



THE TRANSITION ONLINE:

THE IMPACT OF COVID-19 ON STUDENTS WITH DISABILITIES IN HIGHER EDUCATION

Principal Investigator

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Purpose

Reveal the impact and lived experience of the transition to online education due to the COVID-19 pandemic for university students with disabilities.

Process

Student Accessibility Services distributed a survey to all their registered students in September 2020, which addressed:

- a. How the transitioning online affected the students' course, education and lives
- b. The forms of instructions and assessments that facilitated or impeded their education
- c. Accommodations for online learning and how they were disclosed and implemented
- d. Services provided through Student Accessibility Services

Students were also asked their willingness to complete a follow-up interview (or survey) to provide an in-depth description of the transition to online education during the pandemic. We also provided students with an opportunity to share recommendations about their needs to faculty, Student Accessibility Services, and the university.

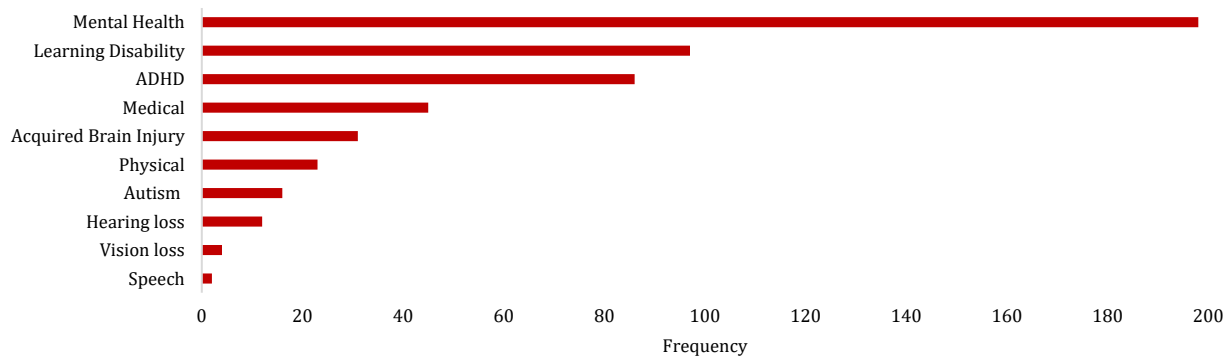
INITIAL SURVEY RESULTS

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EXECUTIVE SUMMARY

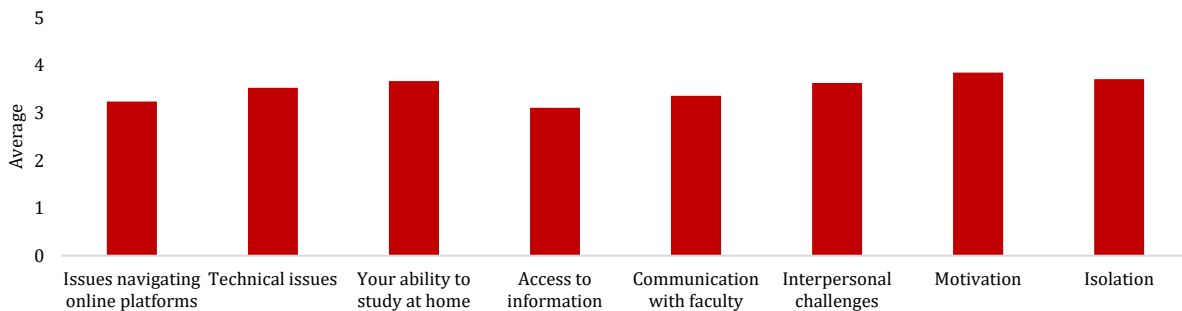
Participants

- A total of 302 students responded to the survey (222 completed more than just the demographic information).
- Students ranged from 18 to 65 years old.
- Most identified as female (72%), 32% identified as male, and 2% identified as other.
- Students responded from across all Faculties and both undergraduate and graduate levels.
- Mental health (66%) and learning disabilities (34%) were the most common disabilities.



Challenges

Students moderately to very concerned with several aspects of online education due to the pandemic.

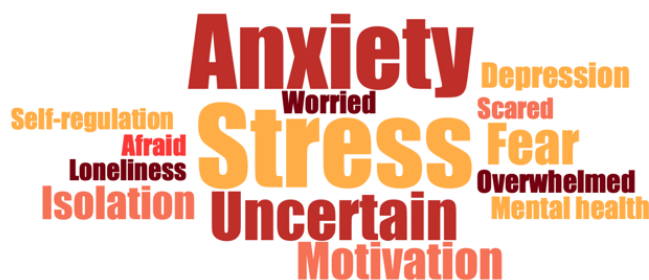


Students reported uncertainty about their education and expectations.

Additional challenges were identified in several main areas:

- 1) Online education
- 2) Online environment
- 3) Ability to study from home
- 4) Instructor’s facilitation of courses
- 5) Lack of accesses to others, services and supports
- 6) Adverse outcomes of the transition online during the pandemic

Online education during COVID-19 has a significant effect on students' mental health.



Modes of Instruction and Assessment

The forms of instructions that facilitated students' educational experience included:

1. Watching & re-watching recorded lectures*
2. Guided tutorials & video examples*
3. Short comprehension quizzes
4. Class polls
5. Coaching
6. Group office hours*

* *Significantly more helpful for students with comorbid disabilities*

Group learning activities was the only form of instruction that impeded the overall students' education experience.

