

Equity in Digital Learning Student Survey



everylearner
everywhere

 **Digital
Promise®**
Accelerating Innovation in Education

Contents

PURPOSE, BACKGROUND AND LITERATURE.....	3
EQUITY IN DIGITAL LEARNING SURVEY.....	9
REFERENCES.....	23
APPENDIX A: NATIONALLY REPRESENTATIVE SAMPLE SURVEY RESULTS.....	24
APPENDIX B: NATIONALLY REPRESENTATIVE SAMPLE METHODOLOGY.....	33

Sponsoring Organizations

Every Learner Everywhere is a network of twelve partner organizations with expertise in evaluating, implementing, scaling, and measuring the efficacy of education technologies, curriculum and course design strategies, teaching practices, and support services that personalize instruction for students in blended and online learning environments. Our mission is to help institutions use new technology to innovate teaching and learning, with the ultimate goal of improving learning outcomes for Black, Latinx, and Indigenous students, poverty-affected students, and first-generation students. Our collaborative work to advance equity in higher education centers on the transformation of postsecondary teaching and learning. We build capacity in colleges and universities to improve student outcomes with digital learning through direct technical assistance, timely resources and toolkits, and ongoing analysis of institutional practices and market trends. For more information about Every Learner Everywhere and its collaborative approach to equitize higher education through digital learning, visit everylearnereverywhere.org.

Digital Promise is a global nonprofit working to expand opportunity for each learner. We work with educators, researchers, technology leaders, and communities to design, investigate, and scale up innovations that empower learners, especially those who've been historically and systematically excluded. Our efforts are multifaceted and grounded in the real-world challenges facing learners and educators—from working to expand K-12 students' access to high-speed internet, to providing adult learners with opportunities to earn micro-credentials that further their careers and secure their well-being. For more information, visit <https://digitalpromise.org>.

Suggested Citation: Digital Promise. (2022, October 25). *Equity and Digital Learning Student Survey*. Every Learner Everywhere. <https://www.everylearnereverywhere.org/resources/equity-in-digital-learning-student-survey/>

Purpose

The Equity and Digital Learning Student survey (EDLS) was developed for higher education departments and faculty wishing to self-assess and use evidence-based instructional practices in their courses. Specifically, it positions students' course experiences as data to inform course and instructional improvement. The survey scales cover multiple domains related to research-based teaching practices and course features, as well as affective domains, such as sense of belonging and the quality of classroom relationships.

As a formative tool, the survey supports professional learning by framing concepts like supporting metacognition and establishing caring relationships with students as important indicators of course quality. Because it uses research-based and equitable teaching practices as a lens for examining a course, the survey can serve as a guide for creating powerful learning experiences.

In short, the survey was designed to provide instructors and course designers with valid and reliable evidence along multiple dimensions related to positive student learning experiences and academic success.

Background / Literature

The survey was developed during the educational upheaval brought on by the COVID pandemic, for which reason it includes a focus on digital learning and equity issues associated with learning at a distance. As online and hybrid courses have become "business as usual" in response to COVID, having a course assessment tool that can provide insights regarding both equity and digital learning is valuable for course design and redesign efforts. The survey's items align with practices associated with creating and maintaining equitable educational experiences, and student responses to these items can reveal the types of course improvements needed in order to support the learning of an increasingly diverse student population. The sections below provide the rationale and research support for the item scales used in this survey.

Ratings for Basic Aspects of Course Quality

This scale represents features of a well-designed course with clear organization of materials, information on support services, and feedback that help students navigate the challenges of a college course. It can function as a gauge for whether a course meets the minimum requirements of an equitable course design. The items in this scale align with recommendations commonly found in course design resources.

Reflecting and Respecting Diversity

The postsecondary classroom has become increasingly diverse due to changes in population demographics and policies that aim to expand the educational opportunity to a broader spectrum of students (Lamas, 2020). In this context, some students are vulnerable to stereotype threat (Pennington et al., 2016) and a fear that they don't belong in the course. This scale represents course features and instructor practices that communicate to students a sense of welcome and appreciation for the diverse ideas and lived experiences that they bring to the learning environment (University of Kentucky, n.d.). Some of these items were based on the Peralta Online Equity Rubric (Peralta Community College District, 2020).

Perceived Course Outcomes

Research suggests that course satisfaction is important for educational persistence (Suhre et al., 2007; Joo et al., 2011). This scale approaches the concept of course satisfaction with items related to the fulfillment of students' expectations of worthwhile learning experiences. The items focus on multiple ways students might perceive course value, be it through the course features or the course community.

Student Challenges

Studies of the challenges students faced when their courses moved online during the COVID-19 pandemic reveal that obstacles such as unreliable internet access and conflicting work and family demands are more common among low-income students and students of color (Means & Neisler, 2020). This scale captures the most common and impactful of the many challenges students in a course might face when using digital learning tools.

Instructor's Creation of a Student-Instructor Partnership

This scale reflects a core dimension of Zaretta Hammond's Culturally Responsive Teaching Framework (Hammond, 2018), which provides pedagogical guidance for positioning students as capable, powerful learners. The items for this scale were inspired by Hammond's work and other equity-focused frameworks (Powell et al., 2017).

