S1 appendix for

Aspects of large-enrollment online college science courses that exacerbate and alleviate student anxiety

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Copy of survey questions analyzed

Please answer the following questions about the SCIENCE courses that you have completed at YYY University.

How many ONLINE college science courses (of any size) have you enrolled in?

Please include courses that were fully or partially online due to the COVID-19 pandemic in your count. We consider science courses to be any biology, chemistry, geosciences, or physics courses. These are courses with prefixes such as BIO, MIC, CHM, BCH, PHY, GLG, AST, SES.

- None*
- 1-3
- 4-6
- 7 or more

*Students who selected this were automatically sent to the end of the survey.

How many large-enrollment (100 students or more) ONLINE college science courses have you enrolled in?

Please include courses that were fully or partially online due to the COVID-19 pandemic in your count. We consider science courses to be any biology, chemistry, geosciences, and physics courses. These are courses with prefixes such as BIO, MIC, CHM, BCH, PHY, GLG, AST, SES.

- None
- 1-3
- 4-6
- 7 or more

How many large-enrollment (100 students or more) IN-PERSON college science courses have you enrolled in?

Please DO NOT include courses that were partially online due to the COVID-19 pandemic. We consider science courses to be any biology, chemistry, geosciences, and physics courses. These are courses with prefixes such as BIO, MIC, CHM, BCH, PHY, GLG, AST, SES.

- None
- 1-3
- 4-6
- 7 or more

Have you enrolled in at least one large-enrollment (100 students or more) ONLINE college science course that is synchronous, meaning that you have attended class at a specific time with the instructor?

- Yes
- No
Have you enrolled in at least one large-enrollment (100 students or more) ONLINE college science course that is asynchronous, meaning that you do not have to attend class at a specific time with the instructor?

- Yes
- No

**Anxiety Questions**
Anxiety describes feelings of nervousness, fear, and worry. Most students experience at least some anxiety at some point during their experience in college.

We are interested in exploring how large-enrollment (100 students or more) ONLINE science courses affect your anxiety.

On average, how would you rate the severity of your anxiety in the context of large-enrollment ONLINE college science courses?

- Little to no anxiety
- Mild anxiety
- Moderate anxiety
- Severe anxiety

Please compare your average level of anxiety in large-enrollment ONLINE college science courses to IN-PERSON large-enrollment college science courses.

- On average, I have lower anxiety in my online college science courses.
- On average, my anxiety is the same in online college science courses compared to in-person college science courses.
- On average, I have higher anxiety in my online college science courses.

*Students who answered their anxiety was lower were sent to the question:*

Please explain why you have lower anxiety in your ONLINE college science courses.

________________________________________________________________

*Students who answered their anxiety was the same were sent to the question:*

Please explain why your anxiety is the same in ONLINE college science courses compared to IN-PERSON college science courses.

________________________________________________________________

*Students who answered their anxiety was higher were sent to the question:*

Please explain why you have higher anxiety in your ONLINE college science courses.

________________________________________________________________
Reflect on your experiences taking large-enrollment (100 students or more) college science courses ONLINE. Please describe any aspects of large-enrollment online science courses that INCREASE your feelings of anxiousness. List as many aspects as you can think of.

________________________________________________________________

Reflect on your experiences taking large-enrollment (100 students or more) science courses ONLINE. Please describe any aspects of large-enrollment online science courses that DECREASE your feelings of anxiousness. List as many aspects as you can think of.

________________________________________________________________

Please select all aspects of large-enrollment ONLINE science courses that INCREASE your feelings of anxiousness.

☐ The potential for personal technology issues (e.g., unstable internet connection)
☐ Instructor technology issues
☐ Difficulty getting help from other students in class
☐ Difficulty getting to know other students in the class
☐ Difficulty getting help from the instructor
☐ Difficulty getting to know the instructor
☐ Proctored online exams
☐ Needing to have my camera on
☐ Working with people I don’t know
☐ Timed assignments
☐ Worry about being judged when participating
☐ Worry about causing an accidental disruption (e.g., accidentally unmute yourself)
☐ The potential for your surroundings to embarrass you on camera
☐ The potential for your learning environment (e.g., home or coffee shop) to distract you from your learning
☐ Disorganized online course format
☐ Disengaged students in break out groups
☐ Other, please describe ____________________________________________
☐ Nothing related to online courses increases my feelings of anxiousness

Please select all aspects of large-enrollment ONLINE science courses that DECREASE your feelings of anxiousness.

☐ Student groups that are pre-assigned (not having to find my own group to work in)
When getting help from people in class is easy
When getting help from the instructor is easy
The use of informal discussion platforms such as WhatsApp, GroupMe, Discord, or Slack
Working in groups with people I know
Not having to contact the instructor in-person
Not having to be on camera
Being able to access content at a later time (e.g., re-watch a lecture video)
The flexibility of attending class where I want
The flexibility of attending class when I want
When work doesn’t have deadlines and just needs to be completed by the end of the semester
Instructor cares about student concerns
Clear instruction from instructor about how to communicate in class
Clear instruction from instructor about how to communicate with other students in class
Increased test flexibility (e.g., open-note, open for a long time)
Being able to use the greenscreen to change your Zoom background
Having the ability to ask questions to the instructor during class without everyone seeing
I can conceal certain elements of my identity (e.g., visible disability, LGBTQ)
Other, please describe ________________________________
Nothing related to online courses decreases my feelings of anxiousness

What suggestions do you have about what instructors of large-enrollment ONLINE college science courses could do to help DECREASE student anxiety?

______________________________________________________

Demographic Questions

Please indicate how you most closely identify.
I most closely identify as
  o Woman
  o Man
  o Non-binary
  o Other, please describe ________________________________
Prefer not to say

I most closely identify as

- American Indian or Alaska Native
- Asian
- Black or African American
- Hispanic, Latinx, or Spanish origin
- Pacific Islander
- White/Caucasian
- Other, please describe ____________________________________________
- Prefer not to say

What is your parent or guardian's highest level of education? If you have more than one parent or guardian with differing levels of education, choose the higher of the two.

- Less than high school completed
- High school diploma or GED
- Some college but no degree
- Associate's degree (e.g., AA, AS)
- Bachelor's degree (e.g., BA, AB, BS)
- Master's degree (e.g., MA, MS, MEng, MEd, MSW, MBA)
- Higher than a Master's degree (e.g., PhD, MD, JD)
- Prefer not to say

During the time you have taken online science courses, have you considered yourself financially stable (e.g., had enough money for necessities such as groceries and rent)?

- Yes
- Yes, but only sometimes
- No
- Prefer not to say

Do you currently live in the United States?

- Yes
- No
- Prefer not to say

What is your GPA (on a 4.0 scale)?

How long have you attended college while pursuing your undergraduate degree?

- 1 year or less
o 2 years
o 3 years
o 4 years
o 5 years or more
o I have graduated with my undergraduate degree
o Prefer not to say

Do you identify as a member of the LGBTQIA* community?
*lesbian, gay, bisexual, transgender, queer/questioning, intersex, asexual/aromantic
o Yes
o No
o Prefer not to say

Please select the word or words that best describe your identity:

☐ Lesbian
☐ Gay
☐ Bisexual
☐ Queer
☐ Transgender
☐ Intersex
☐ Asexual
☐ Other, please describe ________________________________
☐ Prefer not to say

Please select the major that is closest to yours. If you have more than one major, please choose all that apply.

☐ Biology
☐ Biochemistry
☐ Chemistry
☐ Physics
☐ Geosciences
☐ Business
☐ English
☐ Psychology
☐ Sociology
☐ Other, please describe __________________________________________________

Please indicate how you most closely identify. You do not need to have a formal diagnosis to identify as having currently or previously struggled with depression or a depressive disorder.

- Currently or having previously struggled with depression or a depressive disorder
- Having never struggled with depression
- Prefer not to say
Table 1. Number of students who participated in the survey and the courses from which they were recruited; students were recruited from 55 unique courses. A total of 2175 students participated.

| Course type                  | No. of courses |
|------------------------------|----------------|
| Neurobiology                 | 1              |
| Microbiology                 | 5              |
| Medical microbiology         | 6              |
| Biology or life sciences     | 36             |
| Applied biological sciences  | 7              |
Table 2. Copy of coding rubric for why students perceive anxiety to be higher online.

| Theme                                           | Description                                                                                                                                                                                                                                                                   | Percent (n/354) |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Learning is more difficult online               | Students describe that their anxiety is higher online because they find it more difficult to learn in an online environment compared to an in-person environment because they are independent. This may be because a student finds it more difficult to pay attention online, stay engaged online, or focus online. Students may also say that they have to "teach themselves" which they perceive to be difficult. Labs completed online are harder. | 55.7% (197/354) |
| It is more difficult to stay organized and keep up with online coursework | Students describe that their anxiety is higher online because they find it more difficult to be organized, self-paced, or keep track of due dates online compared to in-person. This is sometimes blamed on the fact that there are so many Canvas notifications or that students need to plan out their own time or that there is no "routine-commitment." They may mention that they struggle to stay on top of or ahead of assignments, find it easier to fall behind, or procrastinate more because there are fewer deadlines in online courses. | 21.2% (75/354) |
| Making connections with students is more difficult online | Students describe that their anxiety is higher online because they struggle to connect with other students. They can talk with classmates about the material in person but it is harder to make connections with students, ask students questions or form study groups online. This can lead students to feel lonely and unsupported. | 21.2% (75/354) |
| Making connections with instructors is more difficult online | Students describe that their anxiety is higher online because they find it harder to connect with the instructor. For example, students may describe difficulty with asking instructors questions online. | 20.6% (73/354) |
| Distractions specific to learning online        | Students describe that online learning presents unique distractions including family being around or other students chatting them during Zoom meetings. Not knowing when to speak.                                                                                       | 15.3% (54/354) |
| Taking exams is more difficult online           | Students describe that online exams increase their anxiety more than in-person exams or factors that are unique to online exams such as proctoring, scheduling, amount of time the exam is open, etc., exacerbate their anxiety. Students describe that flags during proctoring can result in lost points, which increases their anxiety. | 14.1% (50/354) |
| Greater workload and expectations online        | Students describe that their anxiety is higher in online courses compared to in person because there is increased workload,                                                                                                                                                         | 11.3% (40/354) |
higher expectations, and online courses are at a faster-pace than in-person courses.

| Communication in class online is more difficult | Students describe that their anxiety is higher in online courses compared to in person because it is more stressful to speak out in front of the whole class and ask questions in an online platform compared to in person. | 9.3% (33/354) |
| Technological issues make online more difficult | Students describe that their anxiety is higher in online courses compared to in person because of tech problems, such as internet issues or different online learning platforms, and instructor's intolerance for technological issues. | 7.3% (26/354) |
Table 3. Copy of coding rubric for why students perceive anxiety to be lower online.

