



# Report: WUSA's Teaching and Course Evaluation Surveys

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# Introduction

The Waterloo Undergraduate Student Association (WUSA) recognizes that the transition to remote and online learning is an unprecedented event, and students and instructors alike are facing challenges with this change. As a result, WUSA has been working to identify, understand, and improve the remote and online learning experience for all.

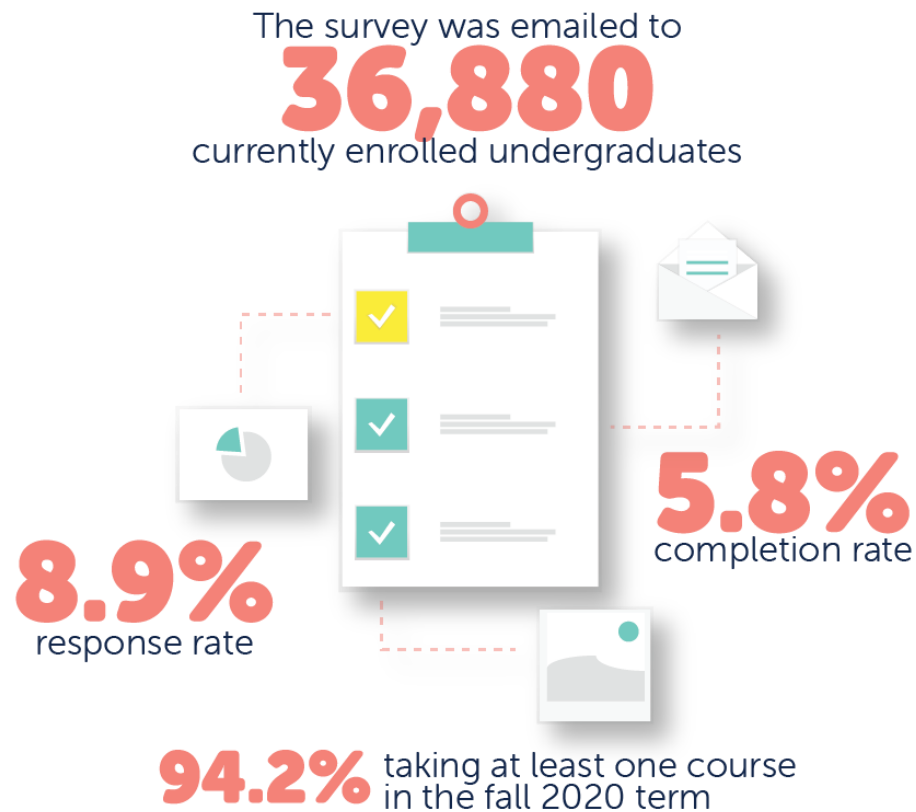
From October 5-30, WUSA surveyed students on their experience with the University of Waterloo's transition to remote and online learning, in response to the COVID-19 pandemic. This report builds on the spring 2020 survey by the University's Institutional Analysis & Planning (IAP) office, asking students how confident they felt about taking online classes, what supports and resources they felt needed to be further developed to support the transition, and what events they'd like to see WUSA host online. Our fall survey focused more on the academic side of student life and was guided by the [Strategies for Remote Teaching page](#) provided by the University of Waterloo. Wherever possible, the results of the fall survey will be compared with the [results of the spring survey](#).

The overall goals of this fall survey were to hear more on students' overarching experience with remote and online learning, determine whether instructors were following the strategies provided, assessing the effectiveness of the guidelines, and determining how else instructors and WUSA could support the academic success of students.

A copy of the survey questions and a breakdown of the responses by question can be found in the appendix.

# Executive Summary

WUSA's Teaching and Course Quality survey was emailed to all currently enrolled undergraduate students in October 2020. It was sent to a total of 36,880 students, and achieved a response rate of 8.9% and completion rate of 5.8%. Just over 94% of respondents indicated they were taking at least one course in the fall 2020 term.



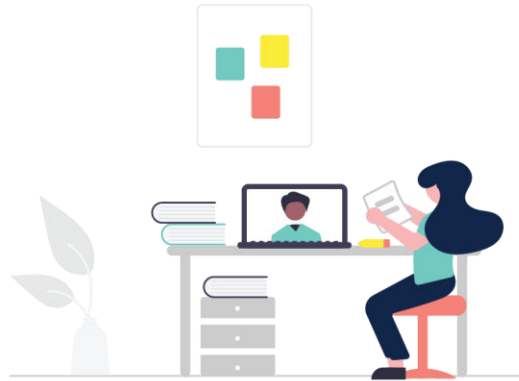
The survey was divided into sections, starting with questions about students' enrollment (i.e. whether they took classes in the spring term and if they were taking classes in the fall term). Following this, the survey asked students about their workload, instructor engagement, motivation, their preferred learning methods, accessibility, general improvements that can be made, and ended with demographics.

Through careful analysis of these sections, we have developed several key findings.

- 49.2% of students indicated they did not have the opportunity to talk to their instructor about how they could be better supported with remote or online learning in most of their courses.

- 45.8% of students indicated they spend more time on remote or online courses, compared to on-campus ones.

**49.2%** have not had the opportunity to talk to instructors about how they could be better supported



**45.8%** indicated they spend more time on remote or online courses, compared to on-campus one.

- Motivation in courses varies, but students most commonly indicated they are motivated for few of their courses (27.3%).
  - This correlates with the results of IAP's spring survey, where they found 72.6% of students identified a lack of motivation as a major challenge
- The top two preferred lecture methods, at 38.9% and 38.5%, are having live lectures which are recorded and available later, and having pre-recorded lectures, respectively.
- 61.1% of students felt that instructors were not doing enough to support accessible learning in the transition to remote or online learning.

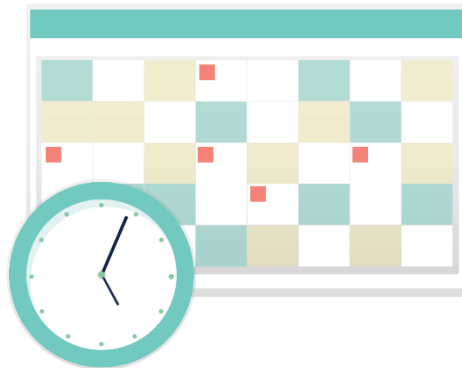
**61.1%** felt that instructors were not doing enough to support accessible learning in the transition to remote or online learning.

The following are recommendations that WUSA suggests instructors implement to address the gaps that students have identified, as well as improvements students themselves identified in the survey:

- In addition to regularly collecting feedback from students, instructors should strive to immediately implement improvements rather than saving it for a later term, to ensure the students who provided the feedback feel their concerns are being heard and addressed.
- Maintain a similar workload (e.g. number of lectures, readings, assessments) as previous in-person courses. Learning remotely or online does not mean students have

more time; some students have indicated they actually have less time due to the pandemic and current living circumstances.

- Keep lecture videos under an hour. An overwhelming majority of students (76.5%) indicate that they can only focus continuously for under an hour, with some answering their focus lasts for under half an hour. More specifically, like the University's [Strategies for Remote Teaching](#), WUSA recommends providing shorter lectures in chunks, while keeping in mind that an hour of in-person classes does not actually amount to a full hour of instruction.
- Provide a number of different mediums for lectures. Many students felt their learning styles were not supported because their courses had no audio lecture component, or others had no transcript or captions for videos. In-person courses almost always include both an audio and visual component to lectures, and there is no reason as to why this should be different with remote or online learning.
- Offer an option for students to view lectures at a later time, if they are unable to attend live lectures. This is especially important with current circumstances, when everyone's schedule is unique and many students may be living in different time zones.



- Post course materials in advance at a consistent day and time each week. This helps students plan ahead and be able to keep up with their workload, and doing this also makes for better course organization overall.
- Provide greater flexibility for assessments, such as having soft and hard deadlines for assignments, dropping the lowest assignment grade, providing alternative grading schemes, and having exams open for a window of time rather than a specific time.
- Communicate clear explanations of course content and make it clear what's expected of students in assessments, including allowance for collaboration. Unclear explanations and expectations can be detrimental to students' learning, and instructors are encouraged to answer in a public manner (e.g. Learn post, class email, Piazza post) any questions students have, even if they feel the answer should be obvious, as it may not be to everyone.

# Response Rate

In total, the Teaching and Course Quality survey received 3,298 responses. Of these responses, 2,151 were complete, meaning respondents finished the survey, and 1,147 were only partially completed, meaning respondents left the survey before submitting (Figure 1). The survey link was emailed to all currently enrolled undergraduate students, a total of 36,880. As a result, the response rate for this survey was 8.9% with a completion rate of 5.8% (Figure 2). Both complete and partial responses have been used in reporting the results of the survey, meaning each question will have a number of students who did not complete the question. The number of students who did not respond to a question will not be included in the answer breakdown; however, the number of respondents who did not answer the question has been included in the appendix.

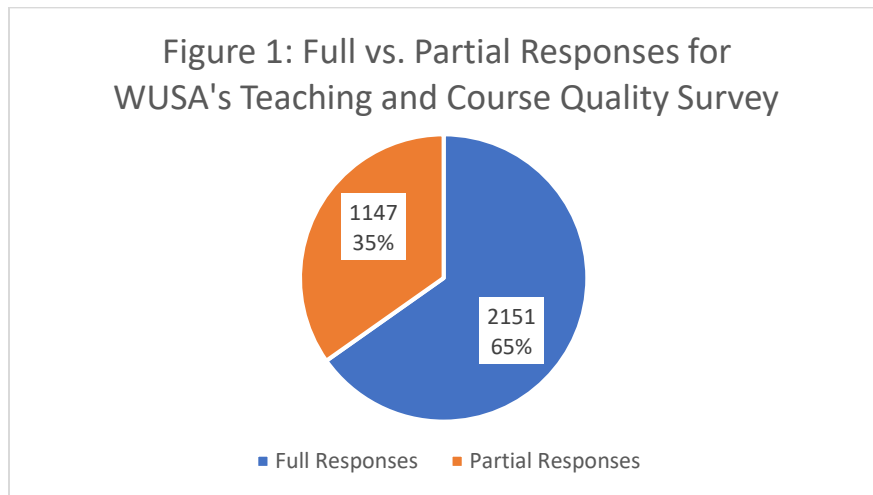


Figure 1. Full vs. Partial Responses for WUSA's Teaching and Course Quality Survey.

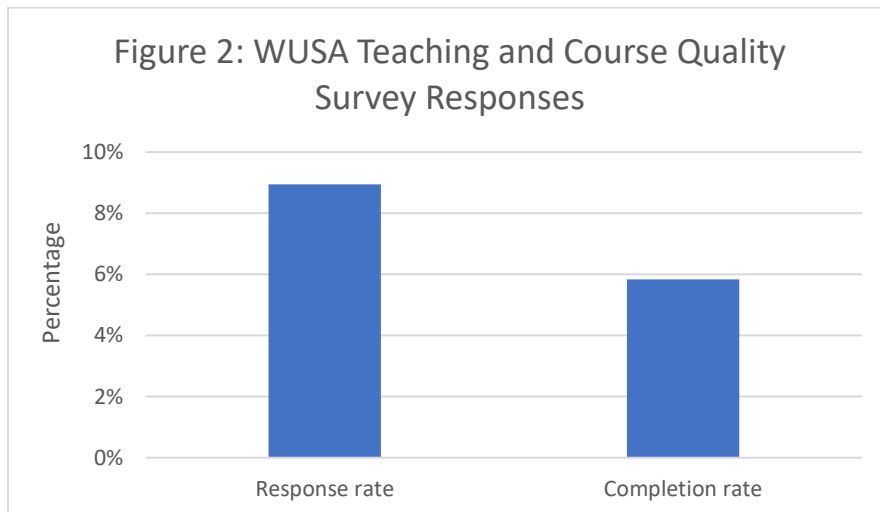


Figure 2. WUSA Teaching and Course Quality Survey Responses.

This response rate was considerably lower than the one conducted in spring, which had a response rate of 21.7%. There are a number of possibilities for why this might be, including but not limited to:

- The spring survey was sent to both undergraduate and masters students while the fall survey was only sent to undergraduate students;
- The novelty of online learning could have made students more eager to provide feedback during spring term, and;
- The IAP had a greater reach in encouraging students to respond than WUSA.



# Enrollment and General Thoughts

When asked about their enrollment in the spring 2020 term, 40.0% of students answered that they took at least one class. In the fall 2020 term, 94.2% of students answered they were taking at least one class, with 71.6% saying they were taking 5 or more classes (Figure 3).

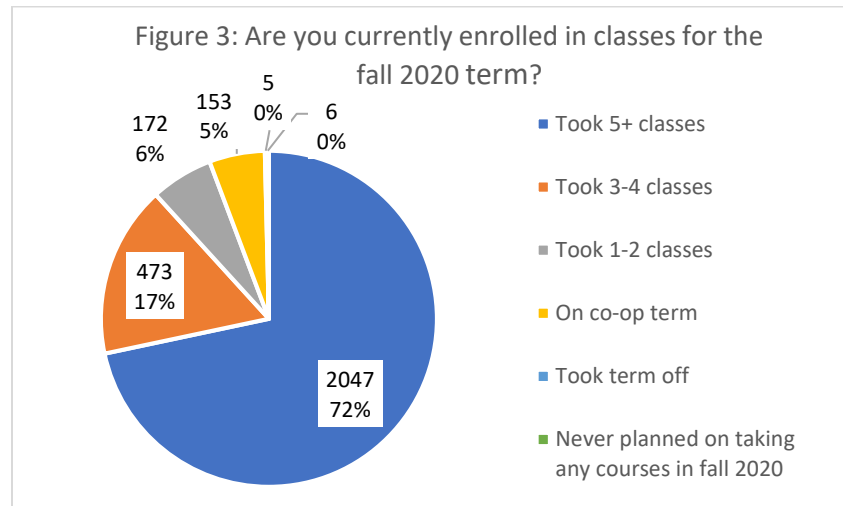


Figure 3. Answers to 'Are you currently enrolled in classes for the fall 2020 term?'

Students were also asked to describe how their fall term was going overall, with the most majority of students answering 'It has its ups and downs' (55.4%). In addition to this, about 7.9% of respondents answered the term was going 'Quite well', 34.3% answered the term was going 'Not well', and 2.4% answered 'Other' (Figure 4). Of the 'Other' answers, 72.3% indicated a negative experience, 10.7% indicated a positive experience, 13.8% were neutral, and the remaining 3.0% did not provide an answer. From IAP's report, 'It has its ups and downs' was also the most common answer in the spring term, at 60%. However, a greater number of students said the term was going well in spring (17%) and fewer students answered 'not well' (22%) compared to this fall survey. This suggests students are having a more difficult time with online learning in the fall 2020 term compared to spring 2020.

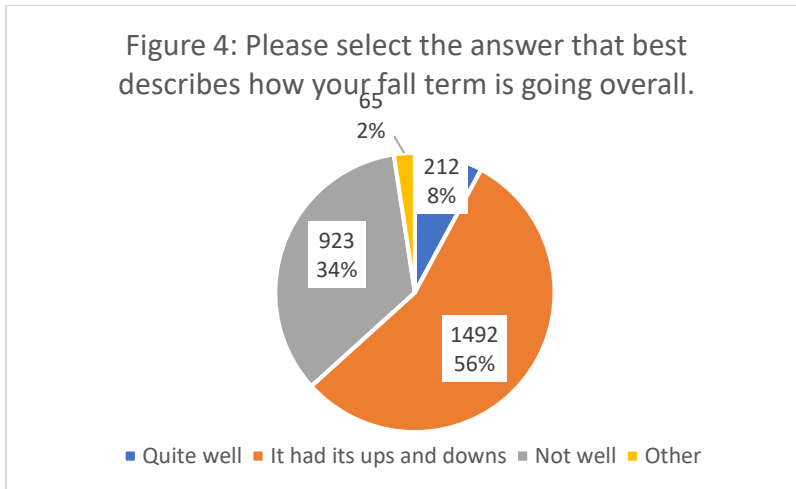


Figure 4. Answers to ‘Please select the answer that best describes how your fall term is going overall.’

When asked about their comfort in remote or online learning, most students indicated that their experience has varied from course to course (31.8%) (Figure 5). In the spring term, 24.4% of students said their experience varied. When reporting results, IAP grouped the answers ‘more comfortable’ and ‘still as comfortable’ together (45.7%), and the answers ‘less comfortable’ and ‘still as uncomfortable’ together (28.9%). When these categories are grouped together for WUSA’s fall survey, 32.6% of students said they were more or still as comfortable with remote or online learning, while 35.6% of students said they were less or still as uncomfortable with remote or online learning. Similar to when asked how their term was going, between the survey in spring term and this term, less students indicated they are as or more comfortable now, while more students indicated they are as or more uncomfortable.

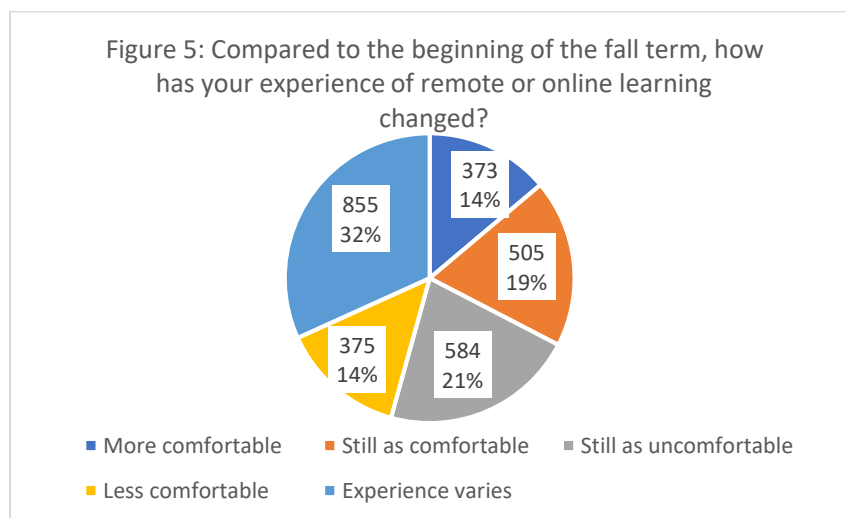


Figure 5. Answers to ‘Compared to the beginning of the fall term, how has your experience of remote or online learning changed?’

# Demographics

Majority of respondents identified as being first year students, at 31.9%. The number of students who responded decreased as the year of study increased, meaning the group with the second most number of respondents were second year students, the third most were third year students, and so on (Figure 6).