Cognitive Engagement

The advantages of active learning techniques that stimulate cognitive engagement are well-researched and documented (Chi et al. 2018; Chi & Wiley, 2014). This scale deals with teaching practices that support active learning. The items for this scale are derived from the TRU framework (Schoenfeld, 2016), which stands for Teaching for Robust Understanding.

Community of Learners

Sociocultural perspectives on learning emphasize the power of learning through interactions with peers. College courses can provide structures and supports for learners to enter into a learning community. This scale reflects qualities of students' classroom relationships that enable them to feel connected to and supported by their instructor and classmates.

Evidence-Based Teaching Practices

This scale reflects a set of teaching practices identified by the Gates Foundation as being important for effective instruction. Most of the practices represented in the items for this scale are associated with research findings demonstrating statistically significant improvement in student learning outcomes (Peters & Means, under review).

Administration Suggestions

When used formatively, this survey has the potential to guide course design and improvement efforts in ways that create greater equity in education and the inclusion of rich digital learning experiences. The following are guidelines for how to optimally use this survey:

- Review and revise the language and terminology used in the items to align with the culture and context of the course. While administering the survey as-is can generate meaningful results, customizing the items will enable the respondents to better understand the items and provide more accurate feedback. Several opportunities for this are identified within the survey.
- Anonymize the survey results to build trust and create a safe opportunity for growth. By allowing students to respond anonymously, the data generated can be used as the basis for learning and self-reflection rather than a trigger for defensiveness. Within the space of trust and safety, the survey items and results can serve as rich conversation starters and spark ideas about how to improve student learning experiences.
- Incorporate the survey into a regular cycle of feedback and improvement. If used regularly and formatively, the concepts reflected in the survey will become part of the language and culture of the course, department, or institution. During each cycle of course improvement, a single item or small set of items can be the focus of design or improvement efforts.

Samples and Psychometrics

This survey was originally designed by a research team and calibrated using cognitive interviews with several current undergraduate students. The survey was first given to a nationally representative sample of undergraduates in Spring 2021 and then to students in a set of courses at five minority-serving institutions engaged in course improvement processes. The five institutions administered the survey to multiple cohorts of students in the courses undergoing redesign (in Spring 2021, Spring 2022, and if, the Spring 2021 sample sizes were non-representative, Fall 2021). Following each semester, the survey results were reviewed with more than 10 faculty members at the five partner institutions and some items were revised for clarity or to be more relevant to students in a particular course.

This iterative process sought to center the expertise of students and instructors in their classrooms and to understand how each item related to their individual context. This final version of the Equity and Digital Learning student survey has been influenced by well-validated measures, the peer-reviewed research literature, student cognitive interviews, nearly two dozen individuals across multiple institutions, and over 6,000 student responses.

Sample Sizes

Approximately 6,313 students clicked on the survey link and consented to taking the survey. Of these, 44 students did not answer the first survey item and were removed from the sample. Further, 229 students did not answer at least one third of the 56 items that were presented to every student, and they were also removed. The final student count for analysis is 6,040.

Table 1.

Samples	Spring 2021	Fall 2021	Spring 2022	Total by Sample
Nationally Representative Sample	985			985
2-Year Public HSI; Northeast; 20-25k students	48	354	503	905
2-Year Public HSI; Midwest; 10-15k students	58	188	114	360
4-Year Public HBCU; Southeast; <5k students	249		258	507
4-Year Public HSI; Southwest; 10-15k students	278		213	491
4-Year Public MSI; Northeast; 10-15k students	1489		1303	2792
Total by Term	3107	542	2391	6040

Items were grouped to reflect several overarching themes related to student classroom experiences. These themes, their respective items, and a reliability measure can be found below.

Table 2.

Theme	Items	*Cronbach's Alpha
Ratings for Basic Aspects of Course Quality	Q16a, Q16c, Q16d, Q16e, Q16f, Q16i, Q16j	0.898
Reflecting and Respecting Diversity	Q16h, Q18e, Q19d, Q19f	0.872
Perceived Course Outcomes	Q18a, Q18c, Q18f, Q18g	0.919
Student Challenges	Q22a-Q22h	0.860
Instructor's Creation of a Student-Instructor Partnership	Q16b, Q19a, Q19b, Q19c, Q19e	0.913
Cognitive Engagement	Q16g, Q18b, Q18d, Q18g	0.884
Community of Learners	Q21a-Q21c	0.723

**Cronbach's Alpha is a reliability coefficient that provides a method of measuring internal consistency of scale items. Typically scales with a value of > 0.70 are considered to have sufficient internal consistency.*

Additionally, 3 sets of items around teaching practices, including those that are evidence-based, enacted in synchronous online classes, and assigned independent of the instructor, were included. Most students reported their instructors implemented over half of the practices in each set, though there were no patterns to those implementations.

Table 3.

Set of Practices	Items	Total Number of Practices in Set	Mean Number of Practices	Median Number of Practices Reported
Inclusion of Evidence-Based Teaching Practices	Q10a - Q10i	9	6.4	6
Inclusion of Various Practices in Synchronous Online Class Sessions	Q12a - Q12e	5	3.5	4
Characteristics of Online Activities Students Do Independently	Q14a - Q14e	5	4.1	4



Equity in Digital Learning Student Survey

The Equity and Digital Learning Student Survey, that appears on the following pages, is a measure that institutions can use to formatively understand their students' experiences with equity and digital learning. Throughout the survey, you will find the following two symbols:

1. These branching logic boxes appear before questions that potentially send respondents on different paths through the survey.

