

Program Context This assessment focused on Biology 1B, a large introductory undergraduate course in the Department of Integrative Biology (IB). The course is typically taken in sequence with Biology 1A, administered by the Department of Molecular and Cell Biology (despite the lettering, the courses can be taken in either sequence and many students take Biology 1B before 1A). The course has an extremely large reach within UC Berkeley: around 600-800 students are enrolled each semester, resulting in an estimated 20% of Berkeley students taking Biology 1B at some point in their undergraduate careers. The course is required by 13 majors across four colleges.

Assessment Team Staff within the department of Integrative Biology initiated this assessment through applying for the GSAF program in Fall of 2016. I was selected as a fellow via this program. As a graduate student in IB I have been a Biology 1B GSI for four semesters, including this spring alongside this fellowship. A team across IB provided feedback, guidance and assistance periodically throughout the project. This team included:

- Jules Winters, a research associate in IB, directly oversaw my work and assisted with various aspects of the project, including the IRB application and supporting survey implementation. Jules
- David Ackerly, Professor and Associate Dean of L&S and faculty lead for the course. Prof. Ackerly maintained communication with the department chair and staff/faculty overseeing introductory biology sister courses (i.e., Biology 1A)
- Biology 1B staff, Joshua Povich supported implementation of the survey and encouraged compliance among current students and GSIs.
- Staff Supervisor Tamara Mau helped guide staff leading the project (i.e. Jules Winters) and will direct results to the department and administration
- Academic Coordinator Tim Herrlinger provided program context and will help translate results of project to curriculum committee
- IB Chair Robert Dudley was peripherally involved, and kept aware of major developments

Impetus and Purpose Biology 1B staff were motivated by “the desire to develop new resources, as well as enhance existing ones to improve student learning and success in Biology 1B and ultimately in STEM majors.” (Winters, GSAF Proposal Sept 16). The following questions were identified as starting points for improving course outcomes:

- What is the best way to support Biology 1B’s large group of diverse students?
- How are the tools provided to students being used? Is there opportunity for improvement?
- What knowledge do students have coming into Biology 1B about general biology, and how does that vary among individuals in the class?
- How best can we build comprehension and prepare students for upper-division courses?

As a very large course, Biology 1B has a substantial infrastructure surrounding it intended to provide a wide array of resources to help a diverse group of students succeed. Program staff sought to assess these tools and their relative effectiveness. The GSAF program was an opportunity to reflect on a specific aspect of the course (student resource use) with more depth and rigor than generally available on the generic end of semester evaluations.

The assessment data will potentially be used on three levels. First it will inform curriculum changes to Biology 1B in future semesters. Second, since the course is offered in sequence with Biology 1A, results may also inform the coordination between the two courses (e.g. which topics are covered when). Third, publication of our results will make any insights available to other departments and universities, reaching the broader science education community.

Guiding questions The broad goals outlined by the team above (i.e. see impetus and purpose) were refined into several questions, which guided development of survey questions. We referred back to this list constantly to ensure that every survey question directly helped answer at least one of these guiding questions.

- What resources are students using and how?
- Where do students need more support?
- How can we improve the resources students use to increase participation, attendance, and engagement?
- How are students' biological fields of interest (i.e. ecology, evolution, biodiversity) influenced by the different resources provided to them in lab?
- Are our resources accessible and inclusive enough to support our diverse population of students?

Here 'resources' refers to long inclusive list of learning tools provided to students, including lecture response technology (i.e. clickers), textbook resources (hard copy and online), lecture webcast, course website (bCourses), lab introductory readings, UGSI mentors, lab quizzes, and office hours among others.

Methods/Process My role as a fellow was to take the goals and questions outlined by the team and translate them into a survey instrument, which could be distributed to current Biology 1B students. I met weekly with Jules Winters to check in on our progress and outline goals for the next week.

First we gathered information and perspectives on the course. I met with several team members, as well as external groups such as the Biology Scholars Program (BSP). BSP was particularly helpful and clued us into both aspects of the course we perhaps would not have thought about (e.g. challenges specific to students with children) as well as tips for administering a survey (e.g. avoiding effects of stereotype threat by asking demographic questions at the end of a survey). We ultimately did not have time to meet with every group we wanted to but other groups that could have been helpful include the Disabled Students Program office, the Student Learning Center, student tutors, and past students in the course.

Early in the semester we administered a pre-survey on students background and impressions of the subject matter. We ran this survey early in the semester so as not to have to rely on student's recollection later in the semester. This was implemented in-class and on-paper with the aid of current GSIs.

The larger end-of-semester survey was drafted next using Qualtrics. I used several examples as templates including questions from the BSP and the Center for Teaching and Learning. In writing each question, I tried to ensure that it would give us an actionable answer and (by referring back to the guiding questions) was on topic. Once the survey was drafted we refined it by sending it back to the team for review.

We also ran a pilot test with students from the previous semester. We gathered these students through an email sent to the entire class from Fall 2016, offering pizza and drinks in exchange for an hour of their time. Seven students came to the session, a good number (fewer and we wouldn't have had enough input but many more and we wouldn't have been able to have a productive conversation with everyone). In that hour students took the survey, then we discussed their experiences all together. Between Jules and I, one of us facilitated the conversation and the other took notes and audio recorded the conversation. Our conversation focused on the following questions:

- What did you think the purpose of the survey was? What question(s) is the survey trying to answer?
- Did you feel like you could respond in a way that accurately represented how you felt?
- Were there any questions on the survey, that you found confusing or weren't sure what it was asking?
- What are we missing? What is unnecessary?

As part of the discussion, we also showed questions from the survey and asked students to clarify their interpretations of and responses to specific questions. This process helped us identify several problems. On the technical side, there were a few kinks in the distribution and execution of the survey, which arose while students were physically taking the survey. From the discussion after we learned that some of the language was not interpreted the way we intended and got other specific feedback. Timing the students while taking the survey also proved useful.

Once the survey was relatively final we applied for Institutional Review Board (IRB) approval. IRB approval isn't necessary if the aim is solely to improve the course, but is necessary to publish results. The IRB process is relatively straight forward, however, you must submit a finalized survey instrument so beginning survey design early enough to leave ample time for IRB is crucial.

To supplement survey data we reached out the Office of Planning and Analysis to get demographic and academic data on the student populations, which could be linked to our data via student IDs. Access to this data required FERPA and CITI training as well as approval from the campus FERPA officer. In addition, we combined the survey data with grades in the course.

Once we incorporated feedback from IRB, the pilot test, and our team the final draft of the survey was ready to launch. We distributed the survey during reading week and had it close the day before the final exam. Two reminder emails were sent over the 10-day survey window. Students were given 1 bonus point (out of 750 total in the course) for completing the survey. Though a fairly small incentive, this was enough to boost compliance up to 518 students (87%).

Results and next steps Once the survey closed we summarized the basic findings in a report, which aimed to capture generally student's responses without going into analysis or interpretation. This report was sent to the project team. In the fall, I will continue to work on the project, analyzing data. This information will be compiled into a more detailed report and used to make changes to the course in future semesters. In addition we aim to compile the results into a publishable paper.

Appendices (attached separately)

- i. Pre Survey
- ii. Pre Survey Data Summary
- iii. End of Semester Survey
- iv. End of Semester Survey Data Summary



Blue italics denotes text that is not visible to participants.

Question numbers will also not be visible to participants, instead they will see a progress bar.

Q1.1.

Introduction and Purpose

My name is Audrey Haynes. I am a graduate student working with Professor David Ackerly in the Department of Integrative Biology at the University of California, Berkeley.

I invite you to take part in our research study, which seeks to understand how students in Biology 1B use the various course materials and program resources offered throughout the semester. The purpose of this research is to evaluate the use and efficacy of learning resources provided to Biology 1B students. These data will be used to guide how best to serve the large and diverse group of students enrolled in Biology 1B and contribute to the pedagogical questions of the science education research community at large.

Procedures

If you agree to be in this study, you will be asked to complete the following survey about the course materials and resources you've used, and your exposure to biology content during this semester in Biology 1B. The survey is completed online. The survey should take about 30 minutes. Your participation in this survey is strictly voluntary.

You must be at least 18 years old to participate in this survey.

Benefits

There is no direct benefit to you from taking part in this study. We hope that the information gained from your participation in this study will help shape a positive learning experience for future students enrolled in Biology 1B.

Risks/Discomforts

- You are free to decline to answer any questions you don't wish to, or to stop the survey at any time. We hope you will answer as many questions as you can.
- As with all research, there is a chance that confidentiality could be compromised; however, we are taking strong precautions to minimize this risk.

Confidentiality

Your study data will be handled as confidentially as possible. If results of this study are published or presented, individual names and other personally identifiable information will not be used unless you give explicit permission for this below.

We will ask for your Cal student ID to be able to link your responses to this survey with demographic and academic data. Immediately after we have linked this information, we will replace your SID with an alternative ID, so that nothing we do subsequently will permit us to connect you with your responses. Your responses will be combined with other students' responses when results are reported. Because your confidentiality will be preserved, you can be as honest as possible.

The research data will be maintained for possible use in future research by our team. We will retain this data for up to 5 years after the study is over, and then they will be destroyed.

Compensation

You will not be paid for taking part in this study.

If you complete the survey, you will receive one bonus point towards your grade in Biology 1B.

Rights

Participation in research is completely voluntary.

You have the right to decline to participate or to withdraw at any point in this study without penalty or loss of benefits to which you are otherwise entitled.

Questions

If you have any questions or concerns about this study, you may contact any of the following members of the research team:

- Professor David Ackerly, Principal Investigator, at dackerly@berkeley.edu or (510) 664-7868.
- Audrey Haynes, Student Investigator, at audreyhaynes@berkeley.edu or (510) 643-5782

- Jules Winters, Administrative Contact at jwinters@berkeley.edu or (510) 643-0448.

If you have any questions or concerns about your rights and treatment as a research subject, you may contact the office of UC Berkeley's Committee for the Protection of Human Subjects, at 510-642-7461 or subjects@berkeley.edu

Q1.2.

Consent

If you agree to take part in the research, please click on the "Accept" choice below. Otherwise, click on "Decline" not to participate at all.

I have read the above statement, and

ACCEPT: I consent to participate in the survey. I am at least 18 years old.

DECLINE: I don't want to participate.

Q2.1. Please enter your student ID number.

Q3.1. Please identify what you consider to be the strengths of the Biology 1B **lectures**

Q3.2. Please identify what you consider to be the strengths of the Biology 1B **labs**

Q3.3. Please identify what you consider to be the strengths of the Biology 1B **course materials and resources** (bCourses, handouts, textbook, office hours etc)

Q3.4. Please identify area(s) where you think the Biology 1B **lectures** could be improved

Q3.5. Please identify area(s) where you think the Biology 1B **labs** could be improved

Q3.6. Please identify area(s) where you think the Biology 1B **course materials and resources** (bCourses, handouts, textbook, office hours etc) could be improved. Are there course materials, resources, study tools etc. you've used in other courses that you think Biology 1B students would benefit from?

Q3.7.

Looking back on the semester what challenged you most in this course.

Q4.1.

On average how **frequently** did you use each of the following **course materials** throughout the semester?

	<i>Was unaware this existed</i>	Never	1-2 times	3-5 times	6+ times	Once a week	More than once a week	Daily
Learning catalytics (in-class feedback software)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Review learning catalytics questions after class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pre-lab readings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lecture slides posted on bCourses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Practice exam questions posted on bCourses by professors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Additional readings on bCourses (e.g. how-to manuals etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Textbook (Campbell Biology)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q4.2.

On average how **frequently** did you use each of the following **external programs/social resources** throughout the semester?

	Was unaware this existed	Never	1-2 times	3-5 times	6+ times	Once a week	More than once a week	Daily
Disabled Students Program	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biology Scholars Program	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student Learning Center drop-in tutoring	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student Learning Center study groups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student Learning Center weekly worksheets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self-organized peer study groups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
GSI office hours	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Professor office hours	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q4.3. *only resources indicated on Q4.1 used either "never" or "once or twice" shown below*

You indicated that you infrequently or never used the following course materials.

What were the main reasons you did not use each? Check all that apply for each item.

	Did not think it would be helpful	Did not have time to access	Was too costly	Other (explain below)
Learning catalytics (in-class feedback software)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Review learning catalytics questions after class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pre-lab readings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lecture slides posted on bCourses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
Pre-lab readings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lecture slides posted on bCourses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Practice exam questions posted on bCourses by professors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Additional readings on bCourses (e.g. how-to manuals etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Textbook (Campbell Biology)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Disabled Students Program	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biology Scholars Program	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student Learning Center drop-in tutoring	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student Learning Center study groups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student Learning Center weekly worksheets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self-organized peer study groups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
GSI office hours	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Professor office hours	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q4.10. Using this improved my understanding of course content

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
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Learning catalytics (in-class feedback software)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Review learning catalytics questions after class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pre-lab readings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lecture slides posted on bCourses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Practice exam questions posted on bCourses by professors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Additional readings on bCourses (e.g. how-to manuals etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Textbook (Campbell Biology)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Disabled Students Program	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biology Scholars Program	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student Learning Center drop-in tutoring	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student Learning Center study groups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student Learning Center weekly worksheets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self-organized peer study groups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
GSI office hours	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Professor office hours	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q4.11. Using this improved my performance in the course

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
Professor office hours	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q5.1. How often did you attend lecture in person?

Always

Almost always

About 75% of the time

About 50% of the time

About 25% of the time

Almost never

Never

Q5.2. How did you primarily watch lectures?

Attended in person

Watched course capture (lecture webcast)

Used both

Q5.3. What was your primary reason for watching lectures on course capture?

Q5.3 and 5.4 only displayed if attended in person is not selected in 5.2

lecture conflicted with another class

lecture conflicted with job or family care

lecture conflicted with extracurriculars

8 AM lecture time

prefer course capture format better (briefly explain)

other

Q5.4. Please select the option that most closely explains your use of the course capture videos.

- watched lectures for the first time online the same day as the lecture
 - watched lectures for the first time online the same week as the lecture
 - watched lectures for the first time online in the week before the midterm
 - watched lectures online to review lecture seen in person
 - watched lectures a second time online to review for midterm
-

Q5.5. Were you able to watch all the lectures (either online or in person) before the midterms and final exams?

- Yes
 - Mostly
 - No
-
-

Q6.1. **Rate your agreement with the following statements**

Q6.2. The course was organized in a way that helped me learn

- Strongly agree
 - Agree
 - Somewhat agree
 - Neither agree nor disagree
 - Somewhat disagree
 - Disagree
 - Strongly disagree
-

Q6.3. bCourses was organized in a way that was easy to navigate

- Strongly agree
- Agree

Somewhat agree
Neither agree nor disagree
Somewhat disagree
Disagree
Strongly disagree

Q6.4. Instructions for course materials (including manuals, handouts, etc.) were clear

Strongly agree
Agree
Somewhat agree
Neither agree nor disagree
Somewhat disagree
Disagree
Strongly disagree

Q6.5. Resources in the course were easy to find

Strongly agree
Agree
Somewhat agree
Neither agree nor disagree
Somewhat disagree
Disagree
Strongly disagree

Q6.6. The lab sections are a good length

Strongly agree
Agree
Somewhat agree
Neither agree nor disagree
Somewhat disagree
Disagree

Strongly disagree

Q6.7. The lab period allowed me to explore a topic in depth

Strongly agree

Agree

Somewhat agree

Neither agree nor disagree

Somewhat disagree

Disagree

Strongly disagree

Q6.8. I was engaged in the activities for the majority of the lab period

Strongly agree

Agree

Somewhat agree

Neither agree nor disagree

Somewhat disagree

Disagree

Strongly disagree

Q6.9. At the end of lab I was unable to focus

Strongly agree

Agree

Somewhat agree

Neither agree nor disagree

Somewhat disagree

Disagree

Strongly disagree

Q6.10. I was able to get through the lab activities in the allotted time

Strongly agree
Agree
Somewhat agree
Neither agree nor disagree
Somewhat disagree
Disagree
Strongly disagree

Q7.1. Rate your agreement with the following statements

Q7.2. If I had a question there was someone I could ask

Strongly agree
Agree
Somewhat agree
Neither agree nor disagree
Somewhat disagree
Disagree
Strongly disagree

Q7.3. I felt like there was someone I could go to for help if I had trouble in this course

Strongly agree
Agree
Somewhat agree
Neither agree nor disagree
Somewhat disagree
Disagree
Strongly disagree

Q7.4. The faculty were approachable

Strongly agree
Agree
Somewhat agree
Neither agree nor disagree
Somewhat disagree
Disagree
Strongly disagree

Q7.5. The GSIs were approachable

Strongly agree
Agree
Somewhat agree
Neither agree nor disagree
Somewhat disagree
Disagree
Strongly disagree

Q7.6. The Undergraduate GSIs (UGSIs) were approachable

Strongly agree
Agree
Somewhat agree
Neither agree nor disagree
Somewhat disagree
Disagree
Strongly disagree
N/A

Q7.7. The staff and admin were approachable

Strongly agree
Agree
Somewhat agree

Neither agree nor disagree
Somewhat disagree
Disagree
Strongly disagree

Q8.1.

Rate your agreement with the following statements

Q8.2. The faculty were helpful

Strongly agree
Agree
Somewhat agree
Neither agree nor disagree
Somewhat disagree
Disagree
Strongly disagree

Q8.3. The GSIs were helpful

Strongly agree
Agree
Somewhat agree
Neither agree nor disagree
Somewhat disagree
Disagree
Strongly disagree

Q8.4. The Undergraduate GSIs (UGSIs) were helpful

Strongly agree

Agree
Somewhat agree
Neither agree nor disagree
Somewhat disagree
Disagree
Strongly disagree
N/A

Q8.5. The staff and admin were helpful

Strongly agree
Agree
Somewhat agree
Neither agree nor disagree
Somewhat disagree
Disagree
Strongly disagree

Q8.6. The lab complemented my understanding of the lectures

Strongly agree
Agree
Somewhat agree
Neither agree nor disagree
Somewhat disagree
Disagree
Strongly disagree

Q8.7. The course provided an appropriate balance between instruction and practice

Strongly agree
Agree
Somewhat agree
Neither agree nor disagree

Somewhat disagree

Disagree

Strongly disagree

Q8.8. Pre-lab readings prepared me well for lab activities

Strongly agree

Agree

Somewhat agree

Neither agree nor disagree

Somewhat disagree

Disagree

Strongly disagree

Q8.9. Pre-lab readings prepared me well for lab quizzes

Strongly agree

Agree

Somewhat agree

Neither agree nor disagree

Somewhat disagree

Disagree

Strongly disagree

Q8.10. The lab quizzes provided the opportunity to practice the skills required in the exams

Strongly agree

Agree

Somewhat agree

Neither agree nor disagree

Somewhat disagree

Disagree

Strongly disagree

Q8.11. The lab quizzes provided the opportunity to practice the skills required in the exams

Strongly agree

Agree

Somewhat agree

Neither agree nor disagree

Somewhat disagree

Disagree

Strongly disagree

Q8.12. The lab activities provided the opportunity to practice the skills required in the exams

Strongly agree

Agree

Somewhat agree

Neither agree nor disagree

Somewhat disagree

Disagree

Strongly disagree

Q8.13. Other available resources such as those listed previously (office hours, midterm practice questions, SLC study groups etc.) provided the opportunity to practice the skills required in the exams

Strongly agree

Agree

Somewhat agree

Neither agree nor disagree

Somewhat disagree

Disagree

Strongly disagree

Q8.14. My previous Biology experience (high school or college coursework, research positions etc) prepared me well for this course.

Strongly agree

Agree

Somewhat agree

Neither agree nor disagree

Somewhat disagree

Disagree

Strongly disagree

Q8.15. Lab quizzes were fair

Strongly agree

Agree

Somewhat agree

Neither agree nor disagree

Somewhat disagree

Disagree

Strongly disagree

Q8.16. Lab quizzes allowed me to demonstrate my knowledge of the material

Strongly agree

Agree

Somewhat agree

Neither agree nor disagree

Somewhat disagree

Disagree

Strongly disagree

Q9.4. The subject material was difficult

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
in the Evolution section	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
in the Ecology section	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
in the Plant Biology section	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q9.5. How interested are you in each of the Biology 1B sections as a field of study in the future?

	Not interested at all	Slightly interested	Moderately interested	Very interested	Extremely interested
Evolution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ecology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Plant Biology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q10.1. On average, how many hours per week have you spent on this course, including attending lecture and lab, doing readings, reviewing notes, writing papers, and any other course-related work?

- 1-5 hours
 - 5-7 hours
 - 7-9 hours
 - 9-12 hours
 - 12-15 hours
 - 15+ hours
-

Q10.2. How satisfied were you with your effort in this course?

- Extremely satisfied
 - Moderately satisfied
 - Slightly satisfied
 - Neither satisfied nor dissatisfied
 - Slightly dissatisfied
 - Moderately dissatisfied
 - Extremely dissatisfied
-

Q10.3. What do you think your final letter grade will be in Biology 1B?