| Theme                                                                 | Description                                                                                                                                                                                                 | Percent (n/239) |
|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Can learn in a comfortable or familiar environment online            | Students describe their anxiety to be less online because the student is in a familiar, comfortable, safe environment or surrounding, and gets to be alone in a room. This also includes if a student describes they do not have to be in a crowded or large lecture hall. | 39.7% (95/239)  |
| Does not have to physically get to class                              | Students describe their anxiety to be less online because time is not wasted commuting, getting or walking to class, switching classes, etc. This often decreases anxiety because students do not worry about being late or describe that it allows them additional time to do homework or complete assignments. | 15.9% (38/239)  |
| Material is easier to follow or more readily available online        | Students describe their anxiety to be less online because the material is easier to follow or more readily available (recordings). This includes if a student mentions that they are able to re-watch lectures or that they can pause/rewind lectures. | 15.9% (38/239)  |
| Fewer interactions and less social anxiety online                    | Students describe their anxiety to be less online because it requires less person-person interaction or students find it easier to interact online or online learning in general does not exacerbate their social anxiety. | 14.2% (34/239)  |
| Can be anonymous or avoid being watched online                       | Students describe their anxiety to be less online because you can be anonymous or not have to show your face or be heard. Students may mention that they do not feel like they are being watched or stared at. This includes if a student says they are less concerned about their physical appearance. | 10.9% (26/239)  |
| Experience less judgment and embarrassment online                   | Students describe their anxiety to be less online because they are less worried about being judged (e.g., when called on), feel less likely to be judged (e.g., when sitting alone), or feel less likely to feel embarrassed. | 8.8% (21/239)   |
| Easier to have questions answered and communicate online             | Students describe their anxiety to be less online because it is easier to have questions answered or have group communication (e.g., using apps such as Zoom, Discord, Slack). | 7.5% (18/239)   |
Table 4. Copy of the coding rubric for why students perceive anxiety to be the same in person and online.

| Theme                                                                 | Description                                                                                           | Percent (n/290) |
|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|-----------------|
| Anxiety is the same for the same reasons in both online and in-person courses | Students describe that the anxiety is the same both in person and online for the same reasons.         | 52.1% (151/290) |

Sub-categories for anxiety is the same for same reasons in both online and in-person courses

| Sub-category                                                                 | Description                                                                                                                                                                                                                                                                                                                                 | Percent (n/290) |
|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Workload and assignments can be similar in both online and in-person courses yielding the same anxiety | Students describe that the anxiety is the same in both because the workload, concepts, and course expectations/structure can be the same. Further, students said that course expectations and course material can be similar in online and in-person courses.                                                                                                                                       | 20.3% (59/290)  |
| Testing and study habits can be similar in both online and in-person courses yielding the same anxiety | Students describe that the anxiety is the same in both since they generally have test anxiety or get anxious about taking tests in both in person and online and that the way they would approach studying and/or their study habits are the same in both.                                                                 | 10.7% (31/290)  |
| Pressure to perform and maintaining GPA can be similar in both online and in-person courses yielding the same anxiety | Students describe that anxiety is the same in both because the pressure to do well or to perform is the same. Moreover, students describe that anxiety is the same because how to get a grade/GPA maintenance is the same in both settings. Further, they describe that it is not about the course delivery but how one does or performs in the course. | 9.0% (26/290)   |
| Instructor course decisions and teaching style can be the same in both online and in-person courses yielding the same anxiety | Students describe that the anxiety is the same because the general teaching style or instructor decisions regarding the classroom (e.g., having students participate) influence anxiety in the same fashion. Further, students describe that anxiety is the same because both online and in-person students may lack getting help or attention from their instructors, especially in large-enrollment courses. | 7.2% (21/290)   |
| Science courses and courses in general can be similar in both online and in-person courses yielding the same anxiety | Students describe that anxiety is the same in both because science courses can generally be difficult in either format. Moreover, they describe just having anxiety about schooling or academics.                                                                                                                                                                        | 5.9% (17/290)   |
| Anxiety is the same for different reasons in both online and in-person courses | Students describe that the anxiety is the same in both but for different reasons. Also, students describe there are different pros and cons for in-person and online courses, but the pros and cons balance one another out. Furthermore, most students describe different combinations of reasons that balance one another out in both online and in-person courses. | 23.4% (68/290) |
| --- | --- | --- |
| Anxiety is the same for personal reasons in both online and in-person courses | Students describe that the anxiety is the same in both and is not because of classroom factors and they are just anxious, shy, and/or nervous in general. Further, students describe they generally have anxiety about anything regarding the unknown. Additionally, students describe that they have anxiety because of learning difficulties (e.g., trouble concentrating, trouble learning and retaining information). | 19.7% (57/290) |

**Sub-categories for anxiety is the same for personal reasons in both online and in-person courses**

| Student has little to no anxiety and cannot make comparison between online and in-person courses | Students describe having little to no anxiety regarding in-person and online courses or students describe not being anxious or having any anxiety in general. | 5.9% (17/290) |
| --- | --- | --- |
| Student is generally anxious or has anxiety in general | Students describe that the anxiety is the same both and is not because of classroom factors, they are just anxious or shy in general. | 5.5% (16/290) |
| Learning difficulties can be the same in both online and in-person courses | Students describe that they have anxiety because of learning difficulties (e.g., trouble concentrating). | 2.8% (8/290) |
Table 5. Copy of coding rubric for what factors increase student anxiety in large-enrollment online college science courses.

| Theme                                                   | Description                                                                                                                                                                                                 | Percent (n/307) |
|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Difficulty contacting the instructor or getting questions answered | Students describe that their anxiety increased from difficulty getting their questions answered or difficulty contacting the instructor.                                                                          | 33.2% (102/307) |
| Difficulty learning in an online environment            | Students describe that learning in an online environment in general increases their anxiety for a number of reasons. This includes students who feel the lectures are more confusing, have difficulty with self-motivation/self-pace, or feel the online courses are more disorganized in general. | 25.1% (77/307)  |
| Fast pace of the course/workload                        | Students describe that the fast pace and heavy workload associated with online learning increases their anxiety.                                                                                             | 17.3% (53/307)  |
| Whole class participation/fear of negative evaluation   | Students describe that having to participate in front of the whole class, ask questions in front of the whole class, or participate involuntarily increases their anxiety, possibly because they're worried about being judged. | 15.0% (46/307)  |
| Technology issues                                       | Students describe that the potential for technology issues (e.g., WiFi crash, Zoom issues, etc.) increases their anxiety.                                                                                      | 13.4% (41/307)  |
| Not being able to communicate with other students       | Students describe that having difficulty connecting or communicating with other students increases their anxiety.                                                                                           | 13.0% (40/307)  |
| Exams                                                   | Students describe that exams increase their anxiety, potentially when they are proctored, timed, etc.                                                                                                | 13.0% (40/307)  |
| Breakout rooms and groupwork                            | Students describe that breakout rooms or group work can increase anxiety, particularly when other students do not participate.                                                                            | 8.1% (25/307)   |
| Camera being on                                         | Students describe that being asked to have their camera on increases their anxiety.                                                                                                                        | 6.8% (21/307)   |
| Distractions                                            | Students describe that distractions (either at home or within the online learning environment) increase their anxiety.                                                                                       | 6.5% (20/307)   |
Table 6. Copy of coding rubric for what factors decrease student anxiety in large-enrollment online college science courses.

| Theme                                                   | Description                                                                                                                                                                                                 | Percent (n/305) |
|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Flexibility with time and course materials              | Students describe that their anxiety decreases because they can work on their own time, at their own pace, and go back to previous lectures or move ahead on course materials and are therefore less concerned about missing classes or course material. | 28.5% (87/305) |
| Lack of evaluation and competition from other students  | Students describe that their anxiety decreases because they feel less judgement and competition from other students with regard to both their physical appearance and academic performance because there are no public speaking/presentations, no direct in-person interaction with other students, and they are less likely to be called upon to answer questions. | 21.6% (66/305) |
| Ease of teamwork, study groups, and peer-to-peer communication | Students describe that their anxiety decreases because they feel it is easier to form study groups and work on projects in a team setting as well as communicate with their group via chat and other platforms such as breakout rooms to connect with their group. | 10.5% (32/305) |
| Instructor is supportive and understanding              | Students describe that their anxiety decreases because they feel that the instructor is supportive and understanding of their individual needs, including when students experience technology failures or need individual attention. | 10.5% (32/305) |
| Lack of commute                                         | Students describe that their anxiety decreases because they can use commute time to accomplish other course-related tasks and do not have to carry the burden of getting ready, driving to campus, being in traffic, paying for parking, paying for gas, etc. | 10.2% (31/305) |
| Ability to work from a comfortable or familiar space    | Students describe that their anxiety decreases because they can be in their own comfortable space or have the convenience of living with their parents/guardians rent-free. | 10.2% (31/305) |
| Instructor's teaching method is engaging and structured  | Students describe that their anxiety decreases because their instructors are enthusiastic and engaging, and the structure of the course is predictable and easy to follow. | 9.5% (29/305)  |
| Cameras off                                             | Students describe that their anxiety decreases because they feel more comfortable because they can turn their camera off.                                                                                       | 8.5% (26/305)  |
| Exam flexibility                                        | Students describe that their anxiety decreases because they are given open-note exams and plenty of time to complete exams which are not proctored.                                                               | 7.9% (24/305)  |
| Instructor responds to student questions in a detailed and timely manner | Students describe that their anxiety decreases because they are able to get their questions answered by the instructor and/or TA with detailed responses in a timely manner, and that their instructor/TA is available to help when needed. | 5.2% (16/305) |
Table 7. Copy of the coding rubric for what instructors can do to decrease student anxiety in online college science courses.

| Theme                                           | Description                                                                                                                                                                                                 | Percent (n/563) |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| **Increase in test-taking flexibility**         | Students describe that instructors can reduce anxiety by allowing longer time for exams, open notes, no proctor, allow students to go backward, more flexible test times, dropping the lowest exam score, or curving scores. | 25.0% (141/563) |
| **Be flexible and understanding**               | Students describe that instructors can reduce anxiety by being flexible or having grace with regard to deadlines (including eliminating timed assignments) or technical issues, or that instructors be understanding that students are having a difficult time (e.g., reaching out to students) or may be struggling with mental health. | 23.1% (130/563) |
| **Have an organized course**                    | Students describe that instructors can reduce anxiety by having an organized course or outline to follow during class. Students may describe this as "properly set up Canvas," a clear format, detailed course instructions, full schedules of assignments, easily found resources (e.g., Zoom links to class and office hours), clear online posts, or clear set class expectations. Students can also describe instructors having rules in place during Zoom classes. | 14.7% (83/563)  |
| **Be available and try to develop student-instructor relationships** | Students describe that they would like instructors or TAs to be more responsive or available or to create additional avenues for student-instructor communication; this includes collecting feedback about course from students. This may come in the form of answering questions more frequently, watching discussion boards, providing more office hours, walking through examples in class, etc. Students may also request that instructors or TAs emphasize or allow students to reach out via Zoom, direct messaging, or other apps. Students also describe the instructor could share information about themselves so students can better get to know who their instructors are. | 13.0% (73/563)  |
| **Allow cameras to be optional**                | Students describe that instructors can reduce student anxiety by not requiring student cameras to be on.                                                                                                                                                              | 9.9% (56/563)   |
| **Provide additional study materials**          | Students describe that instructors can reduce student anxiety by facilitating or encouraging student study groups, study sessions, working groups, practice tests, or prep materials. Students also describe wanting to receive feedback on their assignments.                                                                 | 8.7% (49/563)   |
| **Provide opportunities to re-watch lectures**  | Students describe that instructors can reduce student anxiety by providing video recordings of lectures so that students can re-watch/listen to them when they want/need.                                                                 | 8.5% (48/563)   |
| Facilitate opportunities to build relationships among students | Students describe that instructors can reduce anxiety by creating opportunities for students to get to know each other, socialize, or make connections among themselves (e.g., casual discussions in class). This may include using an app (e.g., Discord, GroupMe) so that students can contact each other. This may also include creating a positive overall feel of the course. | 7.3% (41/563) |
| Fewer breakout rooms or opportunities for group work | Students describe that instructors can reduce anxiety by not having breakout rooms (or less of them) during lecture or group work. Students often complain that students do not participate during breakouts. | 5.7% (32/563) |
| Decrease workload or slow down the pace of the course | Students describe that instructors can reduce student anxiety by decreasing the workload, having shorter or split-up lectures, not having students watch pre-recorded lectures and then review them again during class, or slowing down the instruction. Students also describe wanting an in-class break. | 5.5% (31/563) |
| No suggestions, professor is doing everything they can | Students describe that they have no suggestions for how instructors can help decrease student anxiety and acknowledge instructors are doing the best they can. | 5.3% (30/563) |
For our regression models, our reference groups were men, white students, continuing generation students, non-LGBTQ+ students, students who consider themselves financially stable, upperclassmen, students with more experience in online courses, students without depression, and STEM majors.