- Undergraduate students reported tests and exams were better for them than graduate students.
- Graduate students reported that written assignments facilitated their learning.

Disclosure of Accommodations

Although most students disclose their need for accommodations through Student Accessibility Services and directly to their instructors, more students choose not to disclose them personally.

Common factors influencing their disclosure process for online learning included:

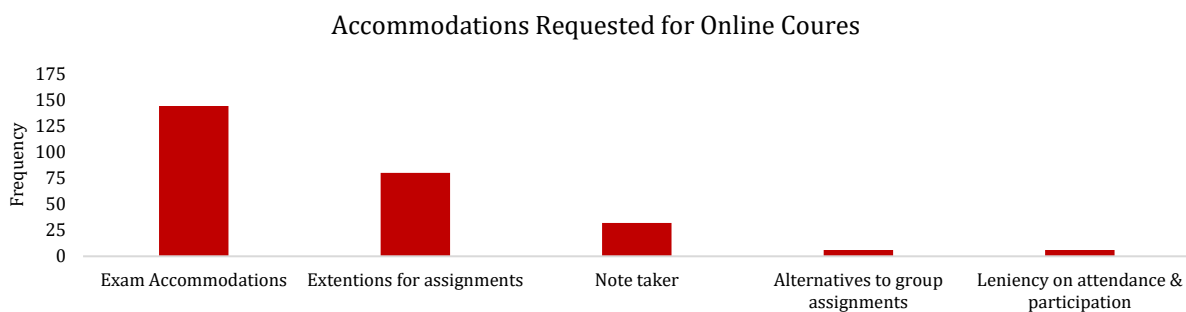
- Limited ability to have an in-person discussion with instructors
- Difficulty with communicating over email
- Different accommodation needs for online learning
- The disclosure was contingent on the comfort level and receptivity of the instructor.

"It is much, much harder to disclose online. If I don't have to, I won't, but that is not currently the case. It is awful emailing a prof you have never met to ask for accommodations. At least in person, you can read body language during the response to gauge how you will have to communicate further. With email, there is no tone, and sometimes I can't tell if they are willing to work with me or frustrated with me." (4th year undergraduate, Goodman School of Business; 1050)

Accommodations for Online Courses

Students often required accommodations for exams (26%) and extensions for assignments (14%).

- Students requested additional accommodations for lectures (shorter duration, recordings, audio examples & notes) and alternative expectations for assignments.



Key Messages for Instructors

1. Students are struggling but they are trying their hardest!
2. Although students may not personally disclose accommodation needs, they still need support.
3. Reduce the number of smaller requirements & group assignments.
4. Record lectures and make the recordings available to students for future review.
5. **Be flexible!** Offer students' extensions on assignments when requested.

GENERAL DEMOGRAPHICS

Participants

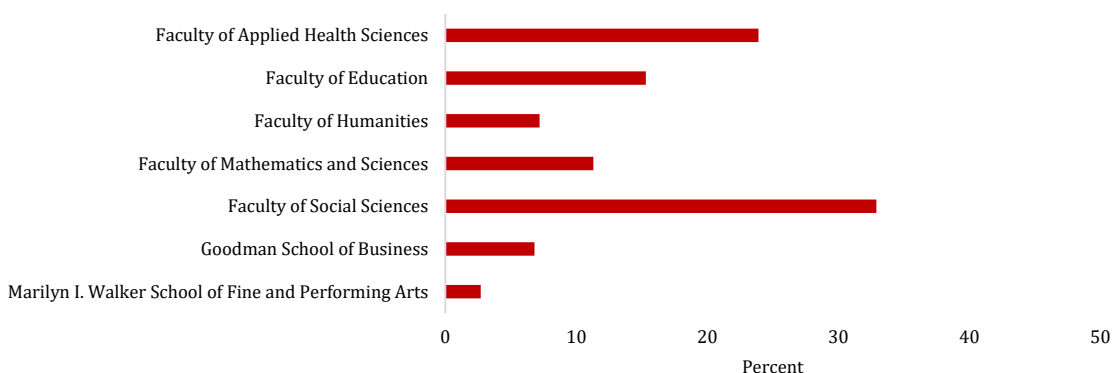
A total of 302 students responded to the survey (222 completed more than just the demographic information).

- The average completion rate was 74% (range of 2%-100%)
- The majority completed between 98-100% of the survey (68%)
- The students who ended the survey after the demographic section (26%) were removed.

Students ranged from 18 to 65 years old ($M = 25, SD = 8.8$). Most of the students identified as female (72%), a third identified as male (32%), and two percent identified as other (2%).

University Faculties

Students were studying throughout all the University’s Faculties. The majority ($n = 175$) were undergraduate students, but some graduate ($n = 7$) and diploma ($n = 7$) students also responded.