2. These callout boxes highlight survey questions that can be personalized to varying contexts and student needs.



Display This Question:

If How does this course meet? = Only online

Or How does this course meet? = Both online and in person



This is a great place to modify the language in the survey to reflect how you describe various modalities on your campus.

Equity in Digital Learning Student Survey

For all the questions following in this survey, please think about *only the course where you received this survey*.

Q1 What course are you completing this survey for?

Multiple choice question with answers being the courses you are sending this survey to

Q2 How satisfied or dissatisfied are you with this course overall?

- Very satisfied
- Somewhat satisfied
- Somewhat dissatisfied
- Very dissatisfied

Q3 How does this course meet?

- Only online
- Only in person
- Both online and in person

This is a great place to modify the language in the survey to reflect how you describe various modalities on your campus.



Display This Question:

If How does this course meet? = Only online

Or How does this course meet? = Both online and in person

Q4 Does this course include synchronous classes in which the instructor and students are online together at the same time?

- Yes
- No



Display This Question:

If How does this course meet? = Only online

Q5 How many students attend a typical course meeting? (If you're not sure, please make your best guess.)

- Fewer than 20
- 20-35
- 36-75
- More than 75

Modify the answers to what makes sense for your campus. For example, if all classes are capped at 25 students, this set of questions may not be needed or may need options like 0-10 students, 10-15 students, 15-20 students, 20-25 students.



Display This Question:

If How does this course meet? = Only online

Q6 How many students attend a typical course meeting?

- Fewer than 20
- 20-35
- 36-75
- More than 75



Display This Question:

If How does this course meet? = Both online and in person

And Does this course include synchronous classes in which the = Yes

Q7 How many students attend a typical online course meeting? (If you're not sure, please make your best guess.)

- Fewer than 20
- 20-35
- 36-75
- More than 75



Display This Question:

If How does this course meet? = Both online and in person

Q8 How many students attend a typical in person course meeting?

- Fewer than 20
- 20-35
- 36-75
- More than 75

Q9 Given a choice, how would you have preferred to take this course?

- Only online
- Only in person
- Both online and in person

Q10 Which of these are included in this course?

	Included	Not Included
Q10a Assignments to work on group projects outside of class		
Q10b The instructor using examples from the real world to illustrate the course content		
Q10c Frequent quizzes or other assessments		
Q10d Assignments asking you to self-evaluate what you've learned and what you still need to learn		
Q10e Personal messages from the instructor about how you're doing in the course		
Q10f The instructor identifying the most important points in the course content		
Q10g Assignments that let you apply course concepts to things you care about personally or professionally		
Q10h Required independent learning using an app or website with an instructor present		
Q10i Time set aside during a live class for work in small groups or pairs		

Not all items will apply to all courses. You should exclude items that don't align with your course activities.



Display This Question:

If Does this course include synchronous classes in which the instructor = Yes
And Which of these are included in this course? = Time set aside during a
live class for work in small groups or pairs [Included]

Q11 What kind of classes in this course include time set aside during a live class for work in small groups or pairs?

- Only online
- Only in person
- Both online and in person



Display This Question:

If Does this course include synchronous classes in which the instructor = Yes

Q12 Which of these activities are included in your synchronous classes in which students and the instructor are online together?

	Included	Not Included
Q12a Whole-class discussion		
Q12b "Mini-lectures" or other short pieces of instruction followed by checks for understanding		
Q12b Live demonstrations of how to solve a problem		
Q12c Live lectures that last for most of the class period		
Q12d "Breakout groups" with students working together to solve a problem		

Q13 Have you accessed tech support for help with computer or internet problems?

- Yes
- No



Display This Question:

If Which of these are included in this course? = Required independent learning using an app or website with an instructor present [Included]

Q14 Which of these are included in the work you do independently using an app or website with an instructor present?

- Fewer than 20
- 20-35
- 36-75
- More than 75

	Included	Not Included
Q14a Practice questions or problem sets		
Q14b Tests that count toward the course grade		
Q14c Recorded lectures conveying information about course topics		
Q14d Assignments using large data sets or simulations		
Q14e A combination of media, such as video, sound, animation, and graphs, as well as text		
Q14f Contributing to a discussion board or other online discussion forum		

This is another item that makes sense for some courses but not others. You should exclude items that don't align with your course.



Display This Question:

If How does this course meet? = Both online and in person

Q15 In terms of course content, how much is the online work in this course connected with the in-person work?

- A great deal
- A good amount
- Just some
- Not at all

Q16 How would you rate your course in terms of each of these items?