- A
 - B
 - C
 - D
 - F
-
-
-

Q11.1. Any other thoughts about your experience in Biology 1B that we should know?

Q12.1. Do you intend to pursue scientific research opportunities while at Berkeley

- Definitely will
- Probably will

Maybe will
Might or might not
Maybe will not
Probably will not
Definitely will not

Q12.2. Do you intend to pursue a science-related career and/or advanced degree?

Definitely will
Probably will
Maybe will
Might or might not
Maybe will not
Probably will not
Definitely will not

Q12.3. Do you intend to pursue a health science career and/or advanced degree (e.g. MD, MPH etc)?

Definitely will
Probably will
Maybe will
Might or might not
Maybe will not
Probably will not
Definitely will not

Q12.4. Do you intend to pursue a career in which you conduct scientific research?

Definitely will
Probably will
Maybe will
Might or might not
Maybe will not

Probably will not

Definitely will not

Q12.5. In the past semester were you involved in any research activities outside of Biology 1B?

A great deal

A lot

A moderate amount

A little

None at all

Q12.6.

Check all research activities that you've ever been engaged in (besides in Biology 1B):

Hands-on activities with lab equipment for a class

Worked in a lab on campus

Worked in research off campus

Designed your own research experiment

Conducted research with an unknown outcome

Contributed to research that advanced human knowledge (no matter how small)

None of the above

Q13.1. **Rate your agreement with the following statements**

Q13.2.

Scientific research can solve many of the world's challenges

Strongly agree

Agree

Somewhat agree

Neither agree nor disagree
Somewhat disagree
Disagree
Strongly disagree

Q13.3. A scientific education is valuable, even if you do not become a scientist

Strongly agree
Agree
Somewhat agree
Neither agree nor disagree
Somewhat disagree
Disagree
Strongly disagree

Q13.4. Conducting research that builds the world's scientific knowledge is valuable

Strongly agree
Agree
Somewhat agree
Neither agree nor disagree
Somewhat disagree
Disagree
Strongly disagree

Q13.5. I feel like I belong in the field of science

Strongly agree
Agree
Somewhat agree
Neither agree nor disagree
Somewhat disagree
Disagree
Strongly disagree

Q13.6. I would like to think of myself as a scientist.

Strongly agree
Agree
Somewhat agree
Neither agree nor disagree
Somewhat disagree
Disagree
Strongly disagree

Q13.7. I have come to think of myself as a scientist.

Strongly agree
Agree
Somewhat agree
Neither agree nor disagree
Somewhat disagree
Disagree
Strongly disagree

Q14.1. Thinking back over the past semester, how would you say your general health has been?

Excellent
Good
Average
Poor
Terrible

Q14.2. **Thinking back over the past semester, how often have you..**

Q14.3. Felt unable control important things in your life?

- Always
 - Most of the time
 - About half the time
 - Sometimes
 - Never
-

Q14.4. Felt confident in your ability to succeed in school?

- Always
 - Most of the time
 - About half the time
 - Sometimes
 - Never
-

Q15.1. What is your age?

Q15.2. What is your gender?

- Male
 - Female
 - Non-binary/Third gender
 - Prefer to self-describe
 - Prefer not to say
-

Q15.3. Do you identify as transgender?

Yes

No
Prefer not to say

Q15.4. Which of the following best describes your current status?

Single
Living with significant other
Married or in domestic partnership
Divorced or separated
Widowed
Other

Q15.5. Do you have children?

Yes
No

Q15.6. Are you the primary caregiver for anyone else (parents, grandparents etc) ?

Yes
No

Q15.7. Where do you currently live?

Dorm
With family
Sorority/fraternity
Co-op
Other off campus housing
Other

Q15.8. On a typical day how long does it take for you to get to campus?

10 min or less

10-29 min

30-59 min

1-2 hours

2+ hours

Q15.9. Approximately how much money do you currently owe that is directly related to the cost of your education?

Q15.10. What is your best estimate for your personal income this past year? (Not your parent and/or guardians)

Less than \$10,000

\$10,000 - \$14,999

\$15,000 - \$19,999

\$20,000 - \$24,999

\$25,000 - \$34,999

\$35,000 - \$49,999

\$50,000-\$74,999

More than \$75,000

Q15.11. What type of financial support do you currently have?

Select all that apply

Loans

Grants/scholarships

Paid job (on campus)

Paid job (off campus)

Family

Other (please explain)

Q15.12.

How concerned are you about your personal and education finances?

A great deal

A lot

A moderate amount

A little

Not at all

Q15.13. Did you have sufficient financial support in the past month to cover your tuition, housing and food costs?

Always

Most of the time

About half the time

Sometimes

Never

Q15.14. How would you describe yourself?

Check all that apply

African-American/Black

American Indian, Alaska Native, or First Nations

Asian

Asian Indian

Hispanic, Latino, or Spanish

Middle Eastern or North African

Native Hawaiian or Pacific Islander

White or European

Other race, ethnicity, origin

Q15.15.

Growing up, how often was English used in your household?

Always
Most of the time
About half the time
Sometimes
Never

Q15.16.

Before college, was English the primary language of instruction at school?

Yes

No

Submit Survey

Q16.1. Thank you for completing our survey. If you would like to edit any of your responses press the back button.

SUBMIT responses

Powered by Qualtrics

Condensed Item Analysis with Statistics Report

Bio 1B Background Survey

Spring 2017

Participating subjects

Evolution

Response	Frequency	Percent	Standard Dev: 0.65	Median: 3.00	Mean: 2.44
3	298	53.02			
2	214	38.08			
1	49	8.72			
No Response	1	0.18			

Ecology

Response	Frequency	Percent	Standard Dev: 0.67	Median: 2.00	Mean: 2.24
3	209	37.19			
2	276	49.11			
1	74	13.17			
No Response	3	0.53			

Plant Biology

Response	Frequency	Percent	Standard Dev: 0.75	Median: 2.00	Mean: 1.99
3	155	27.58			
2	243	43.24			
1	161	28.65			
No Response	3	0.53			

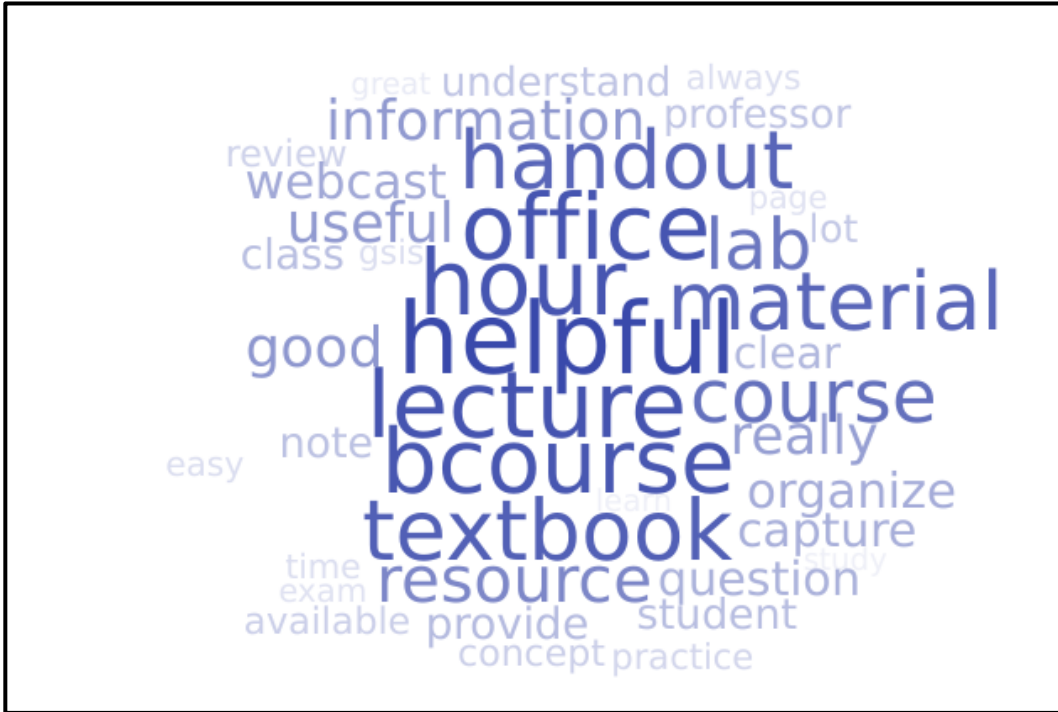
Previous Biology

Response	Frequency	Percent	Standard Dev: -	Median: -	Mean: -
A	192	34.16			
B	280	49.82			
C	336	59.79			
D	96	17.08			
E	198	35.23			
F	37	6.58			
No Response	5	0.89			

Previous Biology #2

Response	Frequency	Percent	Standard Dev: -	Median: -	Mean: -
G	101	17.97			
H	68	12.10			
I	19	3.38			
J	184	32.74			
K	33	5.87			
No Response	295	52.49			
Invalid	1	0.18			

Q7 - Please identify what you consider to be the strengths of the Biology 1B course materials and resources (bCourses, handouts, textbook, office hours etc)



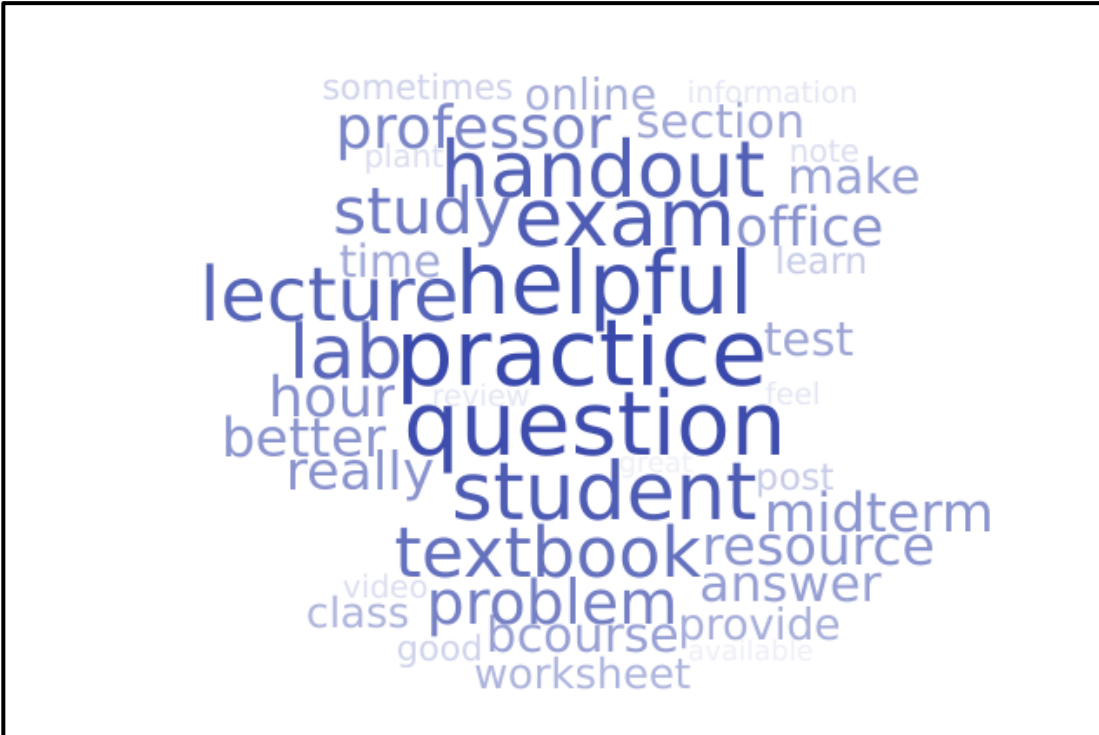
Q8 - Please identify area(s) where you think the Biology 1B lectures could be improved



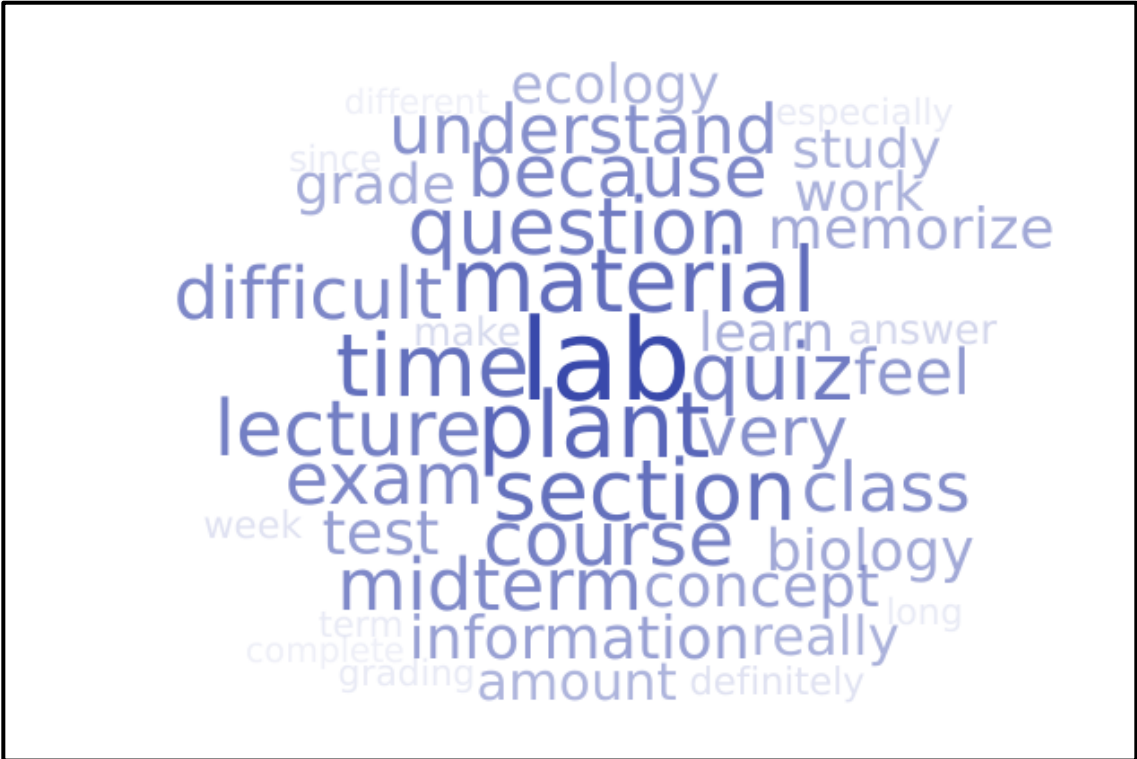
Q9 - Please identify area(s) where you think the Biology 1B labs could be improved



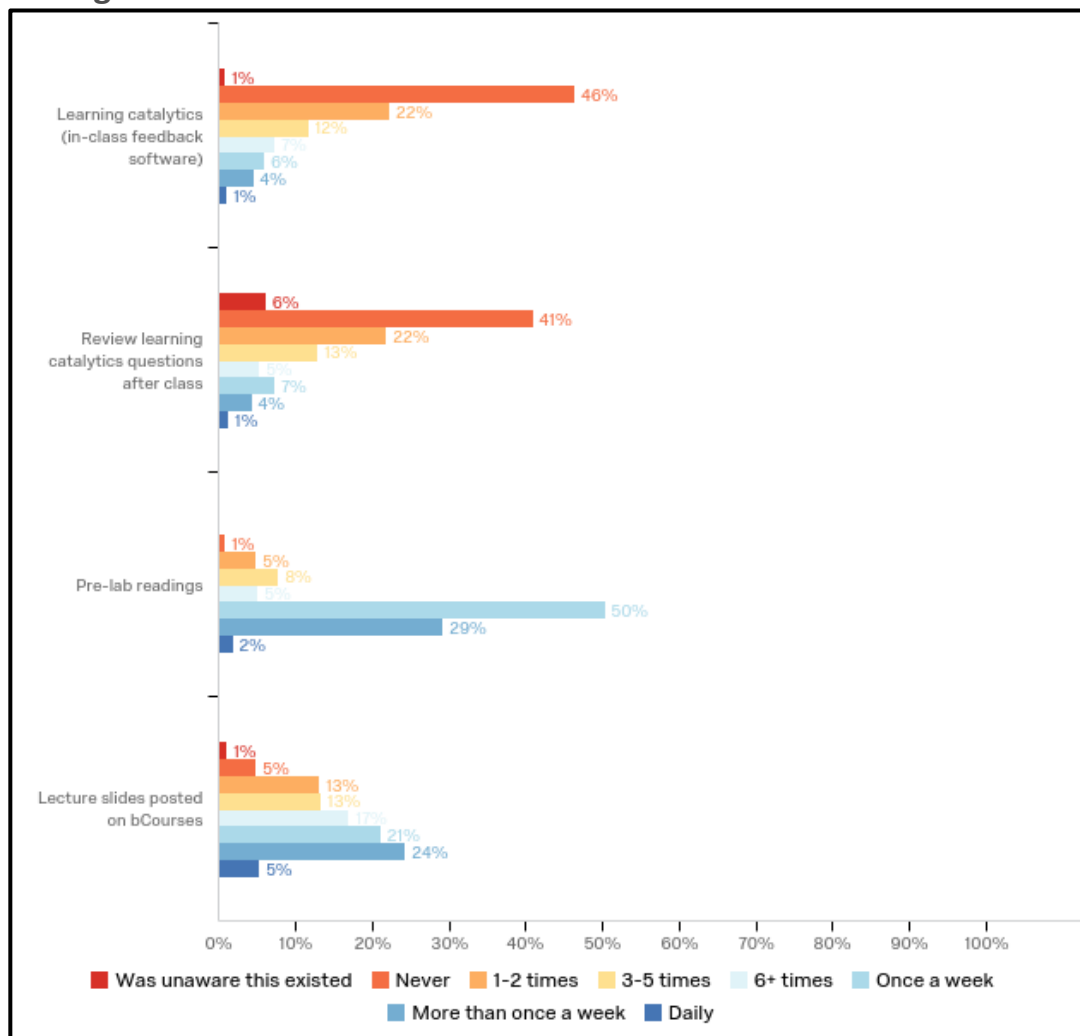
Q10 - Please identify area(s) where you think the Biology 1B course materials and resources (bCourses, handouts, textbook, office hours etc) could be improved. Are there course materials, resources, study tools etc. you've used in other courses that you think Biology 1B students would benefit from?



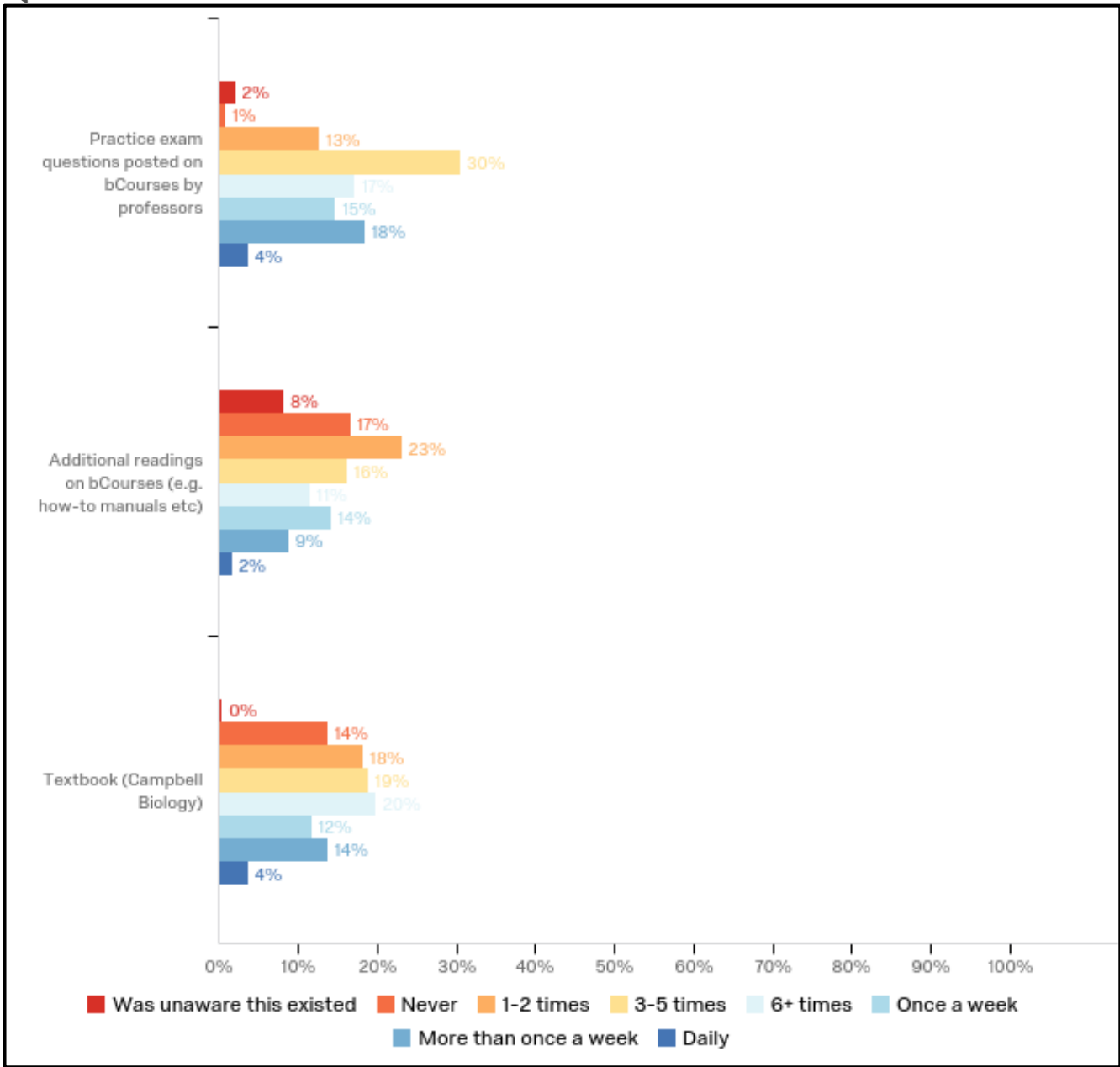
Q11 - Looking back on the semester what challenged you most in this course?