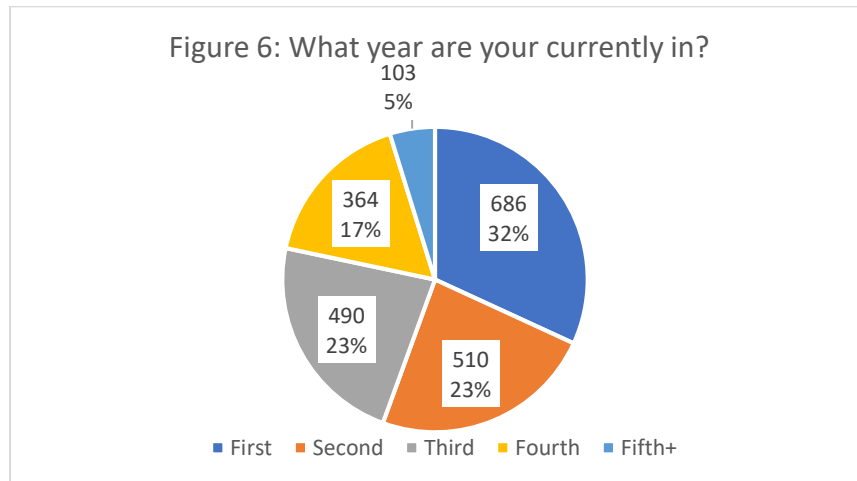


Figure 6. Answers to 'What year are you currently in?'

Across faculties, most students identified as taking courses in the Arts faculty, followed by Math, Science, Engineering, Applied Health Science (AHS), and finally, Environment. Students were also asked about if they were taking courses from the University Colleges or satellite campuses (Figure 7).

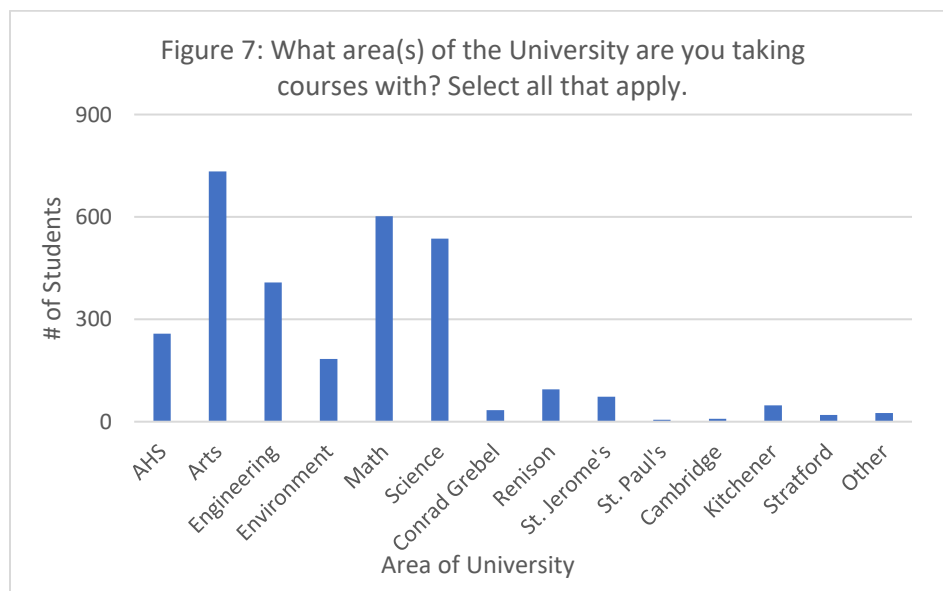
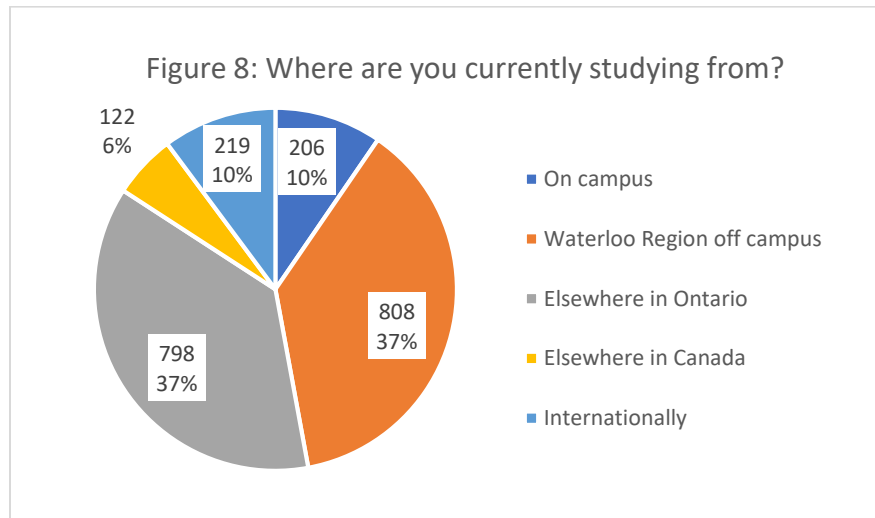
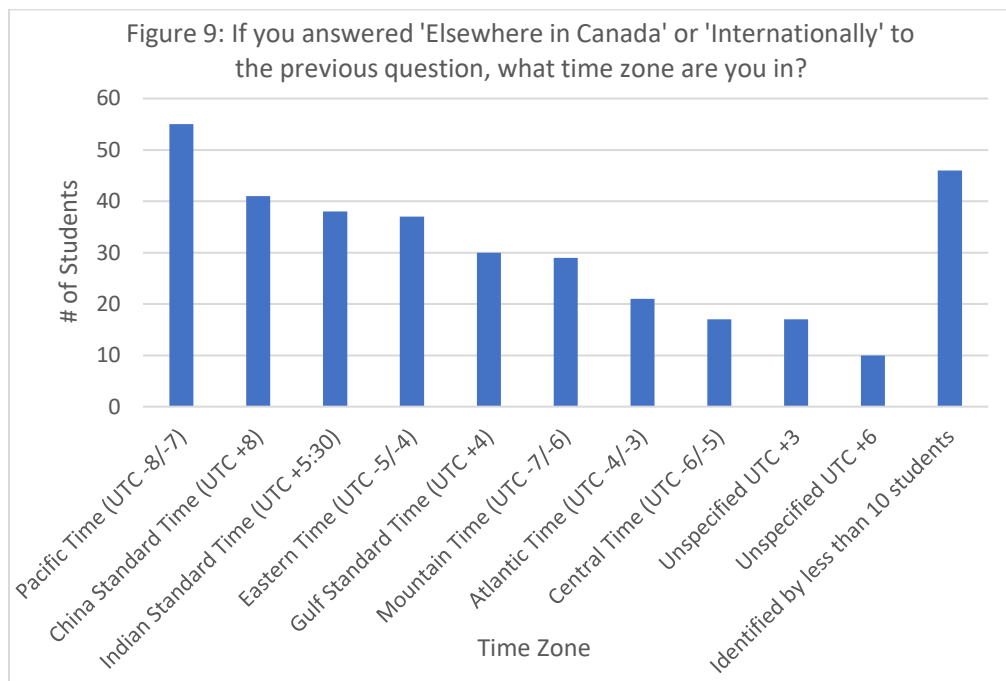


Figure 7. Answers to 'What area(s) of the University are you taking courses with? Select all that apply.'

13.8% of students identified as being international students. In addition, students were asked where they are currently studying from and 15.8% answered they were studying in Canada but outside of Ontario, or internationally (Figure 8). They were also asked what time zone they were in, and the most common three answers were Pacific Time (UTC -8/-7), China Standard Time (UTC +8), and Indian Standard Time (UTC +5:30) (Figure 9).



*Figure 8. Answers to 'Where are you currently studying from?'*



*Figure 9. Answers to 'If you answered "Elsewhere in Canada" or "Internationally" to the previous question, what time zone are you in?'*

# Key Takeaways

For many students, the transition to remote or online learning has been less than ideal. Students have identified some strengths to remote or online learning, such as being able to learn on their own schedule, but there are also many areas that students suggested needed improvement. Across all survey answers, some of the major reoccurring concerns include:

- A greater workload than in-person courses.
  - Many students perceive that there is a greater workload than when courses were held on-campus, and believe instructors assign more work because they believe students have more time. Students state that this is not the case, in fact, the opposite may be closer to the truth, due to the current pandemic and personal difficulties related to the pandemic.
- Poor engagement and support from instructors.
  - Many students have found it difficult to get in contact with instructors or have felt the support they have received is less than adequate. A number of students report that instructors have not been as supportive and accommodating as they could have been, considering the current circumstances of online courses.
  - Some specific concerns identified include instructors not responding promptly to questions, not being understanding about mental health struggles, and not providing accommodations for issues related to technology.
- Lack of flexibility
  - Flexibility has been identified as a major issue, primarily related to assessments. Some courses have opted for completing live exams at specific times, but students have reported that a strict time period for online exams is more stressful, does not allow them to work on their own time, and does not account for potential issues with technology. In addition, students note that some courses have no late policy, meaning they automatically fail a late assignment, but they would prefer to have the possibility of handing in assignments late, with a grade deduction penalty.
  - A lack of flexibility has also been identified as a concern by some students living in different time zones. For instance, instructors who have live lectures and do not record them for students to view later make it more difficult for students living in different time zones to participate in class and learn.
- Lack of accommodations to support different learning methods.
  - Many students report that a number of their classes are missing either a visual or audio lecture component, meaning lectures consist of instructors speaking into a camera with no other visual, or solely readings from slides and/or a textbook, respectively. This restrictive form of teaching makes learning difficult for many

students, who feel ideally, courses should include both a visual and audio component to improve their learning experience.

- Lack of, or inauthentic interactions with other students.
  - The online learning environment, coupled with the pandemic, can make students feel very isolated. Many students reported wishing they had an opportunity to have live discussions with their peers, as many have not had the opportunity to interact with other students at all or have had discussion methods that felt inauthentic and more like another assignment (such as mandatory discussion board posts).
  - It should be noted that while group assignments are an effective way to help students interact with peers, many students also report difficulty completing group assignments due to everyone having different schedules, and peers may live in different time zones making it difficult to have team meetings.

# Workload

When asked to compare how much time they spent on remote or online courses, compared to on-campus courses, the most common answer students selected was 'More time', at 45.8%. 6.9% of students said they spent 'Less time' on online courses, 5.9% said they spent about the same amount of time, and 13.0% said their experience varied. The remaining 28.4% of students said they had no previous frame of reference (e.g. first year student) (Figure 10). Provided answer options differed slightly between IAP's spring survey and WUSA's fall survey, but similar results were reported nonetheless. Majority of students in the spring term answered that they were spending 'much more' or 'a bit more' time on their remote or online courses (59.9%).

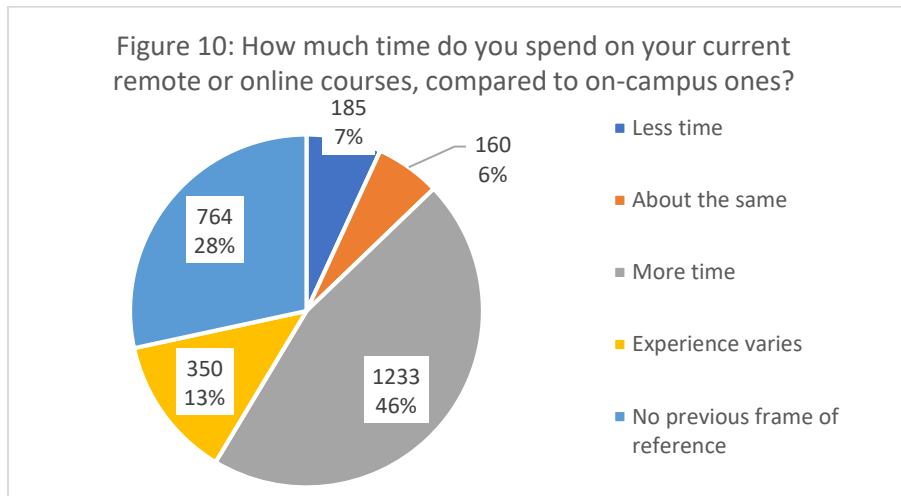


Figure 10. Answers to 'How much time do you spend on your current remote or online courses, compared to on-campus ones?'

Students were also provided with a number of statements related to workload, and asked to indicate if the statement was true for all of their courses, most, some, few, or none of their courses. To see the full list of statements provided to students, and their responses, see Appendix B.

## STATEMENT: My workload feels manageable and fair.

Answers for this statement were relatively divided. The most common answer was 'Some of my courses' at 32.1%, but close behind are 'Few of my courses' at 30.0% and 'Most of my courses' at 25.9% (Figure 11). There were also a number of notable differences when individual faculty results were compared with these overall results. AHS faculty had significantly lower percentages for 'All' and 'Most of my courses', at 1.6% and 19.5% respectively. It should be noted that the 'Few' and 'None' answers were not significant, so this suggests that while AHS students feel many of their courses do not have a manageable and fair workload. Asides from AHS, Math faculty had a significantly higher percentage of students selecting 'All my courses', at 10.5%;

and Environment faculty had a significantly lower percentage answering 'None of my courses' at 1.2%.

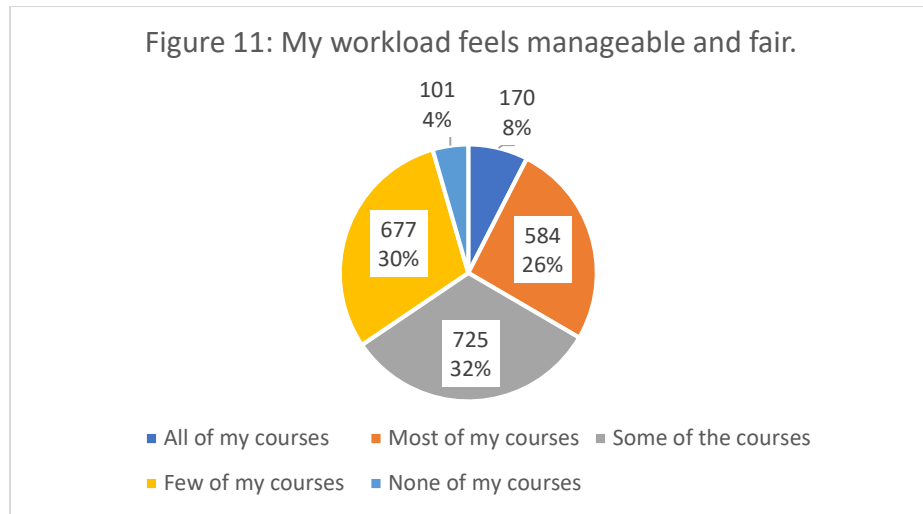


Figure 11. Responses to 'My workload feels manageable and fair.'

**STATEMENT: My instructors have given flexibility in scheduling and deadlines with assessments where they can.**

The most common answer for this statement was 'Few of my courses', at 28.2%, and the least common answer was 'All of my courses' at 10.9% (Figure 12). A lack of flexibility has been noted to be a reoccurring concern throughout the survey. At a time in which students are learning from all over the world, flexibility has been identified as a much-needed aspect in courses. Across faculties, the most notable differences are in the Engineering and Math faculties. For 'All' and 'Most', the Engineering faculty has percentages that are significantly higher at 15.5% and 27.4% respectively, offset by a significantly lower 'None' result, at 8.5%. This implies that the Engineering faculty has been providing more flexibility to their students compared to other faculties. In the opposite direction of significance, the Math faculty has a significantly higher percentage in the 'None' category, at 22.4%, suggesting a lack of flexibility in more Math courses. It should be noted that these answers may simply be reflective of the attitudes towards studying that Engineering and Math students have, and the valuing of scheduling and specific deadlines.



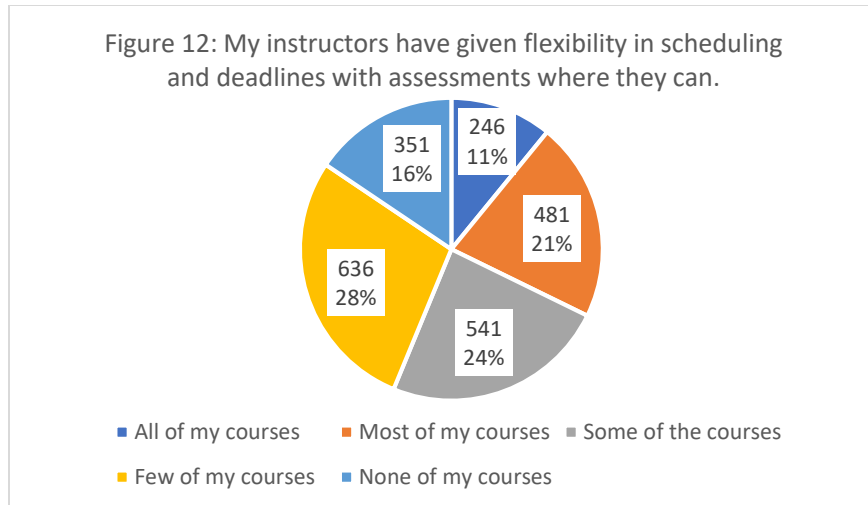


Figure 12. Responses to ‘My instructors have given flexibility in scheduling and deadlines with assessments where they can.’

**STATEMENT: Course material is posted at a consistent day & time.**

Majority of students have indicated that ‘Most’ or ‘All’ of their courses have material posted at a consistent day and time, at 31.3% and 27.8% respectively (Figure 13). However, in contrast, when asked what improvements could be made to the overall quality of remote or online learning, the most commonly selected answer was ‘Course materials posted or available at a consistent time each week’. This was also identified as one of the top 10 answers to what an instructor could have done to improve students’ worst course experience (see section ‘Strengths and Opportunities for Improvement’). This implies that while majority of courses are posting material at a consistent day and time, not doing so makes for an especially poor learning experience for students. These results suggest that if instructors post course materials consistently, in a timely manner, students’ remote and online learning experiences would improve greatly.

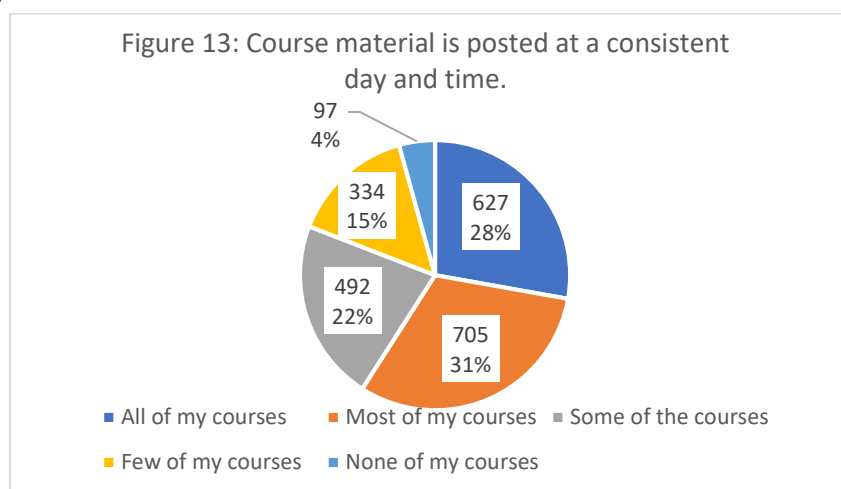


Figure 13. Responses to ‘Course material is posted at a consistent day and time.’

