The Impact of COVID-19 on Students' Experiences at Bemidji State University

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Abstract

Due to the dramatic and urgent changes to the delivery methods for courses that had been previously planned to be on campus, several stakeholders across the administration, staff, and faculty collaborated on a survey to determine how students were doing. The purpose of this survey was to assess the challenges students were facing during remote coursework with technology, synchronous and/or asynchronous sessions, as well as how they were feeling and what their plans were for the spring semester. Students (N = 1,302) indicated a variety of challenges in completing courses remotely, including the disconnection from their instructors and peers, an interfering work schedule, problems with time and workload management, and a feeling of teaching themselves the course material. We provide some implications for these results and suggestions for possible course modifications in the spring.

The Impact of COVID-19 on Students' Experiences at Bemidji State University

The impact of the global pandemic caused by the virus SARS-CoV-2 (hereafter referred to as "COVID-19") was initially felt at Bemidji State University through Chancellor Malhotra's decision on February 26, 2020 to suspend all international travel. Later decisions were made to extend spring break by one week (Hensrud, 2020a), then another week (Hensrud, 2020c), to close the residence halls ("BSU residence halls closed," 2020), and to move all on-campus courses to remote delivery ("No face-to-face classes at BSU for remainder of spring semester," 2020). Thus, at the beginning of April 2020, BSU students returned from an extended spring break and on-campus students switched to completing their courses remotely, joining nearly all other university students across the country (Lederman, 2020) and indeed, across the world (Crawford et al., 2020).

The Switch to Emergency Remote Teaching

Due to a variety of factors, not least the lack of national strategy for mitigating the spread and treatment of COVID-19 as well as the wealth of misinformation and disinformation about the virus propagated over social media, face-to-face (hereafter, F2F) course delivery has continued to occur remotely. This delivery method presents several challenges, for students, faculty, staff, and administrators (Gillis & Krull, 2020). Preliminary research from the emergency switch to remote learning in the spring of 2020 indicates that students, particularly those belonging to marginalized groups and first-generation college students, have had a difficult time with the adjustment (Gillis & Krull, 2020; Husky, Kovess-Masfety, & Swendsen, 2020; Son, Hegde, Smith, Wang, &

Sasangohar, 2020) due to the combination of course changes, rendering it difficult to impossible to meet student learning outcomes, and psychological distress, exacerbated by stay at home orders, confinement, and social isolation.

(In)ability to Achieve Learning Outcomes

A major shortcoming of emergency remote teaching as a mode of course delivery is the difficulty in ensuring that course learning objectives can be met the same as in F2F delivery. At BSU, there are eight fully online undergraduate programs, five hybrid undergraduate programs (i.e., combination of online and F2F delivery), and five fully online graduate programs. Beyond the instructors in departments that offer fully online or hybrid programs, faculty across all departments may have had prior opportunities to design and teach online courses. However, even for faculty experienced in online teaching, the switch to emergency remote teaching was disruptive, as in addition to modifying individual course procedures and delivery, they would need to shepherd students (who may have no online learning experience) through the new mode.

A consistent finding related to the transition to remote teaching is that teachers and faculty largely have felt unprepared for delivery course content online (e.g., ElSaheli-Elhage, 2021). While there is limited literature focused on faculty preparedness in online teaching for COVID-19, there are other university shutdown contexts we can rely on, such as student and civil unrest in South Africa (Czerniewicz, Trotter, & Haupt, 2019) and earthquakes in New Zealand (Ayebi-Arthur, 2017; Tull, Dabner, & Ayebi-Arthur, 2017). Results from these other circumstances show that

support for faculty to change and update their delivery techniques and strategies is integral, particularly as faculty with little training and experience in online teaching may be resistant to it (Czerniewicz et al., 2019).