For college-generation status, “fgen” refers to first-generation college students. For year in college, we used the abbreviation “lowerCM” to denote lowerclassmen. “Le.online.exp” refers to experience in large-enrollment online courses.

Output tables for regressions in RQ1/Finding 1

Table 8

Multinom(anxiety2~ gender2 + race2 + gen.stat2 + lgbtq2 + financially.stable2 + yr.binary + le.online.exp + STEM.major.clean + GPA + depression2)

|                      | Coefficients | Estimate Std | Error z value | Pr(>|z|) |
|----------------------|--------------|--------------|---------------|---------|
|                      | Moderate     | Severe       | Moderate      | Severe  | Moderate | Severe  | Moderate | Severe  |
| Intercept            | -0.38        | -1.79        | 0.53          | 0.073   | -0.72    | -2.45   | 0.47     | 0.01    |
| Gender.woman         | 0.44         | 0.62         | 0.13          | 0.29    | 3.41     | 3.13    | <0.001   | <0.01   |
| Race.asian           | 0.00         | -0.10        | 0.17          | 0.26    | 0.02     | -0.38   | 0.99     | 0.70    |
| Race.black           | -0.39        | -0.44        | 0.28          | 0.40    | -1.40    | -1.59   | 0.16     | 0.28    |
| Race.latinx          | -0.09        | 0.09         | 0.15          | 0.21    | -0.56    | 0.43    | 0.58     | 0.67    |
| Gen.stat.fgen         | 0.09         | -0.02        | 0.13          | 0.19    | 0.64     | -0.08   | 0.52     | 0.93    |
| Lgbtq.yes             | -0.15        | 0.02         | 0.16          | 0.21    | -0.93    | 0.10    | 0.35     | 0.92    |
| Financially.stable2no| 0.60         | 1.34         | 0.20          | 0.25    | 2.96     | 5.38    | <0.001   | <0.01   |
| Financially.stable2sometimes | 0.01 | 0.42 | 0.14 | 0.20 | 0.09 | 2.14 | 0.93 | 0.03 |
| lowerCM              | -0.03        | 0.15         | 0.13          | 0.18    | -0.23    | 0.83    | 0.82     | 0.40    |
| Le.online.exp.less   | -0.29        | -0.20        | 0.13          | 0.18    | -2.27    | -1.12   | 0.02     | 0.26    |
| STEM.major.cleanano  | -0.15        | -0.59        | 0.16          | 0.24    | -0.94    | -2.39   | 0.35     | 0.02    |
| GPA                  | -0.14        | -0.24        | 0.14          | 0.19    | -0.99    | -1.31   | 0.32     | 0.19    |
| Depression.yes       | 0.80         | 1.19         | 0.13          | 0.20    | 6.27     | 5.94    | <0.001   | <0.001  |
Output tables for regressions in RQ2/Finding 2

Table 9

```
multinom(formula = online.vs.inperson ~ gender2 + race2 + gen.stat2 + lgbtq2 + financially.stable2 + yr.binary + le.online.exp + GPA + depression2 + STEM.major.clean, data = le.online.inperson.data, na.action = na.omit)
```

|                     | Coefficients | Estimate Std | Error z value | Pr(>|z|) |
|---------------------|--------------|--------------|---------------|---------|
|                     | Lower        | Same         | Lower         | Same    | Lower       | Same         | Pr(>|z|) |
| Intercept           | -1.48        | -2.52        | 0.96          | 0.94    | -1.54       | -2.68        | 0.12   | <0.01 |
| Gender.woman        | 0.31         | -0.05        | 0.22          | 0.21    | 1.41        | -0.26        | 0.16   | 0.19  |
| Race.asian          | -0.05        | 0.17         | 0.31          | 0.28    | -0.17       | 0.63         | 0.86   | 0.53  |
| Race.black          | 0.21         | 0.03         | 0.50          | 0.49    | 0.42        | 0.07         | 0.67   | 0.95  |
| Race.latinx         | 0.17         | 0.09         | 0.27          | 0.26    | 0.63        | 0.35         | 0.53   | 0.73  |
| Gen.stat.fgen       | 0.19         | 0.35         | 0.23          | 0.22    | 0.82        | 1.60         | 0.41   | 0.11  |
| Lgbtq.yes           | -0.37        | -0.01        | 0.28          | 0.26    | -1.31       | -0.01        | 0.19   | 0.98  |
| Financially.stable2 | 0.11         | 0.16         | 0.32          | 0.31    | 0.36        | 0.49         | 0.72   | 0.62  |
| Financially.stable2 | -0.07        | -0.03        | 0.24          | 0.22    | -1.96       | -0.14        | 0.051  | 0.89  |
| Financially.stable2 | -0.05        | -0.24        | 0.31          | 0.20    | -2.60       | -1.20        | <0.01  | 0.23  |
| Financially.stable2 | 0.02         | -0.03        | 0.21          | 0.19    | 0.11        | -0.16        | 0.91   | 0.38  |
| Financially.stable2 | 0.34         | 0.69         | 0.25          | 0.24    | 1.36        | 2.83         | 0.17   | <0.01 |
| Depression.yes      | -0.26        | -0.45        | 0.22          | 0.21    | -1.19       | -2.20        | 0.23   | 0.03  |
| STEM.major.no       | 0.55         | 0.29         | 0.31          | 0.31    | 1.76        | 0.94         | 0.08   | 0.35  |
Output tables for regressions in RQ3/Finding 3

10.1 The potential for personal technology issues (e.g., unstable internet connection)
Call: glm(formula = inc.personal.tech ~ gender2 + race2 + gen.stat2 + lgbtq2 + financially.stable2 + yr.binary + le.online.exp + STEM.major.clean + GPA + depression2 + anxiety2, family = binomial, data = anxiety.data, na.action = na.omit)

Coefficients:

|                           | Estimate | Std. Error | z value | Pr(>|z|)  |
|---------------------------|----------|------------|---------|-----------|
| (Intercept)               | -0.9821  | 0.5196     | -1.890  | 0.058749  |
| gender.woman              | 0.4452   | 0.1268     | 3.509   | 0.000449 *** |
| race.asian                | 0.2097   | 0.1731     | 1.211   | 0.225896 |
| race.black                | -0.4823  | 0.2581     | -1.869  | 0.061670 |
| race.latinx               | 0.4454   | 0.1582     | 2.814   | 0.004886 ** |
| gen.stat.fgen             | -0.2391  | 0.1329     | -1.799  | 0.071942 |
| financially.stable2no    | 0.0965   | 0.2014     | 0.479   | 0.631836 |
| financially.stable2sometimes | 0.1192 | 0.1405     | 0.848   | 0.396280 |
| lowerCM                   | 0.1540   | 0.1261     | 1.222   | 0.221882 |
| le.online.expless         | -0.0751  | 0.1275     | -0.589  | 0.555726 |
| STEM.major.cleanno        | -0.1490  | 0.1549     | -0.962  | 0.336177 |
| GPA                       | 0.2847   | 0.1348     | 2.111   | 0.034773 * |
| depression.yes            | 0.1679   | 0.1290     | 1.301   | 0.193214 |
| anxiety2moderate          | 0.5371   | 0.1313     | 4.090   | 4.31e-05 *** |
| anxiety2severe            | 1.0581   | 0.2157     | 4.904   | 9.38e-07 *** |

10.2 Proctored online exams
Call:
glm(formula = inc.exam ~ gender2 + race2 + gen.stat2 + lgbtq2 + financially.stable2 + yr.binary + le.online.exp + STEM.major.clean + GPA + depression2 + anxiety2, family = binomial, data = anxiety.data, na.action = na.omit)

Coefficients:

|                           | Estimate | Std. Error | z value | Pr(>|z|)  |
|---------------------------|----------|------------|---------|-----------|
| (Intercept)               | -0.46433 | 0.53050    | -0.875  | 0.3814    |
| gender.woman              | 0.31276  | 0.12888    | 2.427   | 0.0152 *  |
| race.asian                | 0.14266  | 0.17354    | 0.822   | 0.4111    |
| race.black                | -0.35180 | 0.26380    | -1.334  | 0.1823    |
| race.latinx               | 0.38309  | 0.16011    | 2.393   | 0.0167 *  |
| gen.stat.fgen             | -0.23569 | 0.13580    | -1.736  | 0.0826 .  |
10.3 Difficulty getting to know other students in the class
Call:
  glm(formula = inc.student.know ~ gender2 + race2 + gen.stat2 +
         lgbtq2 + financially.stable2 + yr.binary + le.online.exp +
         STEM.major.clean + GPA + depression2 + anxiety2, family =
         binomial,
         data = anxiety.data, na.action = na.omit)

Coefficients:
               Estimate Std. Error z value Pr(>|z|)
(Intercept)   -0.84390   0.52033  -1.622   0.1048
gender.woman   0.10143   0.13011   0.780   0.4356
race.asian     0.21642   0.17667   1.225   0.2206
race.black    -0.57334   0.26177  -2.190   0.0285 *
race.latinx    0.25628   0.15427   1.661   0.0967 .
gen.stat.fgen  -0.32275   0.13184  -2.448   0.0144 *
lgbtq.yes     -0.12518   0.16192  -0.773   0.4394
financially.stable2no -0.07395   0.19471  -0.380   0.7041
financially.stable2sometimes  0.19841   0.14094  1.408   0.1592
lowerCM        0.74192   0.12518   5.927 3.09e-09 ***
le.online.expless -0.10400   0.12703  -0.819   0.4130
STEM.major.cleanno -0.05088   0.15720  -0.324   0.7462
GPA            0.23203   0.13480   1.721   0.0852 .
depression.yes -0.07395   0.19471  -0.380   0.7041
anxiety2moderate  0.93850   0.13439  6.983 2.88e-12 ***
anxiety2severe  1.47491   0.23071  6.393 1.63e-10 ***