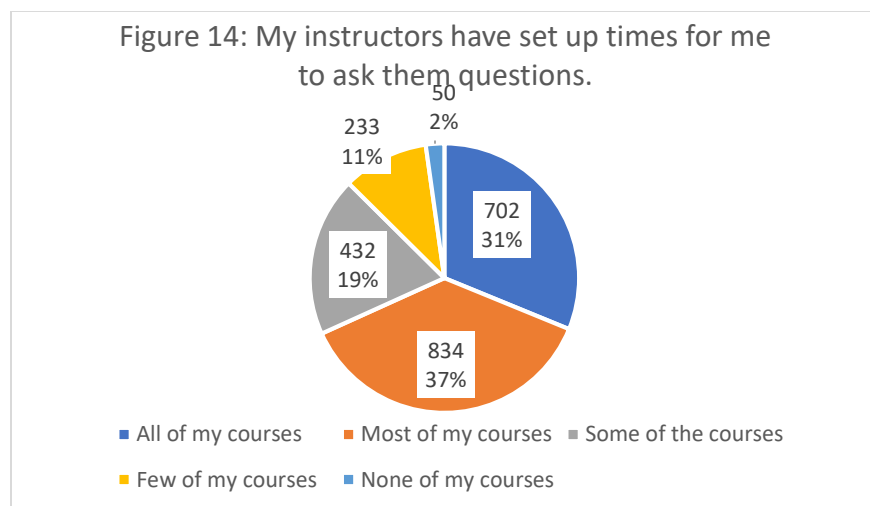
# Instructor Engagement

Instructor engagement plays a big role in students' learning experience. When asked about their best online course experience and what instructors did differently that made it the best, students most commonly answered strong engagement and interaction between instructors and students. In the reverse of this, when students were asked about their worst online course experience and what instructors could have done better, students most commonly answered the experience could have been improved with better engagement and interaction from instructors. Please see section '*Strengths and Opportunities for Improvement*' for more details on these two questions.

Students were also provided with a number of statements related to instructor engagement and asked if the statement was true for all, most, some, few, or none of their courses. To see the full list of statements provided to students, and their responses, see Appendix B.

## **STATEMENT: My instructors have set up times (such as digital office hours) for me to ask them questions.**

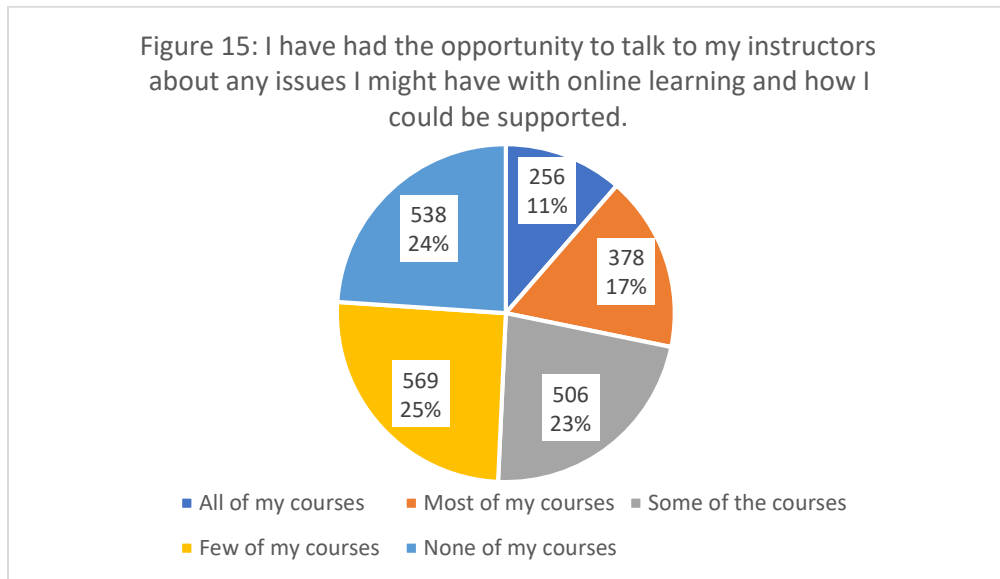
Many instructors have provided students with the opportunity to ask questions. The most common answer students selected, was 'Most of my courses' at 37.1%, followed by 'All of my courses' at 31.2%. When combined, 'Few' and 'None' only make up about 12.6% of answers (Figure 14). This is fairly consistent across all faculties as well, with the only differences being Engineering and Math faculties having significantly lower percentages in the 'Few' category, at 6.4% and 8.2% respectively.



*Figure 14. Responses to 'My instructors have set up times (such as digital office hours) for me to ask them questions.'*

**STATEMENT: I have had the opportunity to talk to my instructors about any issues I might have with online learning and how I could be supported.**

Despite having opportunity to ask instructors questions, students answered that they have not had the opportunity to talk to their instructors about any issues with online learning in majority of their classes. The most commonly selected answer for this statement was 'Few of my courses' at 25.3%, followed by 'None of my courses' at 23.9%; nearly 50% when combined (Figure 15). These results were consistent across faculties, save for AHS faculty that had a significantly lower percentage in 'All of my courses' at 6.9%.



*Figure 15. I have had opportunity to talk to my instructors about any issues I might have with online learning and how I could be supported.*

**STATEMENT: My instructors are supporting my learning online to the best of their ability.**

Students indicate that this statement is true mostly for 'Some' of their courses (33.9%). However, the second most common answer is 'Most of my courses' at 27.4%, which suggests there are more courses in which instructors are supporting students' learning to the best of their ability than there are instructors who are not (Figure 16). However, this differs a bit across faculties. AHS and Science faculties have significantly lower percentages in the 'All of my courses' category, at 5.3% and 10.0% respectively. As for the Environment faculty, percentages are significantly lower for 'Few', at 15.3%, and 'None', at 2.4%. This suggests students feel fewer instructors in AHS and Science are supporting students online to the best of their ability, and fewer instructors in Environment are not supporting students.

Figure 16: My instructors are supporting my learning online to the best of their ability.

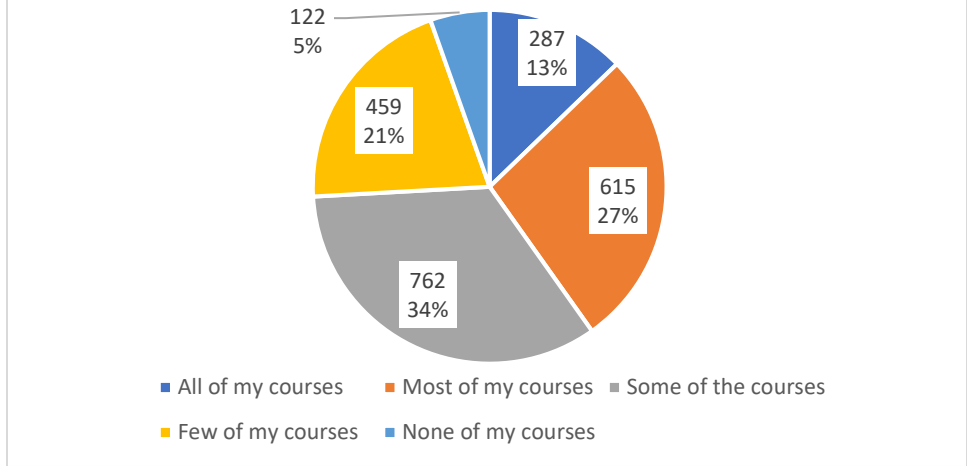


Figure 16. Responses to 'My instructors are supporting my learning online to the best of their ability.'

# Motivation

In IAP’s spring survey, a lack of motivation was identified as a main challenge for students and was also one of the top reasons for why students felt the term was not going well. WUSA’s fall survey asked students what keeps them motivated and found that majority of students find keeping a scheduled routine helps with their motivation, with 53.3% of respondents selected this as a motivator.

Students were also provided with a number of statements related to motivation and asked to indicate if the statement was true for all, most, some, few, or none of their courses. To see the full list of statements provided to students, and their responses, see Appendix B.

## **STATEMENT: I am motivated to complete coursework with online classes.**

The most common answer for this statement was ‘Few of my courses’ with 27.3% of students selecting this answer. The second most common answer was ‘Some’, at 23.2%, and the least common answer was ‘All’, at 10.7% (Figure 17). AHS faculty has a significantly lower percentage of answers for ‘All’ at 3.7%, and a higher percentage for ‘Few of my courses’ at 33.7%. In contrast, Math has a significantly higher ‘All’ percentage with 15.1%, and a significantly lower ‘None’ percentage with 13.5%. All other faculties are in line with the overall answers.

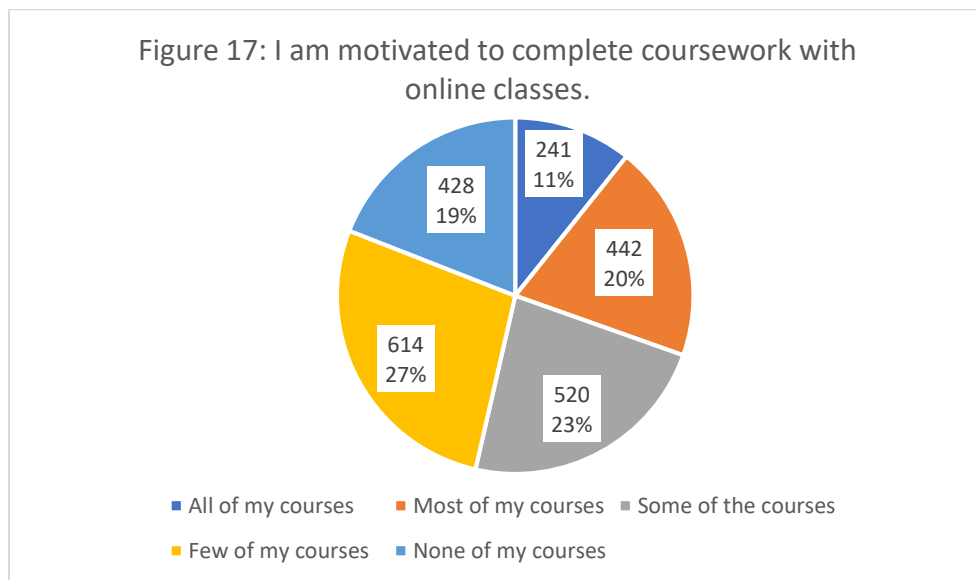


Figure 17. Responses to ‘I am motivated to complete coursework with online classes.’

## **STATEMENT: My instructors have been helpful in motivating me to complete course work.**

Students most commonly said this statement was true for 'Few' of their courses, at 35.0%. When looking at the 'All' and 'Most' answers, they only make up 16.7% of answers when combined (Figure 18). These answers suggest instructors could be doing more in helping motivate students. In the 'All of my courses' answer, AHS and Environment faculties have significantly lower percentages, at 0.8% and 2.4% respectively. AHS, as well as Arts faculty, also have lower percentages for 'Most of my courses', at 7.7% and 9.4%. In the 'Few of my courses' category, AHS has a significantly higher percentage, while Engineering has a significantly lower percentage. The many differences AHS has in comparison to the overall results suggests that students feel AHS courses in particular could see improvement in having instructors help motivate students.

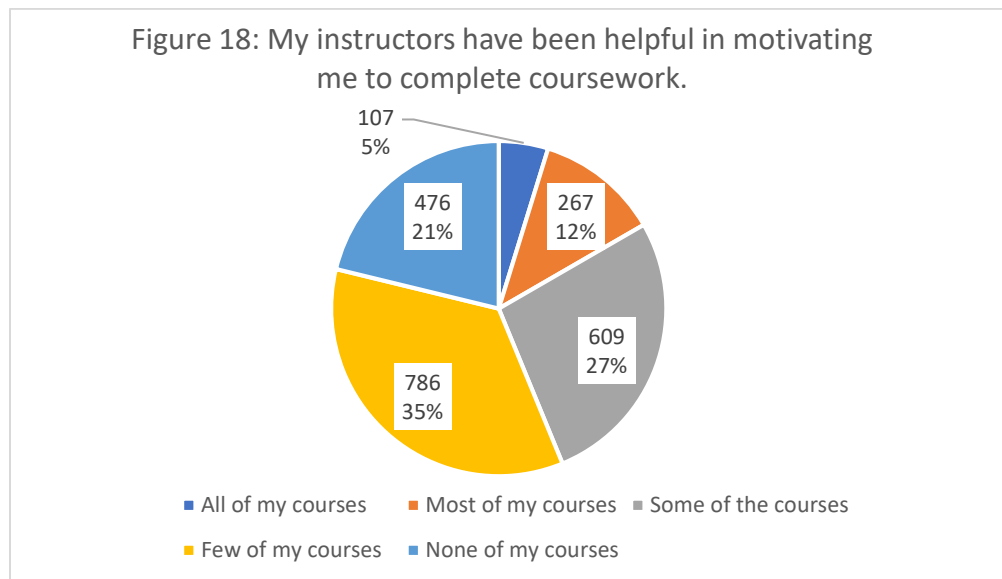
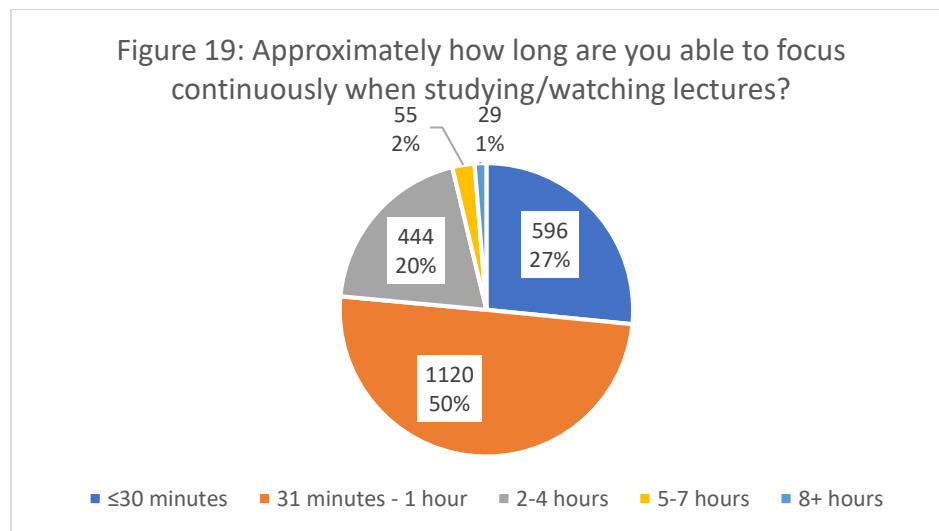


Figure 18. Responses to 'My instructors have been helpful in motivating me to complete coursework.'

# Learning and Teaching Methods

Ideal learning and teaching methods can vary depending on students' learning styles and the nature of the course. That said, WUSA aimed to determine what learning methods the majority of students preferred. As a note to instructors, deciding how to best support the learning styles of students could be done by sending out a survey before courses start, in order to adjust assessments accordingly. In addition, regularly collecting feedback can make a big difference in providing a better course experience for students. If instructors are seeking and receiving feedback from students, WUSA recommends striving to incorporate changes in the term the feedback was received, so that students do not feel discouraged and unheard.

The [Strategies for Remote Teaching](#) provided by the University of Waterloo recommended instructors create 5-10 minute lecture segments, that cover course topics in chunks, rather than lengthy lecture videos. In addition, WUSA found that 76.5% of students answered they are able to focus continuously when studying/watching lectures for an hour or less (Figure 19). This supports the idea of having shorter lectures, as even if long lectures have breaks scheduled within them, knowing the full lecture is over an hour could cause students to lose focus.



*Figure 19. Answers to 'Approximately how long are you able to focus continuously when studying/watching lectures?'*

Furthermore, when it comes to lectures themselves, students have indicated that they prefer to have live lectures which are recorded and available later (38.9%), or pre-recorded lectures (38.5%) (Figure 20). As these are the two most common answers, it's likely that students like having the option to go back to a lecture to review material or be able to watch lectures at their own pace. These two options also make lecture material more convenient and accessible to students living in different time zones.

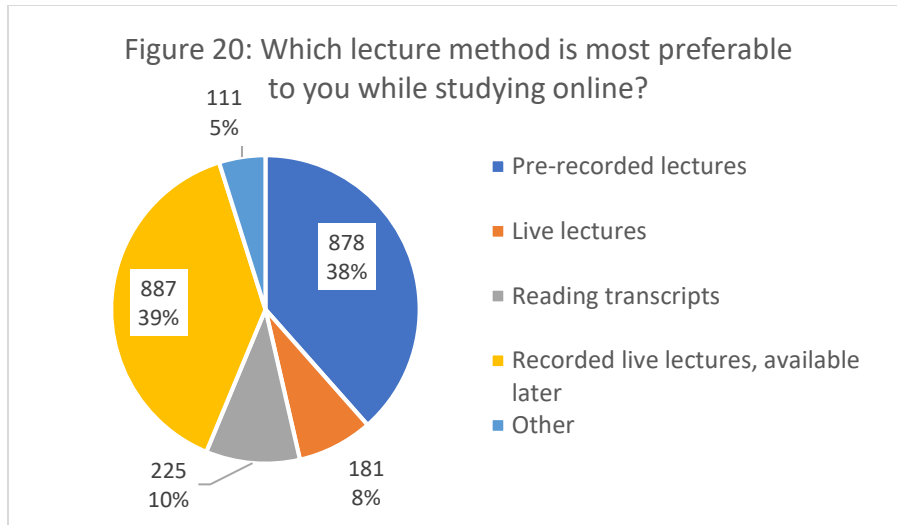
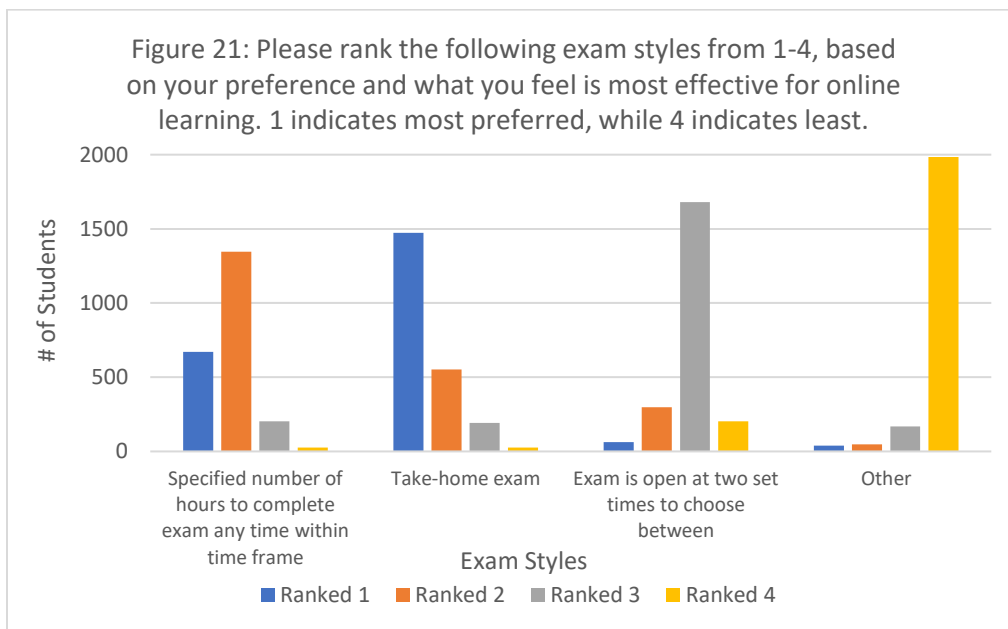


Figure 20. Answers to ‘Which lecture method is most preferable to you while studying online?’