For instructors who learned to teach in-person and have taught F2F courses for the majority of their career, it can be difficult to reconceptualize how to meet course learning objectives and outcomes remotely (Czerniewicz et al., 2019). Particularly for courses that require hands-on learning opportunities (such as lab courses or technology courses), there is no easy way to provide equivalent learning experiences for students. Johnson, Veletsianos, and Seaman (2020) in a national survey of U.S. faculty found that 56% of the participants were using a new teaching method after the transition to remote delivery, and approximately half or more of the participants used strategies like changing assignments, lowering expectations, or switching to a pass/fail option.

While some research indicates that confinement and social distancing resulting from the pandemic increased student performance (Gonzalez et al., 2020), there is plenty of other research to suggest that student learning was harmed during the early pandemic transition. In a sample of nearly 500 undergraduate students across the U.S., Garris and Fleck (2020) found that participants perceived a drop in enjoyment, interest, and learning value for courses that transferred to remote delivery in spring 2020. Additionally, students felt decreased motivation to engage in their newly remote courses and decreased attention devoted to their courses, though Garris and Fleck (2020) also found that each evaluation area of course quality was positively correlated with students' perceptions of their instructors' confidence. That is, students who

transitioned to remote course delivery with an instructor who had a high level of self-

confidence in online or remote teaching reported a higher evaluation of course quality.

Data from the Netherlands indicate that even in good circumstances (e.g., a short

lockdown period, highly-prepared instructors), there was still a loss of learning

equivalent to the length of the lockdown (Engzell, Frey, & Verhagen, 2020). Thus, it is

important to keep in mind that even with prepared, experienced faculty, there may still

be an inability to "make up" for the loss of learning due to the remote delivery.

Stay-at-Home Orders, Social Distancing, and Confinement

Minnesota's governor Tim Walz issued an executive order for citizens to stay at

home on March 27th, which was extended until May 3rd, 2020 (Bierschbach, 2020). This

order was issued shortly after the decision was made to close the residence halls in the

spring. Thus, many students returned to their parents' home or some other location to

complete remote courses for the duration of the semester. Though the stay at home

order was lifted at the beginning of May, Governor Walz still requested that

Minnesotans restrict their travel and gatherings to by necessity only to stem the spread

of COVID-19.

This context is important because the university can be considered to be a *total*

institution, which Goffman (1961, p. 13) described as "a place of residence and work

where a large number of like-situated individuals, cut off from the wider society for an

appreciable period of time, together lead an enclosed, formally administered round of

life." For our on-campus students, a majority of whom exclusively take F2F courses,

the BSU campus and community is where they engage in a variety of social activities,

have reliable access to internet, and consistent access to housing, food, and physical and mental healthcare. In contrast, the inability to remain on campus may have resulted in physical and social isolation, unstable internet, and housing, food, and healthcare insecurity (Husky et al., 2020; Sahu, 2020; Son et al., 2020).

Additionally, university students' mental health has declined through the isolation from their peers and instructors, as well as the stress of adapting to a new mode of course delivery and a heightened need for personal time management (Son et al., 2020). Students have reported experiencing increased anxiety and stress (Besser, Flett, & Zeigler-Hill, 2020; Husky et al., 2020; Salerno, Pease, Devadas, Nketia, & Fish, 2020) and likely other psychological distress. As a global community, we should prepare for the eventuality that we are all at risk for developing a traumatic stress response to the pandemic, which may differentially impact college students, who are at a vulnerable time in their social, physical, and cognitive development (Gruber et al., 2020).

Marginalized students also face specific challenges. For example, within a sample of LGBTQ+ university students, 82% reported they had moved back to live with parents and nearly half of them hid their queer and/or transgender identities from others more often (compared to before the pandemic; Salerno et al., 2020). Black, Indigenous, and other students of color faced structural oppression prior to the pandemic and continue to experience it daily (Liu & Modir, 2020). Racism, specifically anti-Blackness, and settler colonialism continue to impact Black and Native students' access to healthcare and predict negative outcomes for both contracting COVID-19 and dealing with its aftermath (Li, 2020).