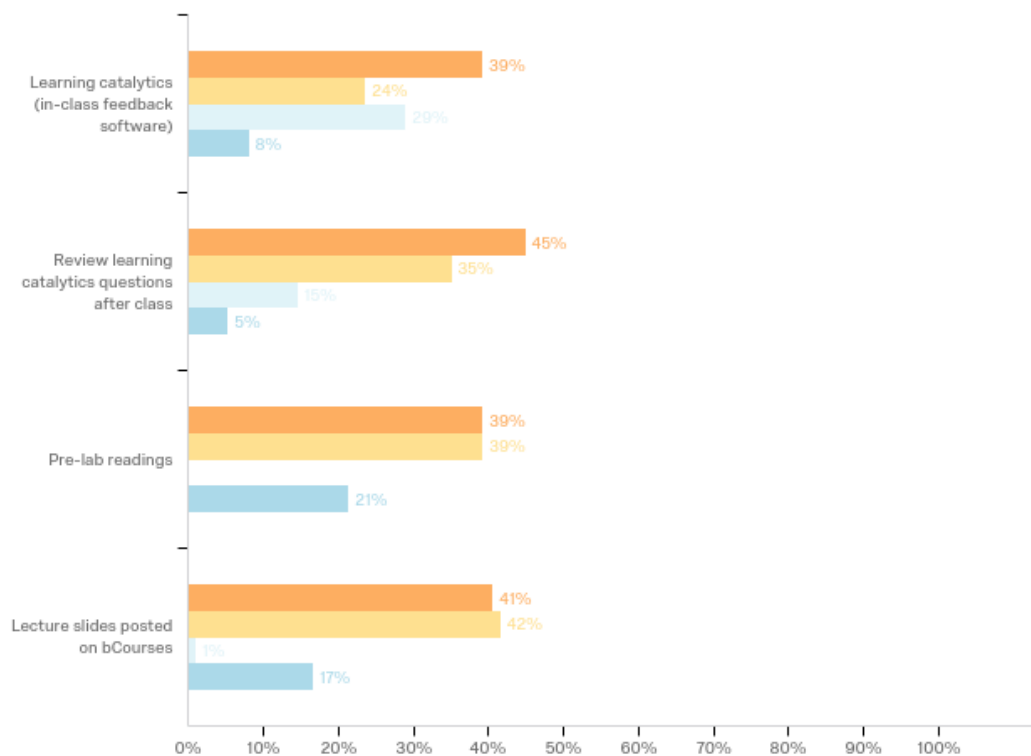
Q12 - On average, how frequently did you use each of the following course materials throughout the semester?



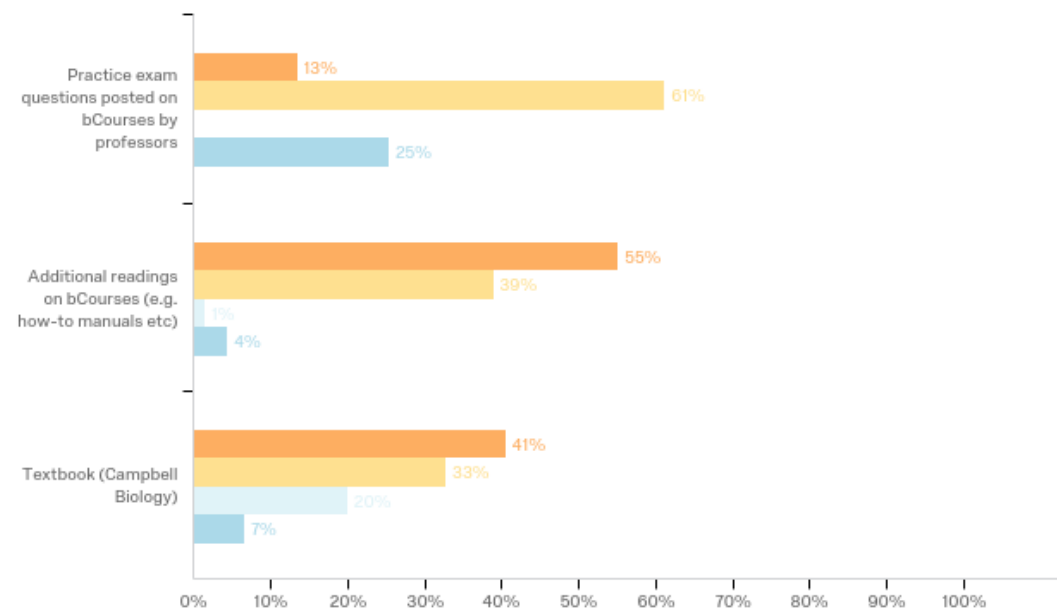
Q12 – continued...



Q14 – Follow-up to Q12 - You indicated that you infrequently or never used the following course materials. What were the main reasons you did not use each? Check all that apply for each item.

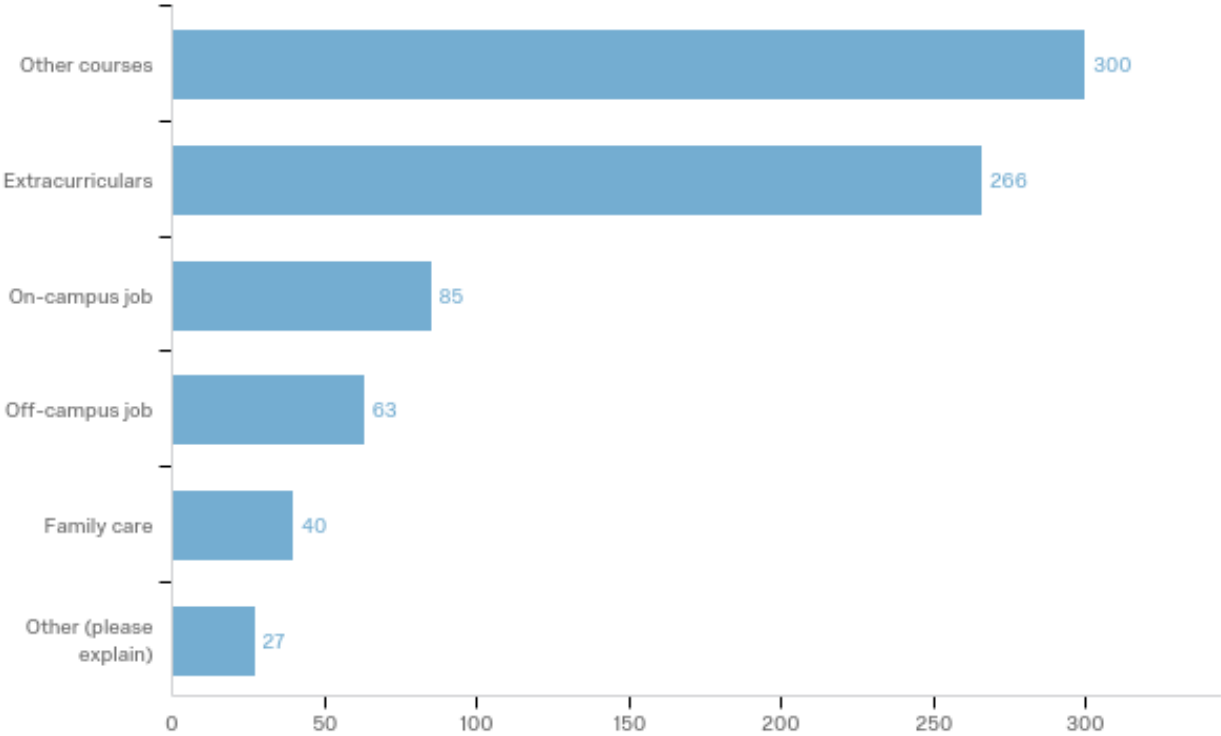


■ Did not think it would be helpful
 ■ Did not have time to access
 ■ Was too costly
 ■ Other (explain below)



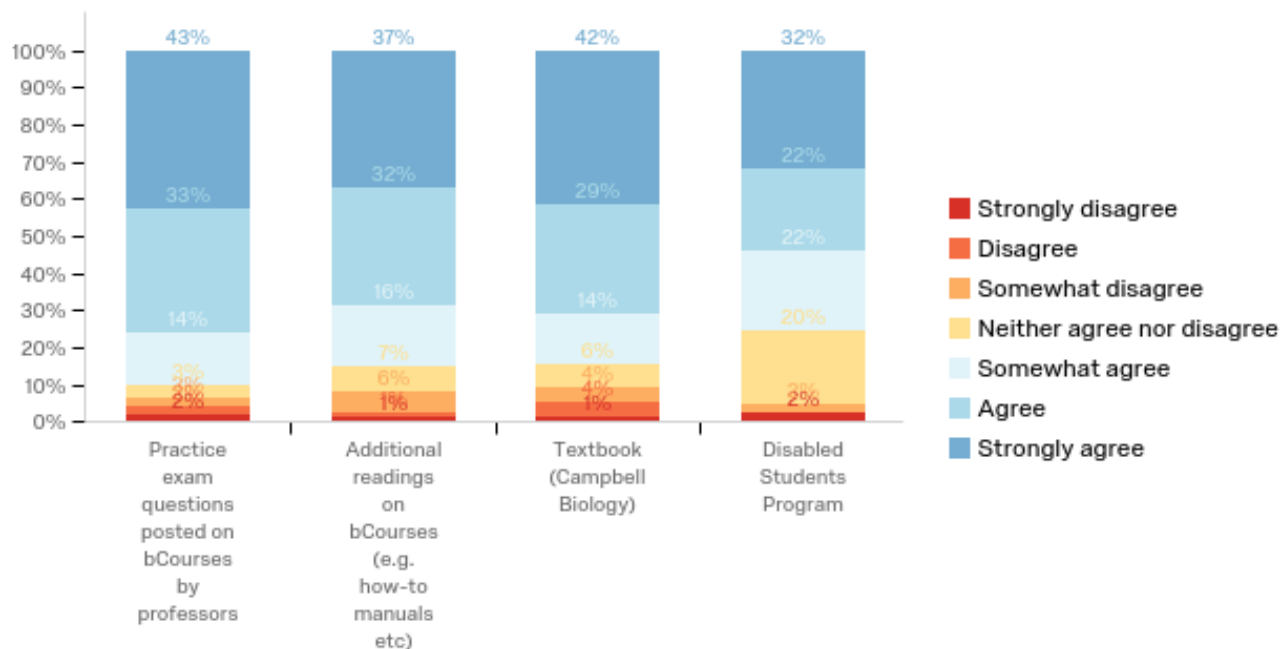
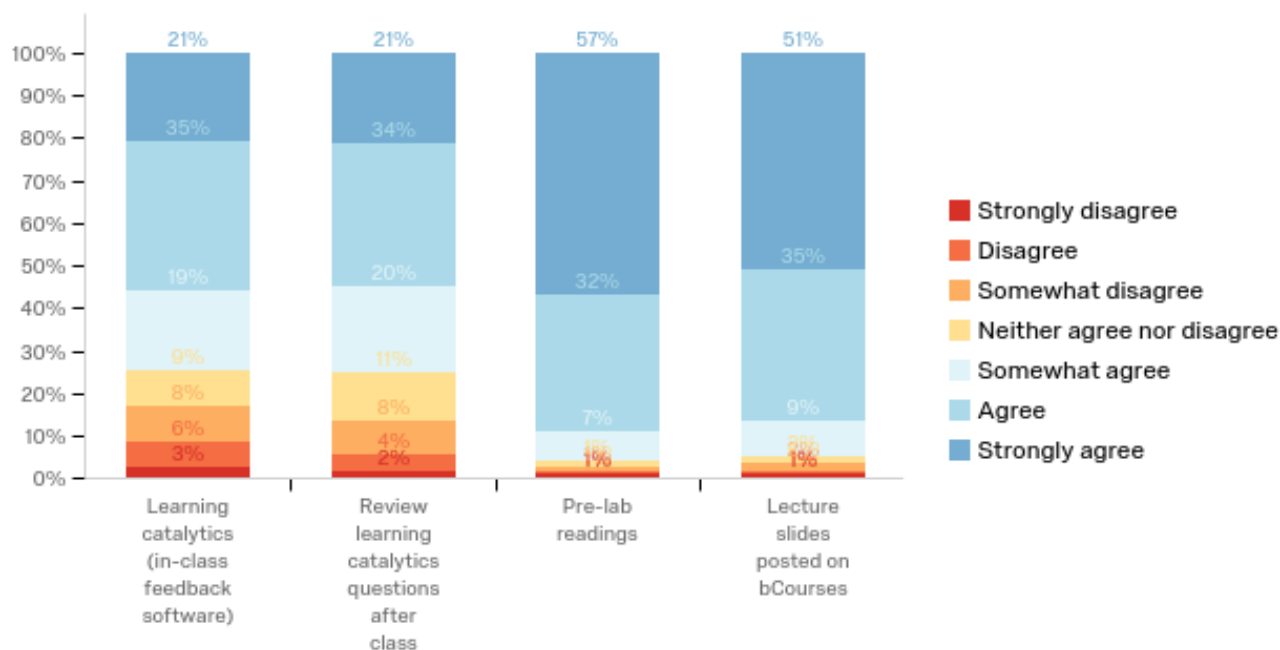
■ Did not think it would be helpful
 ■ Did not have time to access
 ■ Was too costly
 ■ Other (explain below)

Q18 – Follow up to Q14 - You indicated that you did not have time to access the above resources. What were the major reason(s)? Check all that apply.

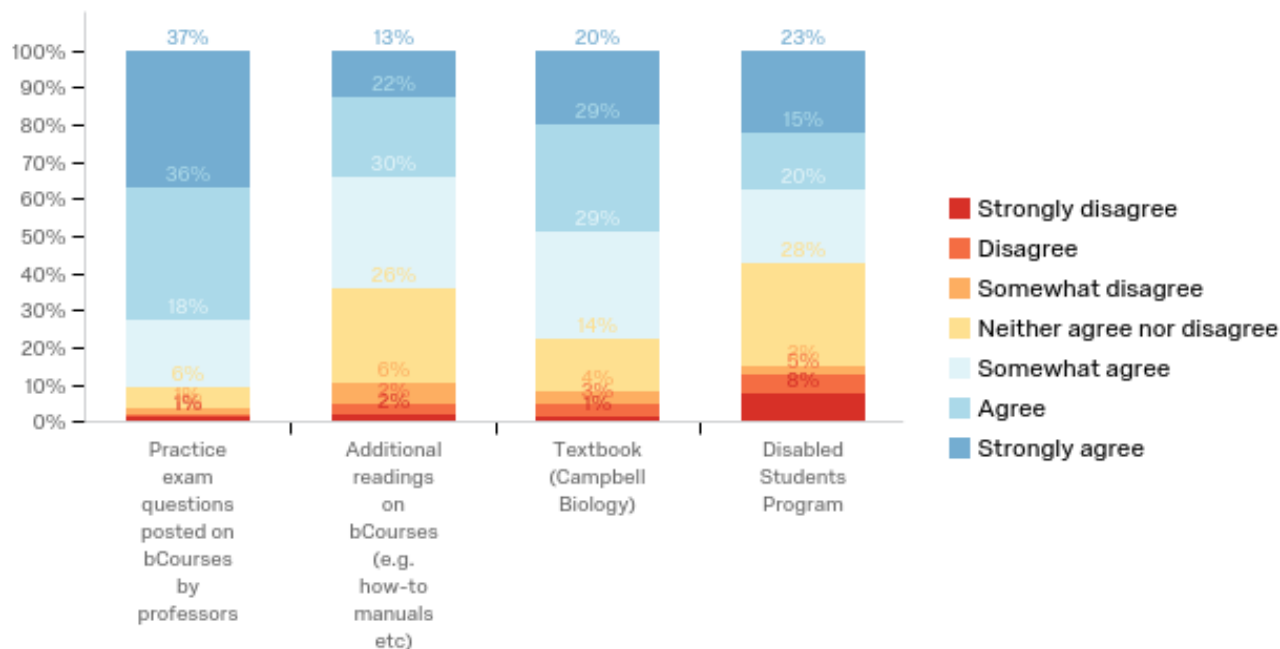
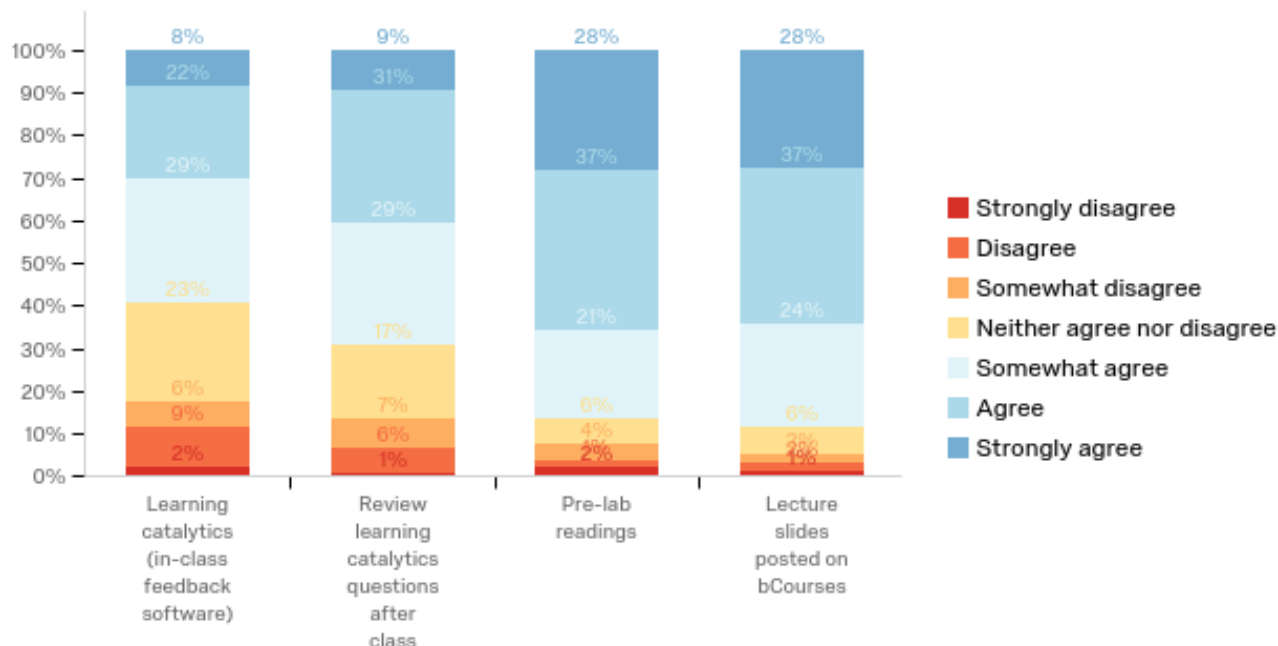