10.4 Worry about causing an accidental disruption (e.g., accidentally
         unmute yourself)
Call:
  glm(formula = inc.disrupt ~ gender2 + race2 + gen.stat2 + lgbtq2 +
         financially.stable2 + yr.binary + le.online.exp + STEM.major.clean +
GPA + depression2 + anxiety2, family = binomial, data = anxiety.data,
na.action = na.omit)

Coefficients:

|                         | Estimate | Std. Error | z value | Pr(>|z|) |
|-------------------------|----------|------------|---------|----------|
| (Intercept)             | -0.799313| 0.512228   | -1.560  | 0.118651 |
| gender.woman            | 0.444960 | 0.124827   | 3.565   | 0.000364 *** |
| race.asian              | 0.027719 | 0.167872   | 0.165   | 0.868849 |
| race.black              | -0.570873| 0.258231   | -2.211  | 0.027056 * |
| race.latinx             | 0.194534 | 0.152839   | 1.273   | 0.203088 |
| gen.stat.fgen           | -0.160131| 0.130748   | -1.225  | 0.220677 |
| lgbtq.yes               | 0.711013 | 0.179675   | 3.957   | 7.58e-05 *** |
| financially.stable2no   | -0.059954| 0.197124   | -0.050  | 0.959728 |
| financially.stable2sometimes | -0.056095| 0.137083   | -0.409  | 0.682388 |
| lowerCM                 | 0.222000 | 0.123720   | 1.794   | 0.072753 . |
| le.online.expless       | -0.143925| 0.125225   | -1.149  | 0.250421 |
| STEM.major.cleanno      | -0.075505| 0.153038   | -0.493  | 0.621749 |
| GPA                     | 0.209361 | 0.132924   | 1.575   | 0.115248 |
| depression.yes          | 0.135593 | 0.125724   | 1.078   | 0.280812 |
| anxiety2moderate        | 0.585556 | 0.129217   | 4.532   | 5.85e-06 *** |
| anxiety2severe          | 0.951126 | 0.203065   | 4.684   | 2.82e-06 *** |

10.5 Needing to have my camera on

Call:
glm(formula = inc.camera ~ gender2 + race2 + gen.stat2 + lgbtq2 + financially.stable2 + yr.binary + le.online.exp + STEM.major.clean + GPA + depression2 + anxiety2, family = binomial, data = anxiety.data,
   na.action = na.omit)

Coefficients:

|                         | Estimate | Std. Error | z value | Pr(>|z|) |
|-------------------------|----------|------------|---------|----------|
| (Intercept)             | -0.03177 | 0.51252    | -0.062  | 0.950572 |
| gender.woman            | 0.45565  | 0.12261    | 3.716   | 0.000202 *** |
| race.asian              | 0.11589  | 0.16251    | 0.713   | 0.475788 |
| race.black              | 0.20476  | 0.26645    | 0.768   | 0.442207 |
| race.latinx             | 0.39775  | 0.15129    | 2.629   | 0.008561 ** |
| gen.stat.fgen           | -0.02917 | 0.12861    | -0.227  | 0.820596 |
| lgbtq.yes               | 0.10714  | 0.16213    | 0.661   | 0.508750 |
| financially.stable2no   | 0.55787  | 0.20284    | 2.750   | 0.005955 ** |
| financially.stable2sometimes | 0.30659  | 0.13441    | 2.281   | 0.022547 * |
| lowerCM                 | -0.15547 | 0.12146    | -1.280  | 0.200547 |
| le.online.expless       | -0.14940 | 0.12225    | -1.222  | 0.221702 |
|                        | Estimate | Std. Error | z value | Pr(>|z|) |
|------------------------|----------|------------|---------|----------|
| (Intercept)            | -1.3580  | 0.4898     | -2.75   | 0.0056   * |
| gender.woman           | 0.3956   | 0.1782     | 2.22    | 0.0263   ** |
| race.asian             | 0.2275   | 0.1623     | 1.39    | 0.1670   |
| race.black             | -0.1255  | 0.2042     | -0.61   | 0.5410   |
| race.latinx            | 0.0906   | 0.1410     | 0.64    | 0.5184   |
| gen.stat.fgen          | -0.2289  | 0.1632     | -1.39   | 0.1664   |
| lgbtq.yes              | 0.3922   | 0.1808     | 2.22    | 0.0263   ** |
| financially.stable2no | 0.0552   | 0.1781     | 0.31    | 0.7545   |
| financially.stable2sometimes | 0.0456  | 0.2569     | 0.18    | 0.8581   |
| lowerCM                | 0.1016   | 0.1261     | 0.80    | 0.4197   |
| le.online.expless      | -0.0707  | 0.1104     | -0.64   | 0.5220   |
| STEM.major.cleanno     | 0.0382   | 0.1630     | 0.23    | 0.8223   |
| GPA                    | 0.1853   | 0.1393     | 1.33    | 0.1822   |
| depression.yes         | 0.1045   | 0.1393     | 0.75    | 0.4516   |
| anxiety2moderate       | 0.2257   | 0.1492     | 1.51    | 0.1294   |
| anxiety2severe         | 0.8201   | 0.2105     | 3.93    | 0.0003   *** |

### 10.6 Disengaged students in break out groups

Call:
```r
glm(formula = inc.disengaged ~ gender2 + race2 + gen.stat2 + 
    lgbtq2 + financially.stable2 + yr.binary + le.online.exp + 
    STEM.major.clean + GPA + depression2 + anxiety2, family = 
    binomial, 
    data = anxiety.data, na.action = na.omit)
```

Coefficients:

|                        | Estimate | Std. Error | z value | Pr(>|z|) |
|------------------------|----------|------------|---------|----------|
| (Intercept)            | -1.2892  | 0.4913     | -2.62   | 0.0087   * |
| gender.woman           | 0.3562   | 0.1240     | 2.88    | 0.0038   ** |
| race.asian             | 0.2097   | 0.1700     | 1.22    | 0.2218   |
| race.black             | -0.1432  | 0.2626     | -0.54   | 0.5894   |
| race.latinx            | 0.1872   | 0.1504     | 1.24    | 0.2164   |
| gen.stat.fgen          | -0.3092  | 0.1680     | -1.83   | 0.0675   |
| lgbtq.yes              | 0.3620   | 0.1666     | 2.16    | 0.0307   * |
| financially.stable2no | 0.0751   | 0.1937     | 0.39    | 0.6949   |
| financially.stable2sometimes | 0.0320  | 0.2661     | 0.12    | 0.8925   |
| lowerCM                | 0.5361   | 0.1226     | 4.38    | 1.40e-05 *** |
| le.online.expless      | -0.2979  | 0.1249     | -2.39   | 0.0169   ** |
| STEM.major.cleanno     | -0.0679  | 0.1487     | -0.45   | 0.6497   |
| GPA                    | 0.2577   | 0.1331     | 1.93    | 0.0520   |
| depression.yes         | 0.1806   | 0.1217     | 1.48    | 0.1391   |
| anxiety2moderate       | 0.6117   | 0.1282     | 4.76    | 2.02e-07 *** |
| anxiety2severe         | 1.2500   | 0.2061     | 6.05    | 1.44e-09 *** |

### 10.7 Difficulty getting help from the instructor

Call:
```r
glm(formula = inc.instructor.help ~ gender2 + race2 + gen.stat2 + 
    lgbtq2 + financially.stable2 + yr.binary + le.online.exp + 
    STEM.major.clean + GPA + depression2 + anxiety2, family = 
    binomial, 
    data = anxiety.data, na.action = na.omit)
```

Coefficients:

|                        | Estimate | Std. Error | z value | Pr(>|z|) |
|------------------------|----------|------------|---------|----------|
| (Intercept)            | -0.5742  | 0.5084     | -1.13   | 0.2587   |
| gender.woman           | 0.2249   | 0.1240     | 1.81    | 0.0698   |

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25
|                           | Estimate  | Std. Error  | z value | Pr(>|z|) |
|---------------------------|-----------|-------------|---------|---------|
| (Intercept)               | -0.99893  | 0.50379     | -1.983  | 0.04738 * |
| gender.woman              | 0.21214   | 0.12287     | 1.727   | 0.08425 . |
| race.asian                | 0.26871   | 0.16345     | 1.644   | 0.10017 |
| race.black                | -0.41980  | 0.26112     | -1.608  | 0.10791 |
| race.latinx               | 0.24841   | 0.14646     | 1.696   | 0.08987 . |
| gen.stat.fgen             | -0.19206  | 0.12627     | -1.501  | 0.12826 |
| lgbtq.yes                 | -0.27327  | 0.15421     | -1.772  | 0.07639 . |
| financially.stable2no     | 0.34026   | 0.19118     | 1.780   | 0.07510 . |
| financially.stable2sometimes | 0.20560  | 0.13256     | 1.551   | 0.12091 |
| lowerCM                   | 0.460210  | 0.121249    | 3.796   | 0.000147 *** |
| le.online.expless         | -0.142380 | 0.121704    | -1.170  | 0.242044 |
| STEM.major.cleanno        | -0.050929 | 0.149628    | -0.340  | 0.733578 |
| GPA                       | 0.009330  | 0.131738    | 0.071   | 0.943540 |
| depression.yes            | 0.097814  | 0.124189    | 0.788   | 0.430916 |
| anxiety2moderate          | 0.983587  | 0.125446    | 7.841   | 4.48e-15 *** |
| anxiety2severe            | 1.528892  | 0.202712    | 7.542   | 4.62e-14 *** |

**10.8 Difficulty getting help from other students in class**

Call:

```r
glm(formula = inc.student.help ~ gender2 + race2 + gen.stat2 + lgbtq2 + financially.stable2 + yr.binary + le.online.exp + STEM.major.clean + GPA + depression2 + anxiety2, family = binomial,
    data = anxiety.data, na.action = na.omit)
```

Coefficients:

|                           | Estimate  | Std. Error  | z value | Pr(>|z|) |
|---------------------------|-----------|-------------|---------|---------|
| (Intercept)               | -0.99893  | 0.50379     | -1.983  | 0.04738 * |
| gender.woman              | 0.21214   | 0.12287     | 1.727   | 0.08425 . |
| race.asian                | 0.26871   | 0.16345     | 1.644   | 0.10017 |
| race.black                | -0.41980  | 0.26112     | -1.608  | 0.10791 |
| race.latinx               | 0.24841   | 0.14646     | 1.696   | 0.08987 . |
| gen.stat.fgen             | -0.19206  | 0.12627     | -1.501  | 0.12826 |
| lgbtq.yes                 | -0.27327  | 0.15421     | -1.772  | 0.07639 . |
| financially.stable2no     | 0.34026   | 0.19118     | 1.780   | 0.07510 . |
| financially.stable2sometimes | 0.20560  | 0.13256     | 1.551   | 0.12091 |
| lowerCM                   | 0.31705   | 0.11931     | 2.657   | 0.00787 ** |
| le.online.expless         | 0.04328   | 0.11985     | 0.361   | 0.71801 |
| STEM.major.cleanno        | 0.07317   | 0.14877     | 0.492   | 0.62283 |
| GPA                       | 0.08685   | 0.13023     | 0.667   | 0.50482 |
| depression.yes            | 0.14260   | 0.12310     | 1.158   | 0.24670 |
| anxiety2moderate          | 0.88656   | 0.12369     | 7.168   | 7.63e-13 *** |
| anxiety2severe            | 1.49318   | 0.19816     | 7.535   | 4.87e-14 *** |