A Broader Context of Social Unrest

In addition to the strain put on students by the COVID-19 pandemic, we are currently in a period of extreme social unrest at a local and national level. Particularly after the murder of George Floyd by Minneapolis police officers (Boone, 2020), both Bemidji and greater Minnesota, as well as the country, saw protests, rallies, and demonstrations calling for racial justice and liberation ("Black Student Union social injustice demonstration sparks conversations around racism," 2020). As the Black Lives Matters movement continued to grow nationwide amid other demonstrations protesting police brutality and use of force against Black and Brown folks, public health guidelines led to restrictions on gatherings and indoor space occupancies. These new restrictions impacted K-12 education delivery as well as workplaces, many of whom switched to remote work (including BSU; Henrud, 2020b). The COVID-related restrictions, while in the service of public health, may have led to students losing jobs, increasing financial stress and burdens. Finally, in the run-up to the presidential election in November 2020, many students may have experienced additional psychological distress borne out of the current U.S. president's frequent anti-Asian, anti-Black, anti-queer, anti-trans, and/or ableist rhetoric and policies.

Based on this wider perspective, it is essential that we frame any data collected concerning the emergency remote delivery during COVID-19 as taking place in a time and space of extreme turmoil. Further, the pandemic has vividly demonstrated the depth of existing inequities along race, class, gender, ability, and sexuality. Conclusions from these data must be drawn cautiously, as there is no way to truly disentangle

challenges generated by the pandemic from those generated by other environmental factors.

Current Study

In light of the possibility (which has become an eventuality) of remotely delivering the majority of spring courses that would have been offered on-campus, this study sought to explore the impact of remote learning, the challenges students are facing, and potential solutions and changes to be made during the spring semester.

Method

Participants

After the survey was created, students received a link to the Qualtrics survey via their email as well as an announcement across D2L Brightspace. A reminder email was also sent out a few days prior to the end of the survey window. The link was available to students from October 8 – October 16, 2020.

A total of 1,302 students completed the survey; 70 were graduate students and 1,228 were undergraduate students, with 4 participants not reporting their class level. As there are approximately 5,100 undergraduate students and 300 graduate students at BSU, the response rates for undergraduate and graduate students were 25.5% and 23.3%, respectively. Table 1 below shows the breakdown by class.

Table 1 – Participants' Reported Class Levels

Class Level	***N***

First-year	282
Sophomore	223
Junior	358
Senior	365
Graduate school	70
Total	**1,298**

Because of the limited scope of the survey, no other demographic variables were collected.

Materials

All questions were created for this study were created by the Teaching & Learning Center (TLC). Due to the internal nature of the survey, the questions did not go through IRB review. However, I (K. Klement) also serve on the Human Subjects Committee and provided an informal risk assessment. I determined that this survey did not pose a risk above daily minimal risks and that the benefits of the survey far surpassed any potential risk.

The survey was assembled on the platform Qualtrics, which allows for completion on desktop and mobile devices. Participants could only take the survey once but were able to stop taking it at any time. No compensation was offered for completing the survey.

Because of the range of information the TLC and administration were interested in collecting, questions were grouped into four major categories: (1) class demographics and living arrangements; (2) technology needs; (3) specific experiences

and challenges in synchronous and asynchronous class meetings; and (4) suggestions and future plans.

Class Demographics, Living Arrangements, and Daily Life

The number of participants by class level is reported above in Table 1. Using display logic, we asked students about their current living arrangements (e.g., on-campus, within 60 miles of Bemidji), their housing and registration plans for spring semester, and whether they would move into the residence halls or attend F2F meetings if given the chance.

Students were also asked how frequently in the past week they had experienced six emotions on a scale of 1 (*always*) to 5 (*never*): (1) happiness; (2) safety; (3) optimism; (4) boredom; (5) stress; and (6) worry. They were then asked to report on average how many hours per week they were engaging in five different types of activities in a range of 0 – 100 hours: (1) class activities and assignments; (2) jobs or internships; (3) caregiving responsibilities; (4) BSU sports; and (5) other BSU organizations.

