Faculty can help to form study groups and sessions.
- Make participation mandatory for a few weeks.
- Allow students then to creatively solve the problems of distance group study.

Internet Reliability and Speed

Student taking courses at home may be challenged by Internet connectivity that is unreliable or slow or be subjected to frequent distractions.

Guidance for Instructors

- Avoid using only real-time interactions.
- If you are live lecturing over Zoom, record the class, and post recordings in eCampus or other accessible location.
- Do the same for homework and study sessions.
- Remember that some students may need to rely on viewing and reviewing materials later.

Student Comfort with Online Learning

Students expressed a number of aspects of online learning that causes anxiety or stress.

Guidance for Instructors

- May need to use more scheduling than previously to help students stay on track.
- Be open with students that this is meant to help them.
- Have good system for office hours with easy and reliable access for students. Zoom personal rooms can act like a virtual “drop-in” office.
- Students may have more questions for office hours than previously because they find it harder to ask questions during classes.
- Re-think how you handle tests. The face-to-face convention of “60 minutes for the test, no excuses” may run into problems. Have practice runs of tests to debug and help everyone feel comfortable with your process.
- Talk to your students about the challenges all of us are facing. Let them know that we’re all adjusting and need to understand mistakes will happen.
Instructor Expectations for Students

Moving to online courses so quickly has created much uncertainty.

Guidance for Instructors

• Have frank discussions with your students about how course content, learning objectives, and assessment methods have and have not changed.
• When content and learning objectives have not changed, point that out.
• Emphasize to students that the world expects them to be knowledgeable and capable upon graduation, AND that we faculty take that very seriously.

Stress and Disruption Felt By Students

Students often feel that being forced to leave campus has not improved their lives, often because they miss campus life or through changes to their financial stability. Those students nearing graduation are often worried about the economy and future job market.

Guidance for Faculty

• Be open with your students about the stressors we are all experiencing.
• Allow students some opportunity to share with each other how they are coping.
• Remember that this is not “business as usual,” so don’t act like it is.

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About the Authors

Tracy Hammond, PhD, Director of the Sketch Recognition Lab and Professor in the Department of Computer Science & Engineering, is passionate about the university. Hammond is the chair of the Engineering Education Executive Committee, and member of the Center for Population and Aging, the Center for Remote Health Technologies & Systems, and the Institute for Data Science. Hammond is a PI for over 10 million in funded research, from NSF, DARPA, Google, Microsoft, et al. Hammond holds a PhD in Computer Science and FTO (Finance Technology Option) from the Massachusetts Institute of Technology, and four degrees from Columbia University: an M.S in Anthropology, an M.S. in Computer Science, a B.A. in Mathematics, and a B.S. in Applied Mathematics. Hammond mentored 17 UG theses (and many more non-thesis UG through 351 undergraduate research semesters taught), 29 MS theses, and 9 PhD dissertations. Hammond is the 2020 recipient of the TEES Faculty Fellows Award and the 2011-2012 recipient of the Charles H. Barclay, Jr. ’45 Faculty Fellow Award. Hammond has been featured on the Discovery Channel and other news sources. Hammond is dedicated to diversity and equity, reflected in her publications, research, teaching, service, and mentoring. More at http://srl.tamu.edu.

Karan Watson, PhD, P.E., Regents Senior Professor of Electrical and Computer Engineering; Co-director for the Institute for Engineering Education and Innovation, and Provost Emeritus

James Kelly Brumbelow, PhD, P.E., Associate Professor, Zachry Dept. of Civil & Environmental Engineering and Director of Interdisciplinary Engineering Program Development; He has been a faculty member at Texas A&M since 2002, where his technical specialty is water resources engineering, planning, and management. Prior to this position, he completed his undergraduate and graduate studies at Georgia Tech, where he taught undergraduate courses for 7 years. His professional activities have included projects in East Africa, Central America, the Middle East, Alaska’s North Slope, and throughout the “lower 48 states.” His current activities at Texas A&M include a wide range of activities with particular emphasis on development of novel interdisciplinary curricula, courses, and experiences; Member, Engineering Education Executive Committee

Sherece A Fields, PhD, Associate Professor & Associate Department Head, Department of Psychological & Brain Sciences; Fellow, Center for Remote Health Technologies & Systems; Director of Initiatives with Prairie View A&M University

Kristi Shryock, PhD, Frank and Jean Raymond Foundation Inc. Endowed Instructional Associate Professor; Associate Department Head of Aerospace Engineering; Director, Craig and Galen Brown Engineering Honors Program; Assistant Chair, Engineering Education Executive Committee. She received her BS, MS, and PhD from the College of Engineering at Texas A&M. Dr. Shryock works to improve the undergraduate engineering experience through evaluating preparation in areas, such as mathematics and physics, evaluating engineering identity and its impact on retention, incorporating non-traditional teaching methods into the classroom, and engaging her students with interactive methods.