Students were also asked to rank exam styles based on their preference and what they felt is most effective for online learning. Take-home exams were most commonly ranked 1<sup>st</sup>, followed by exams where they have a specified number of hours available to complete it (e.g. 2 hours) but can start anytime within the time frame (e.g. 48 hours) as the answer most commonly ranked 2<sup>nd</sup>. For the answer most commonly ranked 3<sup>rd</sup>, students answered exams where there are two set times to write the exam live (e.g. 10 a.m. on Friday or 2 p.m. Saturday). Finally, ‘Other’ was most commonly ranked 4<sup>th</sup> but students were also instructed to select it for 4<sup>th</sup> if they had no other exam style they prefer (Figure 21). Of the students that provided another answer for ‘Other’, 55.3% said they preferred a final assignment rather than an exam.





*Figure 21. Responses for 'Please rank the following exam styles from 1-4, based on your preference and what you feel is most effective for online learning. 1 indicates most preferred, while 4 indicates least.'*

Students appear to prefer exam options that give them the flexibility of completing them in their own time. In addition, students have noted that live online exams are particularly stressful, as there usually are not any accommodations for technological difficulties, and sanctions in place to prevent cheating make the overall experience more difficult. Some students have reported that these strict guidelines to prevent cheating negatively affect honest students more, as they believe students who cheat will find other ways to do so. A number of students have also commented that if live exams are necessary, making the exams open-book can help create a more equal experience for everyone, by taking out the possibility of cheating by using notes entirely, and also removes much of the stress for all students.

# Accessibility

In general, majority of students answered 'No' when asked if they feel instructors are doing enough to support accessible learning in the transition to online learning (61.1%). In contrast, majority of students do feel instructors are doing enough to support students living in other time zones (67.6%). However, it should be noted that this question was open for all students to answer, including those who may not live in a different time zone.

When asked what methods instructors implemented to make learning more accessible, the top three answers were sharing lecture material prior to lecture time (57.2%), answering questions via chat (49.7%), and providing closed captioning/transcripts on videos (36.1%) (Figure 22).

When asked what else instructors and the University of Waterloo could do to make online learning more accessible for students, one of the top answers was implementing more of the methods from the question in Figure 22. Some students noted that the provided answer options would be effective, but many instructors only do one or two of the methods, when implementing all of them would be ideal. Other common answers students provided to make online learning more accessible include having greater flexibility, better engagement and communication between instructors and students, and including an audio aspect to lectures (Figure 23).

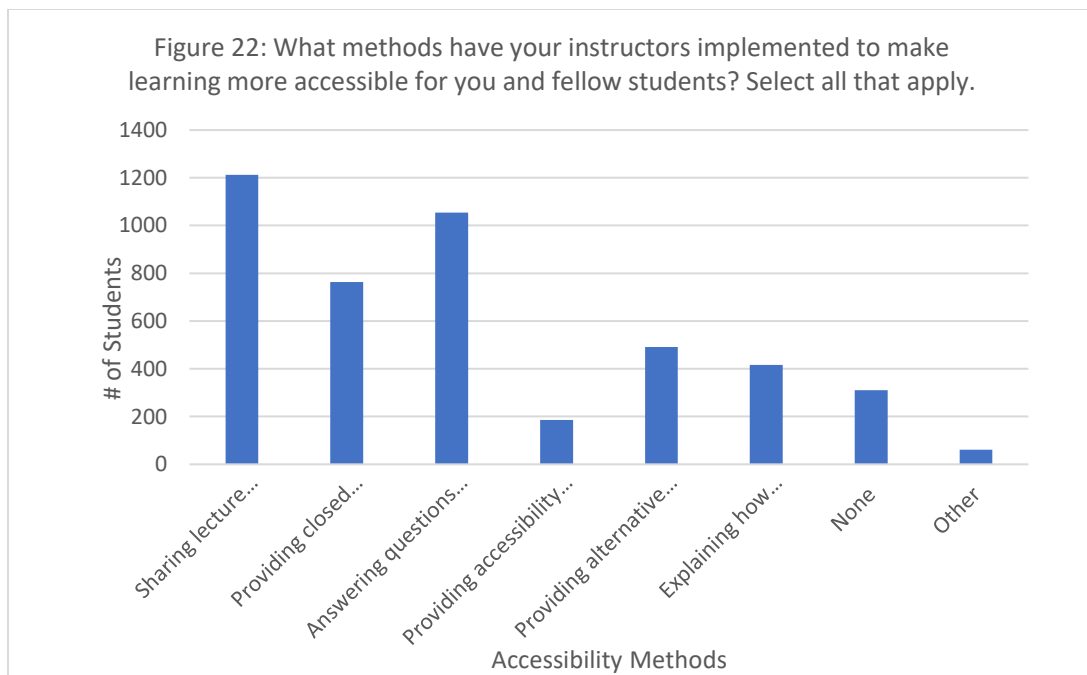
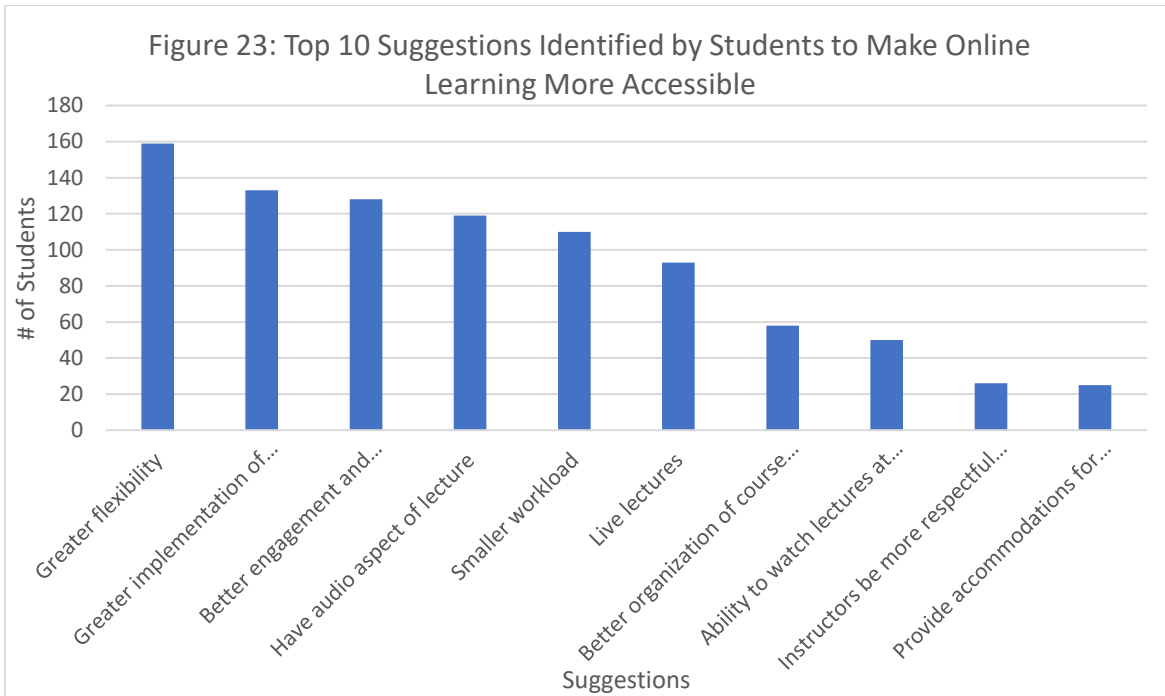


Figure 22. Answers to 'What methods have you instructors implemented to make learning more accessible for you and fellow students? Select all that apply.'

*Accessibility Methods, from left to right: Sharing lecture material prior to lecture time, Providing closed captioning/transcripts on videos, Answering questions via chat, Providing accessibility text for images, Providing alternative methods of participation, Explaining how students can request accommodations for their accessibility needs, None, and Other.*



**Figure 23. Top 10 Suggestions for ‘What else do you think instructors and the University of Waterloo can do to make online learning more accessible for students?’**

*Suggestions, from left to right: Greater flexibility, Greater implementation of methods in Question 15 (Figure 22), Better engagement and communication between students and instructors, Have audio aspect of lecture, Small workload, Live lectures, Better organization of course content, Ability to watch lectures at other times, Instructors be more respectful of accommodations and students struggles, and Provide accommodations for technology issues.*

# Strengths and Opportunities for Improvement

When provided a list of possible improvements that could be made to the overall quality of remote or online courses, students most commonly selected ‘Course materials posted or available at a consistent time each week’ as an improvement to be made (Figure 24). However, it should be noted that majority of students also indicated course material is posted at a consistent day and time, in a previous question (see section ‘Workload’). This suggests while many courses do this, those that don’t, create an especially poor experience for students, to the point that this is the main improvement students would like to see.

Other major improvements identified by students included ‘Less frequent assessments’, ‘Ability to participate in the course on my own schedule’, ‘Interactions with instructors each week’, and ‘Frequent, but shorter lectures’ (Figure 24). Answers identified in ‘Other’ include having less or no group work, including an audio component to lectures, a smaller workload, and better course organization.

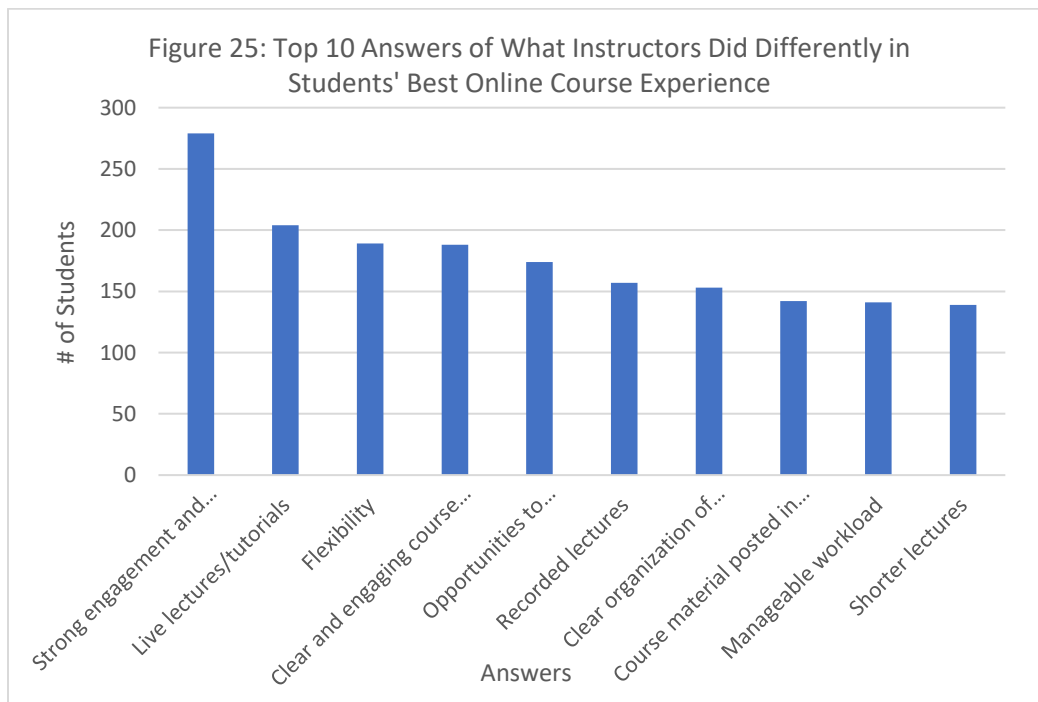


Figure 24. Answers to ‘What, if any, improvement to the overall quality of remote or online courses could be made? Select all that apply.’

Improvements, from left to right: Frequent but shorter lectures, More live video lectures, Less live video lectures, More frequent assessments, Less frequent assessments, Interactions with instructors each week, Ability to access teaching assistants more readily, Ability to participate in the course on my own schedule, Online group work and collaboration, Lectures offered at set schedule in real time, Course materials posted or available at a consistent time each week, Ability to access additional tutorial resources, Better access to library resources, No improvements need to be made, Other

*Ability to access additional tutorial sessions, Better access to library resources, No improvements to be made, and Other.*

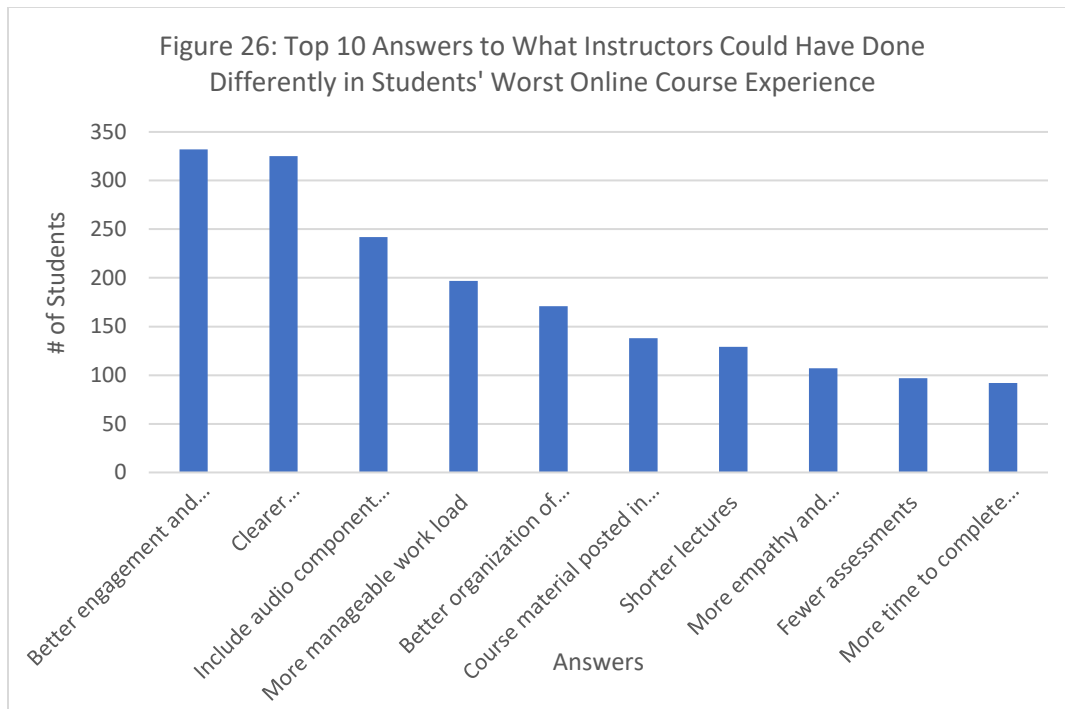
Students were asked to think about what instructors did differently in their best online course experience, and these answers were compiled into a list of their top 10 answers (Figure 25). The most common answer given was 'Strong engagement and interaction with students', followed by having live lectures/tutorials, and having flexibility in the course.



*Figure 25. Top 10 Answers to 'Thinking of your best experience with an online course, what did your instructor do differently?'*

*Answers from left to right: Strong engagement and interaction with students, Live lectures/tutorials, Flexibility, Clear and engaging course content, Opportunities to review/practice course content, recorded lectures, Clear organization of course material, Course material posted in advance at consistent times, Manageable workload, and Shorter lectures.*

Finally, students were also asked what instructors could have done to improve their worst experience with an online course. It should be noted that some students answered what instructors did poorly, rather than how they could have improved. However, these answers were still considered and organized accordingly to how the poor experience students described could have been improved. For instance, if students remarked instructors did not reply to emails and questions promptly, the answer was categorized as instructors having 'Better engagement and communication with students' would improve the experience. 'Better engagement and communication with students' was also the most commonly identified improvement to be made, followed by 'Clearer explanations/expectations of course content', and 'Including an audio component to lectures' (Figure 26).



*Figure 26. Top 10 Answers to 'Thinking of your worst experience with an online course, what could your instructor have done differently?'*

*Answers, from left to right: Better engagement and communication with students, Clearer explanations/expectations of course content, Include audio component to lecture, More manageable workload, Better organization of course material, Shorter lectures, More empathy and accommodations for students, Fewer assessments, and More time to complete assessments.*

Several of these answers overlap with their opposite counterpart, identified when students were asked about their best experiences. These answers are better/strong engagement and communication with students, a more manageable workload, better/clear organization of course material, course material posted in advance at consistent times, and shorter lectures. This would suggest that these six aspects of the online learning environment are particularly important to students' experience. Effective implementation of these aspects could help make a course a student's best experience, or a poor implementation could create a student's worst experience.

# Appendix A – Survey Questions

1. Were you enrolled in classes for the **spring 2020** term?
  - a. Yes. I took 5 classes or more
  - b. Yes. I took 3 or 4 classes
  - c. Yes. I took 1 or 2 classes
  - d. No. I was on co-op
  - e. No. I decided to take a term off
  - f. No. I was never planning to take classes during the spring term
2. Please select the answer that best describes how your spring term went overall, now that it is complete. (Shown only if respondent selected 1a, b, or c.)
  - a. Quite well
  - b. It has its ups and downs
  - c. Not well
  - d. Other, please specify
3. Are you currently enrolled in classes for the **fall 2020** term?
  - a. Yes. I'm taking 5 classes or more
  - b. Yes. I'm taking 3 or 4 classes
  - c. Yes. I'm taking 1 or 2 classes
  - d. No. I am on co-op (Respondents who selected this were redirected to Question 22 [Demographics])
  - e. No. I decided to take a term off (Respondents who selected this were redirected to Question 22 [Demographics])
  - f. No. I was never planning to take classes during the fall term (Respondents who selected this were redirected to Question 22 [Demographics])
4. Please select the answer that best describes how your fall term is going overall.
  - a. Quite well
  - b. It has its ups and downs
  - c. Not well
  - d. Other, please specify
5. Compared to the beginning of the fall term, how has your experience of remote or online learning changed?
  - a. I am more comfortable with remote or online learning
  - b. I am still as comfortable with remote or online learning
  - c. I am still as uncomfortable with remote or online learning
  - d. I am less comfortable with remote or online learning
  - e. My experience has varied from course to course
6. How much time do you spend on your current remote or online courses, compared to on-campus ones?
  - a. Less time
  - b. About the same
  - c. More time
  - d. My experience has varied from course to course
  - e. I have no previous frame of reference (E.g. first year student)

For questions 7-9, please read the following statements and indicate whether it's applicable for all, most, some, few, or none of your courses, based on your personal experience **in this school term (fall 2020)**.