**10.9 Difficulty getting to know the instructor**

Call:

```r
glm(formula = inc.instructor.know ~ gender2 + race2 + gen.stat2 + GPA + depression2 + anxiety2, family = binomial,
    data = anxiety.data, na.action = na.omit)
```
lgbtq2 + financially.stable2 + yr.binary + le.online.exp + 
STEM.major.clean + GPA + depression2 + anxiety2, family = 
binomial, 
data = anxiety.data, na.action = na.omit)

Coefficients:

|                      | Estimate | Std. Error | z value | Pr(>|z|) |
|----------------------|----------|------------|---------|----------|
| (Intercept)          | -1.58683 | 0.50676    | -3.131  | 0.00174  ** |
| gender.woman         | 0.04733  | 0.12461    | 0.380   | 0.70407  |
| race.asian           | 0.25967  | 0.16627    | 1.562   | 0.11834  |
| race.black           | -0.18820 | 0.26290    | -0.716  | 0.47406  |
| race.latinx          | -0.14408 | 0.14581    | -0.988  | 0.32308  |
| gen.stat.fgen        | -0.16382 | 0.12699    | -1.290  | 0.19706  |
| lgbtq.yes            | -0.04623 | 0.15719    | -0.294  | 0.76869  |
| financially.stable2no| 0.25793  | 0.19195    | 1.344   | 0.17904  |
| financially.stable2sometimes | 0.06707 | 0.13328    | 0.503   | 0.61478  |
| lowerCM              | 0.31535  | 0.12035    | 2.620   | 0.00879  ** |
| le.online.expless    | -0.36764 | 0.12181    | -3.018  | 0.00254  ** |
| STEM.major.cleanno   | 0.04544  | 0.14921    | 0.305   | 0.76071  |
| GPA                  | 0.34812  | 0.13111    | 2.655   | 0.00793  ** |
| depression.yes       | 0.25895  | 0.12373    | 2.093   | 0.03636  * |
| anxiety2moderate     | 0.94593  | 0.12457    | 7.593   | 3.12e-14 *** |
| anxiety2severe       | 1.61724  | 0.20107    | 8.043   | 8.77e-16 *** |

10.10 Disorganized online course format

Call:

```
glm(formula = inc.disorganized ~ gender2 + race2 + gen.stat2 + 
lgbtq2 + financially.stable2 + yr.binary + le.online.exp + 
STEM.major.clean + GPA + depression2 + anxiety2, family = 
binomial, 
data = anxiety.data, na.action = na.omit)
```

Coefficients:

|                      | Estimate | Std. Error | z value | Pr(>|z|) |
|----------------------|----------|------------|---------|----------|
| (Intercept)          | -0.909607| 0.493334   | -1.844  | 0.0652   . |
| gender.woman         | 0.134705 | 0.121172   | 1.112   | 0.2663   |
| race.asian           | -0.072167| 0.159291   | -0.453  | 0.6505   |
| race.black           | -0.164028| 0.256069   | -0.641  | 0.5218   |
| race.latinx          | 0.047356 | 0.143475   | 0.330   | 0.7414   |
| gen.stat.fgen        | -0.145692| 0.124289   | -1.172  | 0.2411   |
| lgbtq.yes            | 0.277232 | 0.155059   | 1.788   | 0.0738   . |
| financially.stable2no| 0.027421 | 0.184783   | 0.148   | 0.8820   |
| financially.stable2sometimes | -0.002462 | 0.130183  | -0.019  | 0.9849   |
| lowerCM              | -0.241350| 0.117611   | -2.052  | 0.0402   * |
| le.online.expless    | -0.247318| 0.118255   | -2.091  | 0.0365   * |
|                         | Estimate | Std. Error | z value | Pr(>|z|) |
|-------------------------|----------|------------|---------|----------|
| (Intercept)             | -1.10790 | 0.50745    | -2.183  | 0.02902 *|
| gender.woman            | 0.03429  | 0.12469    | 0.275   | 0.78329  |
| race.asian              | -0.07476 | 0.16325    | -0.458  | 0.64700  |
| race.black              | -0.26795 | 0.26442    | -1.013  | 0.31090  |
| race.latinx             | 0.13327  | 0.14744    | 0.904   | 0.36608  |
| gen.stat.fgen           | -0.02561 | 0.12722    | -0.201  | 0.84049  |
| lgbtq.yes               | -0.03253 | 0.15692    | -0.207  | 0.83578  |
| financially.stable2no  | 0.46865  | 0.19118    | 2.451   | 0.01423 *|
| financially.stable2sometimes | 0.38631 | 0.13302 | 2.904 | 0.00368 **|
| lowerCM                 | 0.12036  | 0.12035    | 1.000   | 0.31727  |
| le.online.expless       | -0.31798 | 0.12101    | -2.628  | 0.00860 **|
| STEM.major.cleanno      | -0.02289 | 0.14955    | -0.153  | 0.87836  |
| GPA                     | 0.10048  | 0.13115    | 0.766   | 0.44357  |
| depression.yes          | 0.52794  | 0.12281    | 4.299   | 1.72e-05 ***|
| anxiety2moderate        | 0.99105  | 0.12339    | 8.032   | 9.59e-16 ***|
| anxiety2severe          | 1.40867  | 0.19053    | 7.393   | 1.43e-13 ***|

10.12 Timed assignments

Call:

```
glm(formula = inc.timed ~ gender2 + race2 + gen.stat2 + lgbtq2 +
    financially.stable2 + yr.binary + le.online.exp + STEM.major.clean +
    GPA + depression2 + anxiety2, family = binomial, data =
    anxiety.data,
    na.action = na.omit)
```

Coefficients:  

|                         | Estimate | Std. Error | z value | Pr(>|z|) |
|-------------------------|----------|------------|---------|----------|
| (Intercept)             | -1.10790 | 0.50745    | -2.183  | 0.02902 *|
| gender.woman            | 0.03429  | 0.12469    | 0.275   | 0.78329  |
| race.asian              | -0.07476 | 0.16325    | -0.458  | 0.64700  |
| race.black              | -0.26795 | 0.26442    | -1.013  | 0.31090  |
| race.latinx             | 0.13327  | 0.14744    | 0.904   | 0.36608  |
| gen.stat.fgen           | -0.02561 | 0.12722    | -0.201  | 0.84049  |
| lgbtq.yes               | -0.03253 | 0.15692    | -0.207  | 0.83578  |
| financially.stable2no  | 0.46865  | 0.19118    | 2.451   | 0.01423 *|
| financially.stable2sometimes | 0.38631 | 0.13302 | 2.904 | 0.00368 **|
| lowerCM                 | 0.12036  | 0.12035    | 1.000   | 0.31727  |
| le.online.expless       | -0.31798 | 0.12101    | -2.628  | 0.00860 **|
| STEM.major.cleanno      | -0.02289 | 0.14955    | -0.153  | 0.87836  |
| GPA                     | 0.10048  | 0.13115    | 0.766   | 0.44357  |
| depression.yes          | 0.52794  | 0.12281    | 4.299   | 1.72e-05 ***|
| anxiety2moderate        | 0.99105  | 0.12339    | 8.032   | 9.59e-16 ***|
| anxiety2severe          | 1.40867  | 0.19053    | 7.393   | 1.43e-13 ***|
(Intercept)  -2.01298  0.49704  4.050 5.12e-05 ***  
gender.woman  0.46651  0.12091  3.858 0.000114 ***  
race.asian  -0.02438  0.15894  -0.153 0.878112  
race.black  0.25099  0.25896  0.969 0.332433  
race.latinx  0.18663  0.14303  1.305 0.191973  
gen.stat.fgen  0.12513  0.12346  1.014 0.310802  
lgbtq.yes  0.08293  0.15158  0.547 0.584283  
financially.stable2no  0.41831  0.18512  2.260 0.023844 *  
financially.stable2sometimes  0.19503  0.12900  1.512 0.130564  
lowerCM  0.20370  0.11699  1.74 1 0.081650 .  
le.online.expless  -0.19643  0.11730  -1.675 0.094012 .  
STEM.major.cleanno  -0.14328  0.14583  -0.982 0.325855  
GPA  0.34598  0.12782  2.707 0.006795 **  
depression.yes  -0.02442  0.12109  -0.202 0.840163  
anxiety2moderate  0.59313  0.12089  4.906 9.29e-07 ***  
anxiety2severe  1.16114  0.18335  6.333 2.41e-10 ***

### 10.13 Worry about being judged when participating

Call:
glm(formula = inc.judged ~ gender2 + race2 + gen.stat2 + lgbtq2 + financially.stable2 + yr.binary + le.online.exp + STEM.major.clean + GPA + depression2 + anxiety2, family = binomial, data = anxiety.data, na.action = na.omit)

Coefficients:

|                          | Estimate | Std. Error | z value | Pr(>|z|) |
|--------------------------|----------|------------|---------|----------|
| (Intercept)              | -1.309969| 0.503267   | -2.603  | 0.009243 ** |
| gender.woman             | 0.816310 | 0.124856   | 6.538   | 6.23e-11 *** |
| race.asian               | 0.117939 | 0.161567   | 0.730   | 0.465410 |
| race.black               | -0.413218| 0.268230   | -1.541  | 0.123430 |
| race.latinx              | 0.298257 | 0.144994   | 2.057   | 0.039683 * |
| gen.stat.fgen            | -0.153565| 0.125739   | -1.221  | 0.221972 |
| lgbtq.yes                | 0.513098 | 0.154757   | 3.316   | 0.000915 *** |
| financially.stable2no    | 0.090432 | 0.183617   | 0.493   | 0.622362 |
| financially.stable2sometimes | 0.225854 | 0.131580 | 1.716   | 0.086075 . |
| lowerCM                  | 0.426338 | 0.119456   | 3.659   | 0.000358 *** |
| le.online.expless        | -0.001615| 0.119280   | -0.014  | 0.989199 |
| STEM.major.cleanno       | -0.136914| 0.148138   | -0.924  | 0.355365 |
| GPA                      | -0.039555| 0.129525   | -0.305  | 0.760073 |
| depression.yes           | 0.094279 | 0.122511   | 0.770   | 0.441561 |
| anxiety2moderate         | 0.691466 | 0.123107   | 5.617   | 1.95e-08 *** |
| anxiety2severe           | 1.015556 | 0.179344   | 5.663   | 1.49e-08 *** |
10.14 The potential for your surroundings to embarrass you on camera

Call:
glm(formula = inc.surround ~ gender2 + race2 + gen.stat2 + lgbtq2 + financially.stable2 + yr.binary + le.online.exp + STEM.major.clean + GPA + depression2 + anxiety2, family = binomial, data = anxiety.data,
  na.action = na.omit)