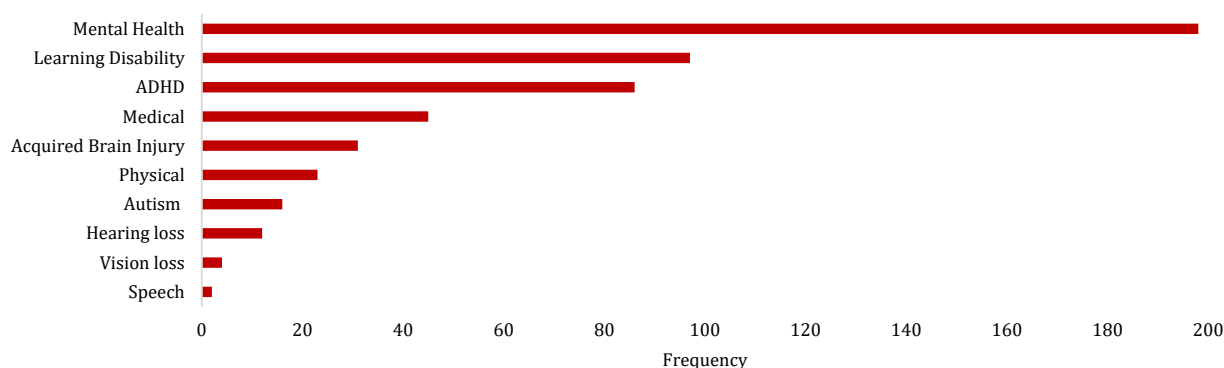


Level in Program

	Bachelors	Masters	Doctorates	Other/Diploma	Total
First year	24	3	0	3	30
Second year	46	3	0	4	53
Third year	45	0	1	1	47
Fourth year	44	0	0	3	47
Fifth year	10	0	0	1	11
Sixth year	6	0	0	2	8
Total	175	6	1	14	196

Disabilities

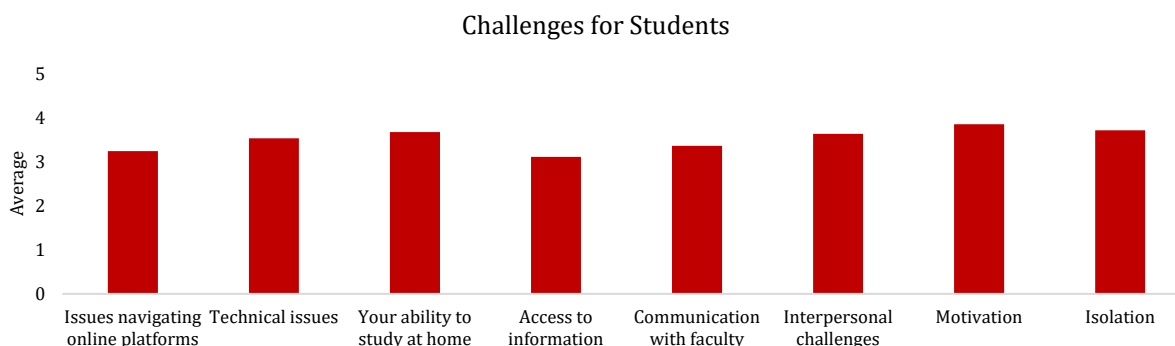
The most reported disabilities were mental health (66%) and learning disabilities (34%). Twenty percent (20%) of students reported having both a learning and mental health disability.



IMPACT ON ONLINE EDUCATIONAL EXPERIENCE

Challenges

Students rated their concerns about online education during the pandemic. Students were moderately to very concerned with all suggested areas ($M = 3.1$ to 3.9).



Students also reported challenges they experienced during the transition to online learning due to the impact of COVID-19 had on their educational experience and their lives in general. Students wrote about their general uncertainty about their education and expectations (45¹).

Additional challenges related to the following six main areas were identified: [1](#)) online education, [2](#)) online environment, [3](#)) ability to study from home, [4](#)) instructor's facilitation of courses, [5](#)) lack of accesses to others, services and supports, and [6](#)) adverse outcomes of the transition online during the pandemic.

1. Online education:

- The forms of instructions used (72) – [See the section below](#)
- The forms of assessment used (16) – [See the section below](#)
- Lack of face-to-face communication (26)
- Increased workload (21)
- Keep track of expectations (26)
- Difficulty accessing information (16)
- Time management (15)

2. Online environment:

- Difficulty with online platforms (22)
- Technical issues (40)

3. Studying from home:

- Inability to find a place to study effectively at home (43)
- Difficulty focusing on studies at home (30)
- Too many distractions at home (e.g., family & housemates) (37)
- Interpersonal challenges (11)
- Lack of transitions throughout the day to provide structure (17)

“The ability to study and comprehend in a non-classroom environment was the main concern. I have taken online classes in the past, and they have never really worked for me. They require a high degree of self-organizational skills, which has always been challenging for me. I also struggle with asking for help or even remembering to email a professor for help, so I can get overwhelmed very quickly. Also not being able to easily talk to instructors in person has been a huge barrier. Often if I didn't understand or didn't know how to ask for help talking directly to a professor or TA would make things more clear. (3rd year, undergraduate, Faculty of Humanities; 1292)

¹ The numbers in brackets indicated the frequency of comments.