7. Workload and assessments

Statement	All of my courses	Most of my courses	Some of my courses	Few of my courses	None of my courses
My workload feels manageable and fair.					
My instructors give a reasonable number of assessments for the course.					
My instructors have given flexibility in scheduling and deadlines with assessments where they can.					
I have enough time to prepare for and complete assessments between lectures.					
Course material is well organized.					
Course material is posted at a consistent day and time.					
Course material is divided reasonably in a way that suits both the topic and my attention span. (The University of Waterloo recommends instructors give 10-minute lectures, rather than a full 50 minutes.)					

8. Instructor engagement and connection

Statement	All of my courses	Most of my courses	Some of my courses	Few of my courses	None of my courses
My instructors have set up times (such as digital office hours) for me to ask them questions.					
My instructors have provided reminders and guidance for working through course material online.					
I know when I can expect responses from my instructors or TA's. (I.e. Anticipated turnaround time for responding to questions/emails)					



I feel comfortable talking to my instructor and asking them questions online.					
I have had the opportunity to talk to my instructor about any issues I might have with online learning and how I could be supported.					
My instructors have clearly explained course assessments.					
My instructors make connections between course concepts clear.					
My instructors have given me opportunity to reflect on my learning to better understand key concepts of the course.					
My instructors are supporting my learning online to the best of their ability.					

### 9. Motivation

Statement	All of my courses	Most of my courses	Some of my courses	Few of my courses	None of my courses
I am motivated to complete coursework with online classes.					
My instructors have been helpful in motivating me to complete coursework.					
I have had the opportunity to interact and work with other students.					

10. Motivation has been identified as a top challenge for students. What keeps you motivated in your courses? Select all that apply.

- a. Keeping a scheduled routine
- b. Setting goals for my courses
- c. Connecting with other students online
- d. I don't have a strategy
- e. Other, please specify

11. Approximately how long are you able to focus continuously when studying/watching lectures?

- a. 30 minutes or less
- b. 31 minutes – 1 hour
- c. 2-4 hours
- d. 5-7 hours
- e. 8+ hours

12. Which lecture method is most preferable to you while studying online?
  - a. Listening to recorded lectures
  - b. Having live lectures over Zoom or another video conferencing software
  - c. Reading lecture transcripts
  - d. Having live lectures which are recorded and available later
  - e. Other, please specify
13. Please rank the following exam styles from 1-4, based on your preference and what you feel is most effective with online learning.
  - a. Exam is open for a set period of time (e.g. 48 hours) and you have a specified amount of time to complete it, but can start at any time within the period
  - b. Take-home exam where you can have as much time as you need and must submit before the deadline
  - c. Exam is open at two set times for you to choose between (e.g. 10 a.m. Friday, 2 p.m. Saturday)
  - d. Other (rank as #4 if you don't have another preference)
14. If you ranked "Other" in the previous question as #1-3, please explain what other exam method you prefer.
15. What methods have your instructors implemented to make learning more accessible for you and fellow students? Select all that apply.
  - a. Sharing lecture material prior to lecture time
  - b. Providing closed captioning/transcripts on videos
  - c. Answering questions via chat
  - d. Providing accessibility text for images
  - e. Providing alternative methods of participation
  - f. Explaining how students can request accommodation for their accessibility needs
  - g. None
  - h. Other, please specify
16. Do you feel instructors are doing enough to support accessible learning in the transition to online learning? I.e. implementing methods from the previous question to effectively support students who need accessibility accommodations.
  - a. Yes
  - b. No
17. Do you feel instructors are doing enough to effectively support learning for students living in different time zones?
  - a. Yes
  - b. No
18. What else do you think instructors and the University of Waterloo can do to make online learning more accessible for students?
19. What, if any, improvements to the overall quality of remote or online courses could be made? Select all that apply.
  - a. Frequent but shorter lectures
  - b. More live video lectures
  - c. Less live video lectures
  - d. More frequent assessments
  - e. Less frequent assessments
  - f. Interaction with instructors each week
  - g. Ability to access teaching assistants online more readily

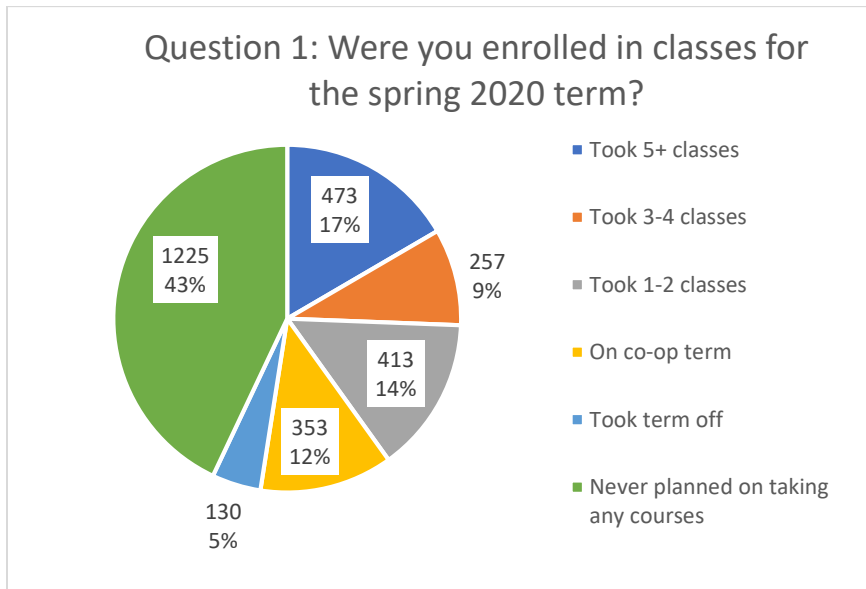
- h. Ability to participate in the course on my own schedule
  - i. Online group work and collaboration online
  - j. Lectures offered at a set schedule in real time
  - k. Course materials posted or available at a consistent time each week
  - l. Ability to access additional tutorial sessions
  - m. Better access to library resources
  - n. No improvements need to be made
  - o. Other, please specify
20. Thinking of your best experience with an online course, what did your instructor do differently? Please refrain from naming specific courses or instructors.
21. Thinking about your worst experience with an online course, what could your instructor have done better? Please refrain from naming specific courses or instructors.

## DEMOGRAPHICS

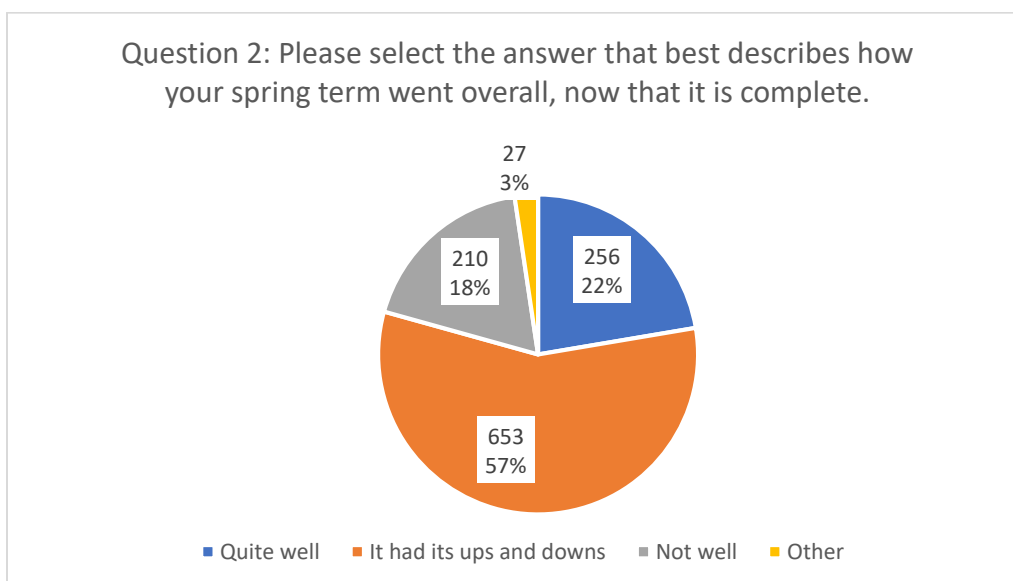
22. What year are you currently in?
- a. First
  - b. Second
  - c. Third
  - d. Fourth
  - e. Fifth+
23. Are you an international student?
- a. Yes
  - b. No
24. What area(s) of the University are you taking courses with? Select all that apply.
- a. Applied Health Sciences
  - b. Arts
  - c. Engineering
  - d. Environment
  - e. Math
  - f. Science
  - g. Conrad Grebel University College
  - h. Renison University College
  - i. St. Jerome's University
  - j. St. Paul's University College
  - k. Cambridge
  - l. Kitchener
  - m. Stratford
  - n. Other, please specify
25. Where are you currently studying from?
- a. On campus
  - b. Waterloo region off campus
  - c. Elsewhere in Ontario
  - d. Elsewhere in Canada
  - e. Internationally
26. If you answered D or E, what time zone are you in? (Question shown only if respondent selected 25d or e.)

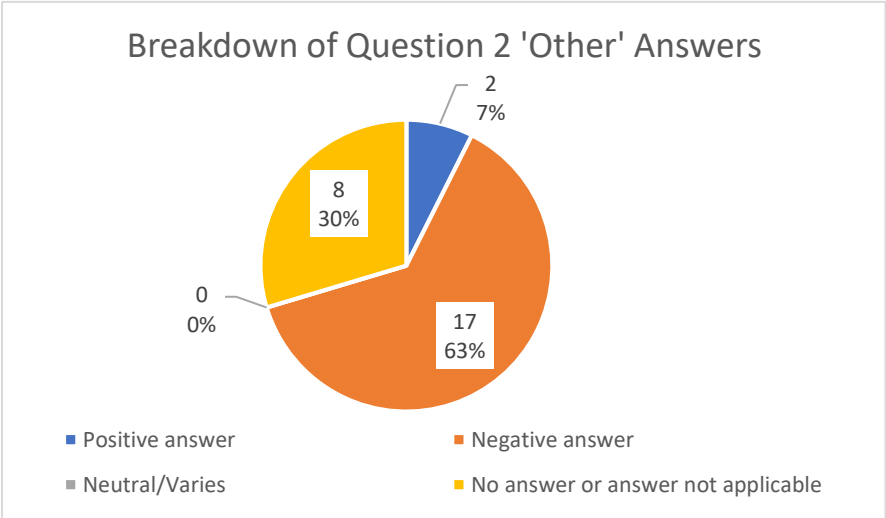
## Appendix B – Breakdown of Answers, Question By Question With Graphs

Question 1: Were you enrolled in classes for the spring 2020 term? This question was not completed by 447 of total survey respondents.

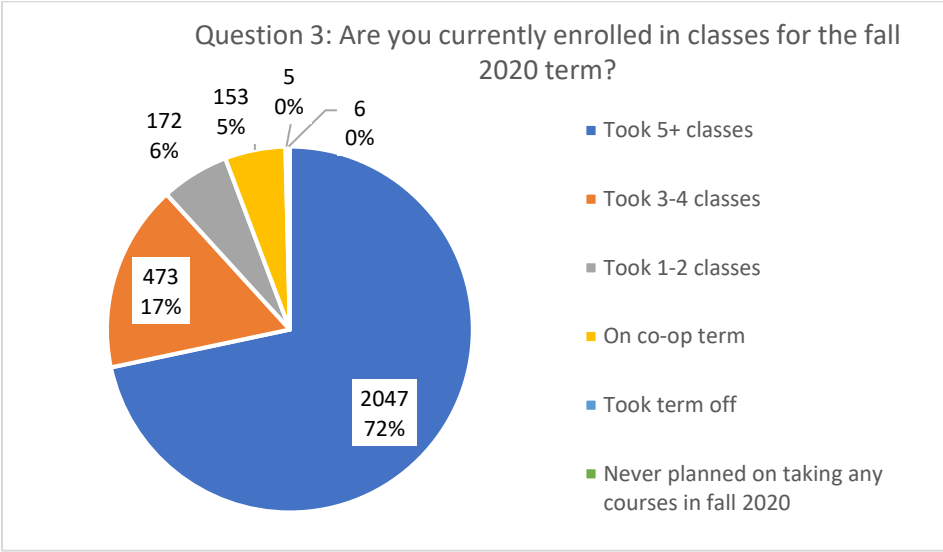


Question 2: Please select the answer that best describes how your spring term went overall now that it is complete. This question was not completed by 2152 of total survey respondents.



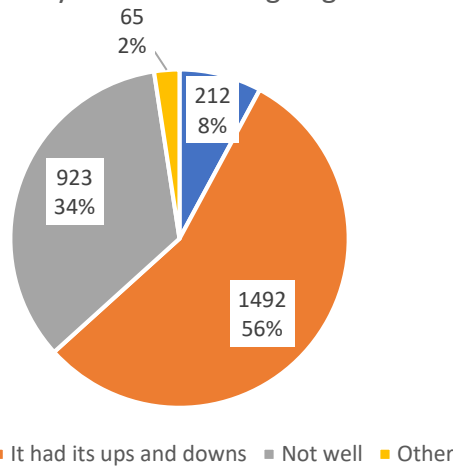


Question 3: Are you currently enrolled in classes for the fall 2020 term? This question was not completed by 442 of total survey respondents.

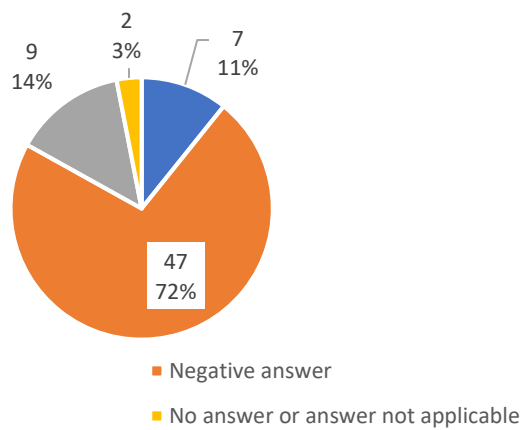


Question 4: Please select the answer that best describes how your fall term is going overall. This question was not completed by 606 of total survey respondents.

Question 4: Please select the answer that best describes how your fall term is going overall.

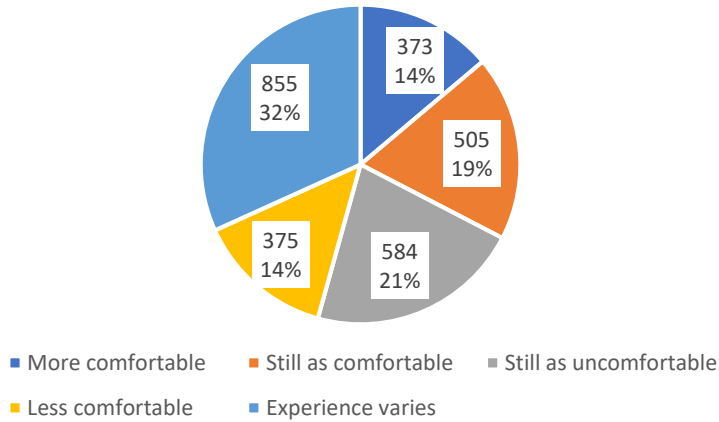


Breakdown of Question 4 'Other' Answers



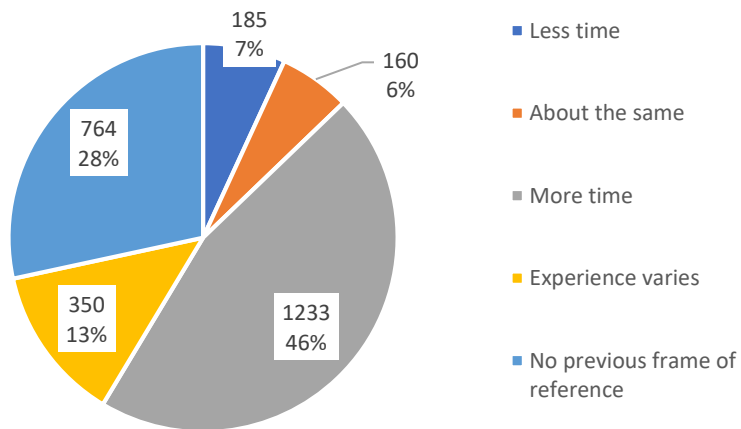
Question 5: Compared to the beginning of the fall term, how has your experience of remote or online learning changed? This question was not completed by 606 of total survey respondents.

Question 5: Compared to the beginning of the fall term, how has your experience of remote or online learning changed?

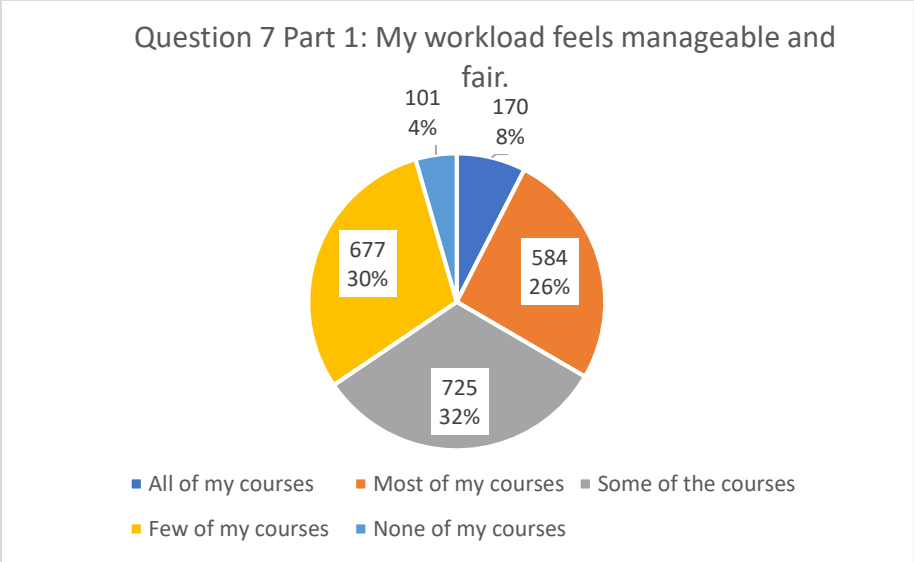


Question 6: How much time do you spend on your current remote or online courses, compared to on-campus ones? This question was not completed by 606 of total survey respondents.