Technology Needs

We asked students what hardware they were using to access course materials and what online platforms they were using in their courses. With an open-ended question, we asked them what type of technology assistance would be helpful for them.

Specific Experiences and Challenges in Synchronous and Asynchronous Class Meetings

Via display logic in Qualtrics, only students who reported having synchronous and asynchronous courses were asked to complete questions related to those modes (they could select both, either, or neither option). In addition to asking students whether they regularly participated in synchronous meetings and whether they preferred optional or required microphones and cameras, we presented a list of possible challenges they could select. While there are many similarities in the lists of synchronous and asynchronous challenges, there were also customized items for each mode.

Items used across modes. There were five items used in both lists of challenges: (1) reliable/stable internet connection on your end; (2) issues related to taking tests (like proctoring or time on tests); (3) lack of closed captioning or ASL interpreters; (4) access to assistive technology hardware or software; and (5) work schedules.

Items specific to synchronous courses. There were seven items specific to synchronous meetings: (1) attending class meetings as scheduled due to family or others needing to use shared technology; (2) attending class meetings as scheduled due to time zone differences; (3) confusion about how to use the videoconference software or application for class; (4) unclear communications or expectations from instructors about attending class; (5) distractions from family, friends, or classmates during class; (6) a requirement to have video on (not just microphone); and (7) lack of a quiet or private place to attend class.

Items specific to asynchronous courses. There were six items specific to asynchronous courses: (1) lack of a quiet or private place to complete coursework; (2) managing your time and completing all your coursework; (3) confusion about how to access or use course materials; (4) unclear communications or expectations from instructors about participating in the course; (5) feeling disconnected from instructors; and (6) feeling disconnected from classmates.

Suggestions and Future Plans

The last section of questions asked students to report their perceptions of a variety of pedagogical strategies, the effectiveness of faculty virtual office hours, and their preferences for methods of faculty communication. Additionally, we asked students a set of open-ended questions to obtain rich data about their experiences thus far with remote learning, further challenges as well as helpful experiences during the semester, and suggestions for the spring semester. Finally, we asked them about their preferences for spring break in 2021.

Pedagogical strategies. We asked students to indicate whether they felt firm deadlines, flexible deadlines, or no deadlines were most effective for their learning, as well as whether they preferred firm course schedules or flexible course schedules, and whether they preferred to have access to all course materials at the beginning of the semester or released on a weekly basis.

Students were able to rank order their preferred methods of contact from faculty: (1) video chat/conferencing; (2) email; (3) phone call; (4) text; (5) D2L

discussions; and (6) D2L announcements. Using display logic, we asked students whether they had attended any faculty virtual office hours, with follow-up questions about why or why not, and whether the sessions were helpful.

Open-ended questions. The final set of open-ended questions asked students about helpful experiences they'd had with remote learning, strategies they used to stay engaged, any additional challenges with remote learning they were experiencing, the impact of faculty preparedness on their learning, and any additional comments or suggestions they had about the spring 2021 semester. The last question asked whether students preferred to keep spring break as is or to eliminate spring break and end the semester a week early.

Procedure

Students were sent the link to the Qualtrics survey on October 8, 2020 via email and a D2L announcement that went out across the entire platform. A reminder email was sent to encourage participation before the survey closed on October 16, 2020. Participants completed the online survey where they were. While there were no informed consent or debriefing procedures, the first page of the survey informed participants the purpose and scope of the survey and they were thanked for their participation at the end.

Analysis Strategy

Due to the mixed methods nature of the survey, the results were analyzed using both quantitative and qualitative procedures. For the majority of the quantitative

analyses, undergraduate students and graduate students were separated due to the

broad differences in their expectations, needs, and experiences. These separate

analyses are indicated by sections. Some of the quantitative analyses were run at the

class level, group students into years (e.g., first years, sophomores) with graduate

students comprising one group together.

Qualitative analysis of the open-ended responses was completed collaboratively

with TLC members splitting the questions among themselves. The style of analysis

followed in line with thematic analysis (Braun & Clark, 2006). The themes were verified

and developed by me (K. Klement). All students' open-ended responses were grouped

together; they were not separated by level or class year.