Jean-Francois Chamberland, PhD, Professor, Electrical and Computer Engineering; Member, Engineering Education Executive Committee

Luciana Barroso, PhD, Associate Professor and Director of Undergraduate Programs, Civil & Environmental Engineering, Engineering Education Executive Committee
Michael De Miranda, PhD, Professor and Head of the Department of Teaching, Learning, and Culture; Member, Engineering Education Executive Committee

Micheal Johnson, PhD, Professor and Associate Department Head, Engineering Technology and Industrial Distribution, Member, Engineering Education Executive Committee. Prior to joining the faculty at Texas A&M, he was a senior product development engineer at the 3M Corporate Research Laboratory in St. Paul, Minnesota. He received his B.S. in mechanical engineering from Michigan State University. Dr. Johnson received his S.M. and Ph.D. from the Massachusetts Institute of Technology. Dr. Johnson’s research focuses on engineering education, production economics, and design tools. Dr. Johnson has over 80 peer reviewed publications and several patents. Dr. Johnson is a member of the American Society for Engineering Education, the American Society of Mechanical Engineers, the Society of Manufacturing Engineers, and a senior member of IEEE.

Gerianne Alexander, PhD, Associate Vice President of Research; Professor, Psychological & Brain Sciences

Melody Dee Childs, MS, CISSP, Vice President for Information Technology and Chief Information Officer, Division of Information Technology

Samantha Ray, PhD Candidate, Computer Science & Engineering

Lance White, PhD Candidate, Engineering Education

Josh Cherian, PhD Candidate, Computer Science & Engineering

Bruce Herbert, PhD, Professor and Director, Office of Scholarly Communications, Texas A&M University Libraries.
Appendix: Online Education Survey

Pre-Questions (All)

What is your role at the university?
- Undergraduate student (1)
- Graduate or professional student (2)
- Non-degree seeking student (3)
- Faculty (4)
- I have multiple roles (we will ask for more details later) (5)

***Update with university-specific campuses or exclude this question. Texas A&M example given as reference.

At which campus are you located?
- TAMU College Station Main Campus (1)
- Prairie View A&M University (2)

In what location will you be performing the majority of your studies and/or work the rest of the spring 2020 semester?
- On campus at your institution (1)
- Off-campus but in-town near your institution (2)
- Within Texas but out-of-town from your institution (3)
- Within the United States but outside Texas (4)
- Outside of the United States (5)

Multiple Roles (Multiple Roles Only)

Please select all of the roles that you have at the university (select all that apply).
- Undergraduate student (1)
- Graduate or professional student (2)
- Non-degree seeking student (3)
- Faculty (4)
To simplify this survey, we will present questions to you based upon one role only. Which of the following roles do you feel best describes how you spend the majority of your time?

- Undergraduate student (1)
- Graduate or professional student (2)
- Non-degree seeking student (3)
- Faculty (4)

**Community of Sharing (Students only)**

How often did you study for classes in groups before spring break?

- Every day (1)
- 2-3 days per week (2)
- 1 day per week (3)
- 1 day in every 2-3 weeks (4)
- Never (5)

Which of the following best describes how the groups with which you studied before spring break were organized?

- All instructor-organized (1)
- Mostly instructor-organized (2)
- About half instructor-organized and half student-organized (3)
- Mostly student-organized (4)
- All student-organized (5)

Do you plan to study with other groups for the rest of the semester?