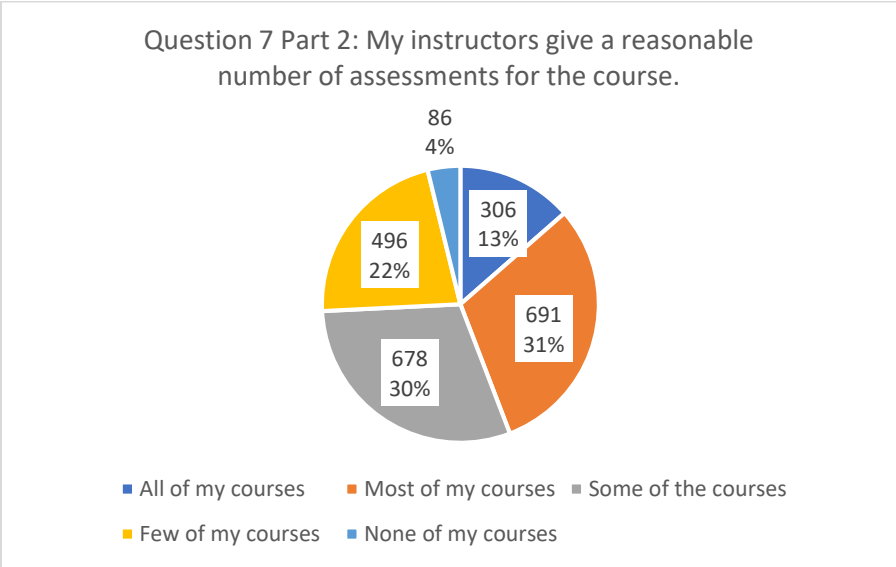
Question 6: How much time do you spend on your current remote or online courses, compared to on-campus ones?



Question 7: Workload and assessments; Part 1: My workload feels manageable and fair. This part was not completed by 1041 of total survey respondents.



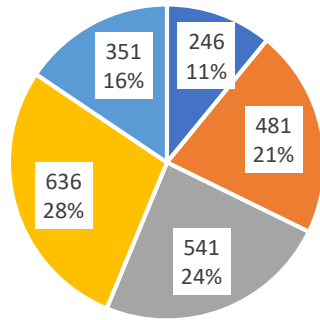
Question 7: Workload and assessments; Part 2: My instructors give a reasonable number of assessments for the course. This part was not completed by 1041 of total survey respondents.



Question 7: Workload and assessments; Part 3: My instructors have given flexibility in scheduling and deadlines with assessments where they can. This part was not completed by 1043 of total survey respondents.



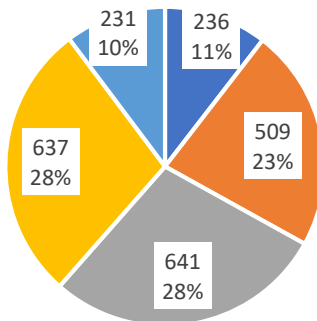
Question 7 Part 3: My instructors have given flexibility in scheduling and deadlines with assessments where they can.



■ All of my courses   
 ■ Most of my courses   
 ■ Some of the courses  
■ Few of my courses   
 ■ None of my courses

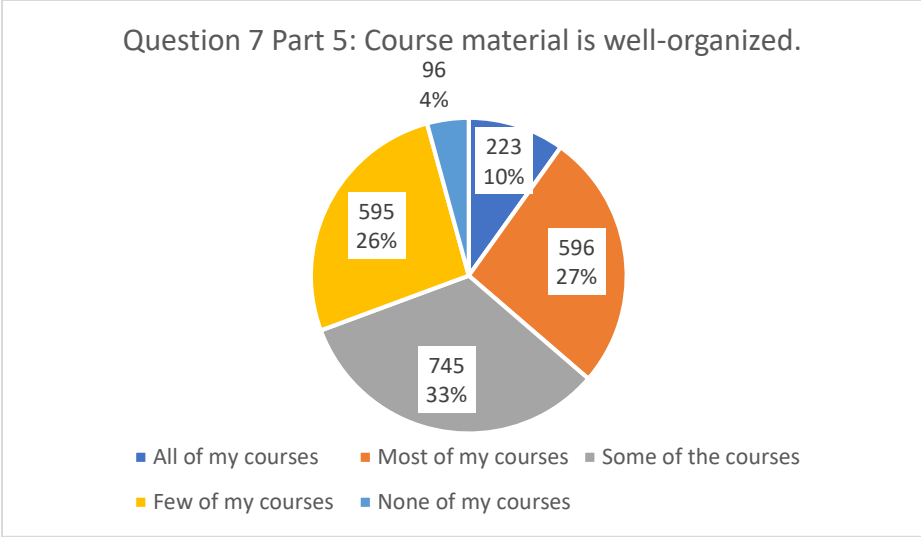
Question 7: Workload and assessments; Part 4: I have enough time to prepare for and complete assessments between lectures. This part was not completed by 1044 of total survey respondents.

Question 7 Part 4: I have enough time to prepare for and complete assessments between lectures.

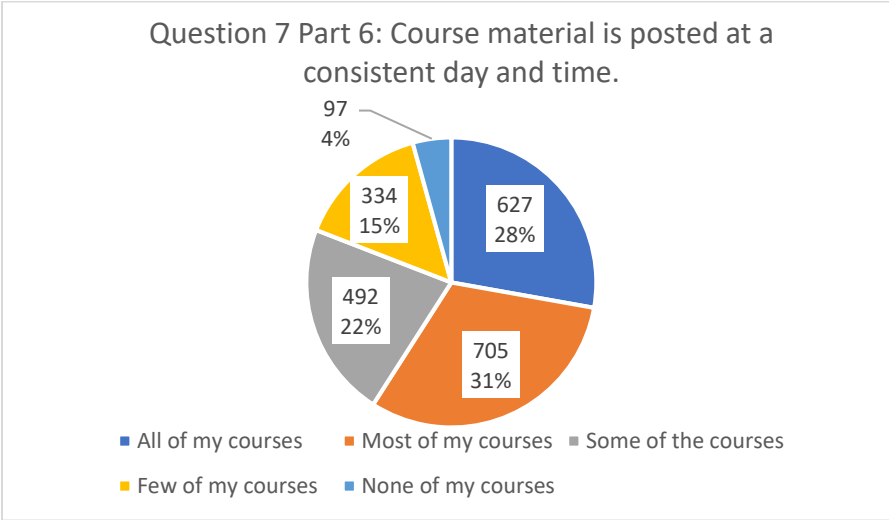


■ All of my courses   
 ■ Most of my courses   
 ■ Some of the courses  
■ Few of my courses   
■ None of my courses

Question 7: Workload and assessments; Part 5: Course material is well-organized. This part was not completed by 1043 of total survey respondents.

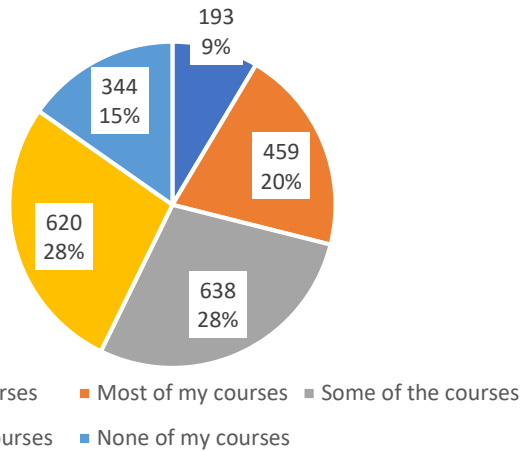


Question 7: Workload and assessments; Part 6: Course material is posted at a consistent day and time. This part was not completed by 1043 of total survey respondents.



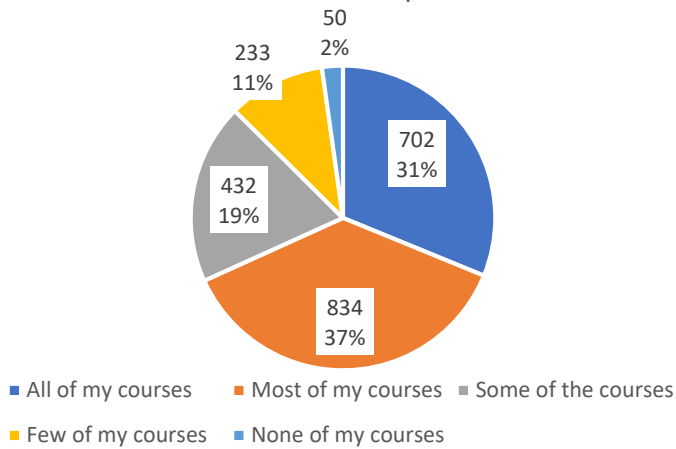
Question 7: Workload and assessments; Part 7: Course material is divided reasonably in a way that suits both the topic and my attention span. This part was not completed by 1044 of total survey respondents.

Question 7 Part 7: Course material is divided reasonably in a way that suits both the topic and my attention span.



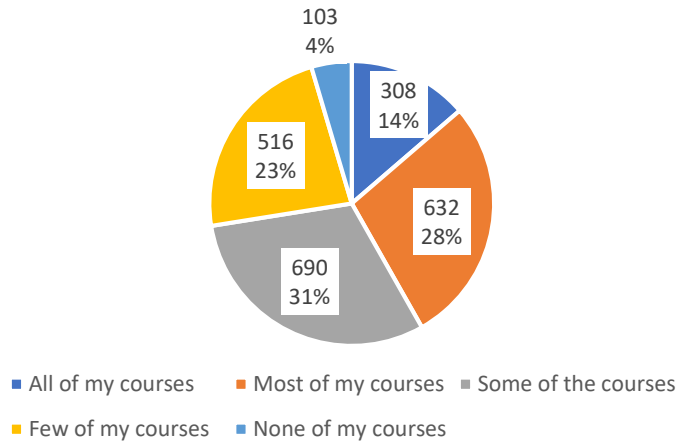
Question 8: Instructor engagement and connection; Part 1: My instructors have set up times for me to ask them questions. This part was not completed by 1047 of total survey respondents.

Question 8 Part 1: My instructors have set up times for me to ask them questions.



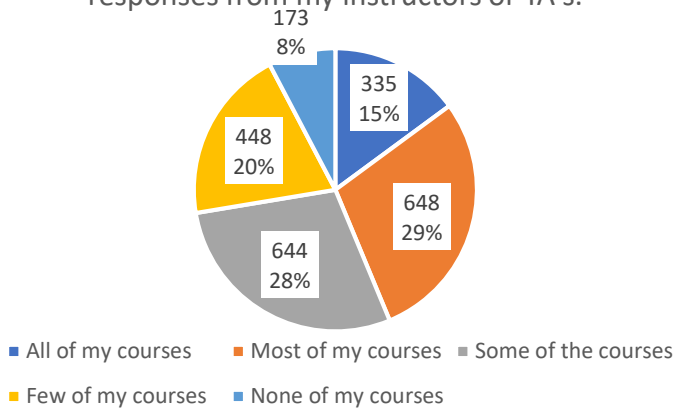
Question 8: Instructor engagement and connection; Part 2: My instructors have provided reminders and guidance of working through course material online. This part was not completed by 1049 of total survey respondents.

Question 8 Part 2: My instructors have provided reminders and guidance of working through course material online.



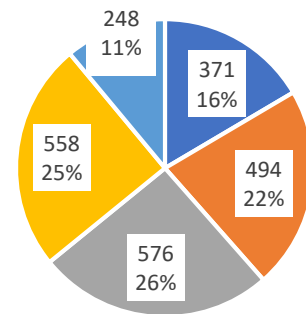
Question 8: Instructor engagement and connection; Part 3: I know when I can expect responses from my instructors or TA's. This part was not completed by 1050 of total survey respondents.

Question 8 Part 3: I know when I can expect responses from my instructors or TA's.



Question 8: Instructor engagement and connection; Part 4: I feel comfortable talking to my instructors and asking them questions online. This part was not completed by 1051 of total survey respondents.

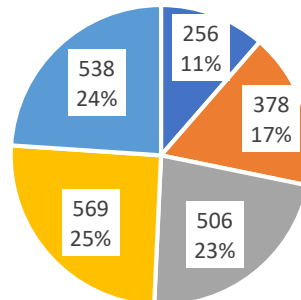
Question 8 Part 4: I feel comfortable talking to my instructors and asking them questions online.



■ All of my courses ■ Most of my courses ■ Some of the courses  
■ Few of my courses ■ None of my courses

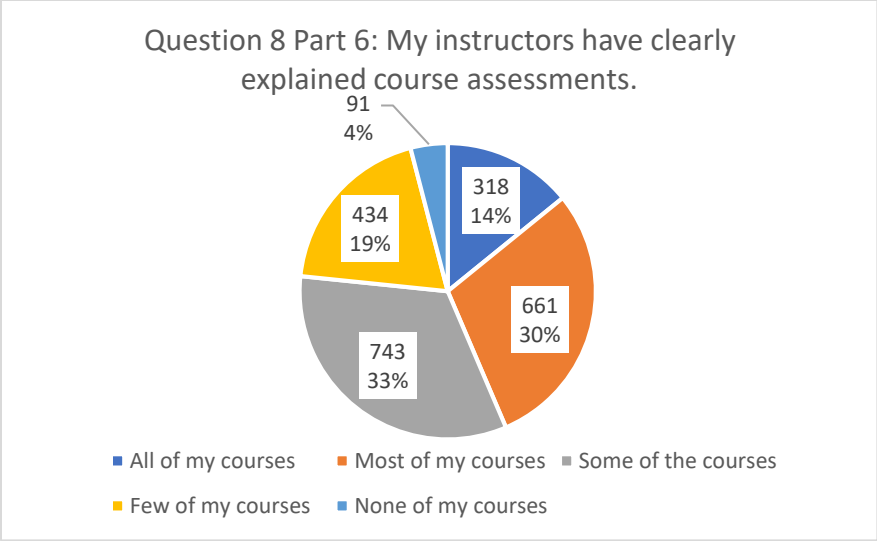
Question 8: Instructor engagement and connection; Part 5: I have had the opportunity to talk to my instructors about any issues I might have with online learning and how I could be supported. This part was not completed by 1051 of total survey respondents.

Question 8 Part 5: I have had the opportunity to talk to my instructors about any issues I might have with online learning and how I could be supported.

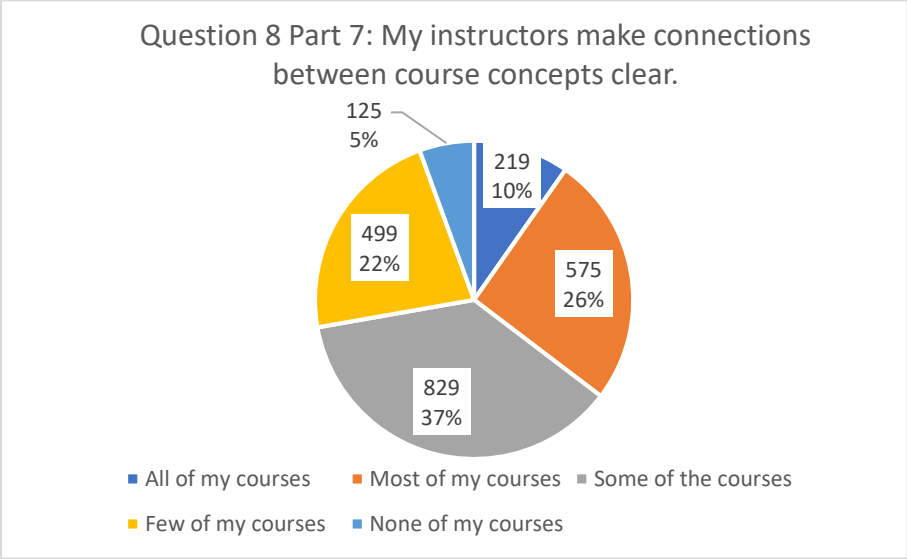


■ All of my courses ■ Most of my courses ■ Some of the courses  
■ Few of my courses ■ None of my courses

Question 8: Instructor engagement and connection; Part 6: My instructors have clearly explained course assessments. This part was not completed by 1051 of total survey respondents.

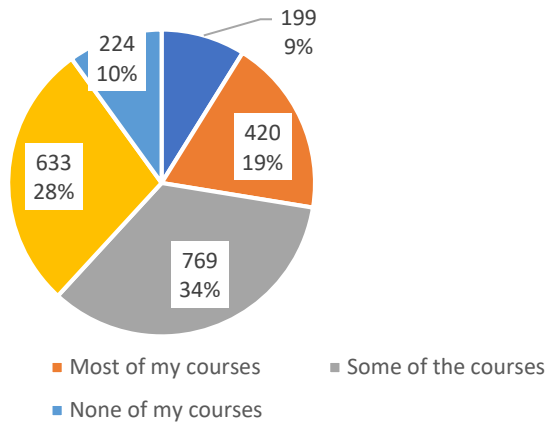


Question 8: Instructor engagement and connection; Part 7: My instructors make connections between course concepts clear. This part was not completed by 1051 of total survey respondents.



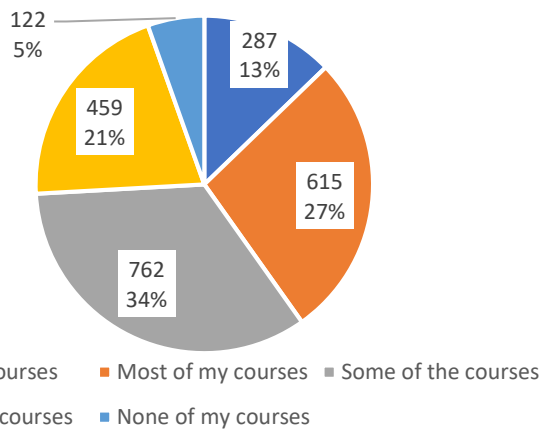
Question 8: Instructor engagement and connection; Part 8: My instructors have given me opportunity to reflect on my learning to better understand key concepts of the course. This part was not completed by 1053 of total survey respondents.

Question 8 Part 8: My instructors have given me opportunity to reflect on my learning to better understand key concepts of the course.



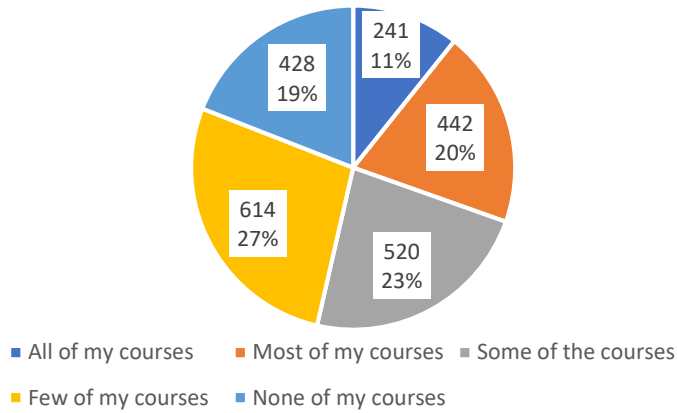
Question 8: Instructor engagement and connection; Part 9: My instructors are supporting my learning online to the best of their ability. This part was not completed by 1053 of total survey respondents.