Q20 - I could easily access this resource

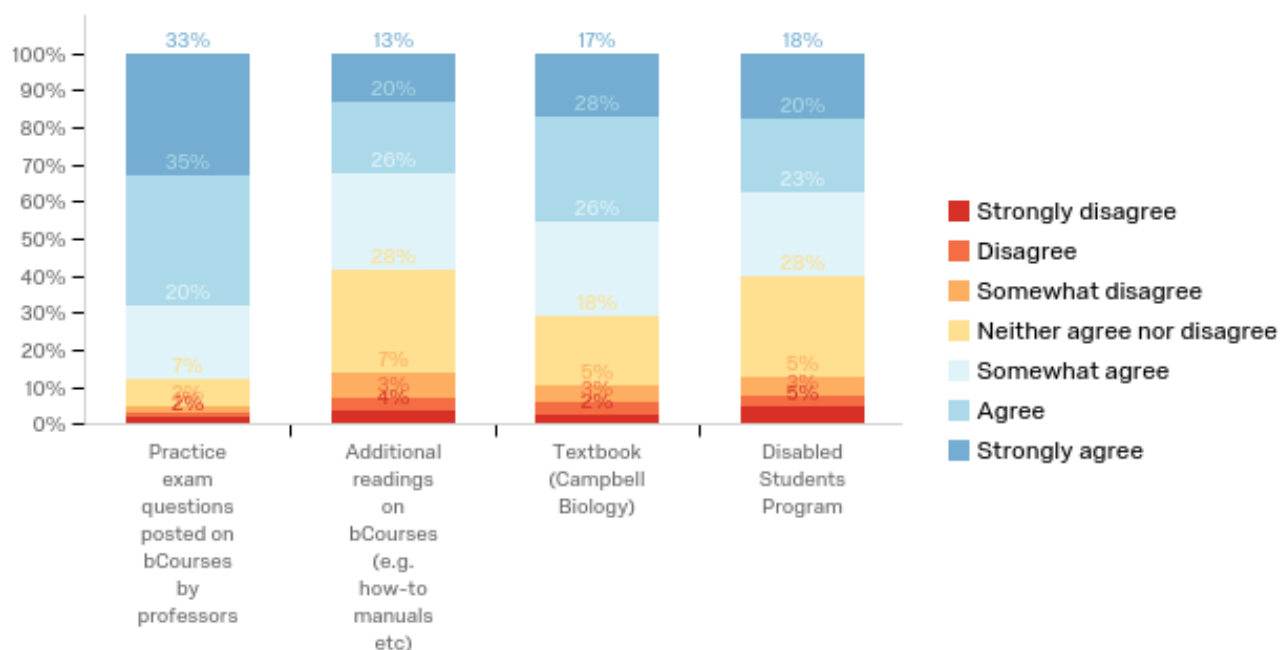
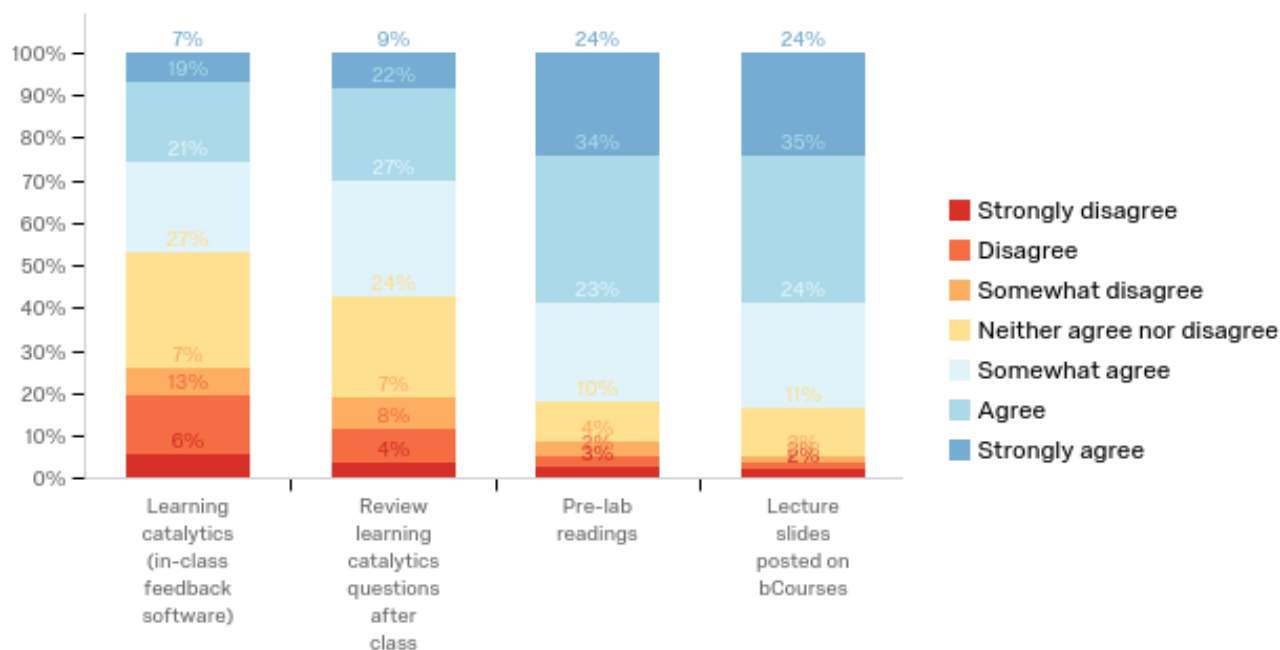
Note: Q20-Q22 only showed resources to a participant that the respondent indicated in Q12 and Q13 they used. Therefore the count totals for each resource vary, but they are normalized to percent in graphics.



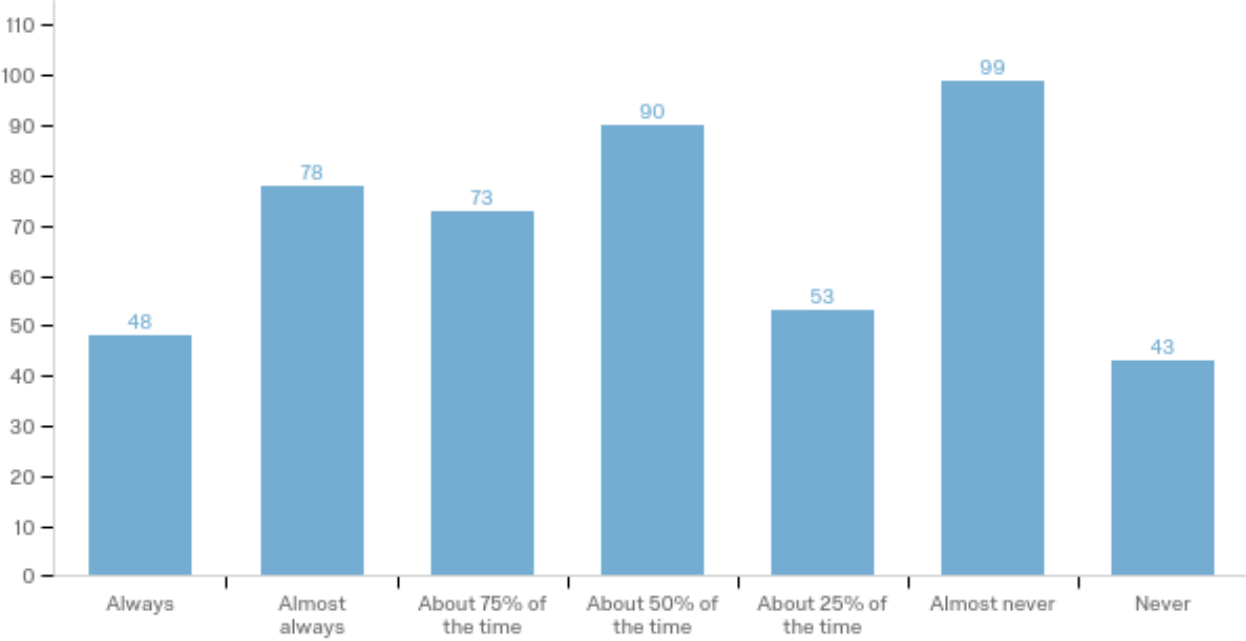
Q21 - Using this improved my understanding of course content



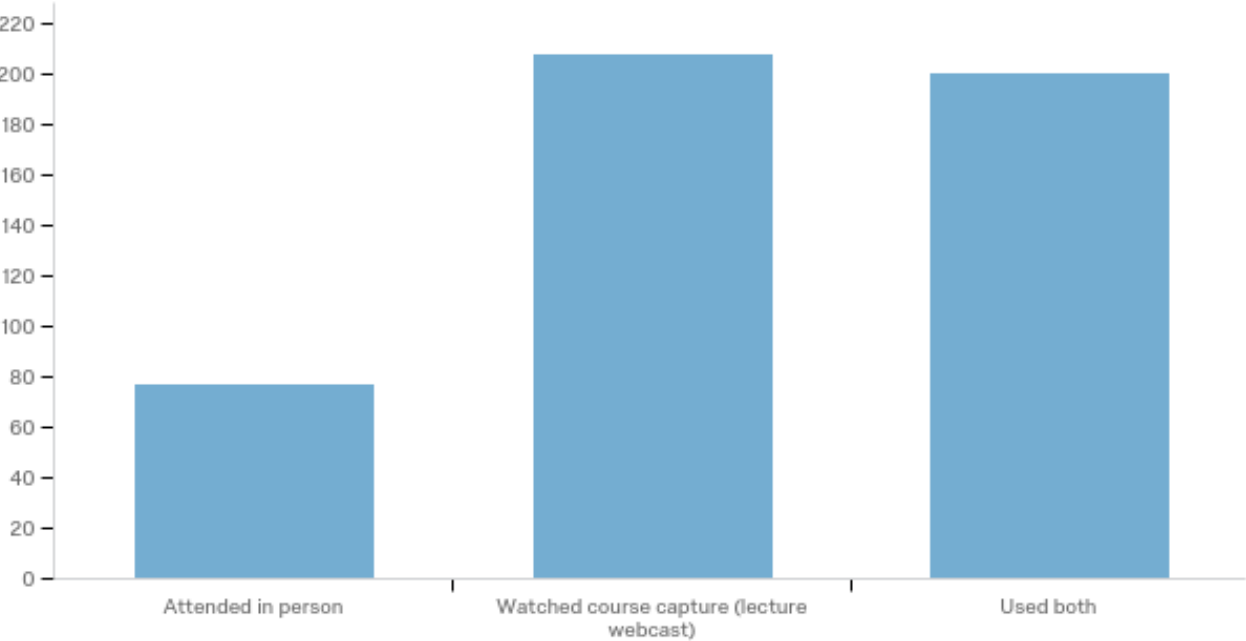
Q22 - Using this improved my performance in the course



Q23 - How often did you attend lecture in person?

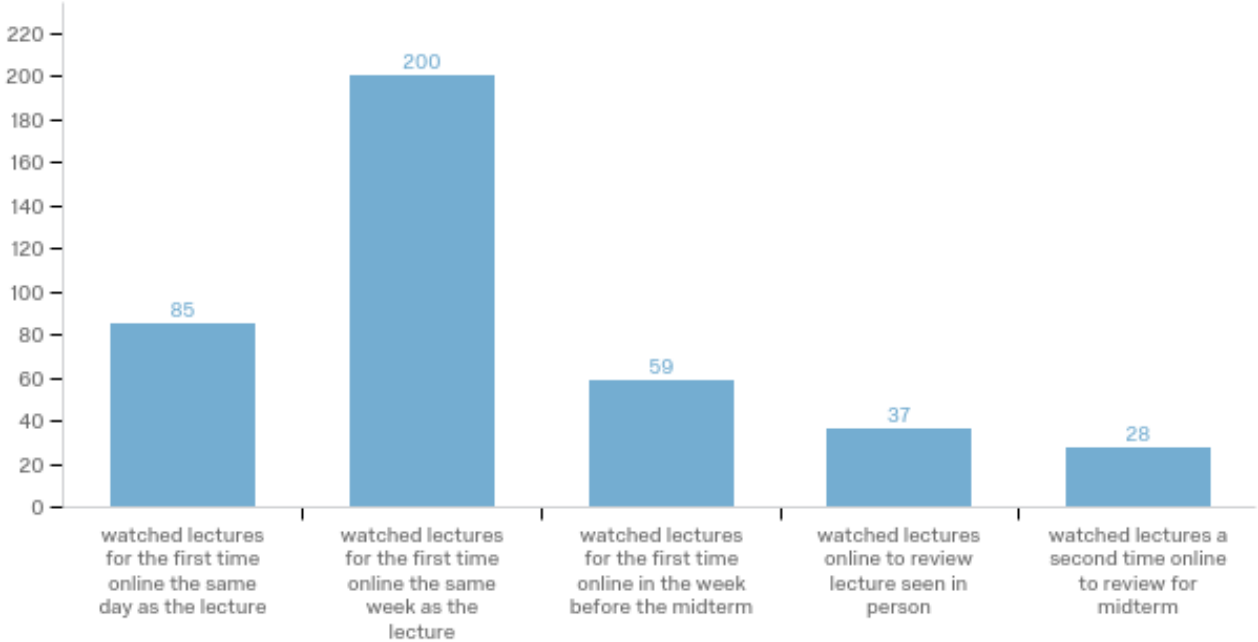


Q24 - How did you primarily watch lectures?

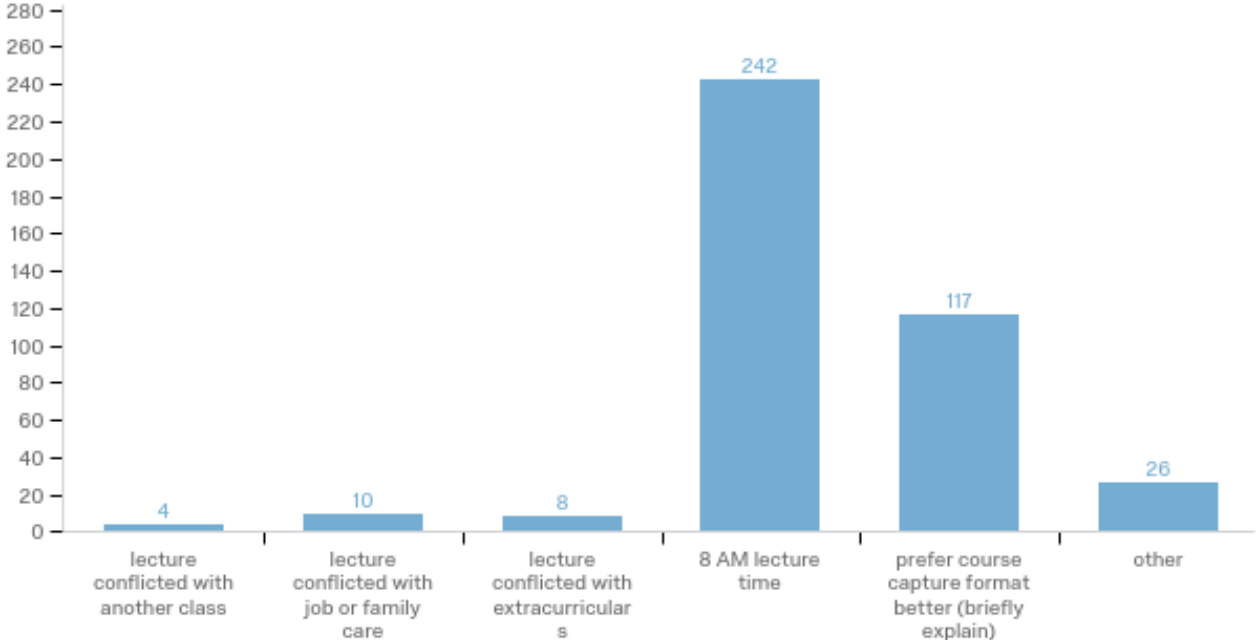


Q25 - Please select the option that most closely explains your use of the course capture videos.

Q25-Q27 were only shown to respondents who indicated in Q24 that they watched the course captures



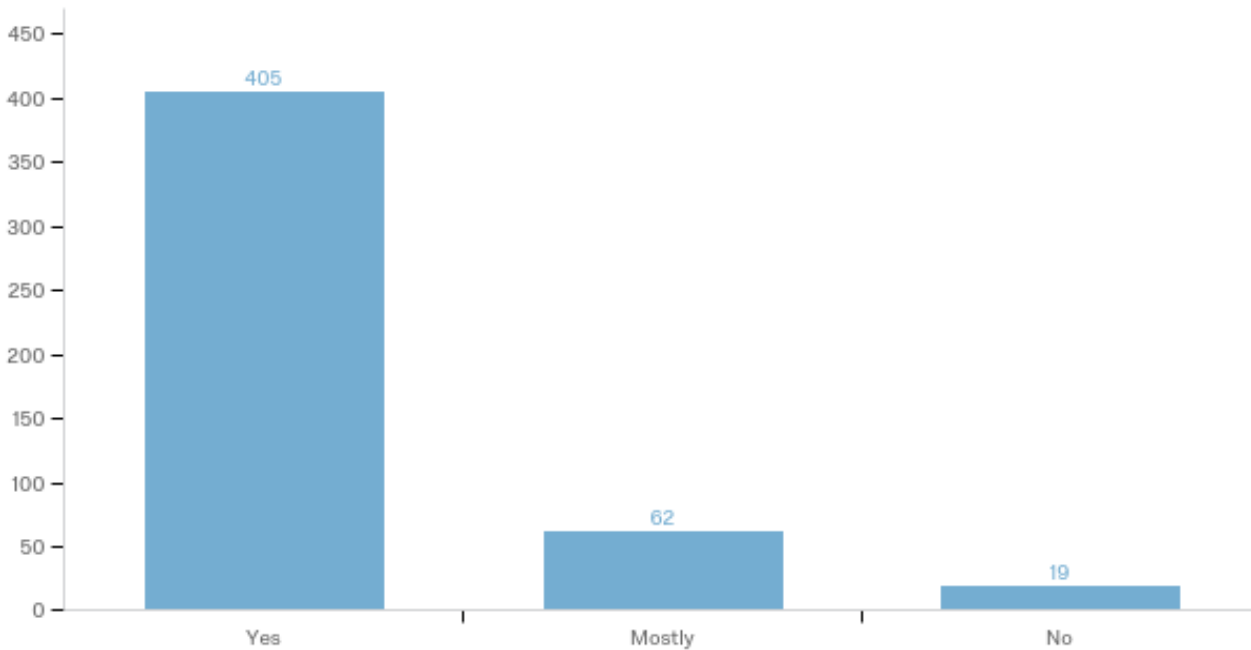
Q26 - What was your primary reason for watching lectures on course capture?



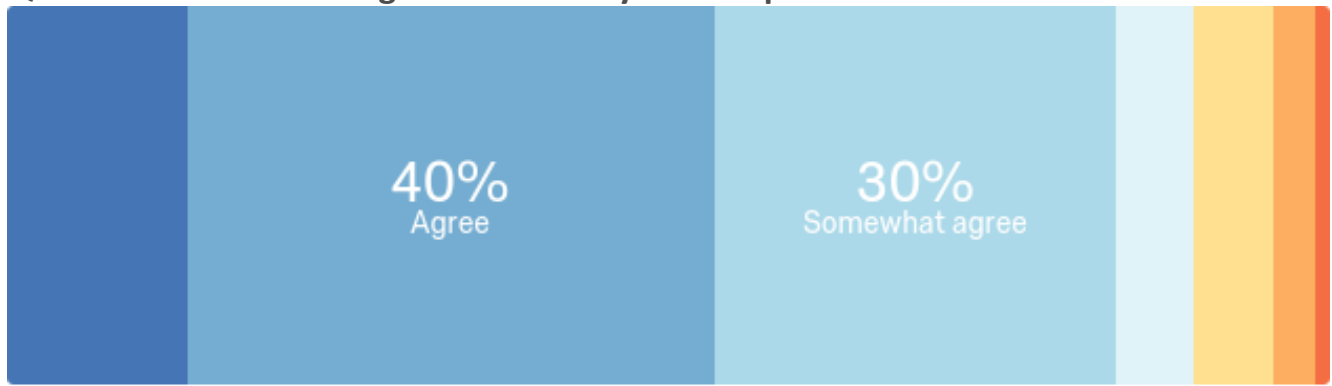
Q26 – Follow up to Q25 – Briefly explain why you prefer course capture format?



Q27 - Were you able to watch all the lectures (either online or in person) before the midterms and final exams?