4. Instructor’s facilitation of courses

- Challenges with communicating with the professors (45)
- Unclear instructions and expectations (31)
- Lack of preparedness (10)

“It gives me a bunch of anxiety for no reason, and the way some professors are handling this is extremely awful. I appreciate live lectures, but I have no way to comprehend why a professor thinks it’s reasonable to not post slides before the lecture. It doesn’t help me prepare or focus in the lectures themself, so it feels as if I’m just wasting time by being present.” (2nd year undergraduate, Faculty of Mathematics and Sciences; 1166)

5. Lack of access to others, services and supports

- Lack of access to campus (limiting social connections, a place to study or access to athletic activities) (8)
- Not being with other students (7)
- Communication with SAS (7) – [See the section below](#)

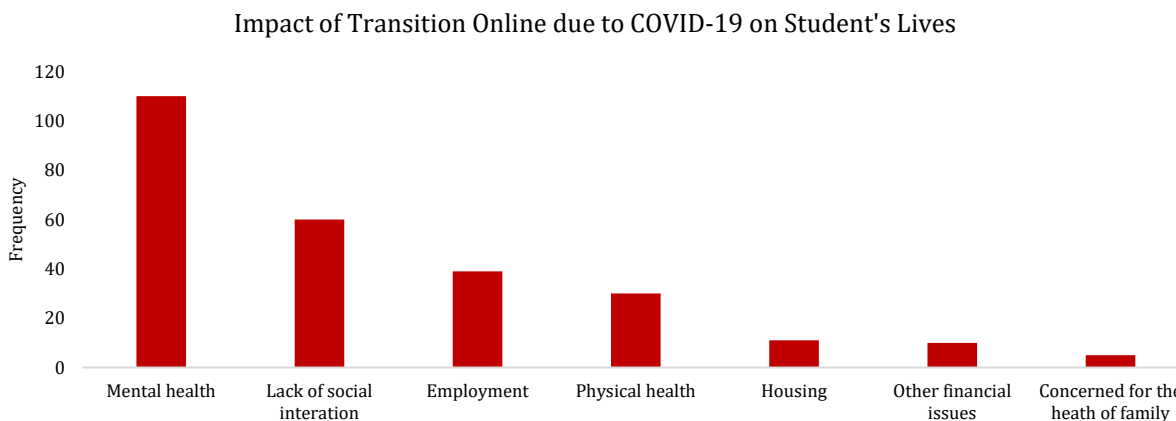
6. Negative outcomes of the transition online during the pandemic:

- Impact on their mental health (196) – [See the section below](#)
- Impact of their physical health (10)
- Lower grades, ability to be successful (44)
- Consideration for the future and ability to graduate (22)
- Concerned with the quality of education (7)
- Ability to pay for school (9)

“Fear and uncertainty definitely impacted my educational experience. As someone with anxiety, the threat of COVID-19 was often on my mind. My parents are both nurses as well, so you can imagine the amount of concern that was overwhelming me at the time. These stressors were a distraction, and they also lessened the quality of what I was able to complete. It was difficult because professors were scrambling, and no one knew the stress I was going through because they were obviously faced with other issues.” (2nd year undergraduate, Faculty of Social Sciences; 1076)

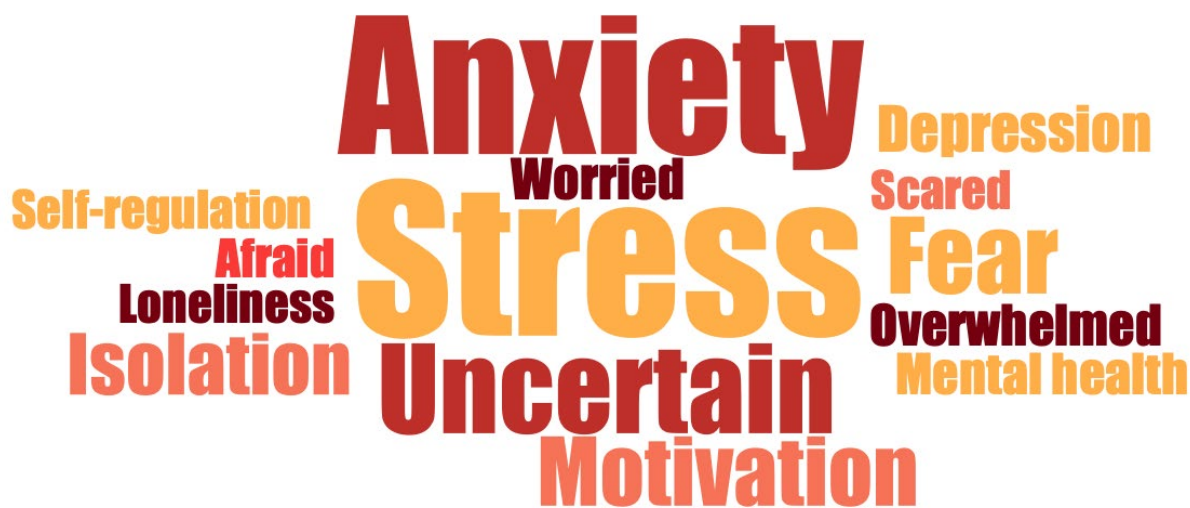
Impact on other aspects of their lives

One hundred and eighty-seven (187) students reported negative effects on their lives associated with the transition online due to the impact of COVID-19. Mental health (110), lack of social interaction (60) and employment concerns (39) were the most commons.



Mental health impact of online education during COVID-19

Students were not directly asked about their mental health. However, there were over 400 comments reflecting the adverse effects the transition online due to the impact of the pandemic had on their mental health. The relative frequency of their concerns is reflected by their font size below.