Question 8 Part 9: My instructors are supporting my learning online to the best of their ability.



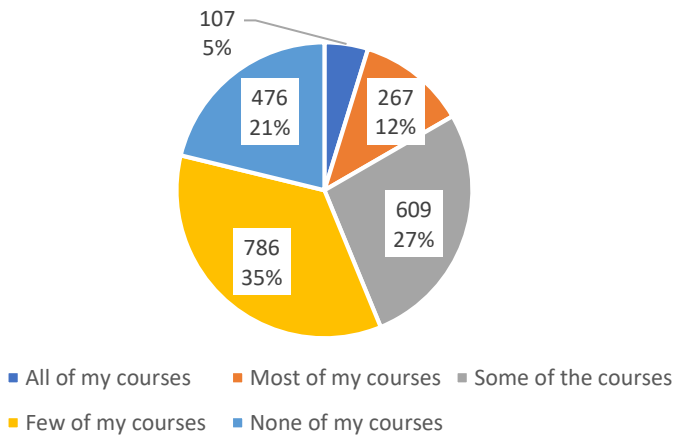
Question 9: Motivation; Part 1: I am motivated to complete coursework with online classes. This part was not completed by 1053 of total survey respondents.

Question 9 Part 1: I am motivated to complete coursework with online classes.



Question 9: Motivation; Part 2: My instructors have been helpful in motivating me to complete coursework. This part was not completed by 1053 of total survey respondents.

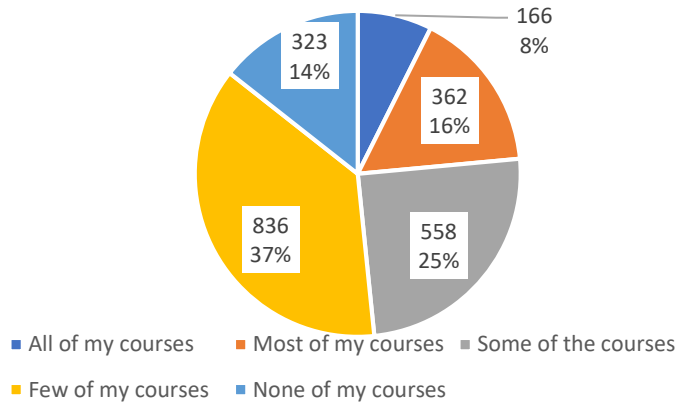
Question 9 Part 2: My instructors have been helpful in motivating me to complete coursework.



Question 9: Motivation; Part 3: I have had the opportunity to interact and work with other students. This part was not completed by 1053 of total survey respondents.

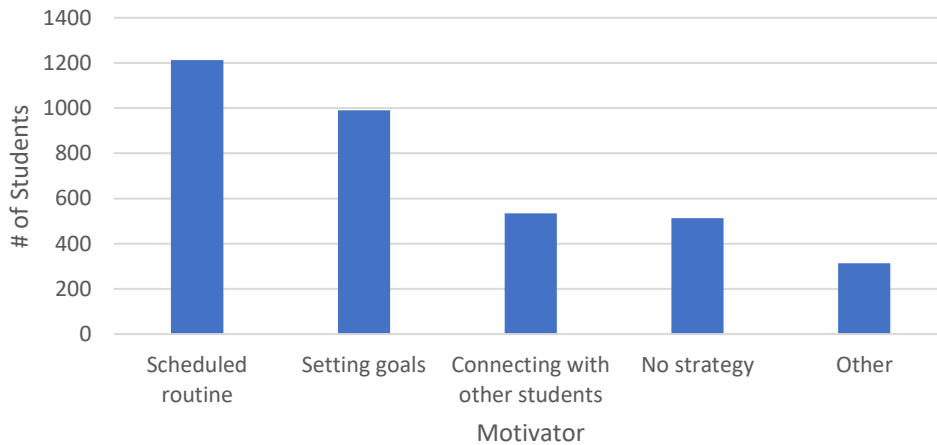


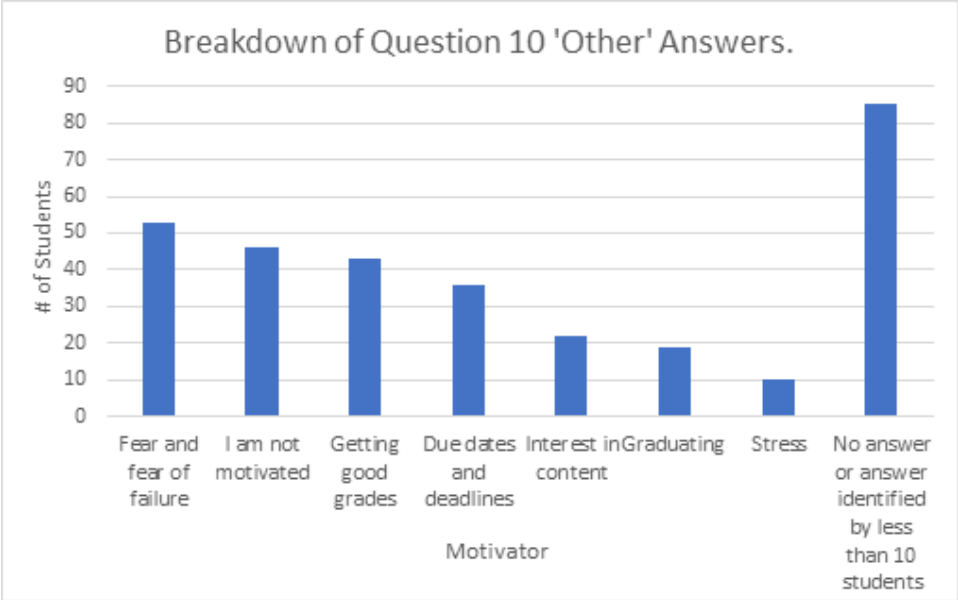
Question 9 Part 3: I have had the opportunity to interact and work with other students.



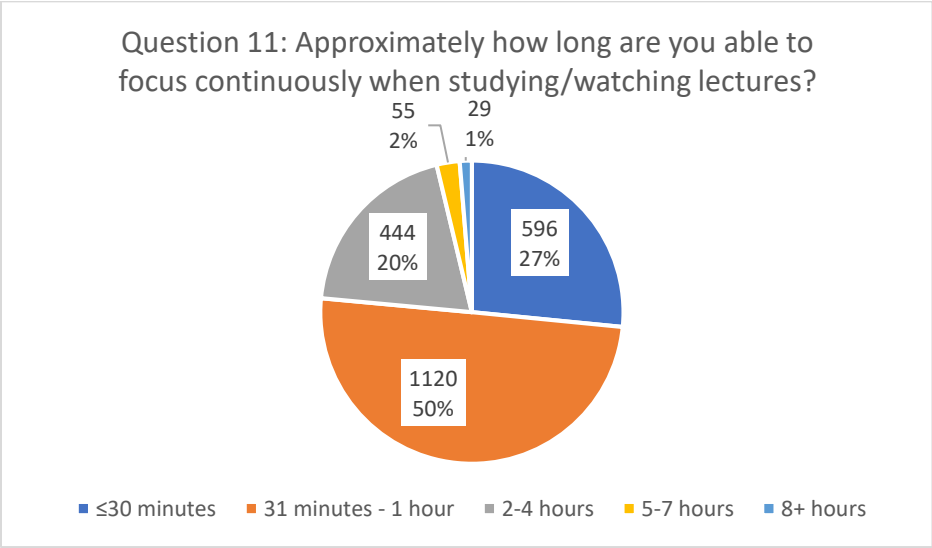
Question 10: Motivation has been identified as a top challenge for students. What keeps you motivated in your courses? Select all that apply. This question was not completed by 1036 of total survey respondents.

Question 10: What keeps you motivated in your courses?  
Select all that apply.



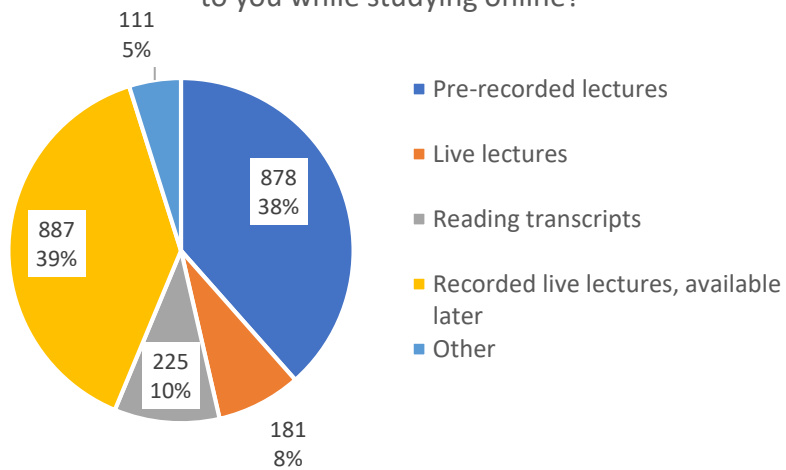


Question 11: Approximately how long are you able to focus continuously when studying/watching lectures? This question was not completed by 1054 of total survey respondents.

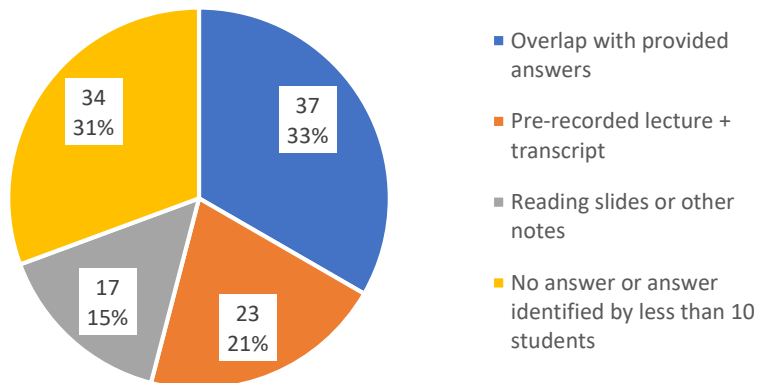


Question 12: Which lecture method is most preferable to you while studying online? This question was not completed by 1053 of total survey respondents.

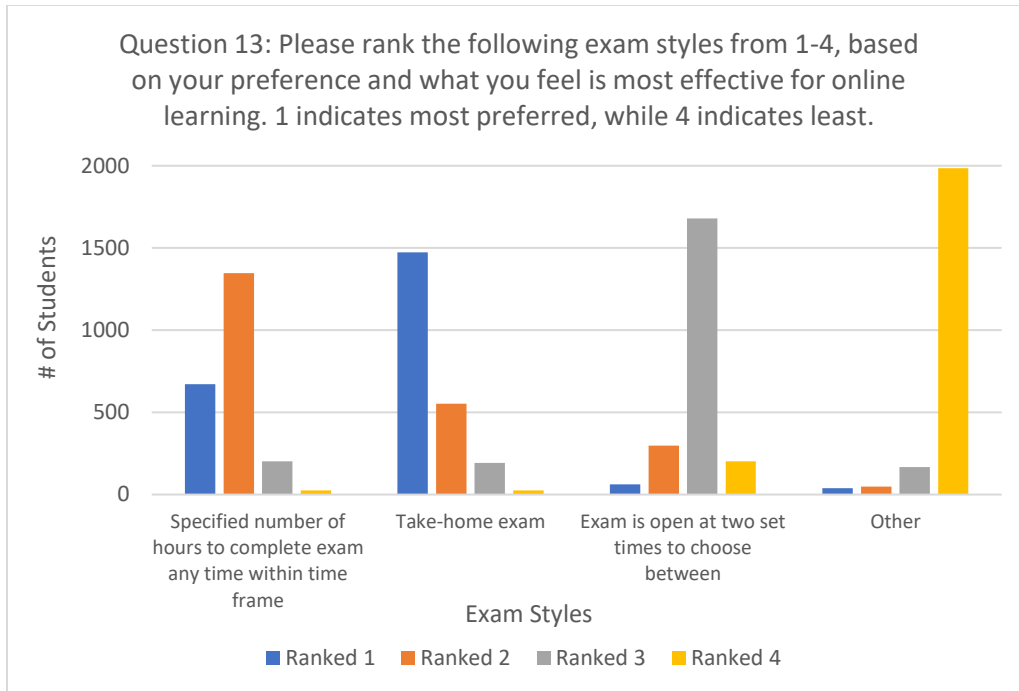
Question 12: Which lecture method is most preferable to you while studying online?



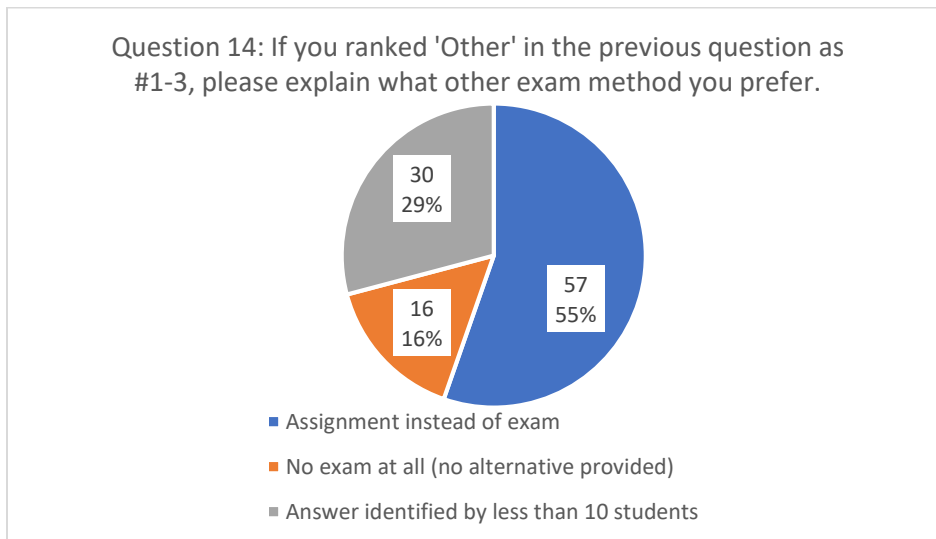
Breakdown of Question 12 'Other' Answers



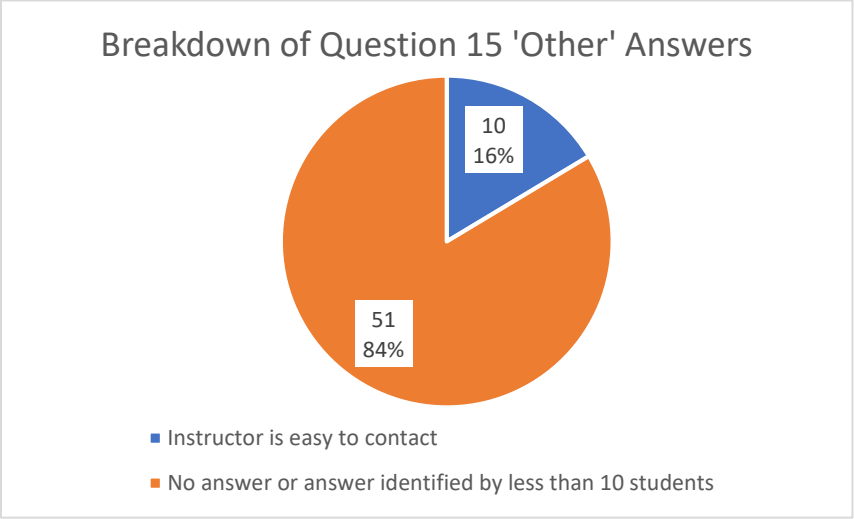
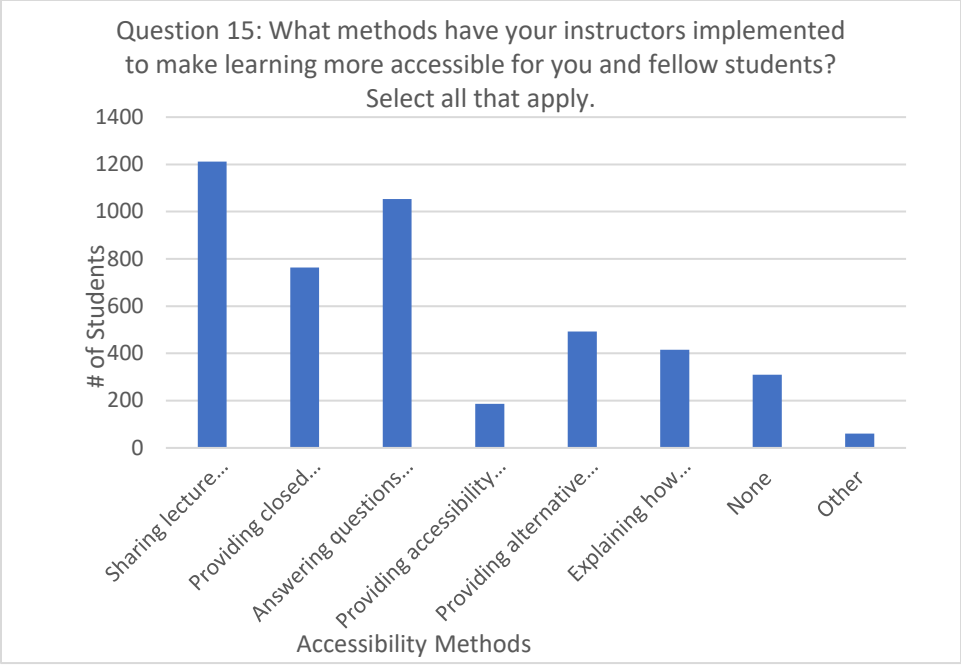
Question 13: Please rank the following exam styles from 1-4, based on your preference and what you feel is most effective for online learning. 1 indicates most preferred, while 4 indicates least. This question was not completed by 1052 of total survey respondents. Note that students were instructed to rank 'Other' as 4 if they had no other preference.



Question 14: If you ranked 'Other' in the previous question as #1-3, please explain what other exam method you prefer. This question was not completed by 3122 of total survey respondents.

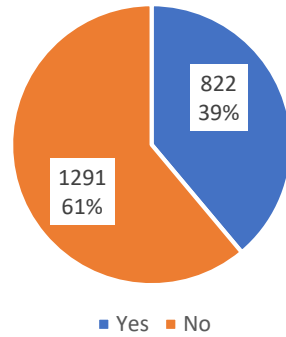


Question 15: What methods have your instructors implemented to make learning more accessible for you and fellow students? Select all that apply. This question was not completed by 1179 of total survey respondents.



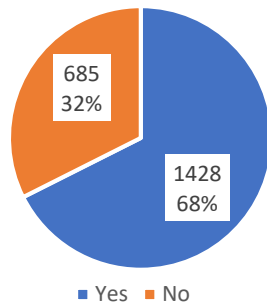
Question 16: Do you feel instructors are doing enough to support accessible learning in the transition to online learning? This question was not completed by 1185 of total survey respondents.