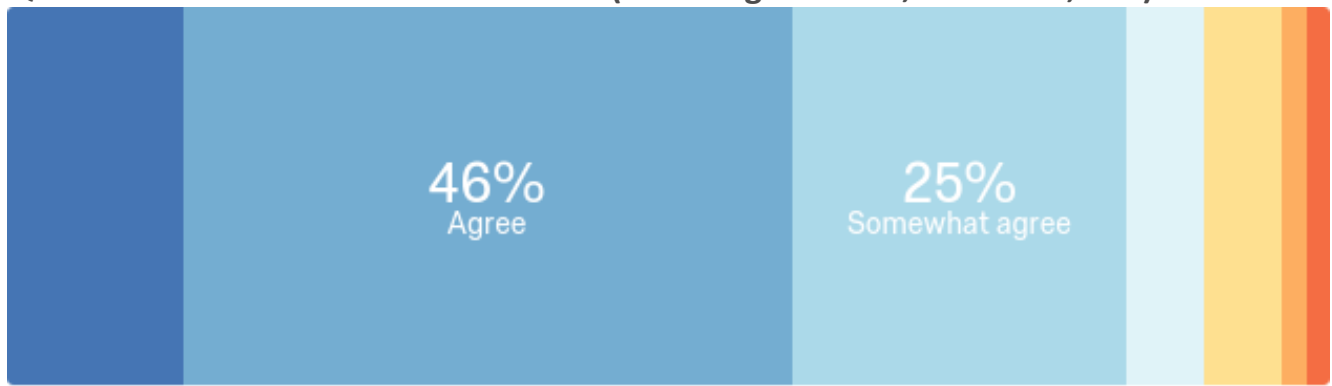


Q29 - The course was organized in a way that helped me learn



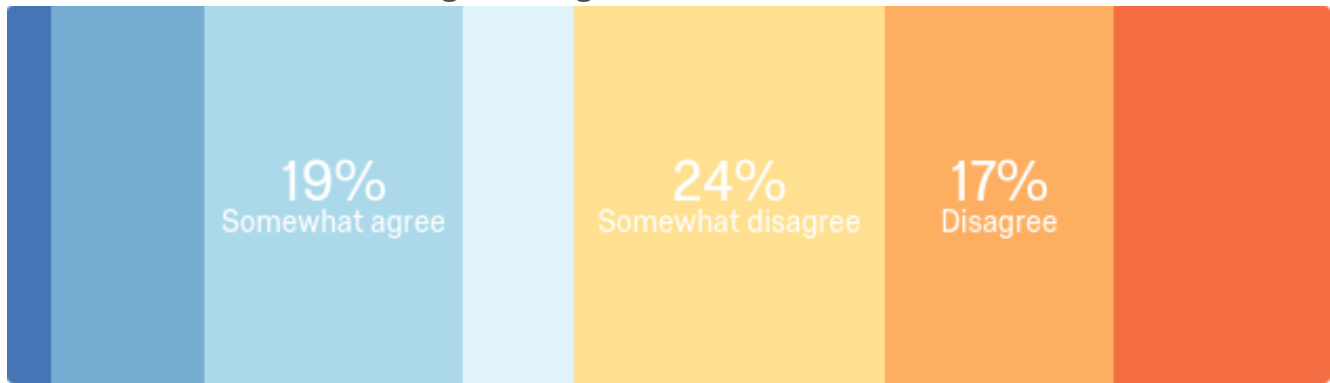
- Strongly agree (14%)
- Agree (40%)
- Somewhat agree (30%)
- Neither agree nor disagree (6%)
- Somewhat disagree (6%)
- Disagree (3%)
- Strongly disagree (1%)

Q31 - Instructions for course materials (including manuals, handouts, etc.) were clear



- Strongly agree (13%)
- Agree (46%)
- Somewhat agree (25%)
- Neither agree nor disagree (6%)
- Somewhat disagree (6%)
- Disagree (2%)
- Strongly disagree (2%)

Q33 - The lab sections are a good length

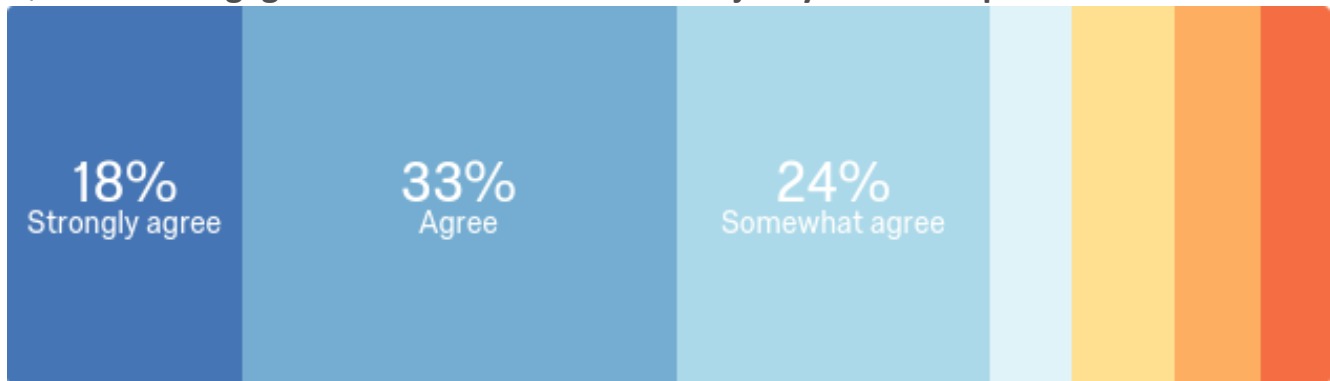


Strongly agree (3%) Agree (12%) Somewhat agree (19%)

Neither agree nor disagree (8%) Somewhat disagree (24%) Disagree (17%)

Strongly disagree (16%)

Q35 - I was engaged in the activities for the majority of the lab period

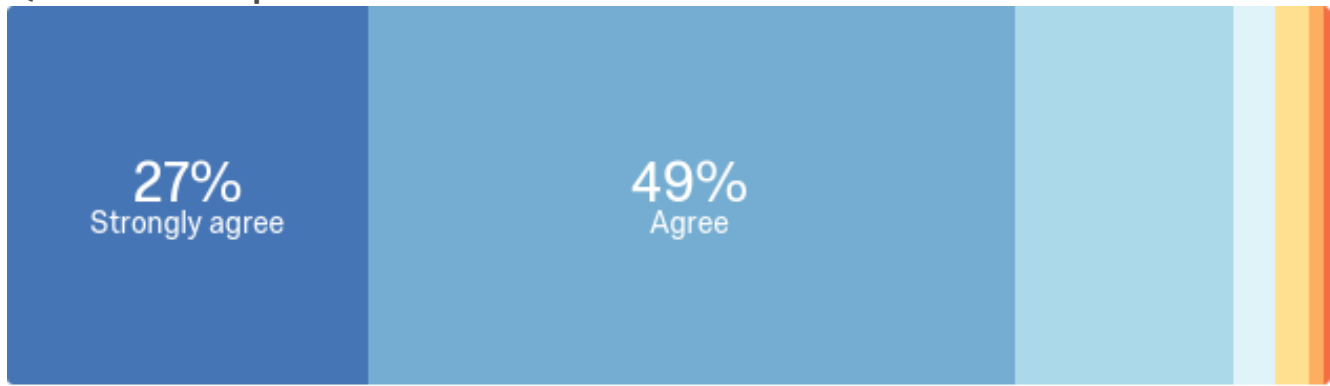


Strongly agree (18%) Agree (33%) Somewhat agree (24%)

Neither agree nor disagree (6%) Somewhat disagree (8%) Disagree (7%)

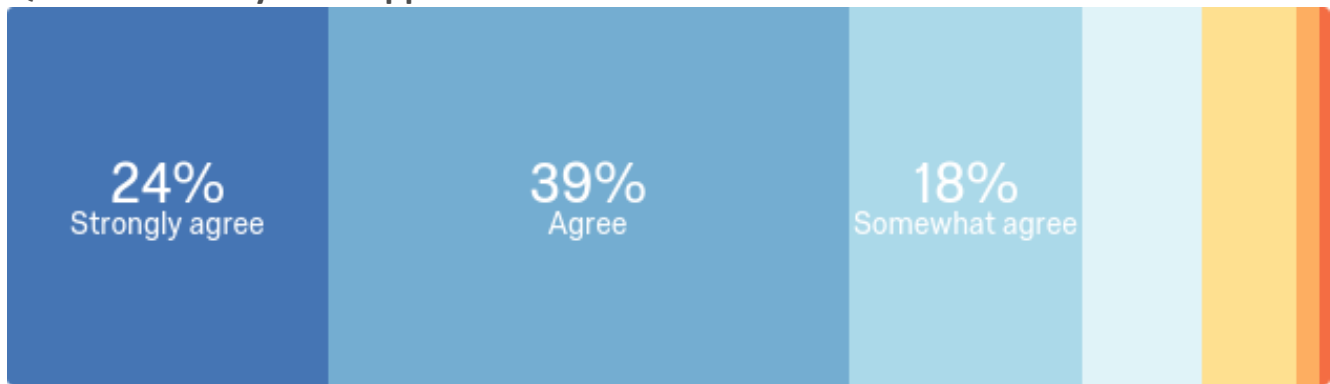
Strongly disagree (5%)

Q39 - If I had a question there was someone I could ask



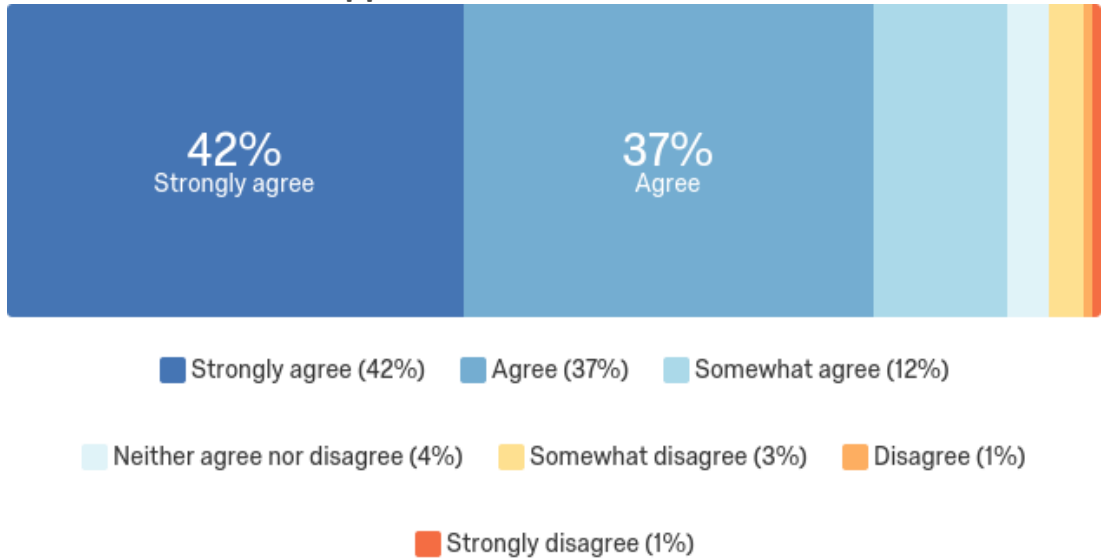
- Strongly agree (27%)
- Agree (49%)
- Somewhat agree (16%)
- Neither agree nor disagree (3%)
- Somewhat disagree (2%)
- Disagree (1%)
- Strongly disagree (1%)

Q41 - The faculty were approachable

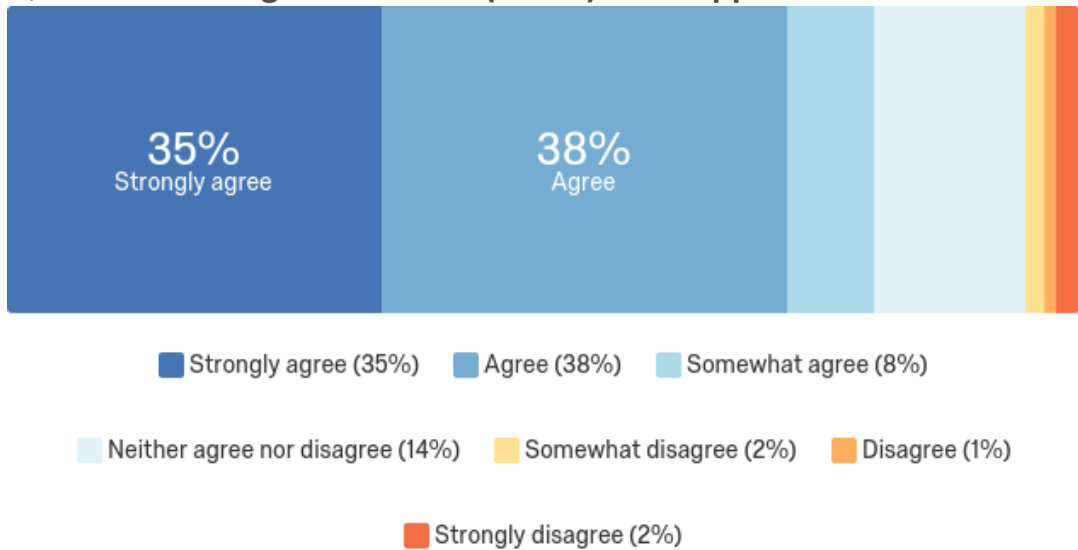


- Strongly agree (24%)
- Agree (39%)
- Somewhat agree (18%)
- Neither agree nor disagree (9%)
- Somewhat disagree (7%)
- Disagree (2%)
- Strongly disagree (1%)

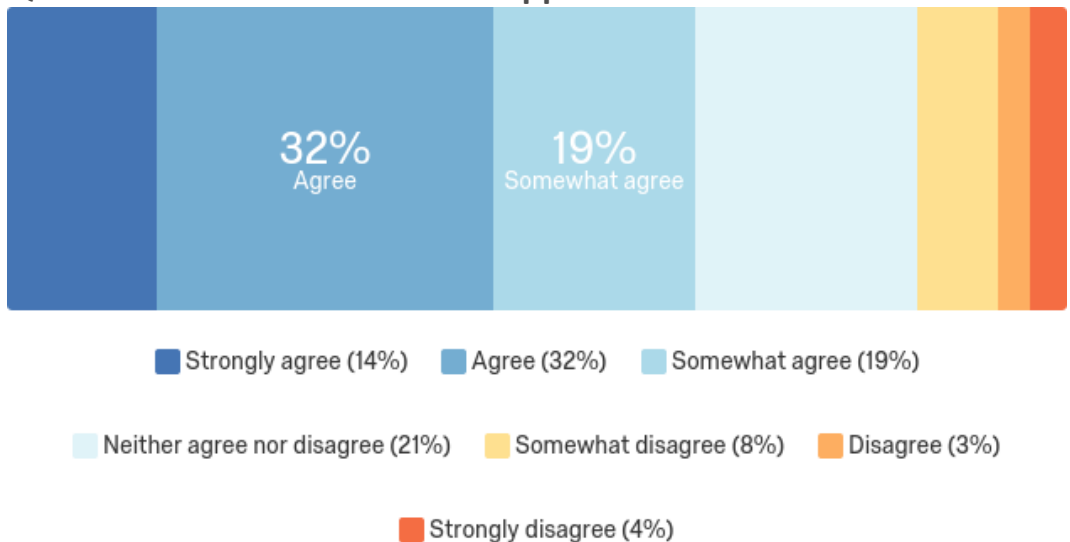
Q42 - The GSIs were approachable



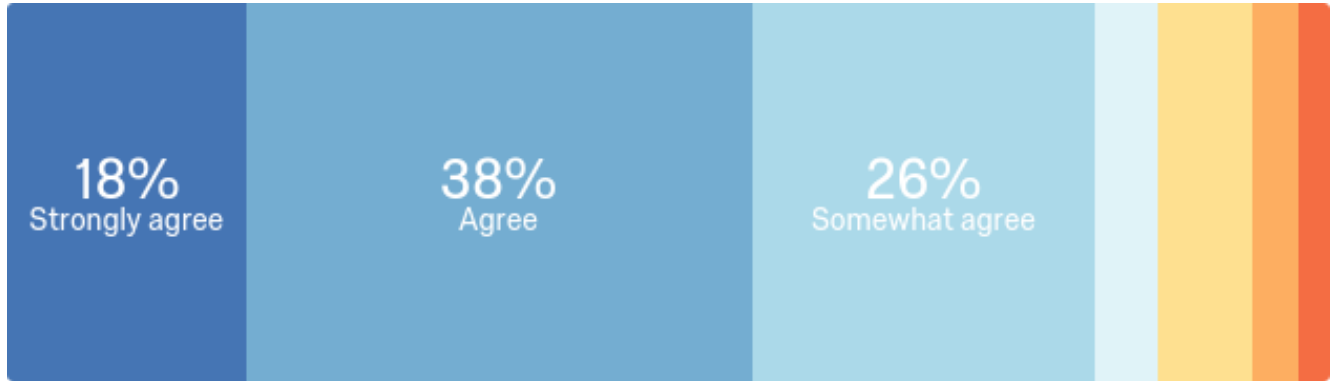
Q43 - The Undergraduate GSIs (UGSIs) were approachable



Q44 - The staff and admin were approachable

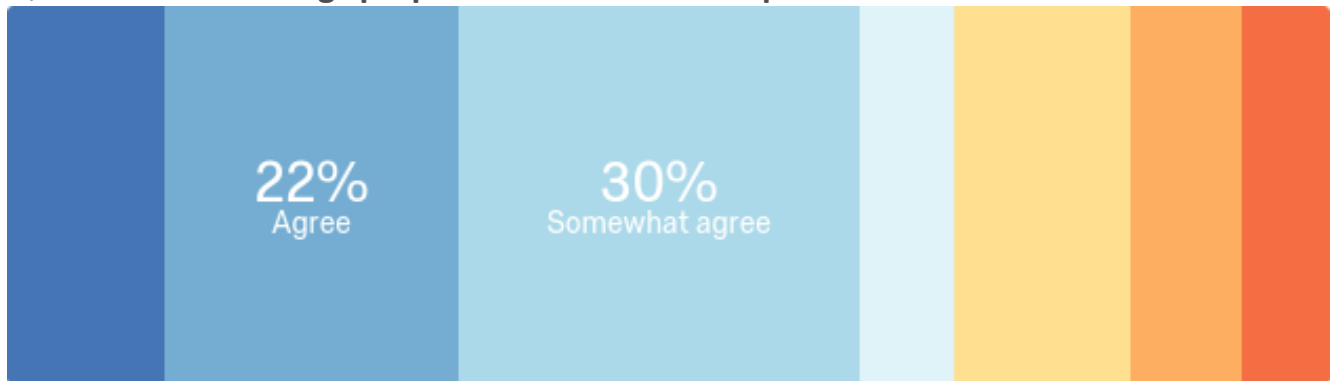


Q52 - Pre-lab readings prepared me well for lab activities



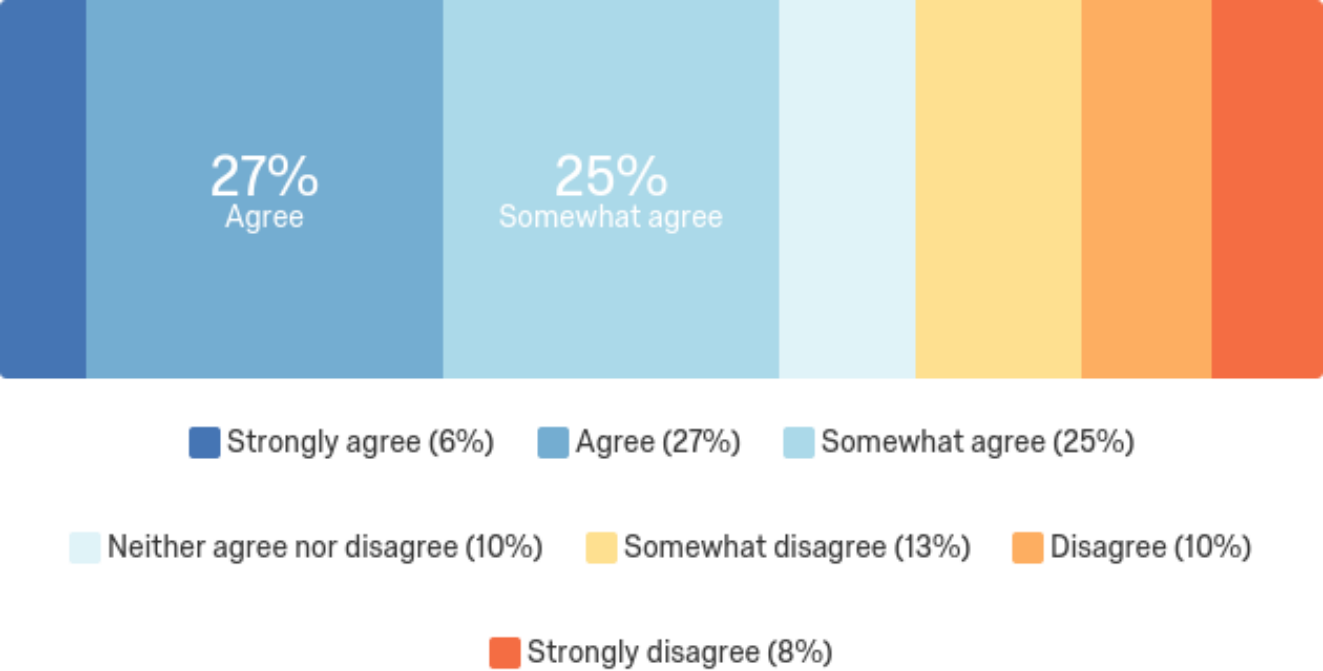
- Strongly agree (18%)
- Agree (38%)
- Somewhat agree (26%)
- Neither agree nor disagree (5%)
- Somewhat disagree (7%)
- Disagree (4%)
- Strongly disagree (2%)