	Excellent	Good	Not so good	Poor
Q16a Organization of course materials so it's easy to find what you need				
Q16b Availability of help with course content from your instructor				
Q16c Ensuring that students are aware of resources to help with course content, such as a campus learning or tutoring center				
Q16d Clear explanations of course goals and requirements				
Q16e Course content adjusted to your level of understanding				
Q16f Variety in learning activities and assignments				
Q16g Activities that involve critical thinking, not just memorizing				
Q16h Use of materials or content representing diverse individuals				
Q16i Clear schedule for assignments and assessments				
Q16j Helpful instructor feedback on your drafts or works in progress (not just a grade)				



Display This Question:

If How does this course meet? = Both online and in person

Q17 How helpful are the parts of the course you do online in preparing you to do well on the examinations or other assignments that count most heavily toward your grade?

- Very helpful
- Somewhat helpful
- Not so helpful
- Not at all helpful

Q18 How would you rate your course on each of these items?

	Excellent	Good	Not so good	Poor
Q18a Helping you learn the course content well				
Q18b Including activities that stimulate your curiosity				
Q18c Motivating you to learn more about the subject				
Q18d Giving you knowledge you can apply to activities outside of this course				
Q18e Helping you feel comfortable participating in class discussions (Skip if no discussions)				
Q18f Making you feel like a valuable member of the class				
Q18g Helping you learn to be a better learner				

Q19 Please think about the instructor who teaches this course. (If there is more than one instructor, think about the person who spends the most time teaching you.) How would you rate the instructor on each of these items?

	Excellent	Good	Not so good	Poor
Q19a Treating you fairly				
Q19b Expressing confidence that you can master the content of this course				
Q19c Showing they care about how well you do in the course				
Q19d Encouraging students' diverse perspectives				
Q19e Welcoming recommendations for how to improve the course				
Q19f Allowing you to share your ideas, perspectives, and experiences in ways that are comfortable for you				

•

Q20 How much, if at all, do you talk about this course with your classmates outside of class?

- A great deal
- A good amount
- Just some
- Not at all



Display This Question:

If How much, if at all, do you talk about this course with your classmates =
A great deal

Or How much, if at all, do you talk about this course with your classmates =
A good amount

Or How much, if at all, do you talk about this course with your classmates =
Just some

Q21 Thinking about the classmates you talk with about the course, how often do they do each of the following?

	Often	Sometimes	Occasionally	Rarely
Q21a Try to understand your ideas, perspectives, and experiences				
Q21b Show they care about you as a person				
Q21c Express the belief that you will succeed in the course				

Q22 Have these things been a problem for you, or not a problem, in taking this course? (Skip any that don't apply.)

	Major problem	Somewhat of a problem	Occasionally	Rarely
Q22a Fitting the course in with your home/family responsibilities				
Q22b Finding a quiet place where you could work on the course				
Q22c Staying motivated to do well in the course				
Q22d Being able to understand the text in your reading assignments				
Q22e Cost of the course textbook				
Q22f Cost of software used in the course				
Q22g Ability for course materials to load/run on your computing device				
Q22h Finding an adequate internet connection				



Display This Choice (Q22h):

If How does this course meet? = Only online

Or How does this course meet? = Both online and in person

Q23 Which of these best describes the grade you expect to get in this course?

- A
- B
- C
- D or F
- Pass
- Fail
- Incomplete



Display This Question:

If How does this course meet? = Only online

Or How does this course meet? = Both online and in person

Q24 What kind of computing device do you use most often for accessing this course?

- Desktop computer
- Laptop
- Tablet
- Smartphone



Display This Question:

If How does this course meet? = Only online

Or How does this course meet? = Both online and in person

Q25 Which best describes this device:

- A personal device only used by you
- A personal device shared with others
- A device in your college's computer lab
- A shared device in a public place



Display This Question:

If How does this course meet? = Only online

Or How does this course meet? = Both online and in person

Q26 How do you most often get internet access for this course?

- Internet access at my home (off campus)
- Internet access at my college (on campus)
- Public access in another location
- Other (please specify) _____

Q27 In this course, have you ever felt marginalized, meaning that you have less power, rights, privileges, or access than other students, or not?

- Yes
- No



Display This Question:

If In this course, have you ever felt marginalized, meaning that you have less power, rights, privileges, or access than other students, or not?= Yes

Q28 Please describe what contributed to your having felt marginalized in this course.

The next three questions are for classification purposes only.

Q29 Before this current academic term, how many college courses had you taken for credit?

- None
- 1-4
- 5-10
- More than 10



Display This Question:

If Before this current academic term, how many college courses had you taken for = 1-4

Or Before this current academic term, how many college courses had you taken for = 5-10

Or Before this current academic term, how many college courses had you taken for = More than 10

Q30 What is your average grade for the college courses you've taken in the past?

- A or A- (GPA 4.0 to 3.6)
- B- to B+ (GPA 3.5 to 2.6)
- C- to C+ (GPA 2.5 to 1.6)
- Less than C- (GPA 1.5 or less)



Display This Question:

If Before this current academic term, how many college courses had you taken for = 1-4

Or Before this current academic term, how many college courses had you taken for = 5-10

Or Before this current academic term, how many college courses had you taken for = More than 10

Q31 How many of your previous college courses were taught completely online?

- 0
- 1-3
- 4 or more

These last few items will provide us with the *demographic information* that we use to *disaggregate results*. Once disaggregated, we will summarize the findings to better understand your institution's equity successes and opportunities.