Coefficients:
                   Estimate Std. Error z value Pr(>|z|)
(Intercept)         -1.37088   0.49956  -2.744  0.006066 **
gender.woman       0.15192    0.12291   1.236  0.216431
race.asian          0.27823    0.16037   1.735  0.082748 .
race.black          -0.20653    0.26381  -0.783  0.433701
race.latinx         0.35306    0.14398   2.452  0.014198 *
gen.stat.fgen       -0.05448    0.12455  -0.437  0.661824
financially.stable2no 0.11657    0.18321   0.636  0.524584
financially.stable2sometimes 0.06911    0.13038   0.530  0.596059
lowerCM              0.19569    0.11789   1.660  0.096922 .
le.online.exp       -0.21750    0.11829  -1.839  0.065887 .
STEM.major.clean    -0.06375    0.14698  -0.434  0.664480
GPA                  0.09470    0.12854   0.737  0.461269
depression.yes      0.43352    0.12163   3.564  0.000365 ***
anxiety2moderate    0.69288    0.12129   5.712  1.11e-08 ***
anxiety2severe      1.33683    0.18258   7.322  2.44e-13 ***

10.15 Working with people I don't know

Call:
glm(formula = inc.dont.know ~ gender2 + race2 + gen.stat2 + lgbtq2 + financially.stable2 + yr.binary + le.online.exp + STEM.major.clean + GPA + depression2 + anxiety2, family = binomial, data = anxiety.data,
  na.action = na.omit)

Coefficients:
                   Estimate Std. Error z value Pr(>|z|)
(Intercept)        -1.227488   0.496744  -2.471  0.013471 *
gender.woman       0.439853    0.123881   3.551  0.000384 ***
race.asian         0.255127    0.158624   1.608  0.107754
race.black         -0.516602    0.274904  -1.879  0.060216 .
race.latinx        0.223434    0.142263   1.571  0.116284
gen.stat.fgen      -0.083124    0.123871  -0.671  0.502190
lgbtq.yes 0.108163 0.149611 0.723 0.469703
financially.stable2no 0.163808 0.179718 0.911 0.362046
financially.stable2sometimes 0.089876 0.129567 0.694 0.487891
lowerCM 0.335026 0.117454 2.852 0.004339 **
le.online.expless -0.089894 0.117503 -0.765 0.444251
STEM.major.cleanno 0.008393 0.146056 0.057 0.954175
GPA -0.024473 0.127715 -0.192 0.848035
depression.yes 0.277518 0.121861 2.277 0.022766 *
anxiety2moderate 0.442901 0.121922 3.633 0.000281 ***
anxiety2severe 0.889384 0.172906 5.144 2.69e-07 ***

10.16 Instructor technology issues
Call:
glm(formula = inc.instructor.tech ~ gender2 + race2 + gen.stat2 +
lgbtq2 + financially.stable2 + yr.binary + le.online.exp +
STEM.major.clean + GPA + depression2 + anxiety2, family =
binomial,
  data = anxiety.data, na.action = na.omit)

Coefficients:                              Estimate  Std. Error    z value  Pr(>|z|)
(Intercept)                          -0.89877    0.49903  -1.801   0.0717 .
gender.woman                        -0.21618    0.12258  -1.764   0.0778 .
race.asian                          0.02052    0.15978   0.128   0.8978
race.black                          -0.29354    0.26771  -1.096   0.2729
race.latinx                         -0.01010    0.14403  -0.070   0.9441
gen.stat.fgen                       -0.21813    0.12490  -1.746   0.0807 .
lgbtq.yes                           0.11280    0.15170   0.744   0.4571
financially.stable2no              0.24313    0.18091   1.344   0.1790
financially.stable2sometimes      0.08369    0.13060   0.641   0.5217
lowerCM                             -0.09405    0.11749  -0.801   0.4234
le.online.expless                  -0.01043    0.11821   0.088   0.9297
STEM.major.cleanno                 0.13966    0.14657   0.953   0.3406
GPA                                 0.07967    0.12896   0.618   0.5367
depression.yes                     0.01052    0.12288   0.086   0.9318
anxiety2moderate                  0.56438    0.12339  4.574  4.79e-06 ***
anxiety2severe                    1.33613    0.17564  7.607  2.80e-14 ***
Output tables for regressions in RQ4/Finding 4

11.1 Being able to access content at a later time (e.g., re-watch a lecture video)

Call:
```r
glm(formula = dec.late.access ~ gender2 + race2 + gen.stat2 + lgbtq2 + financially.stable2 + yr.binary + le.online.exp + STEM.major.clean + GPA + depression2 + anxiety2, family = binomial,
    data = anxiety.data, na.action = na.omit)
```

Coefficients:

|                  | Estimate | Std. Error | z value | Pr(>|z|) |
|------------------|----------|------------|---------|----------|
| (Intercept)      | 0.67756  | 0.59648    | 1.136   | 0.255979 |
| gender.woman     | 0.52785  | 0.14535    | 3.631   | 0.000282 *** |
| race.asian       | -0.01243 | 0.19386    | -0.064  | 0.948881 |
| race.black       | -0.15559 | 0.29268    | -0.532  | 0.595008 |
| race.latinx      | 0.34574  | 0.18715    | 1.847   | 0.064694 . |
| gen.stat.fgen     | 0.02879  | 0.15605    | 0.184   | 0.853629 |
| lgbtq.yes        | 0.41760  | 0.21506    | 1.942   | 0.052166 . |
| financially.stable2no | -0.02749 | 0.23369    | -0.118  | 0.906345 |
| financially.stable2sometimes | -0.12037 | 0.16223    | -0.742  | 0.458100 |
| lowerCM          | 0.37913  | 0.15086    | -2.513  | 0.011969 * |
| le.online.expless | -0.49899 | 0.15505    | -3.218  | 0.001289 ** |
| STEM.major.cleanno | -0.40196 | 0.16882    | -2.381  | 0.017267 * |
| GPA              | 0.21877  | 0.15546    | 1.407   | 0.159369 |
| depression.yes   | 0.40690  | 0.14867    | 2.737   | 0.006201 ** |
| anxiety2moderate | 0.09297  | 0.15777    | 0.589   | 0.555685 |
| anxiety2severe   | -0.53402 | 0.20666    | -2.584  | 0.009766 ** |

11.2 The flexibility of attending class where I want

Call:
```r
glm(formula = dec.flex.where ~ gender2 + race2 + gen.stat2 + lgbtq2 + financially.stable2 + yr.binary + le.online.exp + STEM.major.clean + GPA + depression2 + anxiety2, family = binomial,
    data = anxiety.data, na.action = na.omit)
```

Coefficients:

|                  | Estimate | Std. Error | z value | Pr(>|z|) |
|------------------|----------|------------|---------|----------|
| (Intercept)      | 0.14022  | 0.53739    | 0.261   | 0.79415 |
| gender.woman     | 0.34880  | 0.13491    | 2.586   | 0.00972 ** |
| race.asian       | 0.18451  | 0.18476    | 0.999   | 0.31798 |
| race.black       | -0.01992 | 0.27800    | -0.072  | 0.94288 |
| race.latinx      | 0.19727  | 0.16172    | 1.220   | 0.22251 |
11.3 Not having to be on camera

Call:
glm(formula = dec.no.camera ~ gender2 + race2 + gen.stat2 + lgbq2 + financially.stable2 + yr.binary + le.online.exp + STEM.major.clean + GPA + depression2 + anxiety2, family = binomial, data = anxiety.data,
na.action = na.omit)

Coefficients:                           Estimate  Std. Error    z value  Pr(>|z|)
(Intercept)                           -0.16311  0.52623     -0.310    0.7566
gender.woman                         0.52737  0.12837      4.108    3.98e-05 ***
race.asian                           -0.24652  0.16596     -1.485    0.1374
race.black                           0.14193  0.28101      0.505    0.6135
race.latinx                          0.34036  0.16151      2.107    0.0351 *
gen.stat.fgen                        -0.00632  0.13525     -0.047    0.9627
lgbq.yes                             0.14842  0.17345      0.856    0.3922
financially.stable2no               -0.15406  0.19636     -0.795    0.4266
financially.stable2sometimes        0.02359  0.14779      0.160    0.87317
lowerCM                              -0.11132  0.13242     -0.841    0.40053
le.online.expless                   0.02027  0.13286      0.153    0.87872
STEM.major.clean                       0.30151  0.16017      1.882    0.05978 .
GPA                                   0.25596  0.13976      1.831    0.06704 .
depression.yes                        0.29906  0.13740      2.177    0.02951 *
anxiety2moderate                     -0.30239  0.14059     -2.151    0.03148 *
anxiety2severe                       -0.66931  0.18759     -3.568    0.00036 ***

11.4 Increased test flexibility (e.g., open-note, open for a long time)

Call:
glm(formula = dec.flex.test ~ gender2 + race2 + gen.stat2 + lgbq2 +
financially.stable2 + yr.binary + le.online.exp + STEM.major.clean + GPA + depression2 + anxiety2, family = binomial, data = anxiety.data, na.action = na.omit)

Coefficients:

|                      | Estimate | Std. Error | z value | Pr(>|z|) |
|----------------------|----------|------------|---------|----------|
| (Intercept)          | 0.222888 | 0.537430   | 0.415   | 0.67834  |
| gender.woman         | 0.341260 | 0.132636   | 2.573   | 0.01009 *|
| race.asian           | -0.012314| 0.176946   | -0.070  | 0.94452  |
| race.black           | -0.136970| 0.275332   | -0.497  | 0.61886  |
| race.latinx          | 0.125139 | 0.162273   | 0.771   | 0.44061  |
| gen.stat.fgen        | 0.010574 | 0.139142   | 0.076   | 0.93943  |
| lgbtq.yes            | 0.492397 | 0.185907   | 2.649   | 0.00808 **|
| financially.stable2no| 0.131201 | 0.203515   | 0.645   | 0.51914  |
| financially.stable2sometimes | 0.306616 | 0.148960   | 2.058   | 0.03955 *|
| lowerCM              | 0.009684 | 0.131078   | 0.074   | 0.94110  |
| le.online.expless    | -0.339520| 0.134286   | -2.528  | 0.01146 *|
| STEM.major.cleanno   | -0.031529| 0.161172   | -0.196  | 0.84490  |
| GPA                  | 0.190977 | 0.139518   | 1.369   | 0.17105  |
| depression.yes       | -0.018703| 0.134655   | -0.139  | 0.88953  |
| anxiety2moderate     | 0.141344 | 0.140423   | 1.007   | 0.31415  |
| anxiety2severe       | -0.468709| 0.185393   | -2.528  | 0.01147 *|

11.5 The use of informal discussion platforms such as WhatsApp, GroupMe, Discord, or Slack

Call:
glm(formula = dec.informal ~ gender2 + race2 + gen.stat2 + lgbtq2 + financially.stable2 + yr.binary + le.online.exp + STEM.major.clean + GPA + depression2 + anxiety2, family = binomial, data = anxiety.data, na.action = na.omit)

Coefficients:

|                      | Estimate | Std. Error | z value | Pr(>|z|) |
|----------------------|----------|------------|---------|----------|
| (Intercept)          | -0.70888 | 0.49128    | -1.443  | 0.149042 |
| gender.woman         | 0.36363  | 0.12198    | 2.981   | 0.002873 **|
| race.asian           | 0.27192  | 0.16549    | 1.643   | 0.100349 |
| race.black           | -0.14011 | 0.25257    | -0.555  | 0.579076 |
| race.latinx          | 0.23524  | 0.14579    | 1.614   | 0.106635 |
| gen.stat.fgen        | 0.08581  | 0.12529    | 0.685   | 0.493387 |
| lgbtq.yes            | 0.15293  | 0.15586    | 0.981   | 0.326491 |
| financially.stable2no| -0.02361 | 0.18272    | -0.129  | 0.897207 |
financially.stable2sometimes 0.07271 0.13189 0.551 0.581446
lowerCM 0.41377 0.11789 3.510 0.000448 **
le.online.expless -0.03797 0.11901 -0.319 0.749676
STEM.major.cleanno -0.09580 0.14842 -0.645 0.518618
GPA 0.19732 0.12714 1.552 0.120672
depression.yes 0.01183 0.12309 0.096 0.923414
anxiety2moderate 0.01559 0.12517 0.125 0.900903
anxiety2severe -0.17760 0.17461 -1.017 0.309104