Q53 - Pre-lab readings prepared me well for lab quizzes

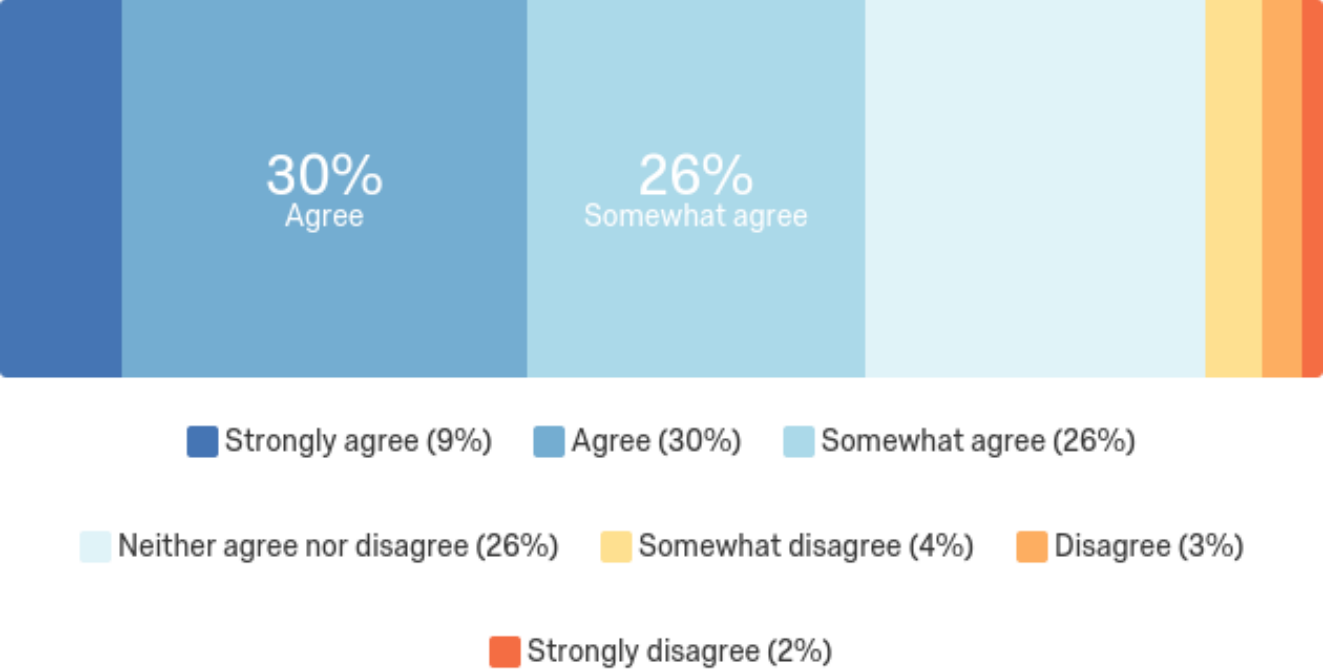


- Strongly agree (12%)
- Agree (22%)
- Somewhat agree (30%)
- Neither agree nor disagree (7%)
- Somewhat disagree (13%)
- Disagree (8%)
- Strongly disagree (7%)

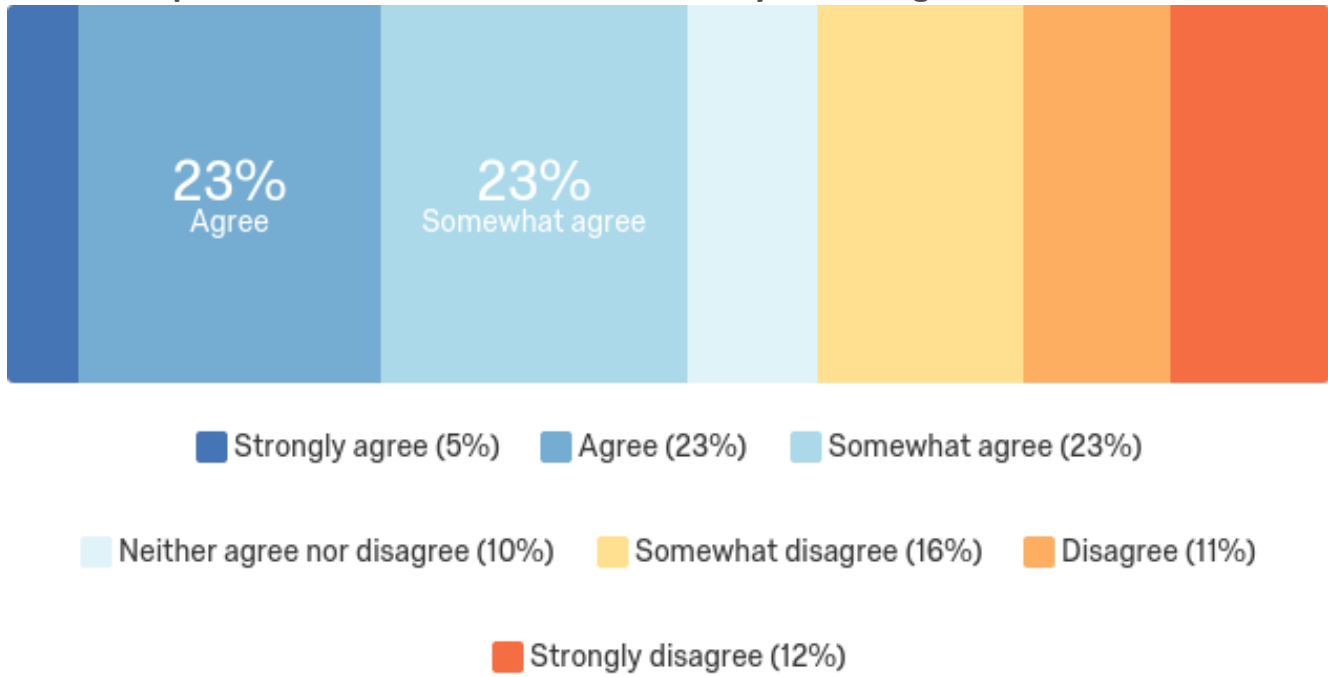
Q56 - The lab activities provided the opportunity to practice the skills required in the exams



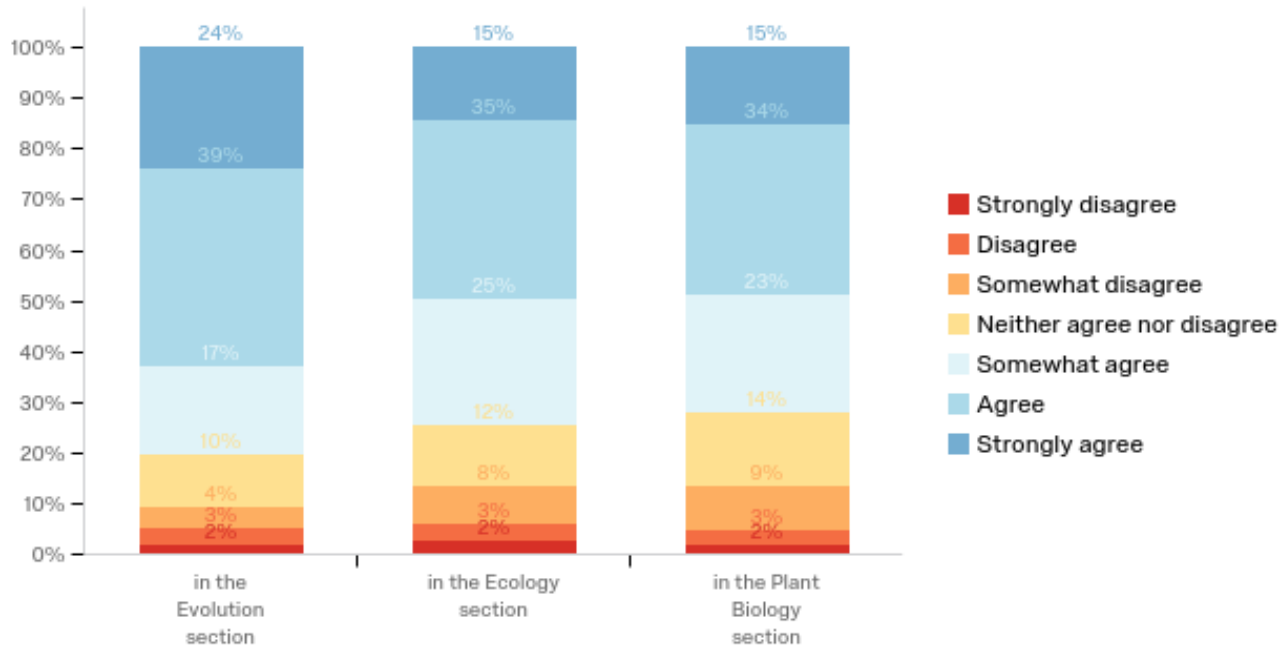
Q57 - Other available resources such as those listed previously (office hours, midterm practice questions, SLC study groups etc.) provided the opportunity to practice the skills required in the exams



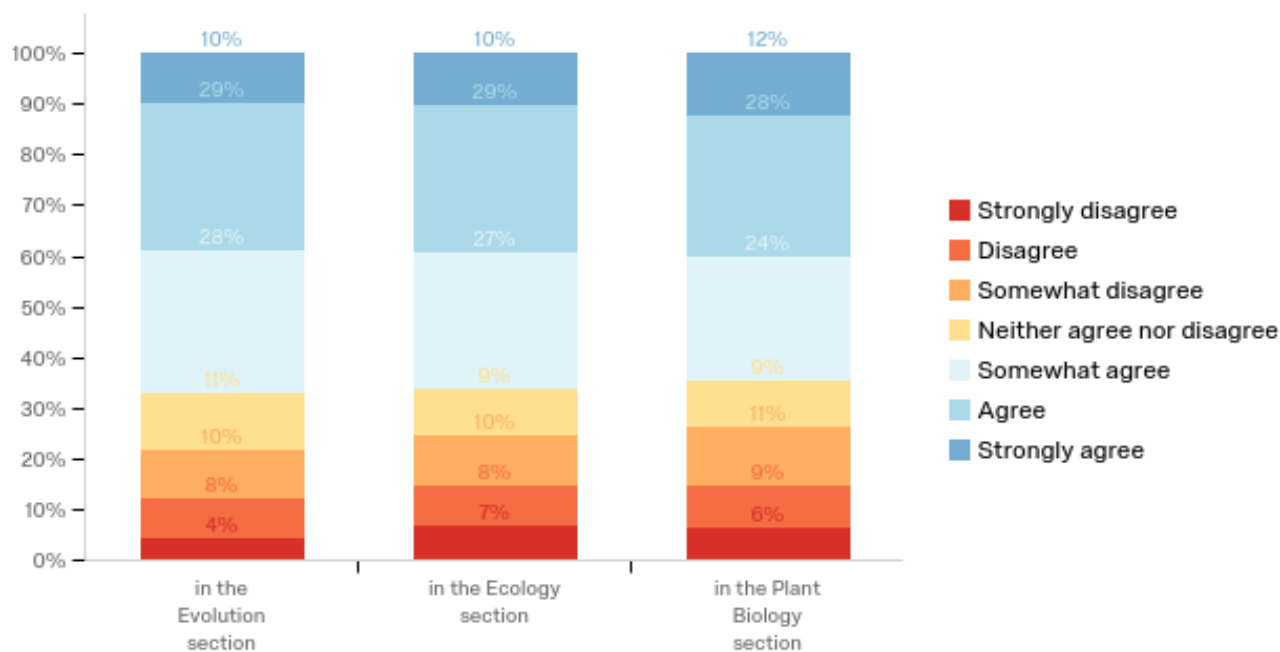
Q60 - Lab quizzes allowed me to demonstrate my knowledge of the material



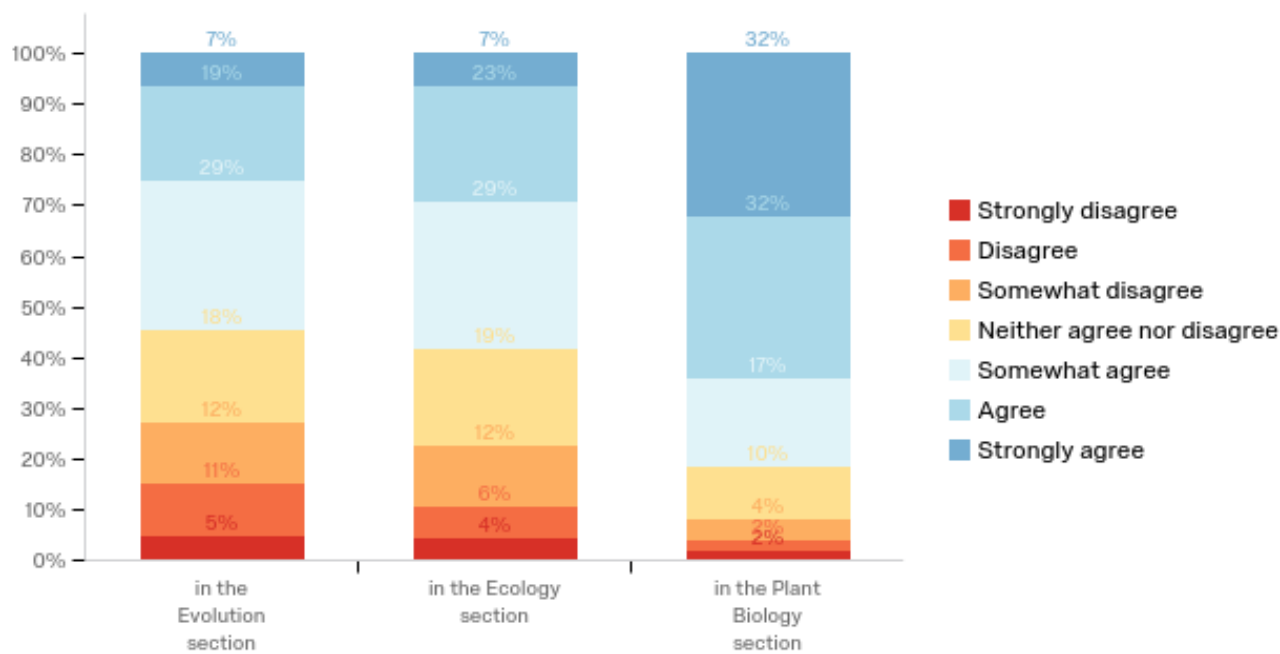
Q61 - Taken together, the course materials and support resources (office hours, midterm practice questions, SLC study groups etc) provided all the information needed to learn material



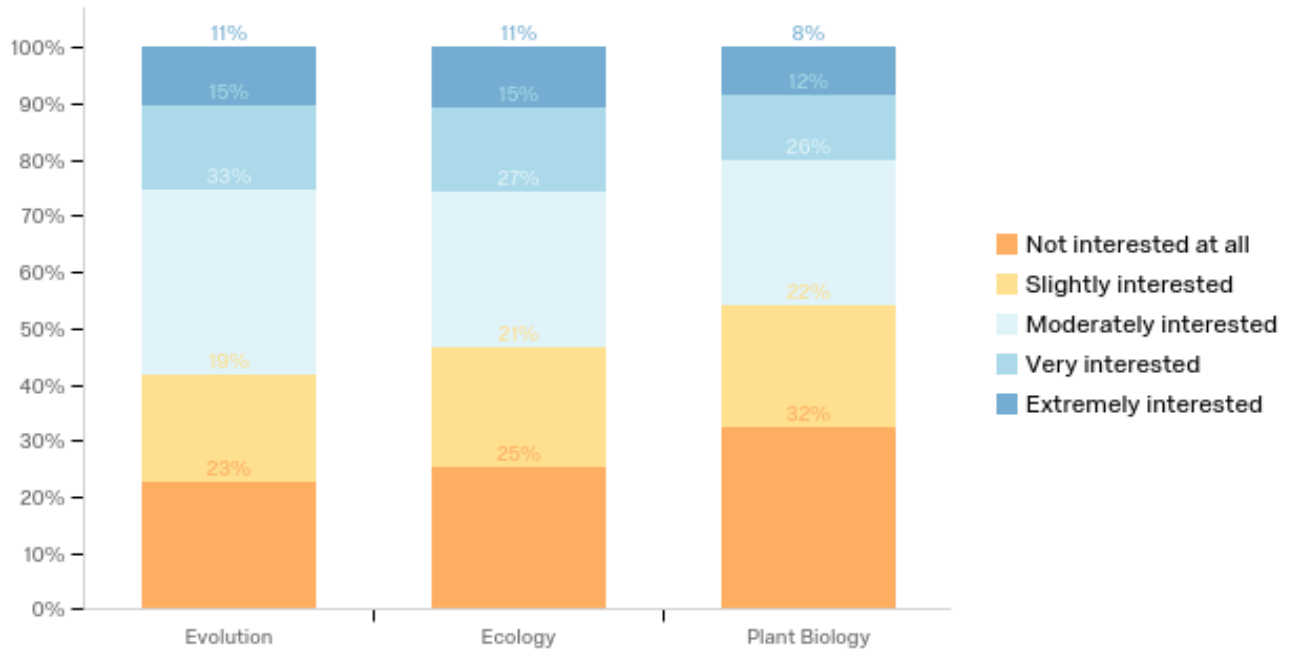
Q62 - The lab activities were effective and engaging



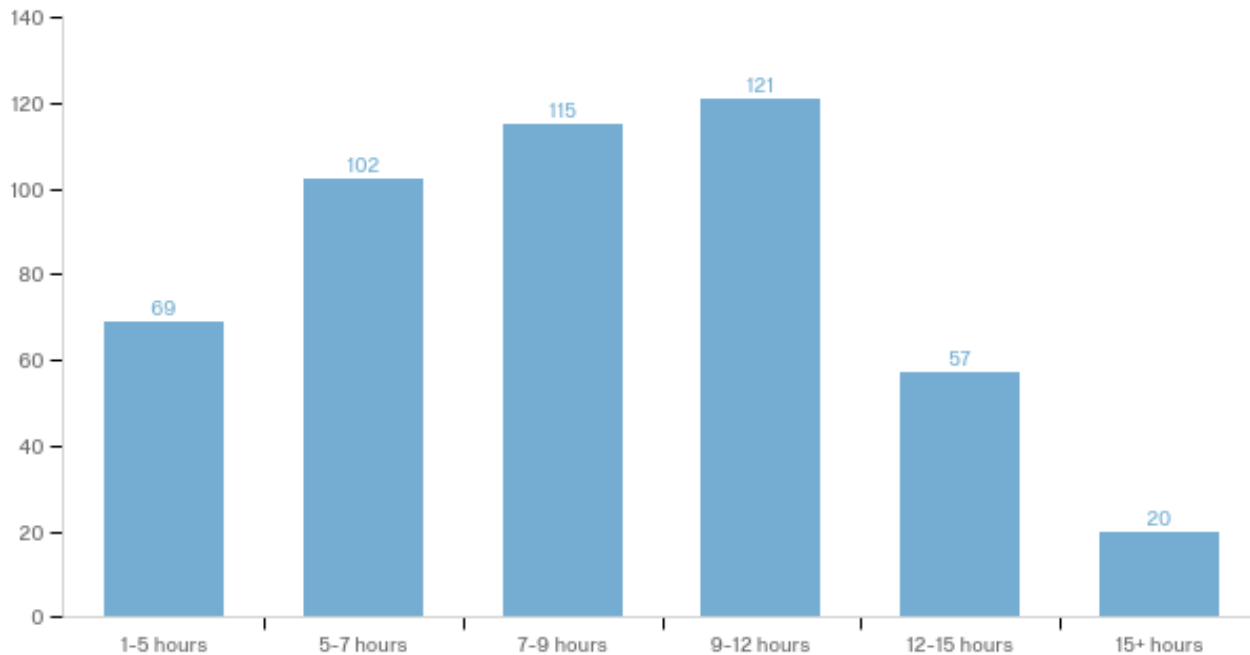
Q64 - The subject material was difficult



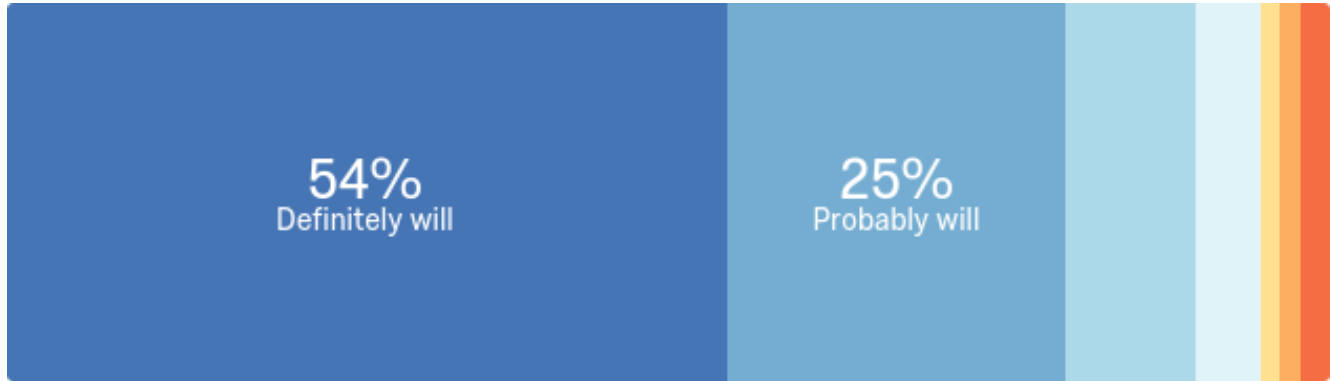
Q65 - How interested are you in each of the Biology 1B sections as a field of study in the future?



Q66 - On average, how many hours per week have you spent on this course, including attending lecture and lab, doing readings, reviewing notes, writing papers, and any other course-related work?