For sociodemographic questions, it's a good idea to share with participants **why** you are asking these questions and **how** you will use this data.

**Q32 Please select the identity/identities that most closely aligns with your own.
(Select all that apply.)**

- Black or African American
- Hispanic/Latinx
- White/European/Caucasian
- Indigenous, Alaska Native, or American Indian
- Asian
- Native Hawaiian or other Pacific Islander
- Another race/ethnicity not listed above

These categories were selected to align with census data. Modify them in alignment with your own.

Q33 How would you classify the location where you completed most of the course?

- Urban
- Rural
- Suburban

Q34 Please select your age below.

- Less than 18
- 18-22
- 23-24
- 25 or Older

Q35 What is your family's estimated annual income? If you are unsure, please make your best guess.

- Less than \$50,000
- Between \$50,000 and \$100,000
- More than \$100,000

Q36 What is your gender identity? Select all that apply

- Woman
- Man
- Cisgender
- Transgender
- Non-Binary
- Genderqueer
- Gender Non-Conforming
- Agender
- Two-Spirit
- Prefer not to specify
- Specify Below: _____

References

- Chi, M.T.H., Adams, J., Bogusch, E.B., Bruchok, C., Kang, S., Lancaster, M., Levy, R., Li, N., McEldoon, K.L., Stump, G.S., Wylie, R. Xu, D., & Yaghmourian, D.L. (2018). Translating the ICAP theory of cognitive engagement into practice. *Cognitive Science*, (42)6, 1777-1832. <https://doi.org/10.1111/cogs.12626>
- Chi, M.T.H., & Wylie, R. (2014). The ICAP framework: Linking cognitive engagement learning outcomes. *Educational Psychologist*, (49)4, 219-243. <https://doi.org/10.1080/00461520.2014.965823>
- Hammond, Z. (2018). Culturally responsive teaching puts rigor at the center: Q&A with Zaretta Hammond. *Learning Professional*, (39)5, 40-43. <https://learningforward.org/wp-content/uploads/2018/10/culturally-responsive-teaching-puts-rigor-at-the-center.pdf>
- Joo, Y.J., Lim, K.Y., & Kim, E.K. (2011). Online university students satisfaction and persistence: Examining perceived level of presence, usefulness and ease of use as predictors in a structural model. *Computers & Education*, (57)2, 1654-1664. <https://doi.org/10.1016/j.compedu.2011.02.008>
- Lamas, F. (2020, August 10). *Look at the numbers: A review of the demographic changes should motivate everyone in higher education, writes Frank Lamas*. Inside Higher Ed. <https://www.insidehighered.com/admissions/views/2020/08/10/look-demographic-indicators-should-motivate-change-higher-education#.Yzeq8s7a6Bk.link>
- Means, B., & Neisler, J., with Langer Research Associates. (2020). *Suddenly online: A national survey of undergraduates during the COVID-19 pandemic*. Digital Promise. https://digitalpromise.org/wp-content/uploads/2020/07/ELE_CoBrand_DP_FINAL_3.pdf
- Pennington, C.R., Heim, D., Levy, A.R., & Larkin, D.T. (2016, January 11). Twenty years of stereotype threat research: A review of psychological mediators. *PLOS One*, (11)1, Article e0146487. doi: 10.1371/journal.pone.0146487
- Peralta Community College District. (2020). Peralta online equity rubric, version 3.0 [Creative Commons license: BY-SA]. <https://web.peralta.edu/de/peralta-online-equity-initiative/equity/>
- Peters, V., & Means, B. (under review). Evidence-based teaching practices in higher education: A systematic review. *Journal of Higher Education*.
- Powell, R., Cantrell, S.C., Correll, P.K., & Malo-Juvera, V. (January 2017). *Culturally responsive instruction observation protocol*. Harvard Graduate School of Education. <https://rides.gse.harvard.edu/culturally-responsive-instruction-observation-protocol>
- Schoenfeld, A. H., & the Teaching for Robust Understanding Project. (2016). *An introduction to the teaching for robust understanding (TRU) framework*. Graduate School of Education. <http://truframework.org> or <http://map.mathshell.org/trumath.php>
- Suhre, C.J.M., Jansen, E.P.W.A., & Harskamp, E.G. (2007). Impact of degree program satisfaction on the persistence of college students. *Higher Education*, (54), 207-226. <https://doi.org/10.1007/s10734-005-2376-5>
- University of Kentucky. *Culturally responsive instruction observation protocol (CRIOP)*. <https://www.uky.edu/projectplace/criop>

Appendix A: Nationally Representative Sample Survey Results

While the Equity and Digital Learning Student Survey was designed as a formative tool to support professional learning and iterative improvement in courses, it can be helpful to have benchmarks for comparison. Below are the results from the Nationally Representative Sample. To note, these items reflect the first iteration of the survey, and do not necessarily align exactly with the survey above. Unless otherwise noted, * = <0.5 percent.

1. For all the questions following in this survey, please think about one particular course you are enrolled in at this time. If you are taking more than one course at present, please think about the course that is most important to you in terms of your future goals. What is the subject of this course?