- Definitely yes (1)
- Probably yes (2)
- Might or might not (3)
- Probably not (4)
- Definitely not (5)

If you plan on studying with groups, how do you expect to do so? (short answers are ok)

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
Community of Sharing (Faculty Only)

Choose the best descriptor for your current faculty position:

- Tenured faculty (Associate Professor, Full Professor) (1)
- Tenure-track faculty (Assistant Professor) (2)
- Academic professional track faculty
  (Lecturer, Professor of Instruction or Practice, any rank) (3)
- Adjunct faculty (4)
- Staff with teaching privileges (5)
- Teaching assistant (6)
- Other (please specify below) (7)

How often did you discuss pedagogy with your colleagues before spring break? (choose best answer)

- Very frequently (1)
- Frequently (2)
- Somewhat frequently (3)
- Neither frequently nor infrequently (4)
- Somewhat infrequently (5)
- Infrequently (6)
- Very infrequently (7)

How often have you discussed pedagogy with your colleagues after spring break? (choose best answer)

- Very frequently (1)
- Frequently (2)
- Somewhat frequently (3)
- Neither frequently nor infrequently (4)
- Somewhat infrequently (5)
- Infrequently (6)
- Very infrequently (7)

What good ideas for pedagogy have resulted from your discussions with colleagues?

________________________________________________________________
__________________________________________
__________________________________________
________________________________________________________________
How often did you discuss work flow ideas with your colleagues before spring break? (choose best answer)

- Very frequently (1)
- Frequently (2)
- Somewhat frequently (3)
- Neither frequently nor infrequently (4)
- Somewhat infrequently (5)
- Infrequently (6)
- Very infrequently (7)

How often have you discussed work flow ideas with your colleagues after spring break? (choose best answer)

- Very frequently (1)
- Frequently (2)
- Somewhat frequently (3)
- Neither frequently nor infrequently (4)
- Somewhat infrequently (5)
- Infrequently (6)
- Very infrequently (7)

What good ideas for work flow have resulted from your discussions with colleagues?

___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________

What faculty communities are you taking advantage of as you prepare your online classes?

___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________
How often are you engaging with these faculty communities?

- Very frequently (1)
- Frequently (2)
- Somewhat frequently (3)
- Neither frequently nor infrequently (4)
- Somewhat infrequently (5)
- Infrequently (6)
- Very infrequently (7)

What online platforms are used to host/facilitate these faculty communities? (select all that apply)

- Zoom (1)
- Slack (2)
- eCampus (3)
- Discord (4)
- GroupMe (5)
- Google Hangouts (6)
- Twitter (7)
- Facebook (8)
- Message board platform not named above (9)
- WhatsApp (13)
- MarcoPolo (14)
- Other (specify below) (10) ________________________________
- Other (specify below) (11) ________________________________
- Other (specify below) (12) ________________________________

Do you feel that you have a safe place in which to express your concerns?

- Definitely yes (1)
- Somewhat yes (2)
- Neither yes nor no (3)
- Somewhat no (4)
- Definitely no (5)
Do you feel supported by your department and college during this sudden change to on-line classes?

- Definitely yes (1)
- Somewhat yes (2)
- Neither yes nor no (3)
- Somewhat no (4)
- Definitely no (5)

Do you feel that you have received good communication from the university, your college, your department?

- Definitely yes (1)
- Somewhat yes (2)
- Neither yes nor no (3)
- Somewhat no (4)
- Definitely no (5)

**Social Isolation (All)**

Please respond to the following questions about social isolation PRIOR to the local COVID19 response:

*Each question is rated based on # of friends/interactions on the following scale:*

- 1 (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)
- 6 (6)
- 7+ (7)

**Questions:**

Number of close friends (1)

Number of those close friends that you have interacted with, in person or otherwise, at least once every two weeks (2)

Number of face to face interactions in a day (3)

Number of video interactions in a day (4)

Number of phone interactions in a day (5)

Number of text interactions in a day (6)
Please respond to the following questions about social isolation AFTER the local COVID19 response:

*Each question is rated based on # of friends/interactions on the following scale:*

- 1 (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)
- 6 (6)
- 7+ (7)

**Questions:**

Number of close friends (1)  
Number of those close friends that you have interacted with, in person or otherwise, at least once every two weeks (2)  
Number of face to face interactions in a day (3)  
Number of video interactions in a day (4)  
Number of phone interactions in a day (5)  
Number of text interactions in a day (6)  

Please rate the following for how you felt PRIOR to the local COVID19 response:

*Each question is rated on the following scale:*

- Never (1)  
- Rarely (2)  
- Sometimes (3)  
- Often (4)  