11.6 The flexibility of attending class when I want

Call:
glm(formula = dec.flex.when ~ gender2 + race2 + gen.stat2 + lgbtq2 + financially.stable2 + yr.binary + le.online.exp + STEM.major.clean + GPA + depression2 + anxiety2, family = binomial, data = anxiety.data, 
    na.action = na.omit)

Coefficients:
                     Estimate Std. Error z value Pr(>|z|)
(Intercept)           0.51357    0.48241   1.065   0.2871
gender.woman          0.15463    0.11906   1.299   0.1940
race.asian            0.26837    0.15807   1.698   0.0895 .
race.black            -0.36337    0.25010  -1.453   0.1462
race.latinx           -0.06220    0.13967  -0.445   0.6560
gen.stat.fgen         -0.04202    0.12146  -0.346   0.7294
lgbtq.yes             0.21813    0.15027   1.452   0.1466
financially.stable2no 0.09429    0.17869   0.528   0.5977
financially.stable2sometimes 0.10823    0.12739   0.850   0.3956
lowerCM               -0.37153    0.11468  -3.240   0.0012 **
le.online.expless     -0.23625    0.11546  -2.046   0.0407 *
STEM.major.cleanno    -0.12793    0.14210  -0.900   0.3680
gpa                   -0.04544    0.12491  -0.364   0.7160
depression.yes        0.22967    0.11871   1.935   0.0530 .
anxiety2moderate      -0.13010    0.12078  -1.077   0.2814
anxiety2severe        -0.34928    0.17052  -2.048   0.0405 *

11.7 Instructor cares about student concerns

Call:
glm(formula = dec.preassign ~ gender2 + race2 + gen.stat2 + lgbtq2 + financially.stable2 + yr.binary + le.online.exp + STEM.major.clean + GPA + depression2 + anxiety2, family = binomial, data = anxiety.data, 
    na.action = na.omit)
Coefficients:

(Intercept)  -0.55542  0.48681  -1.141  0.25389
gender.woman  0.73543  0.12097   6.079  1.21e-09 ***
race.asian   -0.02422  0.15749  -0.154  0.87777
race.black    0.08077  0.25413   0.318  0.75061
race.latinx   0.05100  0.14132   0.361  0.71819
gen.stat.fgen  0.06934  0.12209   0.568  0.57007
lgbtq.yes     0.13787  0.15013   0.918  0.35847
financially.stable2no -0.03037  0.17923  -0.169  0.86546
financially.stable2sometimes -0.11691  0.12813  -0.912  0.36153
lowerCM       0.51368  0.11552   4.447  8.72e-06 ***
le.online.expless  0.05725  0.11575   0.495  0.62091
STEM.major.cleanno  0.04476  0.14486   0.309  0.75732
GPA          -0.04195  0.12604  -0.333  0.73923
depression.yes  0.20482  0.12019   1.704  0.08834 .
anxiety2moderate -0.26936  0.12170  -2.213  0.02688 *
anxiety2severe -0.66201  0.17298  -3.827  0.00013 ***

11.8 Student groups that are pre-assigned (not having to find my own group to work in)

Call:
glm(formula = dec.preassign ~ gender2 + race2 + gen.stat2 + lgbtq2 + financially.stable2 + yr.binary + le.online.exp + STEM.major.clean + GPA + depression2 + anxiety2, family = binomial, data = anxiety.data,
    na.action = na.omit)

Coefficients:

(Intercept)  -0.55542  0.48681  -1.141  0.25389
gender.woman  0.73543  0.12097   6.079  1.21e-09 ***
race.asian   -0.02422  0.15749  -0.154  0.87777
race.black    0.08077  0.25413   0.318  0.75061
race.latinx   0.05100  0.14132   0.361  0.71819
gen.stat.fgen  0.06934  0.12209   0.568  0.57007
lgbtq.yes     0.13787  0.15013   0.918  0.35847
financially.stable2no -0.03037  0.17923  -0.169  0.86546
financially.stable2sometimes -0.11691  0.12813  -0.912  0.36153
lowerCM       0.51368  0.11552   4.447  8.72e-06 ***
le.online.expless  0.05725  0.11575   0.495  0.62091
STEM.major.cleanno  0.04476  0.14486   0.309  0.75732
GPA          -0.04195  0.12604  -0.333  0.73923
11.9 When getting help from the instructor is easy

Call:
glm(formula = dec.help.instructor ~ gender2 + race2 + gen.stat2 +
    lgbtq2 + financially.stable2 + yr.binary + le.online.exp +
    STEM.major.clean + GPA + depression2 + anxiety2, family =
    binomial,
    data = anxiety.data, na.action = na.omit)

Coefficients:

                     Estimate  Std. Error    z value  Pr(>|z|)  
(Intercept)       -0.86130    0.48127 -1.790   0.0735 .  
gender.woman      0.03517    0.11898   0.296  0.7675    
race.asian        -0.10388    0.15625 -0.665  0.5061    
race.black        -0.05714    0.25072 -0.228  0.8197    
race.latinx       -0.03545    0.13890 -0.255  0.7986    
gen.stat.fgen      0.28147    0.12030  2.340  0.0193 * 
lgbtq.yes         0.09958    0.14666  0.679  0.4972    
financially.stable2no  0.03911    0.17671  0.221  0.8248    
financially.stable2sometimes  0.13455    0.12612  1.067  0.2860    
lowerCM            0.03889    0.11378  0.342  0.7325    
le.online.expless  -0.22893    0.11402 -2.008  0.0447 * 
STEM.major.cleanno -0.33831    0.14465 -2.339  0.0193 * 
GPA                0.18083    0.12451  1.452  0.1464    
depression.yes     0.21298    0.11874  1.794  0.0729 .  
anxiety2moderate   -0.21423    0.12014 -1.783  0.0746 . 
anxiety2severe    -0.66201    0.17298 -3.827  0.00013 ***

11.10 Clear instruction from instructor about how to communicate in class

Call:
glm(formula = dec.comm.class ~ gender2 + race2 + gen.stat2 +
    lgbtq2 + financially.stable2 + yr.binary + le.online.exp +
    STEM.major.clean + GPA + depression2 + anxiety2, family =
    binomial,
    data = anxiety.data, na.action = na.omit)

Coefficients:

                     Estimate  Std. Error    z value  Pr(>|z|)  
(Intercept)        -1.15619    0.48564 -2.381  0.017276 * 
gender.woman       0.42240    0.12019  3.515  0.000441 ***
race.asian         0.04670    0.15602  0.299  0.764706
race.black -0.20959  0.25478  -0.823  0.410713
race.latinx  0.11934  0.13902   0.858  0.390662
gen.stat.fgen  0.14445  0.12055  1.198  0.230819
lgbtq.yes  0.10007  0.14691   0.681  0.495772
financially.stable2no  0.13023  0.17645   0.738  0.460472
financially.stable2sometimes -0.06833  0.12673  -0.539  0.589792
lowerCM -0.18536  0.11391  -1.627  0.103676
le.online.expless -0.11397  0.11445  -0.996  0.319329
STEM.major.cleanno -0.10096  0.14339  -0.738  0.460472
GPA  0.21942  0.12545   1.749  0.080296
depression.yes  0.19951  0.11881   1.679  0.093102
anxiety2moderate -0.17985  0.12006  -1.498  0.134146
anxiety2severe -0.39193  0.17153  -2.285  0.022314 *

11.11 Having the ability to ask questions to the instructor during class without everyone seeing

Call:

glm(formula = dec.ask ~ gender2 + race2 + gen.stat2 + lgbtq2 + financially.stable2 + yr.binary + le.online.exp + STEM.major.clean + GPA + depression2 + anxiety2, family = binomial, data = anxiety.data,
   na.action = na.omit)

Coefficients:

                      Estimate Std. Error z value Pr(>|z|)
(Intercept)          -1.16087   0.49770  -2.332   0.01968 *
gender.woman         0.61115   0.12596   4.852  1.22e-06 ***
race.asian           0.28644   0.15999   1.790   0.07339 .
race.black           0.05133   0.25825   0.199   0.84246
race.latinx          0.40642   0.14223   2.857   0.00427 **
gen.stat.fgen        0.20593   0.12353   1.667   0.09550 .
lgbtq.yes            0.19288   0.15069  -1.280   0.20053
financially.stable2no  0.41668   0.17919   2.325  0.02006 *
financially.stable2sometimes  0.13833   0.12975   1.066   0.28638
lowerCM              0.29079   0.11794   2.465   0.01368 *
le.online.expless    -0.16946   0.11788  -1.438   0.15055
STEM.major.cleanno  -0.26171   0.14903  -1.756   0.07908 .
GPA                  -0.03277   0.12813  -0.256   0.79815
depression.yes       0.48459   0.12342   3.926  8.63e-05 ***
anxiety2moderate     -0.21413   0.12355  -1.733   0.08308 .
anxiety2severe       -0.48745   0.17724  -2.750  0.00596 **