[Blank Text Box]

2. How satisfied or dissatisfied are you with this [INSERT Q1 TEXT] course overall?

Satisfied			Dissatisfied			
NET	Very	Somewhat	NET	Somewhat	Very	Skipped
90	48	42	10	7	3	*

3. How does this course meet?

Only online	Only in person	Both online and in person	Skipped
77	5	18	*

4. [IF ONLINE OR HYBRID COURSE] Does this [INSERT Q1 TEXT] course include synchronous classes in which the instructor and students are online together at the same time?

Yes	No	Skipped
77	35	*

5. [IF ONLINE COURSE] How many students attend a typical course meeting? (If you're not sure, please make your best guess).

Fewer than 20	20 to 35	36 to 75	More than 75	Skipped
42	41	7	10	1

6. [IF IN-PERSON COURSE] How many students attend a typical course meeting?

Insufficient sample size (n=56).

7a. [IF HYBRID COURSE] How many students attend a typical in person course meeting?

<i>Fewer than 20</i>	<i>20 to 35</i>	<i>36 to 75</i>	<i>More than 75</i>	<i>Skipped</i>
65	27	8	*	0

7b. [IF HYBRID COURSE WITH SYNCHRONOUS ONLINE CLASS] How many students attend a typical online course meeting? (If you're not sure, please make your best guess).

<i>Fewer than 20</i>	<i>20 to 35</i>	<i>36 to 75</i>	<i>More than 75</i>	<i>Skipped</i>
54	22	16	7	1

8. Given a choice, how would you have preferred to take this [INSERT Q1 TEXT] course?

<i>Only online</i>	<i>Only in person</i>	<i>Both online and in person</i>	<i>Skipped</i>
31	37	32	*

9. Which of these are included in this [INSERT Q1 TEXT] course?

	<i>Included</i>	<i>Not included</i>	<i>Skipped</i>
a. Assignments to work on group projects outside of class	39	61	*
b. The instructor using examples from the real world to illustrate the course content	86	14	*
c. Frequent quizzes or other assessments	77	23	*
d. Assignments asking you to self-evaluate what you've learned and what you still need to learn	54	46	*
e. Personal messages from the instructor about how you're doing in the course	56	43	*
f. The instructor identifying the most important points in the course content	89	11	*
g. Assignments that let you apply course concepts to things you care about personally or professionally	71	29	1
h. Required independent learning using an app or website with no instructor present	67	33	*
i. Time set aside during a live class for work in small groups or pairs	39	61	*

10. [IF HYBRID COURSE AND INCLUDES TIME SET ASIDE DURING A LIVE CLASS FOR WORK IN SMALL GROUPS OR PAIRS] What kind of classes in this course include time set aside during a live class for work in small groups or pairs?

<i>Only online</i>	<i>Only in person</i>	<i>Both online and in person</i>	<i>Skipped</i>
14	35	51	0

11. [IF COURSE INCLUDES SYNCHRONOUS ONLINE CLASSES] Which of these activities are included in your synchronous classes in which students and the instructor are online together?

	<i>Included</i>	<i>Not included</i>	<i>Skipped</i>
a. Whole-class discussion	69	31	1
b. "Mini-lectures" or other short pieces of instruction followed by checks for understanding	65	35	*
c. Live demonstrations of how to solve a problem	67	32	1
d. Live lectures that last for most of the class period	86	14	1
e. "Breakout groups" with students working together to solve a problem	52	47	1

12. Does your school provide timely tech support to help with computer or internet problems?

<i>Yes</i>	<i>No</i>	<i>Skipped</i>
83	17	*

13. [IF COURSE INCLUDES REQUIRED INDEPENDENT LEARNING USING AN APP OR WEBSITE WITH NO INSTRUCTOR PRESENT] Which of these are included in the work you do independently using an app or website with no instructor present?

	<i>Included</i>	<i>Not included</i>	<i>Skipped</i>
a. Practice questions or problem sets	76	23	*
b. Tests that count toward the course grade	87	13	1
c. Recorded lectures conveying information about course topics	72	28	*
d. Assignments using large data sets or simulations	58	42	*
e. A combination of media, such as video, sound, animation, and graphs, as well as text	83	16	*

14. [IF HYBRID COURSE] In terms of course content, how much is the online work in this course connected with the in-person work? 14. [IF HYBRID COURSE] In terms of course content, how much is the online work in this course connected with the in-person work?

More			Less			
NET	A great deal	A good amount	NET	Just some	Not at all	Skipped
83	43	40	17	14	3	*

15. How would you rate your [INSERT Q1 TEXT] course in terms of each of these items?

	Better			Worse			Skipped
	NET	Excellent	Good	NET	Not so good	Poor	
a. Organization of course materials so it's easy to find what you need	89	44	45	10	9	1	1
b. Availability of help with course content from your instructor	87	41	46	13	10	3	*
c. Ensuring that students are aware of resources to help with course content, such as a campus learning or tutoring center	85	39	46	13	10	3	*
d. Clear explanations of course goals and requirements	91	46	45	8	7	2	*
e. Course content adjusted to your level of understanding	84	33	51	16	13	3	*
f. Variety in learning activities and assignments	82	31	51	18	15	3	1
g. Activities that involve critical thinking, not just memorizing	87	45	42	12	10	2	1
h. Use of materials or content representing diverse individuals	85	35	50	14	12	3	1
i. Clear schedule for assignments and assessments	91	52	39	8	7	1	1
j. Helpful instructor feedback on your drafts or works in progress (not just a grade)	76	34	41	24	18	6	1

16. [IF HYBRID COURSE] How helpful are the parts of the [INSERT Q1 TEXT] course you do online in preparing you to do well on the examinations or other assignments that count most heavily toward your grade?