**Questions:**

I lack companionship (1)  
There is no one I can turn to (2)  
I do not feel alone (3)  
I feel like part of groups of friends (4)  
I have a lot in common with the people around me (5)  
I am no longer close to anyone (6)
My interests and ideas are not shared by those around me (7)
I am an outgoing person (8)
There are people I feel close to (9)
I feel left out (10)
My social relationships are superficial (11)
No one really knows me well (12)
I feel isolated from others (13)
I can find companionship when I want it (14)
There are people who really understand me (15)
I am unhappy being so withdrawn (16)
People are around me but not with me (17)
There are people I can talk to (18)
There are people I can turn to (19)

Please rate the following for how you felt AFTER the local COVID19 response:
Each question is rated on the following scale:

- Never (1)
- Rarely (2)
- Sometimes (3)
- Often (4)

Questions:
I lack companionship (1)
There is no one I can turn to (2)
I do not feel alone (3)
I feel like part of groups of friends (4)
I have a lot in common with the people around me (5)
I am no longer close to anyone (6)
My interests and ideas are not shared by those around me (7)
I am an outgoing person (8)
There are people I feel close to (9)
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People are around me but not with me (17)
There are people I can talk to (18)
There are people I can turn to (19)

How do you feel about the change in socialization?

☐ My life is much worse (1)
☐ My life is a little worse (2)
☐ My life effectively has not changed socially (3)
☐ My life is a little better (4)
☐ My life is much better (5)

Any other comments you would like to make regarding the change in socialization.

________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________

Are you an introvert or extrovert?
An introvert prefers calm, minimally stimulating environments. Introverts tend to feel drained after socializing and regain their energy by spending time alone. An extrovert prefers socializing and gains their energy by spending time with others. Note that this is where you gain your energy and not what you are good at; many introverts are quite good at socializing. Most people are somewhere on a continuum between introvert and extrovert.
Please select your place on the continuum below:

Introvert 0 10 20 30 40 50 60 70 80 90 100 Extrovert

An interactive scale allowed the participant to enter any integer between 0 and 100.

What are you most stressed about?
________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________

Social Isolation (Addendum for Students Only)

Please answer and rate the following questions
Each question asked a yes/no question followed by a rating using the following scale:
- ☐ Very sad/mad/bad (1)
- ☐ (2)
- ☐ (3)
- ☐ (4)
- ☐ Happy (5)

Questions:
Are you supposed to graduate this semester? If yes, how do you feel about not walking at the graduation ceremony? (1)
Are you satisfied with your living situation? How do you feel about your living situation? (2)
Social Isolation (Addendum for TAMU Students Only)

Please answer and rate the following questions.
*These questions apply to Texas A&M-specific events and are included for reference. Each question asked a yes/no question followed by a rating using the following scale:*

- **(1)** Very sad/mad/bad
- **(2)**
- **(3)**
- **(4)**
- **(5)** Happy

**Questions:**
- Are you supposed to get your Aggie ring this term? If yes, how do you feel about the loss of Ring Day? **(1)**
- Were you planning to attend Muster? How do you feel about missing Muster? **(2)**

**Inequality Block (All)**

Do you have access to a reliable internet connection?
- **(1)** Yes
- **(2)** No

Do you experience lag when using the internet? (E.g. when on video calls)
- **(1)** Yes
- **(2)** No

How do you most likely plan on accessing your newly online coursework?
- **(1)** Home Wifi
- **(2)** Public Wifi
- **(3)** Cellular Data

What device(s) are you planning to use for your classes? (select all that apply)
- **(1)** Laptop
- **(2)** Desktop
- **(3)** Tablet
- **(4)** Cell Phone
- **(5)** Other
Do you feel that you have sufficient access to equipment to successfully transition to online learning?
- Definitely yes (1)
- Somewhat yes (2)
- Neither yes nor no (3)
- Somewhat no (4)
- Definitely no (5)

Do you feel that moving online is going to be better or worse for you compared to how your courses were offered previously?
- Much better (1)
- Moderately better (2)
- Slightly better (3)
- About the same (4)
- Slightly worse (5)
- Moderately worse (6)
- Much worse (7)