11.12 When getting help from people in class is easy

Call:
```
# Analysis of help-seeking behavior

glm(formula = dec.help.people ~ gender2 + race2 + gen.stat2 + 
     lgbtq2 + financially.stable2 + yr.binary + le.online.exp + 
     STEM.major.clean + GPA + depression2 + anxiety2, family = 
     binomial, 
     data = anxiety.data, na.action = na.omit)

Coefficients:

|                    | Estimate | Std. Error | z value | Pr(>|z|) |
|--------------------|----------|------------|---------|----------|
| (Intercept)        | -0.050847| 0.484468   | -0.105  | 0.9164   |
| gender.woman       | 0.121379 | 0.121493   | 0.999   | 0.3178   |
| race.asian         | -0.006717| 0.158934   | -0.042  | 0.9663   |
| race.black         | -0.050250| 0.254422   | -0.198  | 0.8434   |
| race.latinx        | 0.148246 | 0.140287   | 1.057   | 0.2906   |
| gen.stat.fgen      | 0.226868 | 0.121828   | 1.862   | 0.0626   |
| lgbtq.yes          | 0.195978 | 0.148498   | 1.320   | 0.1869   |
| financially.stable2no | 0.331451| 0.177964   | 1.862   | 0.0625   |
| financially.stable2sometimes | 0.210830| 0.128192   | 1.645   | 0.1000   |
| lowerCM            | 0.274762 | 0.116430   | 2.360   | 0.0183   *
| le.online.expless  | -0.220910| 0.116086   | -1.903  | 0.0570   |
| STEM.major.cleanno | -0.248443| 0.147382   | -1.686  | 0.0919   |
| GPA                | -0.139761| 0.125518   | -1.113  | 0.2655   |
| depression.yes     | -0.107758| 0.120640   | -0.893  | 0.3717   |
| anxiety2moderate   | -0.220302| 0.122257   | -1.802  | 0.0716   |
| anxiety2severe     | -0.287988| 0.173755   | -1.657  | 0.0974   |

### 11.13 When work doesn't have deadlines and just needs to be completed by the end of the semester

Call:
```
glm(formula = dec.no.deadlines ~ gender2 + race2 + gen.stat2 + 
     lgbtq2 + financially.stable2 + yr.binary + le.online.exp + 
     STEM.major.clean + GPA + depression2 + anxiety2, family = 
     binomial, 
     data = anxiety.data, na.action = na.omit)
```

Coefficients:

|                    | Estimate | Std. Error | z value | Pr(>|z|) |
|--------------------|----------|------------|---------|----------|
| (Intercept)        | -0.46113 | 0.49792    | -0.926  | 0.35439  |
| gender.woman       | 0.20677  | 0.12834    | 1.611   | 0.10717  |
| race.asian         | 0.43065  | 0.16295    | 2.643   | 0.00822 **|
| race.black         | 0.12311  | 0.26120    | 0.471   | 0.63741  |
| race.latinx        | 0.18976  | 0.14578    | 1.302   | 0.19303  |
| gen.stat.fgen      | 0.23978  | 0.12592    | 1.904   | 0.05688  |
| lgbtq.yes          | 0.22195  | 0.15097    | 1.470   | 0.14154  |
| financially.stable2no | 0.42942| 0.17966    | 2.390   | 0.01684   *|
| financially.stable2sometimes | 0.23456| 0.13218    | 1.775   | 0.07597   |
```
| Variable                  | Estimate  | Std. Error | z value | Pr(>|z|) |
|---------------------------|-----------|------------|---------|---------|
| (Intercept)               | -2.03827  | 0.52619    | -3.874  | 0.000107 *** |
| gender.woman              | 0.09295   | 0.12761    | 0.728   | 0.466381 |
| race.asian                | 0.49946   | 0.16007    | 3.120   | 0.001806 ** |
| race.black                | -0.04527  | 0.27969    | -0.162  | 0.871422 |
| race.latinx               | 0.19589   | 0.14752    | 1.328   | 0.184226 |
| gen.stat.fgen             | 0.26480   | 0.15815    | -0.423  | 0.671954 |
| lgbtq.yes                 | -0.06697  | 0.18530    | 0.521   | 0.602675 |
| financially.stable2no    | 0.09646   | 0.13663    | 0.521   | 0.602675 |
| financially.stable2sometimes | -0.15706 | 0.13663    | -1.150  | 0.250323 |
| lowerCM                   | 0.32662   | 0.12257    | 2.665   | 0.007706 ** |
| le.online.expless         | -0.27221  | 0.12132    | -2.244  | 0.024854 * |
| STEM.major.cleanno        | -0.11282  | 0.15336    | -0.736  | 0.461940 |
| GPA                       | 0.26101   | 0.13553    | 1.926   | 0.054126 |
| depression.yes            | 0.06607   | 0.12660    | 0.522   | 0.601743 |
| anxiety2moderate          | 0.18132   | 0.12740    | 1.423   | 0.154676 |
| anxiety2severe            | 0.08263   | 0.18175    | 0.455   | 0.649361 |

**11.14 Working in groups with people I know**

Call:

```r
glm(formula = dec.know.group ~ gender2 + race2 + gen.stat2 + lgbtq2 + financially.stable2 + yr.binary + le.online.exp + STEM.major.clean + GPA + depression2 + anxiety2, family = binomial, 
    data = anxiety.data, na.action = na.omit)
```

Coefficients:

| Variable                  | Estimate  | Std. Error | z value | Pr(>|z|) |
|---------------------------|-----------|------------|---------|---------|
| (Intercept)               | -2.03827  | 0.52619    | -3.874  | 0.000107 *** |
| gender.woman              | 0.09295   | 0.12761    | 0.728   | 0.466381 |
| race.asian                | 0.49946   | 0.16007    | 3.120   | 0.001806 ** |
| race.black                | -0.04527  | 0.27969    | -0.162  | 0.871422 |
| race.latinx               | 0.19589   | 0.14752    | 1.328   | 0.184226 |
| gen.stat.fgen             | 0.26480   | 0.15815    | -0.423  | 0.671954 |
| lgbtq.yes                 | -0.06697  | 0.18530    | 0.521   | 0.602675 |
| financially.stable2no    | 0.09646   | 0.13663    | 0.521   | 0.602675 |
| financially.stable2sometimes | -0.15706 | 0.13663    | -1.150  | 0.250323 |
| lowerCM                   | 0.32662   | 0.12257    | 2.665   | 0.007706 ** |
| le.online.expless         | -0.27221  | 0.12132    | -2.244  | 0.024854 * |
| STEM.major.cleanno        | -0.11282  | 0.15336    | -0.736  | 0.461940 |
| GPA                       | 0.26101   | 0.13553    | 1.926   | 0.054126 |
| depression.yes            | 0.06607   | 0.12660    | 0.522   | 0.601743 |
| anxiety2moderate          | 0.18132   | 0.12740    | 1.423   | 0.154676 |
| anxiety2severe            | 0.08263   | 0.18175    | 0.455   | 0.649361 |

**11.15 Clear instruction from instructor about how to communicate with other students in class**

Call:

```r
glm(formula = dec.comm.students ~ gender2 + race2 + gen.stat2 + lgbtq2 + financially.stable2 + yr.binary + le.online.exp + STEM.major.clean + GPA + depression2 + anxiety2, family = binomial, 
    data = anxiety.data, na.action = na.omit)
```

Coefficients:
11.16 Not having to contact the instructor in-person

Call:
  glm(formula = dec.no.contact ~ gender2 + race2 + gen.stat2 + 
      lgbtq2 + financially.stable2 + yr.binary + le.online.exp + 
      STEM.major.clean + GPA + depression2 + anxiety2, family = 
      binomial, 
      data = anxiety.data, na.action = na.omit)

Coefficients:
                    Estimate Std. Error z value Pr(>|z|)
(Intercept)       -0.94292    0.55468 -1.700  0.089141.
gender.woman       0.55336    0.15010  3.686  0.000227 ***
race.asian         0.27594    0.18229  1.514  0.130101
race.black         0.26807    0.28056  0.955  0.339337
race.latinx        0.10746    0.16279  0.660  0.509153
gen.stat.fgen       0.20251    0.13326  1.514  0.130101
lgbtq.yes          0.45791    0.16073  2.849  0.004387 **
financially.stable2no -0.18077    0.20880 -0.866  0.386617
financially.stable2sometimes -0.09976    0.14861 -0.671  0.502056
lowerCM             -0.09540    0.13375 -0.713  0.475673
le.online.expless  -0.07619    0.13504 -0.564  0.572587
STEM.major.cleanno  0.03987    0.16866  0.236  0.813141
GPA                 -0.21585    0.14318 -1.508  0.131675
depression.yes      0.23082    0.14276  1.617  0.105916
anxiety2moderate   -0.25119    0.14183 -1.771  0.076556 .
anxiety2severe      -0.32890    0.20205 -1.628  0.103564
11.17 I can conceal certain elements of my identity (e.g., visible disability, LGBTQ)

Call:

```r
glm(formula = dec.conceal ~ gender2 + race2 + gen.stat2 + lgbtq2 + financially.stable2 + yr.binary + le.online.exp + STEM.major.clean + GPA + depression2 + anxiety2, family = binomial, data = anxiety.data,
   na.action = na.omit)
```

Coefficients:

|                      | Estimate | Std. Error | z value | Pr(>|z|) |
|----------------------|----------|------------|---------|----------|
| (Intercept)          | -1.71197 | 0.84784    | -2.019  | 0.0435 * |
| gender.woman         | 0.62373  | 0.25842    | 2.414   | 0.0158 * |
| race.asian           | 0.34308  | 0.28803    | 1.191   | 0.2336   |
| race.black           | -0.07832 | 0.45212    | -0.173  | 0.8625   |
| race.latinx          | -0.01219 | 0.26073    | -0.047  | 0.9627   |
| gen.stat.fgen        | -0.36180 | 0.22603    | -1.600  | 0.1096   |
| lgbtq.yes            | 1.84228  | 0.21047    | 8.753   | <2e-16 ***|
| financially.stable2no| 0.31667  | 0.30225    | 1.048   | 0.2948   |
| financially.stable2sometimes | 0.16698 | 0.23119 | 0.722 | 0.4701 |
| lowerCM              | -0.05744 | 0.21090    | -0.272  | 0.7854   |
| le.online.expless    | -0.30231 | 0.21157    | -1.429  | 0.1530   |
| STEM.major.cleanno   | 0.35579  | 0.26483    | 1.343   | 0.1791   |
| GPA                  | -0.49540 | 0.21659    | -2.287  | 0.0222 * |
| depression.yes       | 0.54314  | 0.26054    | 2.085   | 0.0371 * |
| anxiety2moderate     | -0.50105 | 0.23302    | -2.150  | 0.0315 * |
| anxiety2severe       | -0.22073 | 0.29133    | -0.758  | 0.4486   |

11.18 Being able to use the greenscreen to change your Zoom background

Call:

```r
glm(formula = dec.zoom.back ~ gender2 + race2 + gen.stat2 + lgbtq2 + financially.stable2 + yr.binary + le.online.exp + STEM.major.clean + GPA + depression2 + anxiety2, family = binomial, data = anxiety.data,
   na.action = na.omit)
```

Coefficients:

|                      | Estimate | Std. Error | z value | Pr(>|z|) |
|----------------------|----------|------------|---------|----------|
| (Intercept)          | -2.3770616 | 0.7779229  | -3.056  | 0.00225 **|
| gender.woman         | 0.0931025  | 0.2044837  | 0.455   | 0.64889  |
| race.asian           | 0.5012132  | 0.2651998  | 1.890   | 0.05877 .|
| race.black           | 0.9029211  | 0.3553096  | 2.541   | 0.01105 * |
| race.latinx          | 0.6774554  | 0.2230663  | 3.037   | 0.00239 **|
| Variable                        | Coefficient | Standard Error | T-Value | P-Value |
|--------------------------------|-------------|----------------|---------|---------|
| gen.stat.fgen                  | 0.3673913   | 0.1994340      | 1.842   | 0.06545 |
| lgbtq.yes                      | 0.0869515   | 0.2379870      | 0.365   | 0.71484 |
| financially.stable2no         | 0.2567572   | 0.2721602      | 0.943   | 0.34547 |
| financially.stable2sometimes  | -0.0206734  | 0.2148639      | -0.096  | 0.92335 |
| lowerCM                        | -0.1790750  | 0.1894247      | -0.945  | 0.34447 |
| le.online.expless              | 0.0580386   | 0.1938569      | 0.299   | 0.76464 |
| STEM.major.cleanno             | -0.2941629  | 0.2580478      | -1.140  | 0.25431 |
| GPA                            | -0.0960858  | 0.2000522      | -0.480  | 0.63101 |
| depression.yes                 | 0.0009233   | 0.2003341      | 0.005   | 0.99632 |
| anxiety2moderate               | -0.0267387  | 0.2018024      | -0.132  | 0.89459 |
| anxiety2severe                 | -0.1269736  | 0.2885189      | -0.440  | 0.65987 |