*"The transition has been very challenging as I have a family and children also dealing with the stress and anxiety of the various aspect from COVID-19 and their own schooling. Online learning for me is very difficult as I learn best when I am face-to-face, and I have the ability to ask questions and learn from other students' interactions in the classroom as well. **My mental health has already taken a beating with everything that is going on in the world, and this added impact has made my focus and willingness to start extremely challenging.**" (2nd year, Undergraduate, Faculty of Applied Health Sciences; 1096)*

*"COVID-19 has taken away the hands-on aspect of learning that so many students, like myself, find essential in their learning. This, along with the lack of communication from staff at SAS at Brock, **heightened my anxiety, stress levels, uncertainty and feeling of worthlessness.** This is because of the struggle online learning had posed on my mental health." (3rd year, Undergraduate, Faculty of Applied Health Sciences, 1203)*

ASSESSMENT & INSTRUCTION IN ONLINE EDUCATION

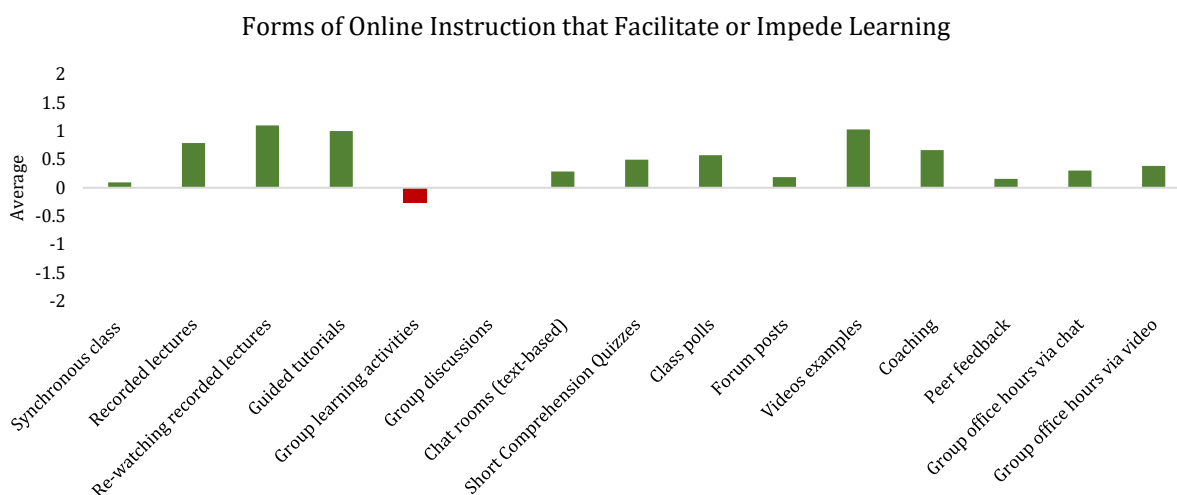
Modes of Instruction

Students rated different methods of instruction to indicate if they impeded (-2) or facilitated their learning (+2).

Instructional methods that facilitated students' educational experience were:

- Watching & re-watching recorded lectures
- Guided tutorials and video examples
- Short comprehension quizzes
- Class polls
- Coaching

Group learning activities was the only form of instruction that impeded the overall students' education experience (particularly for students with mental health disabilities).



Although being able to review recorded lectures, tutorials, and group office hours were beneficial for all, these methods were significantly more helpful for students with comorbid disorders.

Forms of Online Instruction	Learning Disabilities (n =36)	Mental Health (n =90)	Both (n =40)
Synchronous class	0.3	0.2	0.0
Recorded lectures	0.8	0.8	1.0
Re-watching recorded lectures	1.0	1.0*	1.5*
Guided tutorials	0.6**	1.1**	1.3**
Group learning activities	0.0	-0.4	-0.2
Group discussions	0.2	-0.1	0.1
Chat rooms (text-based)	0.2	0.3	0.3
Short Comprehension Quizzes	0.5	0.6	0.2
Class polls	0.6	0.6	0.6
Forum posts	0.0	0.2	0.3
Videos examples	0.8	1.1	1.3
Coaching	0.6	0.6	0.9
Peer feedback	0.1	0.2	-0.1
Group office hours via chat	0.1**	0.2**	0.8**
Group office hours via video	0.4	0.2*	0.8*

* p > 0.05

** p > 0.001

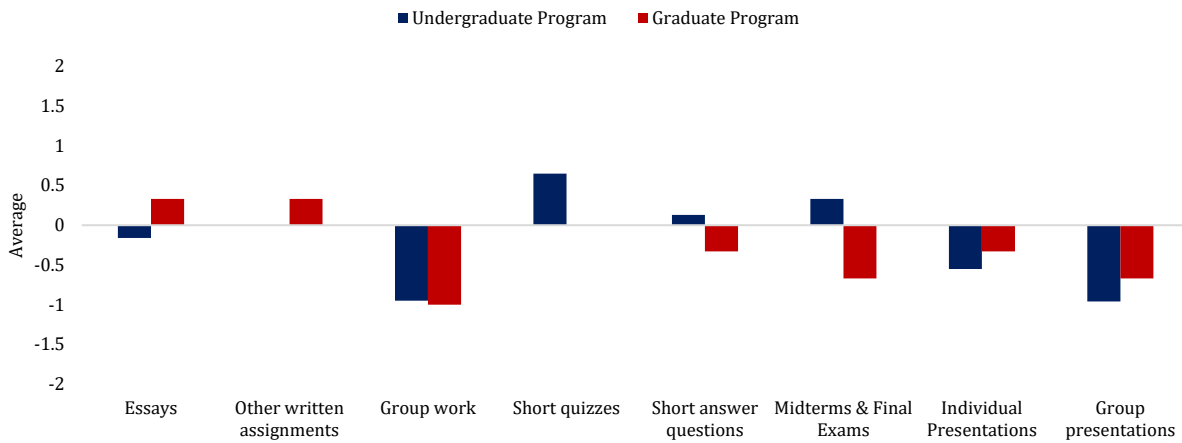
Modes of Assessment

Students also rated different assessment forms to indicate if they impeded (-2) their learning or facilitated their education (+2).