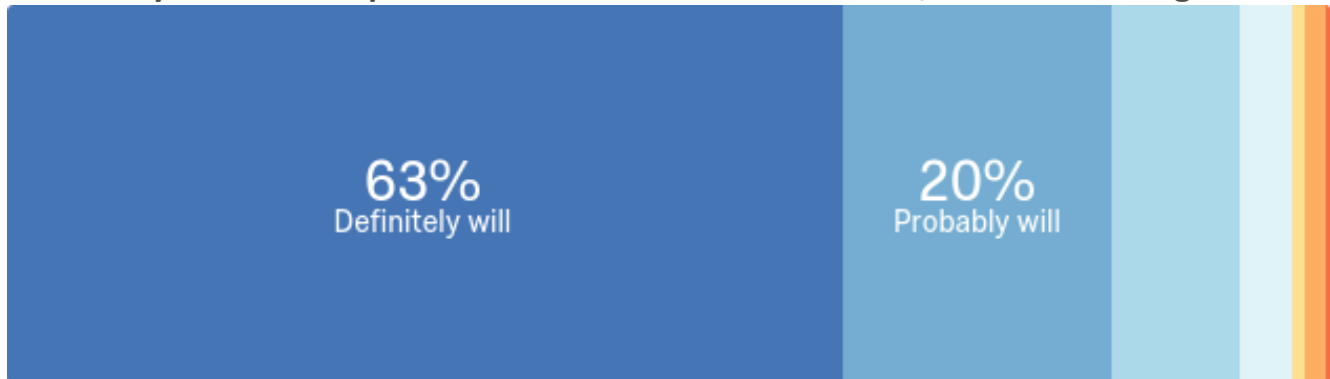


Q70 - Do you intend to pursue scientific research opportunities while at Berkeley?



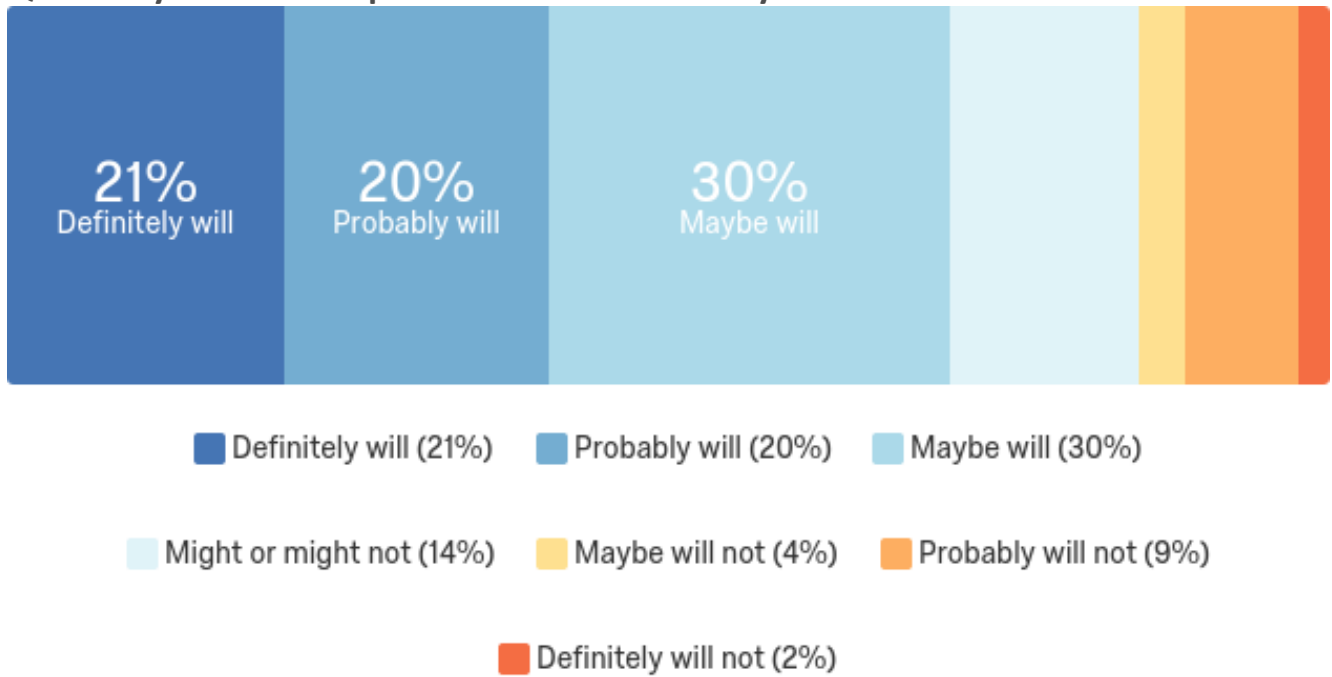
- Definitely will (54%)
- Probably will (25%)
- Maybe will (10%)
- Might or might not (5%)
- Maybe will not (1%)
- Probably will not (2%)
- Definitely will not (2%)

Q71 - Do you intend to pursue a science-related career and/or advanced degree?

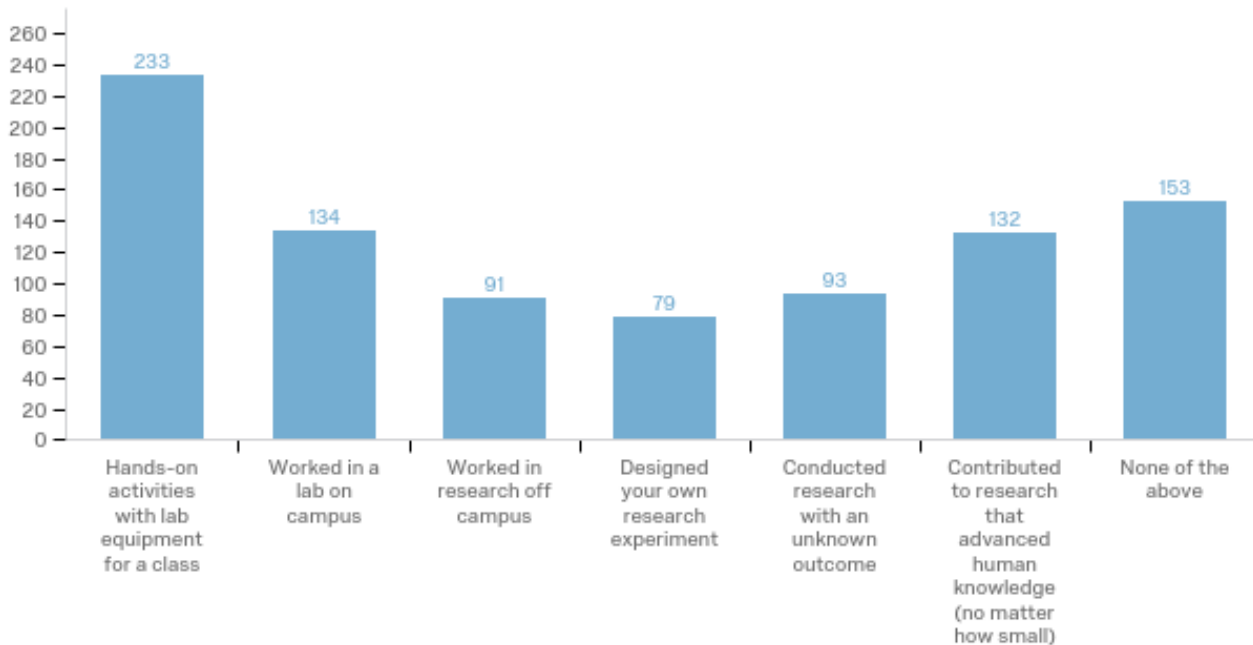


- Definitely will (63%)
- Probably will (20%)
- Maybe will (10%)
- Might or might not (4%)
- Maybe will not (1%)
- Probably will not (2%)
- Definitely will not (0%)

Q73 - Do you intend to pursue a career in which you conduct scientific research?



Q75 - Check all research activities that you've ever been engaged in (besides in Biology 1B):



Q77 - Scientific research can solve many of the world's challenges



Strongly agree (56%) Agree (31%) Somewhat agree (10%)

Neither agree nor disagree (2%) Somewhat disagree (1%) Disagree (0%)

Strongly disagree (0%)

Q78 - A scientific education is valuable, even if you do not become a scientist

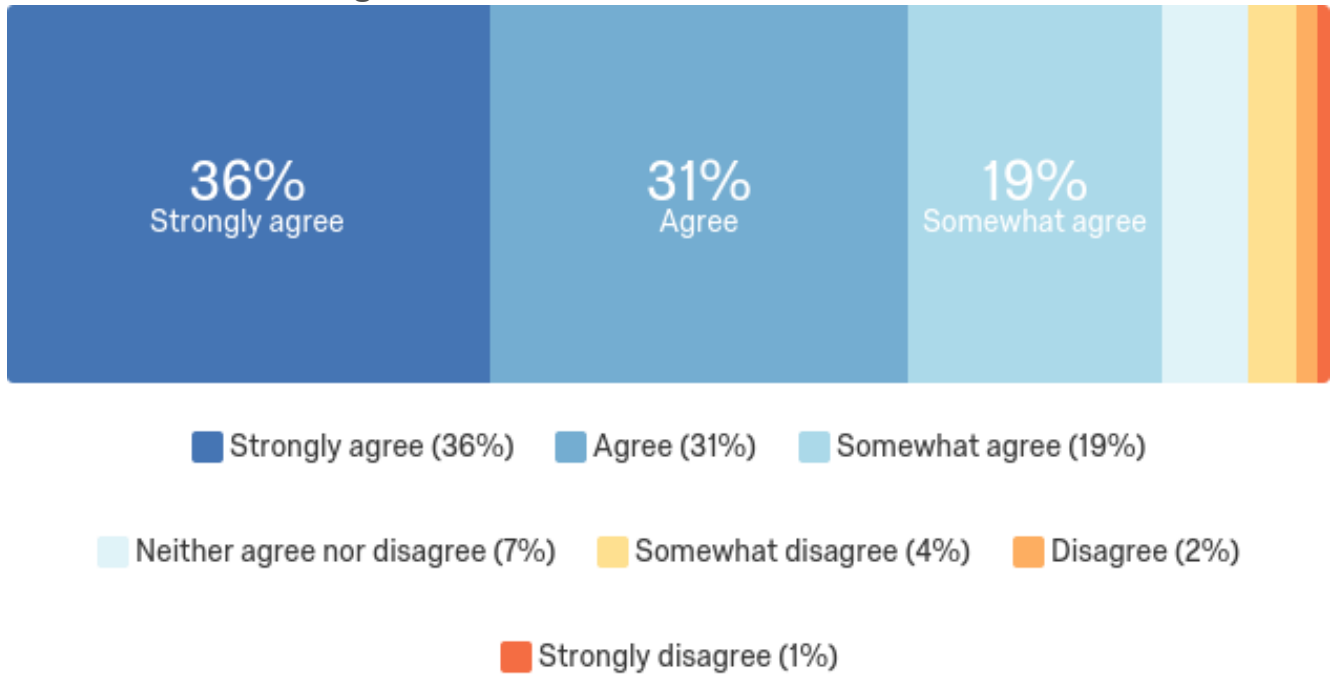


Strongly agree (60%) Agree (29%) Somewhat agree (8%)

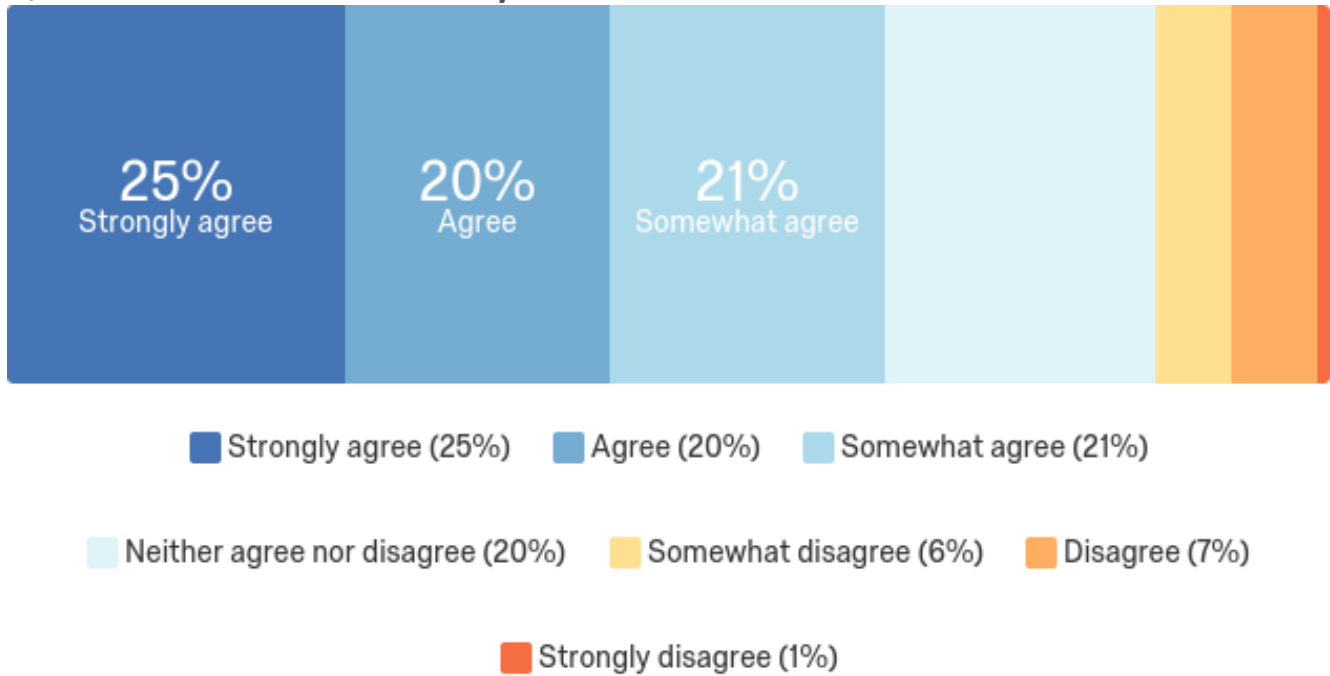
Neither agree nor disagree (1%) Somewhat disagree (1%) Disagree (0%)

Strongly disagree (0%)

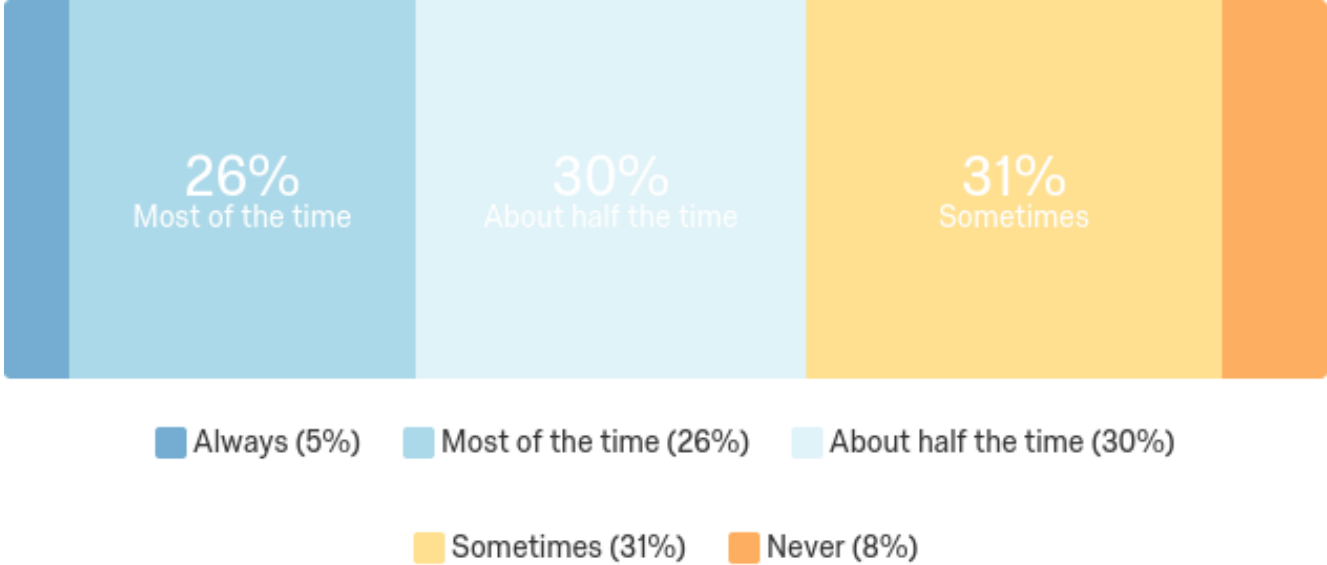
Q80 - I feel like I belong in the field of science



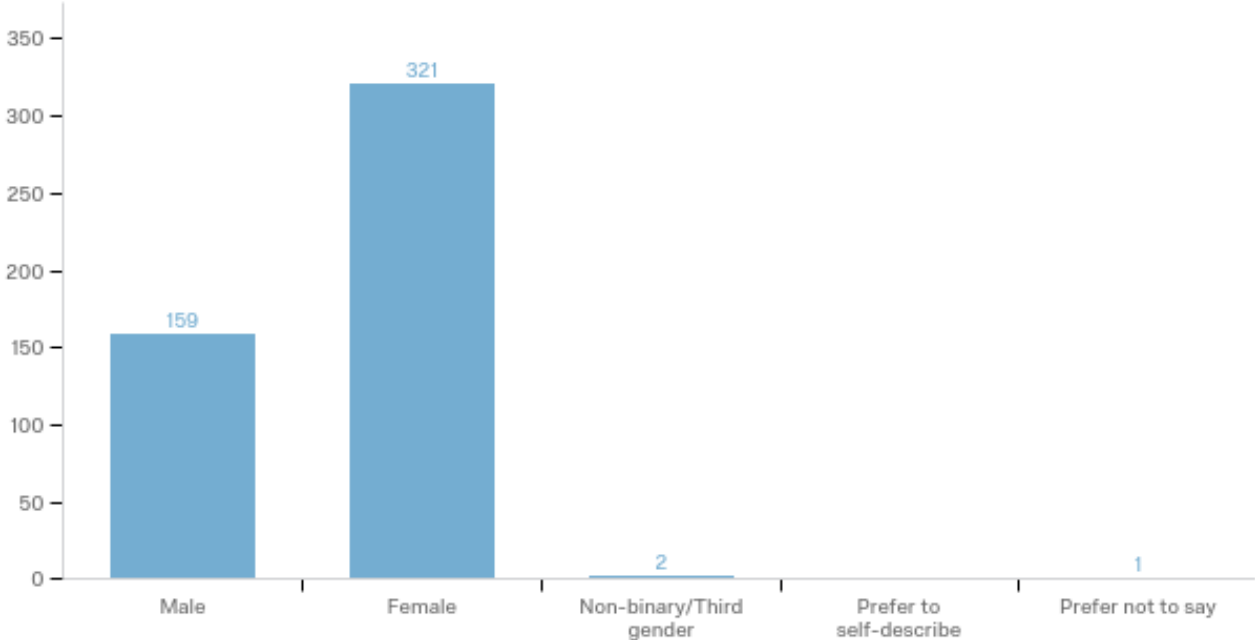
Q82 - I have come to think of myself as a scientist.



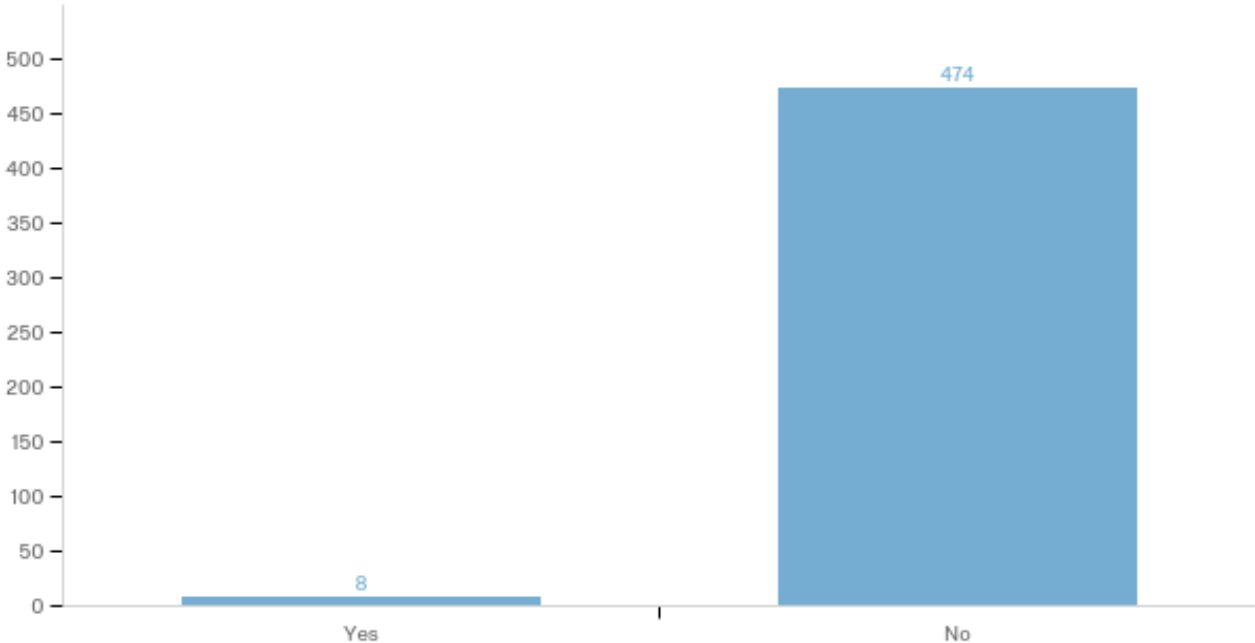
Q86 - Thinking back over the past semester how often have you felt confident in your ability to succeed in school?