Have you ever taken/taught an online course before? If so, has that course been synchronous (having regular meetings with professor and fellow students digitally) or asynchronous (mostly self paced online course with regular deadlines).
- Yes, synchronous (1)
- Yes, asynchronous (2)
- No (3)

How comfortable are you with online courses?
- Extremely comfortable (1)
- Moderately comfortable (2)
- Slightly comfortable (3)
- Neither comfortable nor uncomfortable (4)
- Slightly uncomfortable (5)
- Moderately uncomfortable (6)
- Extremely uncomfortable (7)
What are some barriers you might have considering online courses? (Free response. Short answers are ok)
________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________

Has the current situation with COVID-19 affected your personal or family's financial stability? (i.e., job loss or suspension due to the virus)

☐ A great deal (1)
☐ A lot (2)
☐ A moderate amount (3)
☐ A little (4)
☐ None at all (5)

Do you have children under the age of 18 that live with you? If so what are their ages?

☐ Yes (1) ________________________________________________
☐ No (2)

**Inequity Childcare (Addendum for those with children)**

Are you now responsible for day-care/home-schooling?

☐ Yes (1)
☐ No (2)

Who is responsible for the majority of the child care in your family?

☐ Yourself (1)
☐ Partner (2)
☐ Other (3) ________________________________________________

How much burden has this situation placed upon you?

☐ A great deal (1)
☐ A lot (2)
☐ A moderate amount (3)
☐ A little (4)
☐ None at all (5)
Resilience (Students Only)

Are you comfortable with extreme changes in general?

☐ 1, Not at all (1)
☐ 2 (2)
☐ 3 (3)
☐ 4 (4)
☐ 5 (5)
☐ 6 (6)
☐ 7 (7)
☐ 8 (8)
☐ 9 (9)
☐ 10, Very comfortable (10)

Please rate all of the following:

Each question asked the person to rate how well the statement applies to them on the following scale:

☐ Does not describe me at all (1)
☐ (2)
☐ (3)
☐ (4)
☐ Describes me a lot (5)

Questions:
I have people I look up to (1)
Getting an education is important to me (2)
My parent(s)/caregiver(s) know a lot about me (3)
I try to finish what I start (4)
I solve problems without harming myself or others (by using drugs and/or being violent) (5)
I know where to go in my community to get help (6)
I feel I belong at my school (7)
My family will stand by me during difficult times (8)
My friends stand by me during difficult times (9)
I am treated fairly in my community (10)
I have opportunities to develop skills that will be useful later in life (11)
I enjoy my cultural and family traditions (12)

Please rate the following:
Each question asked the person to rate how well the statement applies to them on the following scale:
- □ Not like me at all (1)
- □ Not much like me (2)
- □ Somewhat like me (3)
- □ Mostly like me (4)
- □ Very much like me (5)

Questions:
I often set a goal but later choose to pursue a different one. (1)
New ideas and new projects sometimes distract me from previous ones. (2)
I become interested in new pursuits every few months. (3)
My interests change from year to year. (4)
I have been obsessed with a certain idea or project for a short time but later lost interest. (5)
I have difficulty maintaining my focus on projects that take more than a few months to complete. (6)
I have achieved a goal that took years of work. (7)
I have overcome setbacks to conquer an important challenge. (8)
I finish whatever I begin. (9)
Setbacks don’t discourage me. (10)
I am a hard worker. (11)
I am diligent. (12)

Course/Teaching Content (Students Only)
In the next several questions, we wish to understand the issues of concern for specific courses. Please think about your course schedule and pick 2 courses to answer the questions below.

"Course 1" should be the course for which you have the least concern about the change to online learning, and "Course 2" should be the course for which you have the most concern about the change to online learning. You may choose any courses you are taking, including research and other non-traditional courses.
Class numbers with major prefix (e.g., ENGR 216):

- Course 1 (least concern) (1) ________________________________
- Course 2 (most concern) (2) ________________________________

Group projects

Each question asked a yes/no question followed by multiple choice follow up question:

- No idea (1)
- Projects will be dropped from the class (2)
- Kept, but now using online group software (3)
- Other (specify below) (4)

Questions:

Does this class have group projects? If yes, how will the group projects now be handled?

Course 1 (least concern) (1)
Course 2 (most concern) (2)

Free response (if "Other" chosen above) -- How will group projects be handled?

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Do you have suggestions on how to make group projects go easier/better in online learning formats?