Overall, students reported that group work and presentations impeded their education.

- Students' responses to the forms of assessments were similar, regardless of whether they had a learning disability or mental health concerns.
- Undergraduate students reported that tests and exams were better for them than graduate students.
- Graduate students were indifferent towards short answer quizzes but felt long answer quizzes or longer exams impeded their learning.
- Graduate students reported that written assignments facilitated their learning.

Forms of Online Assessment that Facilitate or Impede Learning

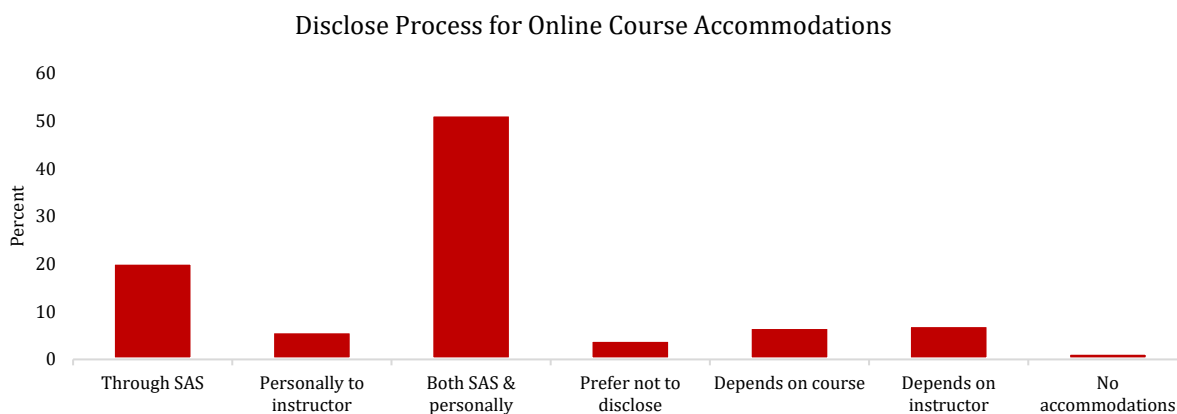


Note: Differences were not statistically significant.

DISCLOSURE PROCESS FOR ONLINE COURSES

Although most students (53%) disclosed their need for accommodations through SAS and directly to their instructors, 21% are only disclosed through SAS, and 14% reported that how they disclosed depended on the course and instructor.

When asked if this process differed from in-person courses, 28% of students reported it was different, and 24% reported that it depended on the course or instructor. This difference was significant ($\chi^2(15) = 39.7, p > .001$). That is, most of the students who reported a difference in their disclosure process indicated that they would have typically disclosed personally to their instructor in addition to the SAS process.



The common factors that influenced the disclosure process for online learning, included:

- Limited ability to have an in-person discussion with instructors (e.g., during office hours or before or after classes) (33)
- Difficulty with communicating over email (24)
- Different accommodation needs for online learning (17)
- The disclosure was contingent on the comfort level and receptivity of the instructor (11)

"It is much, much harder to disclose online. If I don't have to, I won't, but that is not currently the case. It is awful emailing a prof you have never meant to ask for accommodations. At least in person, you can read body language during the response to gauge how you will have to communicate further. With email, there is no tone, and sometimes I can't tell if they are willing to work with me or frustrated with me." (4th year undergraduate, Goodman School of Business; 1050)

"It's a lot harder to talk about in an email. It makes it so formal and harder to word. I prefer to talk to instructors about accommodations in a more informal manner, like before or after class. I'm not ashamed or hide my diagnosis, it's something that makes somethings more difficult, but in that, it shows strengths in other aspects." (4th year undergraduate, Goodman School of Business; 1221)

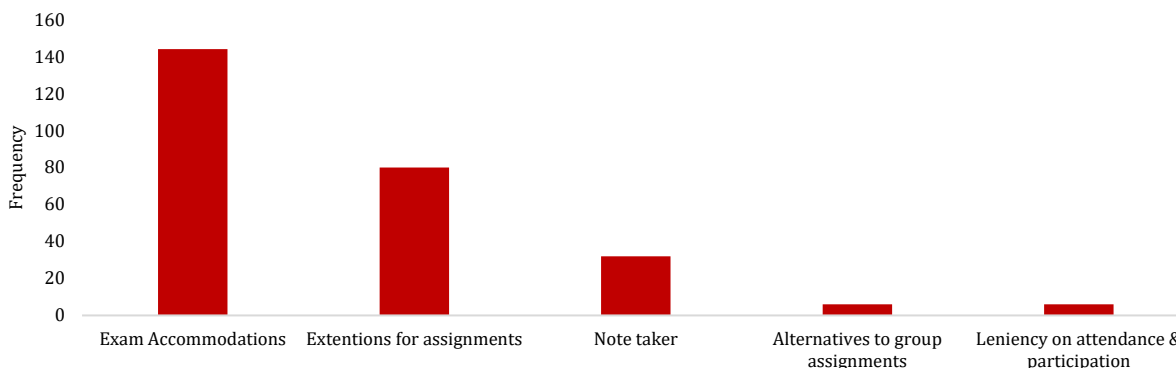
"If I find I can connect to the professor I am more comfortable personally disclosing. Over the internet, professors can seem especially cold to mental health, making it more challenging to be comfortable opening up." (5th-year, undergraduate, Faculty of Education; 1107)

TYPES OF ACCOMMODATION FOR ONLINE EDUCATION

Most of the students (73%) requested accommodations for their online courses.