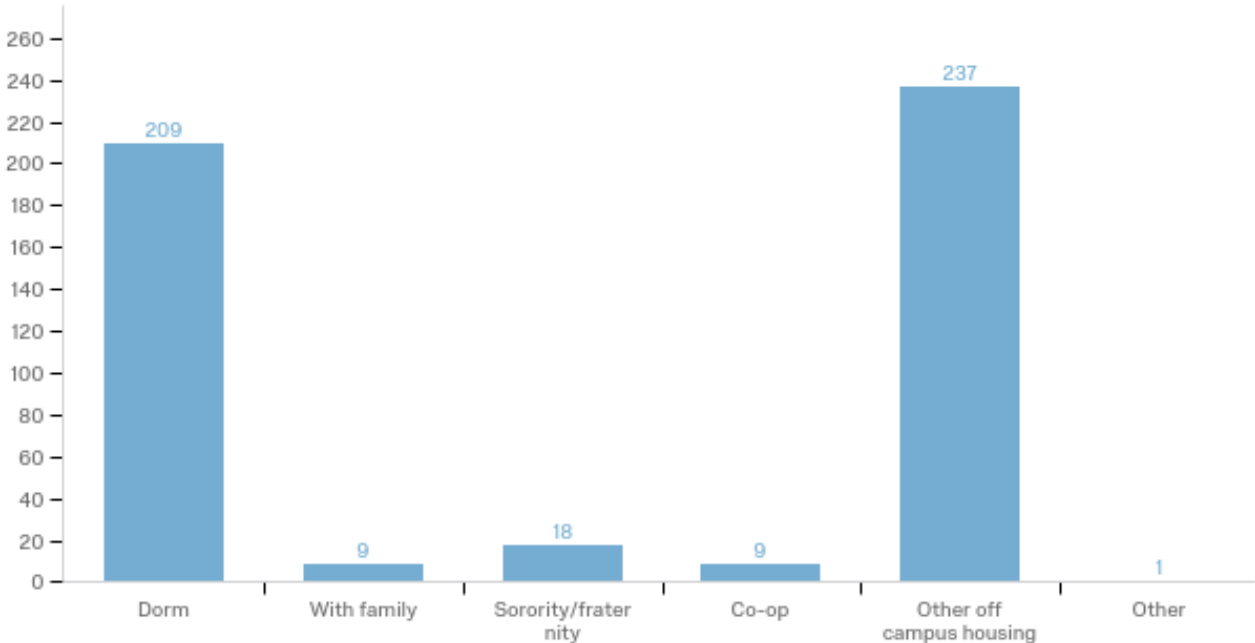
Q88 - What is your gender?



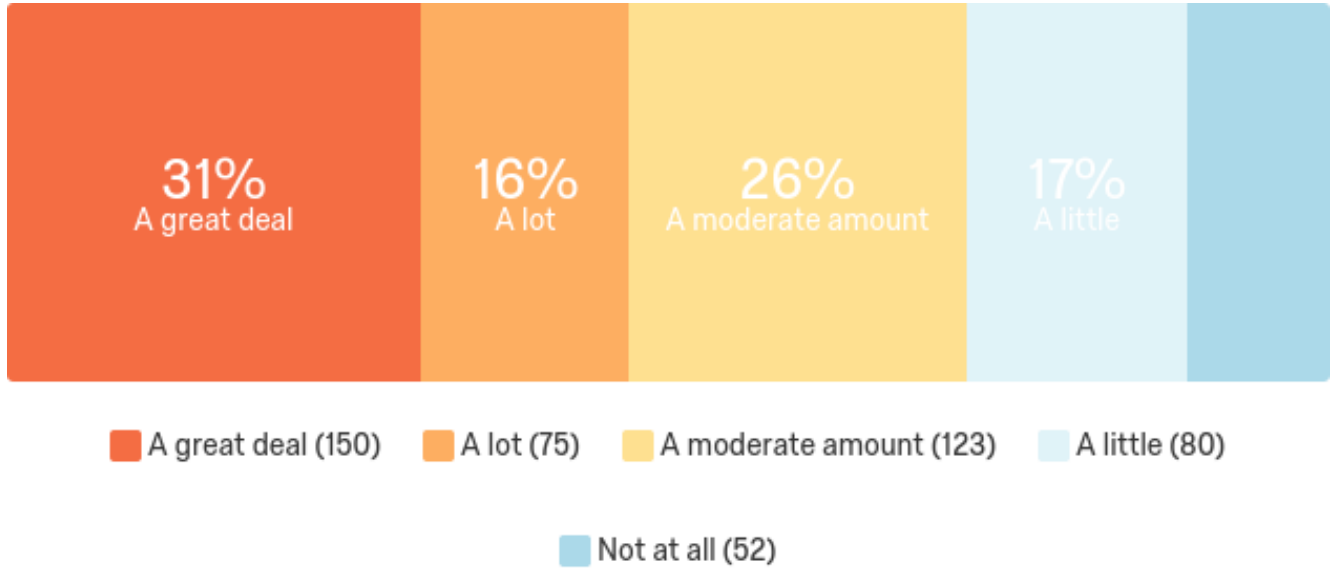
Q92 - Are you the primary caregiver for anyone else (parents, grandparents etc) ?



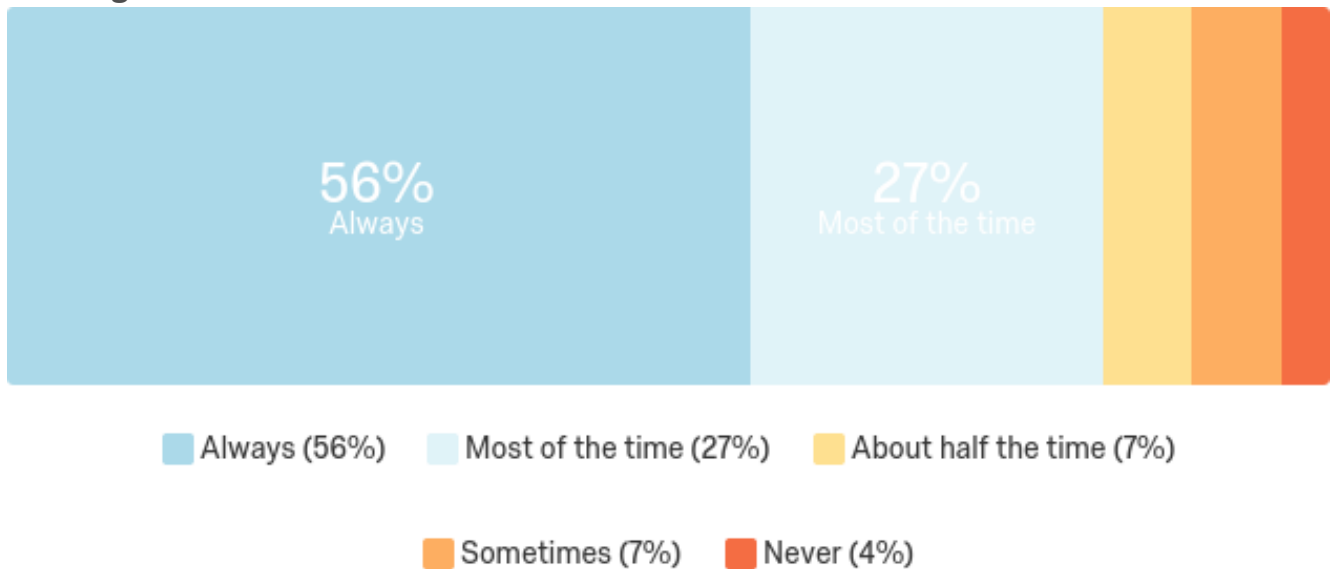
Q93 - Where do you currently live?



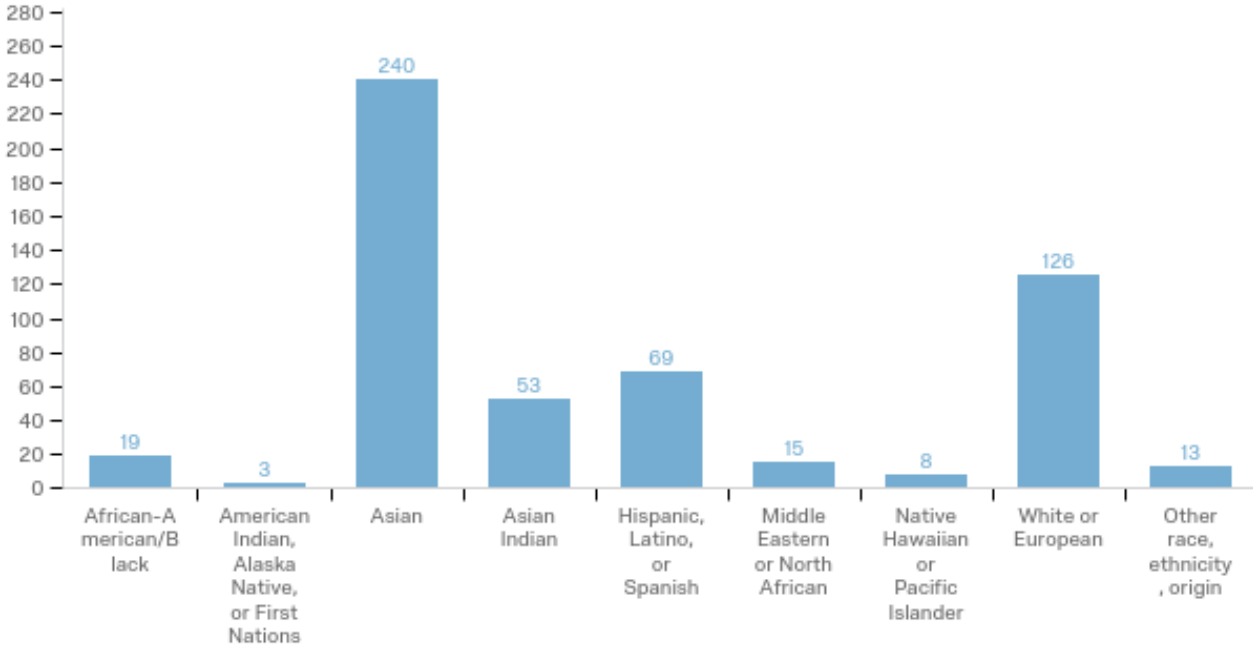
Q98 - How concerned are you about your personal and education finances?



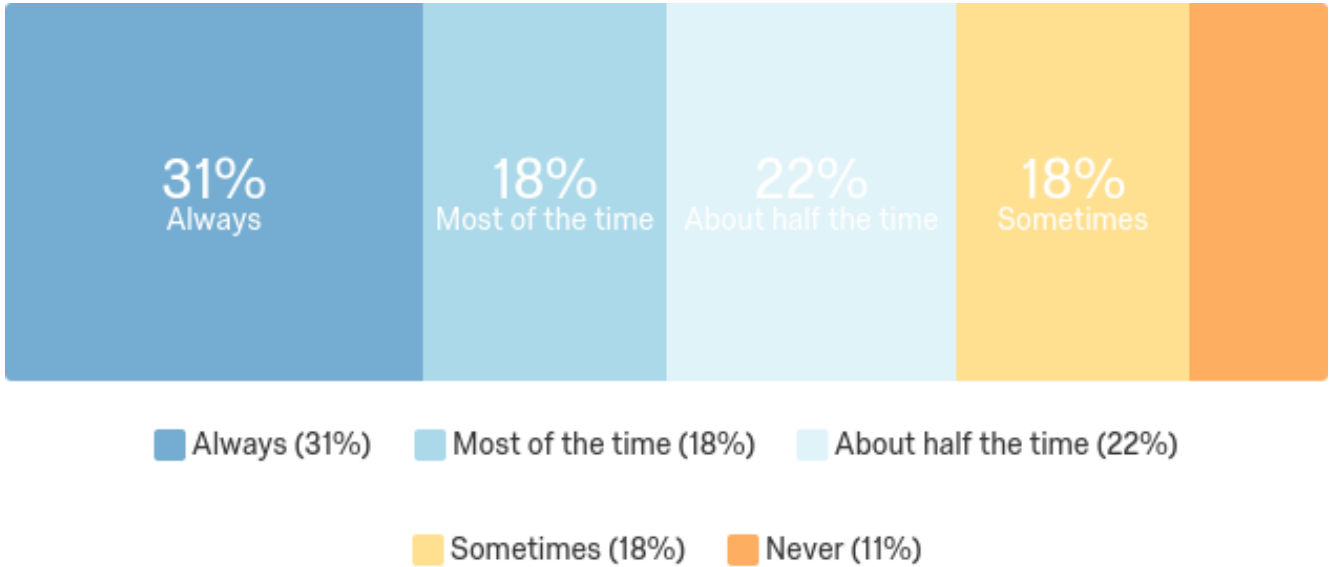
Q99 - Did you have sufficient financial support in the past month to cover your tuition, housing and food costs?



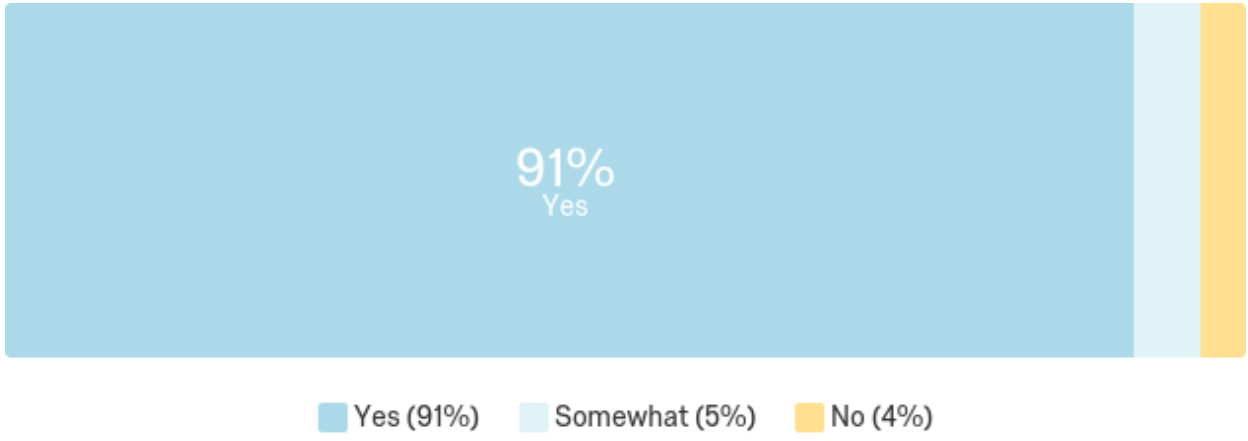
Q100 - How would you describe yourself? Check all that apply



Q101 - Growing up, how often was English used in your household?



Q102 - Before college, was English the primary language of instruction at school?



Questions Deleted From This Report:

Q13 - On average how frequently did you use each of the following external programs/social resources throughout the semester?

- BSP
- SLC tutors
- SLC study groups
- SLC worksheets
- Peer study groups
- GSI office hours
- Professor office hours

Q16 – (Follow-up to Q13)

You indicated that you infrequently or never used the following external programs/social resources.

What were the main reasons you did not use each? Check all that apply for each item.

- Did not think it would be helpful
- Did not have time to access
- Was too costly
- Other

Q17 – If you said other for Q16: short answer

Q20 - I could easily access this resource (strongly agree to strongly disagree)

- BSP
- SLC tutors
- SLC study groups
- SLC worksheets
- Peer study groups
- GSI office hours
- Professor office hours

Q21 - Using this improved my understanding of course content (strongly agree to strongly disagree)

- BSP
- SLC tutors
- SLC study groups
- SLC worksheets
- Peer study groups
- GSI office hours
- Professor office hours

Q22 - Using this improved my performance in the course (strongly agree to strongly disagree)

- BSP
- SLC tutors
- SLC study groups
- SLC worksheets
- Peer study groups
- GSI office hours
- Professor office hours

- Q30 - bCourses was organized in a way that was easy to navigate (strongly agree to strongly disagree)
- Q32 - Resources in the course were easy to find (strongly agree to strongly disagree)
- Q34 - The lab period allowed me to explore a topic in depth (strongly agree to strongly disagree)
- Q36 - At the end of lab I was unable to focus (strongly agree to strongly disagree)
- Q37 - I was able to get through the lab activities in the allotted time (strongly agree to strongly disagree)
- Q40 - I felt like there was someone I could go to for help if I had trouble in this course (strongly agree to strongly disagree)
- Q46 - The faculty were helpful (strongly agree to strongly disagree)
- Q47 - The GSIs were helpful (strongly agree to strongly disagree)
- Q48 - The Undergraduate GSIs (UGSIs) were helpful (strongly agree to strongly disagree)
- Q49 - The staff and admin were helpful (strongly agree to strongly disagree)
- Q50 - The lab complemented my understanding of the lectures (strongly agree to strongly disagree)
- Q51 - The course provided an appropriate balance between instruction and practice (strongly agree to strongly disagree)
- Q55 - The lab quizzes provided the opportunity to practice the skills required in the exams. (strongly agree to strongly disagree)
- Q58 - My previous Biology experience (high school or college coursework, research positions etc) prepared me well for this course. (strongly agree to strongly disagree)
- Q59 - Lab quizzes were fair. (strongly agree to strongly disagree)
- Q63 - The subject material was interesting (Strongly disagree to strongly agree)
- Ecology section
 - Evolution section
 - Organismal Diversity section
- Q67 - How satisfied were you with your effort in this course?
- Q69 - Any other thoughts about your experience in Biology 1B that we should know? (word cloud)
- Q72 - Do you intend to pursue a health science career and/or advanced degree (e.g. MD, MPH etc)?
- Q74 - In the past semester were you involved in any research activities outside of Biology 1B?

Q79 - Conducting research that builds the world's scientific knowledge is valuable (strongly agree to strongly disagree)

Q81 - I would like to think of myself as a scientist. (strongly agree to strongly disagree)

Q83 - Thinking back over the past semester, how would you say your general health has been? (Always to Never)

Q85 - Felt unable control important things in your life? (Always to Never)

Q89 - Do you identify as transgender?

Q90 - Which of the following best describes your current status? (single, married, etc.)

Q91 - Do you have children?

Q94 - On a typical day how long does it take for you to get to campus?

Q95 - Approximately how much money do you currently owe that is directly related to the cost of your education? (because this answer is text entry, it doesn't automatically graph in qualtrics)

Q96 - What is your best estimate for your personal income this past year? (Not your parent and/or guardians)

Q97 - What type of financial support do you currently have? Select all that apply

- Loans
- Grants/scholarships
- Paid job (on campus)
- Paid job (off campus)
- Family
- Other

Bio 1B Background Survey

Please take a couple minutes to answer the questions below.

Student ID Number

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This information is collected as part of a Biology 1B research project studying how best to serve our large and diverse group of students. You will not be compensated, and there is no direct benefit to you for taking part in this study.

Your answers will be confidential. The records of this study will be kept private. If results of this study are published or presented, individual names and other personally identifiable information will not be used.

Taking part is voluntary. You may refuse to take part in this survey *at any time* without affecting your current or future relationship with Biology 1B instructors or UC Berkeley.

0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9

- Coming into the course, how interested are you in learning about each of the three Biology 1B sections?

	Very interested	Somewhat interested	Not very interested
Evolution	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C
Ecology	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C
Plant Biology	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C

- What is your previous exposure to Biology? Choose all that apply.

- | | |
|---|---|
| <input type="radio"/> A One high school course | <input type="radio"/> G Research position |
| <input type="radio"/> B Two or more high school courses | <input type="radio"/> H Internship |
| <input type="radio"/> C AP Biology | <input type="radio"/> I Workshop |
| <input type="radio"/> D AP Environmental Science | <input type="radio"/> J Personal interest or reading |
| <input type="radio"/> E One or two college courses | <input type="radio"/> K Other: <table border="1" style="display: inline-table; vertical-align: top; width: 250px; height: 50px;"></table> |
| <input type="radio"/> F Three or more college courses | |

Thank you for your input! **If you have questions:** The researcher conducting this study is Dr. Jules Winters. If you have any questions, you may contact Jules at jwinters@berkeley.edu or 510-643-0448.