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Engineering Education Faculty Technical Paper | Online Education Survey
Hardware and physical resources (including labs included in courses)

Each question asked a yes/no question followed by multiple choice follow up question:

- No idea (1)
- Hardware/resources dropped from the class (2)
- Shipping things out to students (3)
- Switch to simulation (4)
- Video of lab or use of previous semester’s data (5)
- Other (specify below) (6)

Questions:

Does this class have hardware and/or physical resources to which you no longer have access? If yes, how will the lack of access now be handled?

Course 1 (least concern) (1)
Course 2 (most concern) (2)

Free response (if "Other" chosen above) -- How will lack of access to hardware be handled?

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Do you have suggestions on how to make classes with hardware requirements go easier/better in online learning formats?

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Software

Each question asked a yes/no question followed by multiple choice follow up question:

- No idea (1)
- Software dropped from the class (2)
- Switch to different software (3)
- Other (specify below) (4)

Questions:

Does this class use of software to which you no longer have access? If yes, how will the lack of access now be handled?

Course 1 (least concern) (1)
Course 2 (most concern) (2)

Free response (if "Other" chosen above) -- How will lack of access to software be handled?

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Do you have suggestions on how to make classes with software requirements go easier/better in online learning formats?

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How do you think the change to online learning will change what and how much material you learn?  
*Each question is rated on the following scale:*

- No change (1)
- Learn more (2)
- Learn less (3)
- Same amount of learning, but different concepts (4)
- Other (specify below) (5)

Course 1 (least concern) (1)
Course 2 (most concern) (2)

How do you think the change to online learning will change the course objectives?  
*Each question is rated on the following scale:*

- No change (1)
- More objectives (2)
- Fewer less (3)
- Same number, but objectives will change (4)
- Other (specify below) (5)

Course 1 (least concern) (1)
Course 2 (most concern) (2)

Free response (if “Other” chosen above) -- How will course material and/or objectives change?
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Do you think this course will focus more or less on the fundamentals of the subject?

*Each question is rated on the following scale:*

- More fundamentals (1)
- No change (2)
- Less fundamentals (3)
- No idea (4)

Course 1 (least concern) (1)
Course 2 (most concern) (2)

Do you think your overall learning in this course will be better or worse under the new online format?

*Each question is rated on the following scale:*

- Much better (1)
- Somewhat better (2)
- No change (3)
- Somewhat worse (4)
- Much worse (5)
- Don’t know (6)

Course 1 (least concern) (1)
Course 2 (most concern) (2)

Do you think your learning in this course will be deeper or shallower under the new online format?

*Each question is rated on the following scale:*

- Much deeper (1)
- Somewhat deeper (2)
- No change (3)
- Somewhat shallower (4)
- Much shallower (5)
- Don’t know (6)
Course 1 (least concern) (1)
Course 2 (most concern) (2)

Free response -- How would you describe your preferred learning style(s)?
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Resilience (Faculty Only)

Are you comfortable with extreme changes in general?

☐ 1, Not at all (1)
☐ 2 (2)
☐ 3 (3)
☐ 4 (4)
☐ 5 (5)
☐ 6 (6)
☐ 7 (7)
☐ 8 (8)
☐ 9 (9)
☐ 10, Very comfortable (10)

Please rate all of the following:
Each question asked the person to rate how well the statement applies to them on the following scale:

☐ Does not describe me at all (1)
☐ (2)
☐ (3)
☐ (4)
☐ Describes me a lot (5)
Questions:
I have people I look up to (1)
Getting an education is important to me (2)
My parent(s)/caregiver(s) know a lot about me (3)
I try to finish what I start (4)
I solve problems without harming myself or others (by using drugs and/or being violent) (5)
I know where to go in my community to get help (6)
I feel I belong at my school (7)
My family will stand by me during difficult times (8)
My friends stand by me during difficult times (9)
I am treated fairly in my community (10)
I have opportunities to develop skills that will be useful later in life (11)
I enjoy my cultural and family traditions (12)

Please rate the following:
Each question asked the person to rate how well the statement applies to them on the following scale:

- □ Not like me at all (1)
- □ Not much like me (2)
- □ Somewhat like me (3)
- □ Mostly like me (4)
- □ Very much like me (5)