- Students' most common accommodations were for exams (26%) and extensions for assignments (14%).
- Additional accommodations (requested > 5 students) included accommodations for lectures (shorter duration, recordings, audio examples & notes) and alternative expectations for assignments.
- Some students (14%) reported that they did not need any accommodations or have not requested any yet.

Accommodations Requested for Online Courses

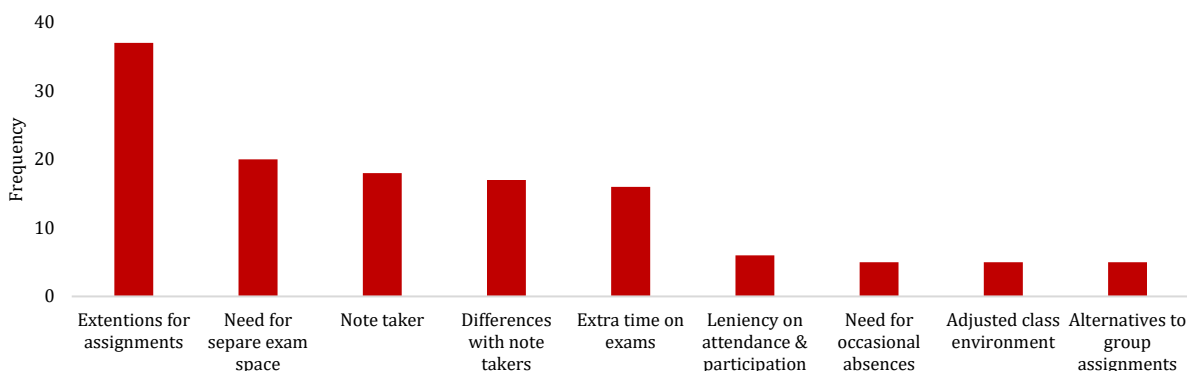


The most common accommodation for exams was for extra time (115). Additional accommodations were limitations on when exams were scheduled, to have breaks, clarification on questions, the use of a calculator, editing software or assistive technology, to have exams printed, to be able to use their notes and to write in the SAS testing center.

There were differences in the type of accommodation's students required for online courses.

- 29% of students reported different accommodations for online courses
- 27 students required fewer accommodations for online courses