More helpful			Less helpful			
NET	Very	Somewhat	NET	Not so	Not at all	Skipped
96	48	47	4	3	1	*

17. How would you rate your [INSERT Q1 TEXT] course on each of these items?

	Better			Worse			Skipped
	NET	Excellent	Good	NET	Not so good	Poor	
a. Helping you learn the course content well	87	36	51	12	9	3	1
b. Including activities that stimulate your curiosity	80	34	46	19	15	4	1
c. Motivating you to learn more about the subject.	85	39	46	14	11	3	1
d. Giving you knowledge you can apply to activities outside of this course	87	42	45	12	9	2	1
e. Helping you feel comfortable participating in class discussions (Skip if no discussions)	69	30	38	13	10	3	19
f. Making you feel like a valuable member of the class	77	31	46	21	16	5	2
g. Helping you learn to be a better learner	79	30	48	20	16	5	1

18. Please think about the instructor who teaches this course. (If there is more than one instructor, think about the person who spends the most time teaching you.) How would you rate the instructor on each of these items?

	Better			Worse			Skipped
	NET	Excellent	Good	NET	Not so good	Poor	
a. Treating you fairly	93	51	42	6	5	1	1
b. Expressing confidence that you can master the content of this course	85	43	41	14	11	3	2

	Better			Worse			
	NET	Excellent	Good	NET	Not so good	Poor	Skipped
c. Showing they care about how well you do in the course	93	51	42	6	5	1	1
d. Encouraging students' diverse perspectives	85	43	41	14	11	3	2
e. Welcoming recommendations for how to improve the course	81	38	43	18	13	4	1
f. Allowing you to share your ideas, perspectives, and experiences in ways that are comfortable for you	84	41	43	14	11	4	1

19. How much, if at all, do you talk about this course with your classmates outside of class?

More			Less			
NET	A great deal	A good amount	NET	Just some	Not at all	Skipped
30	10	20	70	31	39	1

20. [IF TALKS ABOUT THE COURSE WITH CLASSMATES OUTSIDE CLASS] Thinking about the classmates you talk with about the course, how often do they do each of the following?

	More			Less			
	NET	Often	Sometimes	NET	Occ.	Rarely/ never	Skipped
a. Try to understand your ideas, perspectives, and experiences	81	42	39	18	12	7	1
b. Show they care about you as a person	74	41	33	25	17	9	1
c. Express the belief that you will succeed in the course	78	40	38	21	12	9	1

21. Have these things been a problem for you, or not a problem, in taking this [INSERT Q1 TEXT] course? (Skip any that don't apply).

	More			Less			
	NET	Major	Somewhat	NET	Minor	Not a problem	Skipped
a. Fitting the course in with your home/ family responsibilities	32	10	22	66	26	40	2
b. Finding a quiet place where you could work on the course	23	8	15	76	22	54	2
c. Staying motivated to do well in the course	39	16	24	59	26	33	2
d. Being able to understand the text in your reading assignments	20	5	15	77	29	48	3
e. Cost of the course textbook	19	6	13	77	22	55	4
f. Cost of software used in the course	11	4	7	84	14	70	6
g. Ability for course materials to load/ run on your computing device	13	2	11	84	21	64	3
h. [IF ONLINE OR HYBRID COURSE] Finding an adequate internet connection	13	3	10	85	21	65	2

22. Which of these best describes the grade you expect to get in this course?

A-B								
NET	A	B	C	D or F	Pass	Fail	Incomplete	Skipped
86	52	35	9	1	2	*	1	*

23. [IF ONLINE OR HYBRID COURSE] What kind of computing device do you use most often for accessing this course?

Desktop computer	Laptop	Tablet	Smartphone	Skipped
17	79	3	2	*

24. [IF ONLINE OR HYBRID COURSE] Which best describes this device:

A personal device only used by you	A personal device shared with others	A device in your college's computer lab	A device shared in a public place	Skipped
92	6	1	1	1

25. [IF ONLINE OR HYBRID COURSE] How do you most often get internet access for this course?

<i>Internet access at my home (off campus)</i>	<i>Internet access at my college (on campus)</i>	<i>Public access in another location</i>	<i>Other</i>	<i>Skipped</i>
88	10	1	1	*

26. In this course, have you ever felt marginalized, meaning that you have less power, rights, privileges, or access than other students, or not?

<i>Yes</i>	<i>No</i>	<i>Skipped</i>
8	92	*

27. [IF FELT MARGINALIZED IN THIS COURSE] Please describe what contributed to your having felt marginalized in this course.

[Blank Text Box]

Our last few questions are for **classification purposes only**.