Questions:
I often set a goal but later choose to pursue a different one. (1)
New ideas and new projects sometimes distract me from previous ones. (2)
I become interested in new pursuits every few months. (3)
My interests change from year to year. (4)
I have been obsessed with a certain idea or project for a short time but later lost interest. (5)
I have difficulty maintaining my focus on projects that take more than a few months to complete. (6)
I have achieved a goal that took years of work. (7)
I have overcome setbacks to conquer an important challenge. (8)
I finish whatever I begin. (9)
Setbacks don’t discourage me. (10)
I am a hard worker. (11)
I am diligent. (12)

Course/Teaching Content (Faculty Only)

In the next several questions, we wish to understand the issues of concern for specific courses. Please think about the courses you are teaching this term and pick 2 courses to answer the questions below.

"Course 1" should be the course for which you have the least concern about the change to online learning, and "Course 2" should be the course for which you have the most concern about the change to online learning. If you are teaching only 1 course, you can ignore the answers for "Course 2." You may choose any courses you are teaching, including research and other non-traditional courses.

Class numbers with major prefix (e.g., ENGR 216):

☐ Course 1 (least concern) (1) ________________________________________________
☐ Course 2 (most concern) (2) ________________________________________________

Group projects

Each question asked a yes/no question followed by multiple choice follow up question:

☐ No idea (1)
☐ Projects will be dropped from the class (2)
☐ Kept, but now using online group software (3)
☐ Other (specify below) (4)

Does this class have group projects? If yes, how will the group projects now be handled?

Course 1 (least concern) (1)
Course 2 (most concern) (2)

Free response (if "Other" chosen above) -- How will group projects be handled?

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Do you have suggestions on how to make group projects go easier/better in online learning formats?

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Hardware and physical resources (including labs included in courses)

Each question asked a yes/no question followed by multiple choice follow up question:

☐  No idea (1)
☐  Hardware/resources dropped from the class (2)
☐  Shipping things out to students (3)
☐  Switch to simulation (4)
☐  Video of lab or use of previous semester’s data (5)
☐  Other (specify below) (6)

Does this class have hardware and/or physical resources to which students no longer have access? If yes, how will the lack of access now be handled?

Course 1 (least concern) (1)
Course 2 (most concern) (2)

Free response (if “Other” chosen above) -- How will lack of access to hardware be handled?

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Do you have suggestions on how to make classes with hardware requirements go easier/better in online learning formats?

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Software

Each question asked a yes/no question followed by multiple choice follow up question:

☐ No idea (1)

☐ Software dropped from the class (2)

☐ Switch to different software (3)

☐ Other (specify below) (4)

Does this class use of software to which students no longer have access? If yes, how will the lack of access now be handled?

Course 1 (least concern) (1)

Course 2 (most concern) (2)

Free response (if "Other" chosen above) -- How will lack of access to software be handled?

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Do you have suggestions on how to make classes with software requirements go easier/better in online learning formats?

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How do you think the change to online learning will change what and how much material you teach? 
*Each question is rated on the following scale:*

- No change (1)
- Learn more (2)
- Learn less (3)
- Same amount of learning, but different concepts (4)
- Other (specify below) (5)

Course 1 (least concern) (1)  
Course 2 (most concern) (2)

Did the loss of one week impact the amount of teaching or material you will be able to cover? 
*Each question is rated on the following scale:*

- No change (1)
- Learn more (2)
- Learn less (3)
- Same amount of learning, but different concepts (4)
- Other (specify below) (5)

Course 1 (least concern) (1)  
Course 2 (most concern) (2)
How do you think the change to online learning will change the course objectives?

*Each question is rated on the following scale:*

- No change (1)
- More objectives (2)
- Fewer less (3)
- Same number, but objectives will change (4)
- Other (specify below) (5)

Course 1 (least concern) (1)
Course 2 (most concern) (2)

Free response (if “Other” chosen above) -- How will course material and/or objectives change?

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Do you think this course will focus more or less on the fundamentals of the subject?