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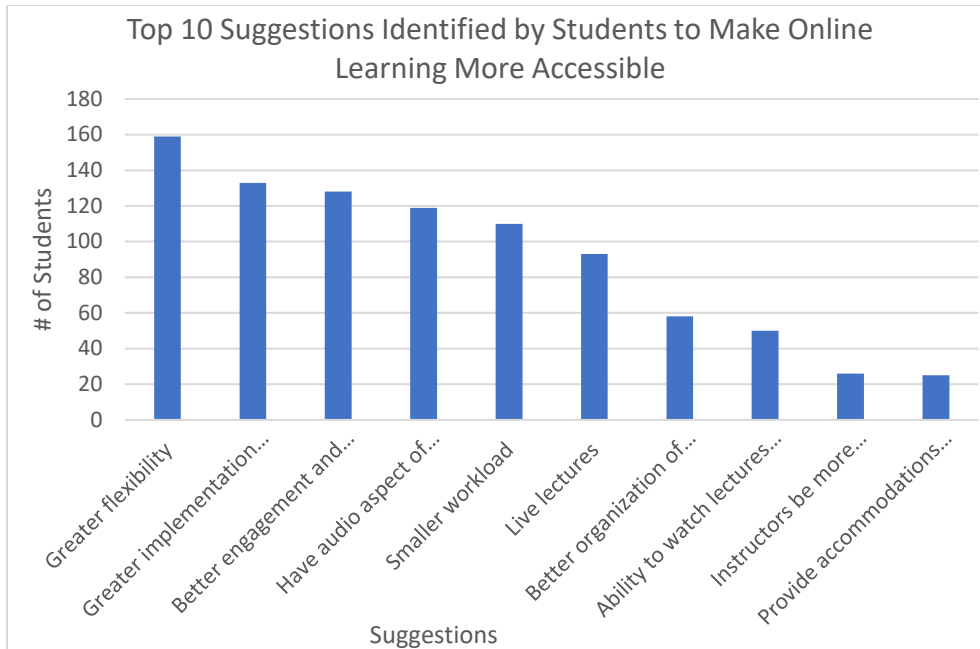


Question 17: Do you feel instructors are doing enough to effectively support learning for students living in different time zones? This question was not completed by 1185 of total survey respondents.

Question 17: Do you feel instructors are doing enough to effectively support learning for students living in different time zones?

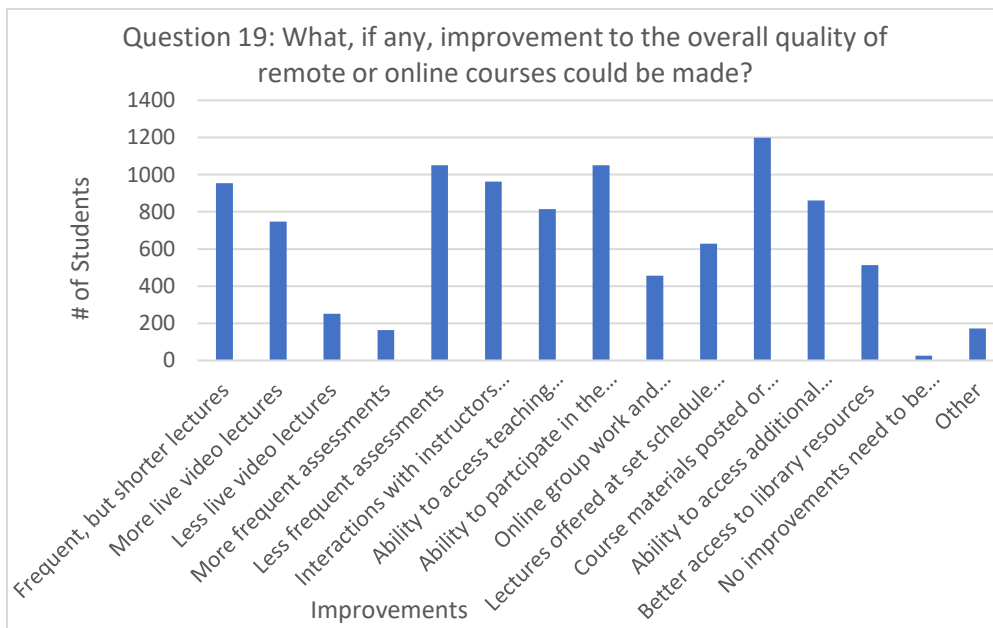


Question 18: What else do you think instructors and the University of Waterloo can do to make online learning more accessible for students? This question was not completed by 2468 of total survey respondents.

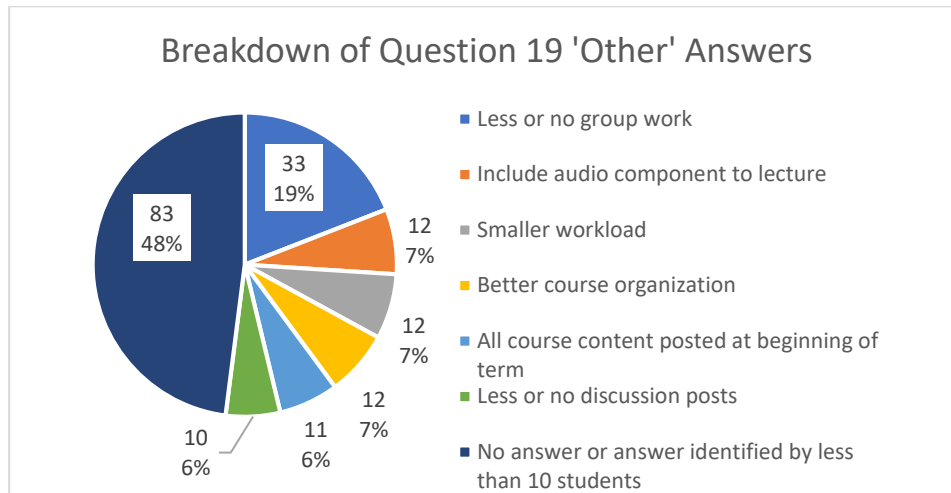


Suggestions, from left to right: Greater flexibility, Greater implementation of methods in Question 15, Better engagement and communication between students and instructors, Have audio aspect of lecture, Small workload, Live lectures, Better organization of course content, Ability to watch lectures at other times, Instructors be more respectful of accommodations and students struggles, and Provide accommodations for technology issues.

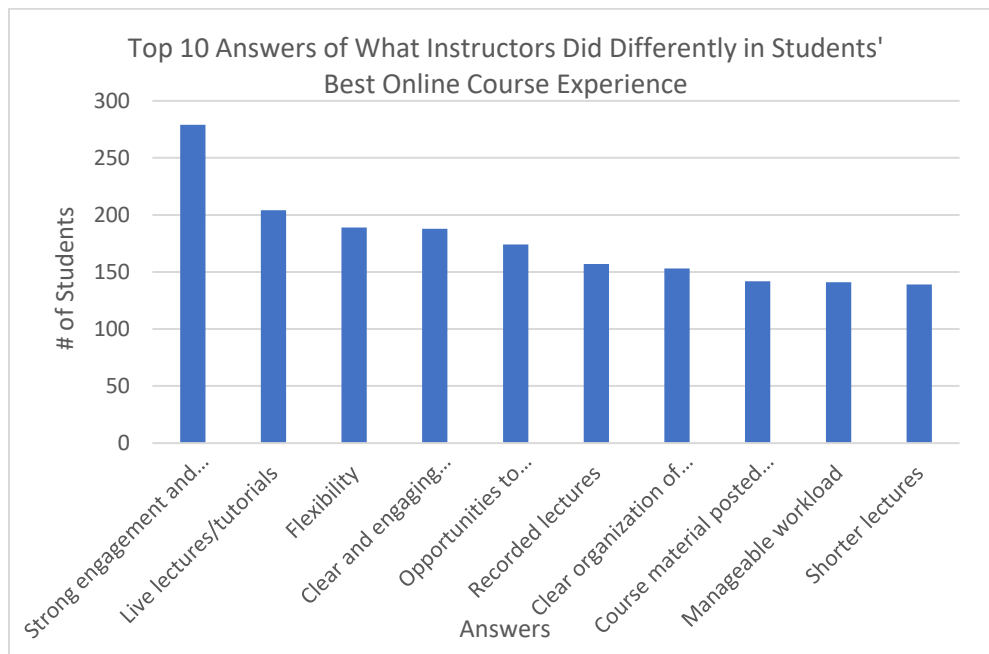
Question 19: What, if any, improvement to the overall quality of remote or online courses could be made? Select all that apply. This question was not completed by 1288 of total survey respondents.



Improvements, from left to right: Frequent but shorter lectures, More live video lectures, Less live video lectures, More frequent assessments, Less frequent assessments, Interactions with instructors each week, Ability to access teaching assistants more readily, Ability to participate in the course on my own schedule, Online group work and collaboration, Lectures offered at set schedule in real time, Course materials posted or available at a consistent time each week, Ability to access additional tutorial sessions, Better access to library resources, No improvements to be made, and Other.



Question 20: Thinking of your best experience with an online course, what did your instructor do differently? This question was not completed by 2036 of total survey respondents.

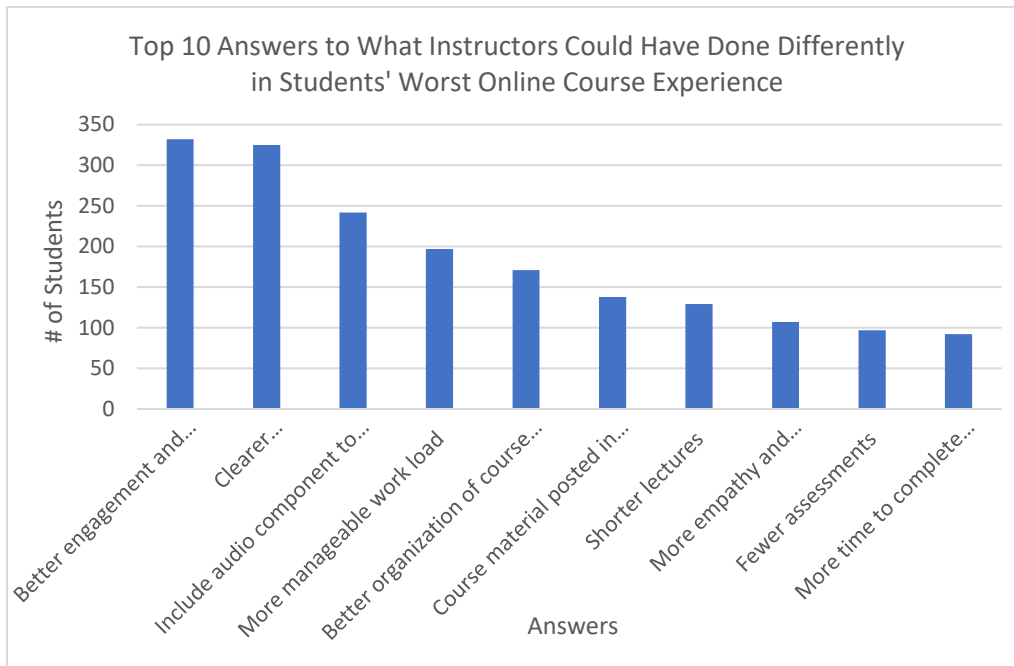


Answers from left to right: Strong engagement and interaction with students, Live lectures/tutorials, Flexibility, Clear and engaging course content, Opportunities to



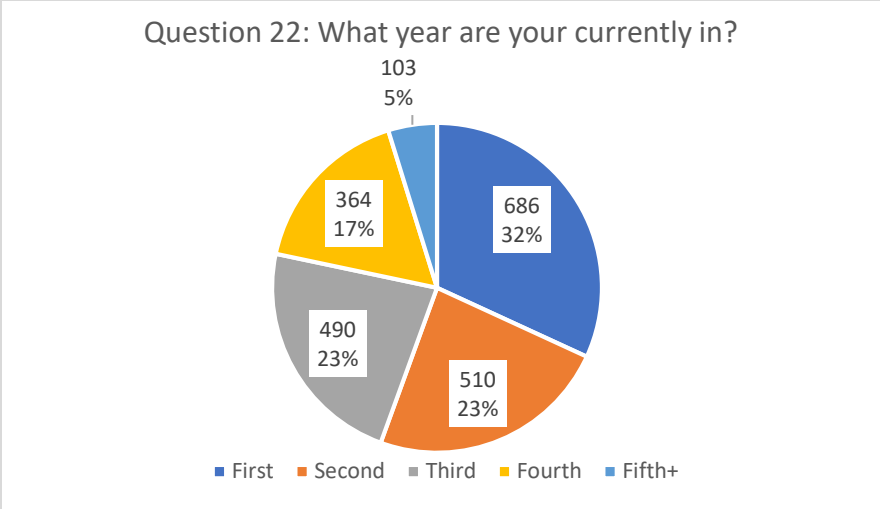
review/practice course content, Recorded lectures, Clear organization of course material, Course material posted in advance at consistent times, Manageable workload, and Shorter lectures.

Question 21: Thinking of your worst experience with an online course, what could your instructor have done differently? This question was not completed by 1921 of total survey respondents.

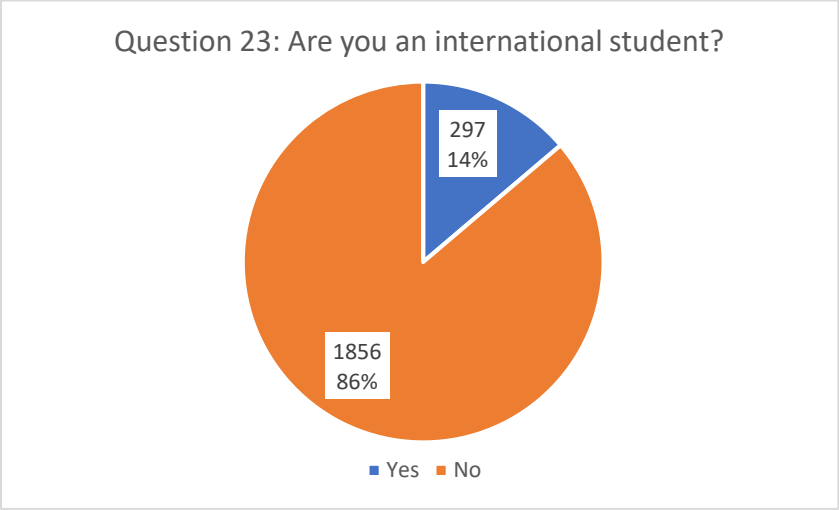


Answers, from left to right: Better engagement and communication with students, Clearer explanations/expectations of course content, Include audio component to lecture, More manageable workload, Better organization of course material, Shorter lectures, More empathy and accommodations for students, Fewer assessments, and More time to complete assessments.

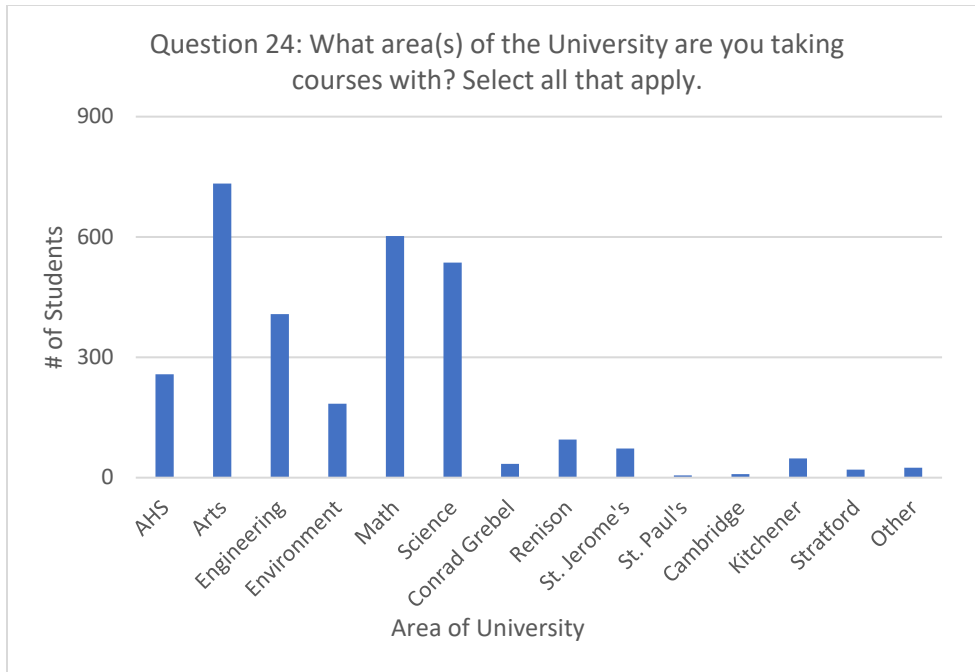
Question 22: What year are you currently in? This question was not completed by 1145 of total survey respondents.



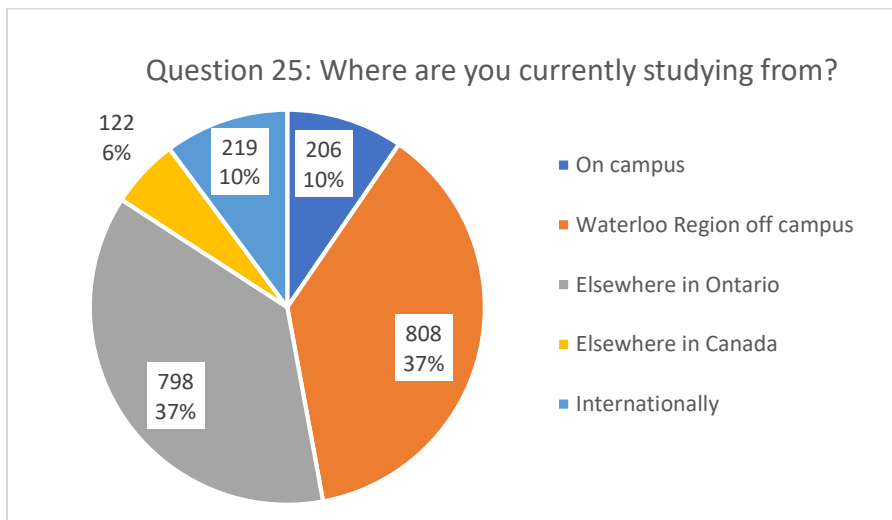
Question 23: Are you an international student? This question was not completed by 1145 of total survey respondents.



Question 24: What area(s) of the University are you taking courses with? Select all that apply. This question was not completed by 1145 of total survey respondents.



Question 25: Where are you currently studying from? This question was not completed by 1145 of total survey respondents.



Question 26: If you answered 'Elsewhere in Canada' or 'Internationally' to the previous question, what time zone are you in? This question was not completed by 2957 of total survey respondents.