28. What kind of school is offering this course?

<i>4-year college or university</i>	<i>2-year community or technical college</i>	<i>Other</i>	<i>Skipped</i>
68	30	3	*

29. Is this a public institution (like a county or state school) or a private school/institute?

<i>Public</i>	<i>Private</i>	<i>Skipped</i>
83	17	*

28./29. NET table:

<i>4-year public college or university</i>	<i>4-year private college or university</i>	<i>2-year community or technical college</i>	<i>Other</i>	<i>Skipped</i>
53	15	30	3	*

30. Before this current academic term, how many college courses had you taken for credit?

<i>None</i>	<i>1-4</i>	<i>5-10</i>	<i>More than 10</i>	<i>Skipped</i>
5	12	16	67	*

31. [IF HAS TAKEN 1+ COURSES FOR CREDIT BEFORE THIS TERM] What is your average grade for the college courses you've taken in the past?

<i>A or A- (GPA 4.0 to 3.6)</i>	<i>B- to B+ (GPA 3.5 to 2.6)</i>	<i>C- to C+ (GPA 2.5 to 1.6)</i>	<i>Less than C- (GPA 1.5 or less)</i>
49	44	6	*

32. [IF HAS TAKEN 1+ COURSES FOR CREDIT BEFORE THIS TERM] How many of your previous college courses were taught completely online?

<i>None</i>	<i>1-3</i>	<i>4 or more</i>	<i>Skipped</i>
9	30	60	*

Appendix B: Nationally Representative Sample Survey

The survey was conducted using the nationally representative Ipsos KnowledgePanel® by Langer Research Associates, in which participants are randomly recruited via address-based sampling to participate in survey research projects online.

The survey was designed to include approximately 1,000 adults taking undergraduate college courses for credit in April 2021. Field work was conducted April 1-27, with email reminders sent to non-responders every two days until the end of the field period. Those who did not respond by April 15 received increased incentives (panel “points”) for participating; these incentives again were raised April 21 and April 26.

Of the 1,437 panelists who completed the survey, 1,022 were qualified college students. The median survey completion time was 9 minutes. Respondents who completed the survey in less than one-third of the median time were removed (nine cases), for a final sample size of 1,013.

Data were weighted using iterative proportional fitting to the following benchmark distributions of adult undergraduate college students with less than a bachelor’s degree from the 2019 American Community Survey:

- Gender (male, female) by age (18-20, 21-22, 23-29, 30+)
- Race/ethnicity (white, black, other, Hispanic, 2+ races)
- Census region (Northeast, Midwest, South, West)
- Education (high school, some college, associate degree)
- Household income (less than \$25,000, \$25,000-\$49,999, \$50,000-\$74,999, \$75,000-\$99,999, \$100,000-\$149,999, \$150,000+)
- Language proficiency (English-proficient Hispanic, bilingual or Spanish-proficient Hispanic, non-Hispanic)
- Hispanic nativity (U.S.-born Hispanic, not U.S.-born Hispanic, non-Hispanic)
- School type (public, private)

Weights were trimmed at 0.3 percent and 99.7 percent and rescaled to match the qualified respondent sample size. The average design effect for the final weight is 1.44, for a margin of error of 3.7 percentage points for the full sample. Error margins are larger for subgroups.

A table of unweighted, weighted, and benchmark distributions follows.

Table 4.

	Unweighted	Weighted	Benchmark
Male	30.9	44.9	45.2
Female	69.1	55.1	54.8
18-20	30.5	34.9	35.1
21-22	20.3	22.2	22.3
23-29	19.2	22.4	22.3
30+	29.9	20.5	20.4
18-20 Male	9.1	15.8	16.1
18-20 Female	21.4	19.1	19.0
21-22 Male	7.3	10.4	10.6
21-22 Female	13.0	11.8	11.8
23-29 Male	5.9	10.5	10.5
23-29 Female	13.3	11.9	11.8
30+ Male	8.6	8.2	8.1
30+ Female	21.3	12.3	12.2
White, non-Hispanic	53.3	51.0	50.8
Black, non-Hispanic	10.0	14.6	14.8
Other, non-Hispanic	4.3	7.8	8.1
Hispanic	27.0	23.2	23.1
2+ races, non-Hispanic	5.3	3.3	3.3
Northeast	13.1	15.2	15.1
Midwest	24.0	19.3	19.1
South	35.0	37.0	37.4
West	27.8	28.5	28.3

High School diploma/ GED	13.4	15.9	16.1
Some college, no degree	62.0	66.5	66.4
Associate degree	24.6	17.6	17.5
Less than \$25,000	22.6	16.0	15.9
\$25,000-\$49,000	24.4	17.6	17.5
\$50,000-\$74,999	16.5	16.9	16.8
\$75,000-\$99,999	13.6	13.3	13.2
\$100,000-\$149,999	13.3	18.4	18.3
\$150,000 or more	9.6	17.7	18.2
English-proficient Hispanic	8.5	7.6	7.5
Bilingual/ Spanish-proficient Hispanic	18.6	15.6	15.6
Non-Hispanic	73.0	76.8	76.9
U.S.-born Hispanic	21.7	17.9	17.8
Not U.S.-born Hispanic	5.3	5.3	5.3
Non-Hispanic	73.0	76.8	76.9
Public school	79.2	82.9	83.3
Private school	20.6	16.8	16.7