Unique Accommodations

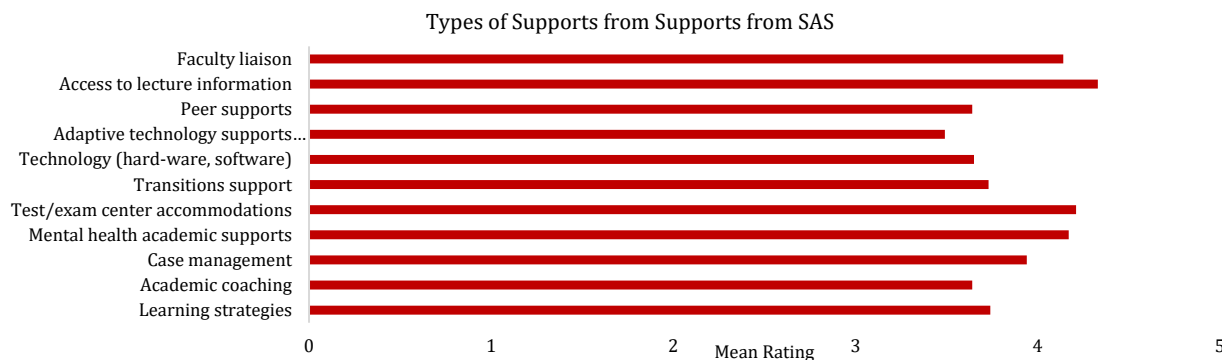
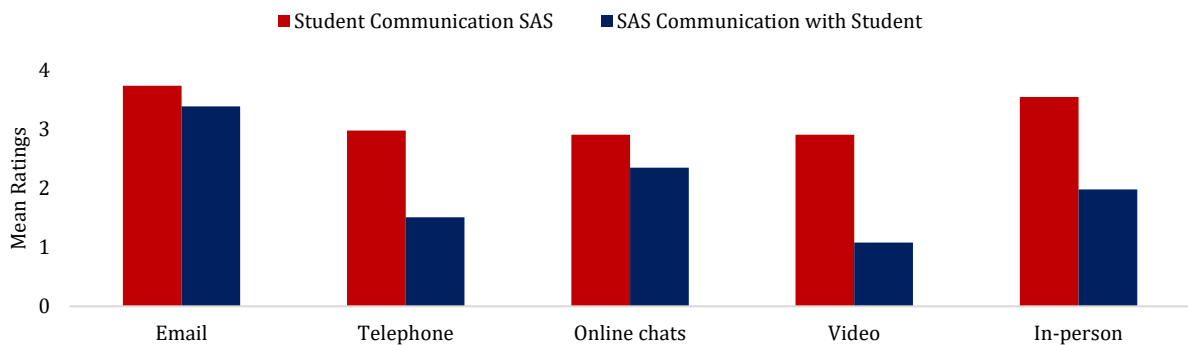
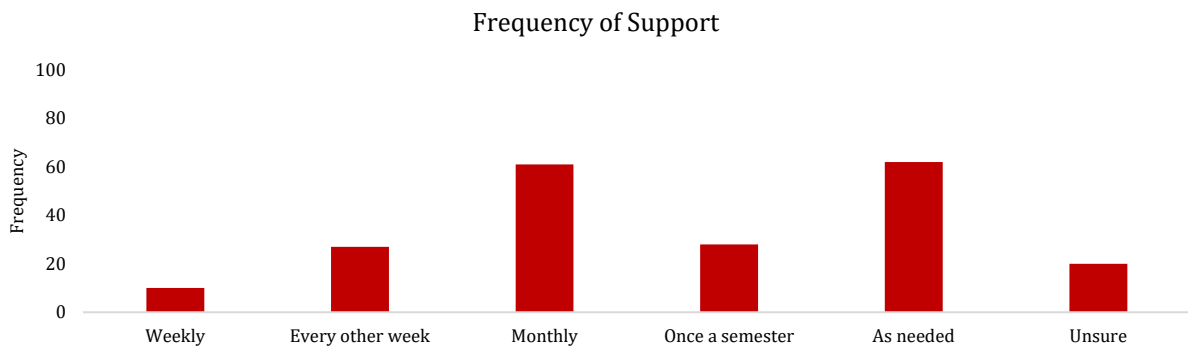
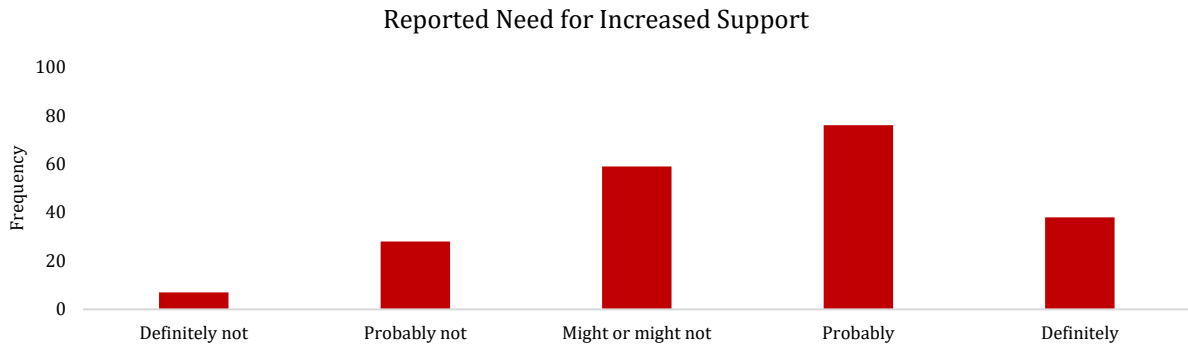


Additional accommodations (requested by <5 students) related to:

- Exams (printable exams)
- Lectures (shorter duration, recordings, closed captioning & notes)
- Seminars
- Studying (space to learn, stand-up desk, computer & adaptive technology)
- Assignments (extensions & alternative expectations)

STUDENT ACCESSIBILITY SERVICES

Half the students believed they would require more supports from Student Accessibility Services given the transition to online education due to the impact COVID-19.



POSITIVE EXPERIENCES

Some students (n=14) shared positive experiences about transitioning to online learning, including:

- Online learning allows more flexibility in their learning schedule.
- Limits the physical barriers faced accessing Brock's campus (i.e., finding accessible washrooms)
- Additional features embedded in online learning promote accessibility (such as closed captioning on pre-recording lectures and going back and watching pre-recorded lectures when needed).

"The only positive thing I can take out of at-home learning is that there is a better chance I can manage my pain levels (due to disability) at home. Examples would be that I do not need to exhaust myself by walking around school looking for a comfortable seating that allows me to excel in/ focus on my schoolwork without distractions (while having a power outlet nearby, washrooms close enough, parking lot being close enough, and each class nearby). Pre-COVID this was extremely difficult at Brock as a student with disabilities." (3rd year, undergraduate, Faculty of Applied Health Sciences; 1203)

*"I think some of the challenges so far have been trying to get accustomed to the professor's lectures transitioning online rather in person. **There are auto closed captioning made available, and that has been helpful. I think it is actually a bit easier than being in an actual lecture setting because of the audio component has been easier (not being so distance or far away from the lecturer).**" (4th year, undergraduate, Faculty of Social Sciences; 1133)*

KEY TAKE-AWAY MESSAGES

1. Students with disabilities are struggling but believe they are trying their hardest!
2. Students are less likely to disclose their need for accommodation personally. Still, they have the same, if not more, accommodation needs.
3. Provide students with an opportunity to meet to discuss their accommodation needs early in the semester (e.g., office hours).
4. Minimize the number of different platforms and programs.
5. Reduce the number of smaller requirements for students.
6. Outline all expectations and due dates (even for ungraded components) in the course outline.
7. Reduce the number of written forms of instruction; consider adding video examples or developing guided tutorials.
8. Record lectures (either in advance or during synchronous classes) and make the recordings available to students for future review.
9. Consider offering a variety of forms of assessment and reduce group assignments.
10. **Be flexible!** Build flexibility with deadlines and extensions to due dates when setting up the course schedule. Offer students' extensions on assignments when requested.