*Each question is rated on the following scale:*

- More fundamentals (1)
- No change (2)
- Less fundamentals (3)
- No idea (4)

Course 1 (least concern) (1)
Course 2 (most concern) (2)
Do you think students’ overall learning in this course will be better or worse under the new online format? *Each question is rated on the following scale:*

- □ Much better (1)
- □ Somewhat better (2)
- □ No change (3)
- □ Somewhat worse (4)
- □ Much worse (5)
- □ Don’t know (6)

Course 1 (least concern) (1)
Course 2 (most concern) (2)

Do you think students’ learning in this course will be deeper or shallower under the new online format? *Each question is rated on the following scale:*

- □ Much deeper (1)
- □ Somewhat deeper (2)
- □ No change (3)
- □ Somewhat shallower (4)
- □ Much shallower (5)
- □ Don’t know (6)

Course 1 (least concern) (1)
Course 2 (most concern) (2)

Free response -- How would you describe your preferred teaching style(s)?
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Engineering Education Faculty Technical Paper | Online Education Survey
UIN Request Block (Students Only)

In order to learn the best possible lessons from this survey, we wish to analyze survey responses with respect to the demographic characteristics of the survey respondents (e.g., academic major/department, gender, year in school, race/ethnicity, etc.).

Rather than ask a long series of questions on these factors, we can pull them from campus databases if you provide your UIN below. Doing so is completely optional, and no survey data will ever be reported in a way that identifies any individual. All results would be presented in a form such as "One-third of engineering majors felt that...," or "Very few students from hometowns in the Houston region reported that...."

If you do not wish to provide your UIN, you can alternately choose to answer several questions on your personal demographic characteristics.

Are you willing to provide your UIN or alternately answer some demographic questions?

- ☐ I am willing to provide my UIN. (Enter in the box below) (1)
- ☐ I am not willing to provide my UIN, but I will answer the demographics questions. (2)
- ☐ I do not wish to provide my UIN or answer the demographics questions. (3)

Demographics Questions (If Participant Agrees)

What is your gender?

- ☐ Male (1)
- ☐ Female (2)
- ☐ I prefer to describe my gender in another way (3)

Which of the following best describes your race/ethnicity? (Select all that apply. CTRL+Click for multiple selections)

- ☐ American Indian or Alaska Native (1)
- ☐ Asian (2)
- ☐ Black or African-American (3)
- ☐ Native Hawaiian or Other Pacific Islander (4)
- ☐ White or Caucasian (5)
- ☐ Some other race/ethnicity (9)
- ☐ Hispanic or Latino (6)
- ☐ Not Hispanic or Latino (7)
- ☐ Prefer not to answer (8)
Are you a first-generation college student? (For the purposes of this question, "first-generation" is defined as neither of your parents attended a college or university.)

☐ Yes (1)
☐ No (2)

Your progress in your current college/university program is best described as: (please answer according to how many years you have been in college/university, not class standing as determined by credit hours)

☐ Freshman/1st Year (1)
☐ Sophomore/2nd Year (2)
☐ Junior/3rd Year (3)
☐ Senior/4th Year (4)
☐ Masters student (5)
☐ Doctoral student (6)
☐ Professional degree student (7)
☐ Other (specify below) (8) ________________________________________________

What is your home state?

***Lists all states, D.C., and Puerto Rico

▼ Texas (1) ... I do not reside in the United States (53)

(If 50 States, D.C. and Puerto Rico = Texas)

What is your home county in Texas? (not necessarily the county in which you are attending college/university)

***Lists all Texas counties

▼ Anderson (1) ... Zavala (255)
Demographics (TAMU Undergraduate Students Only)

What is your academic major?

***Lists all undergraduate majors
▼ Accounting, ACCT (1) ... Other major not listed here (148)

Demographics (TAMU Faculty and Graduate Students Only)

In what college/school and department are you located?

***Lists all colleges
College/school (1)
***Lists all departments
Department (2)
▼ Agriculture and Life Sciences (1) ... Other ~ OTHER, NOT LISTED HERE (120)

Demographics (PVAMU Undergraduate Students Only)

What is your academic major?

***Lists all undergraduate majors
▼ Accounting (1) ... Other major not listed here (39)

Demographics (PVAMU Faculty and Graduate Students Only)

In what PVAMU college/school are you located?

***Lists all colleges
▼ Agriculture and Human Sciences (1) ... Nursing (8)
Free Comments (All)

(Optional) Do you have other comments or concerns that you wish to share? As stated at the beginning, the purpose of this survey is to understand how students and faculty are dealing with the circumstances this term. Is there anything else that you feel the university can do to help the community? Is there anything else that would be helpful for university leaders to know?

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