Results

In the fall 2020 semester, undergraduate participants reported taking an average

of 13.97 credits (SD = 3.16), while graduate participants reported an average credit

load of 7.13 (SD = 3.66). In planning for the spring 2021 semester, almost half the

undergraduate participants indicated that they were interested in taking between 14-16

credits (n = 611, 49.8%), with many also reporting they planned to register for 11-13

credits (n = 247, 20.1%). Only 37 undergraduate participants (3%) reported they were

not planning to register for any credits. For the graduate participants, more than half

reported they planned to register for 1-7 credits (n = 38, 54.3%), with several also

planning for 8-10 credits (n = 15, 21.4%).

For most undergraduate students, their preferred course delivery was F2F. Nearly two-thirds (n = 784, 64%) reported that without COVID-19, they would be taking exclusively F2F courses, while an equal number of undergraduate students reported they would be taking courses exclusively online (n = 193, 16%) or a mix of online and F2F courses (n = 183, 15%)[1]. Conversely, the majority of graduate students would have been taking only online courses (n = 44, 63%), with 12 (17%) reporting they would have been taking F2F courses exclusively, and nine (13%) having planned a mix of online and F2F courses. It's necessary to keep this information in mind when interpreting the survey data, as students who are currently in a course whose delivery mode is different to what they had planned may be experiencing greater challenges and may perceive more negative qualities and experiences in remote learning.

Living Arrangements and Daily Life

Current and Future Housing Plans

Undergraduate students. Two-thirds of undergraduate students reported living in or within a 60-mile radius of Bemidji (n = 810, 66%). Of those students, three-quarters indicated that they lived in off-campus apartments or homes (n = 608, 75.2%), with almost all the rest of the students living in university housing (n = 185, 22.9%). Of the students currently living in university housing, the majority indicated they would do so again in the spring (n = 152, 82.2%). Out of the students not

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[1] There are a range of missing data for each question. Rather than adjust total percentages to account for these ranges for each question, the numbers in this section represent the ns and percentages of students who completed the items. Thus, for any totals less than 100%, the gap represents the missing data.

currently living in university housing, only about 10% ($n = 100$) indicated that they

would move on campus in the spring if given the opportunity, with 116 students

(11.4%) not sure at this point and the majority ($n = 801$, 78.8%) saying they would

not move on campus. Out of the students who said that they would not or were not

sure if they would be living in university housing in the spring, more than half ($n = 537$,

57%) reported they would be living in Bemidji or within 60 miles, with 284 students

(30%) planning to live outside the area and 126 (13%) not sure.

Graduate students. The current and planned living arrangements reported by

graduate students differed greatly from undergraduates. Largely, graduate students

live outside Bemidji now with the same plan in the spring. Slightly more than half of

graduate students reported living outside the Bemidji area ($n = 39$, 56%) and only one

graduate student indicated they would move into the residence halls in the spring if

given the opportunity, and only four graduate students were not sure about their

housing plans for the next semester. Of the graduate students in the area, only eight

(11%) indicated that they would attend F2F meetings on campus in the spring if given

the opportunity, with five students (7%) not sure.

Emotions

Overall, students reported moderate amounts of happiness and optimism and

moderate to high amounts of safety, stress, and worry. In examining the differences of

these emotions by class level, all but one were statistically significant. Means for all

emotions by class level are listed in Table 2, with superscripts to indicate group means

that do not significantly differ.

Students reported significantly different amounts of happiness by class level, $F(1,$ 4) = 4.43, p = .001, partial η^2 = .015[2], with first-years and graduate students reporting significantly more happiness than the other groups. While all students reported feeling very safe, first-years reported a significantly higher level of safety than the other groups, $F(1, 4)$ = 7.11, $p <$ .001, partial η^2 = .023. All groups reported a moderate amount of optimism, with means just below the midpoint of the response scale; there were no overall group differences, $F(1, 4)$ = 1.73, p = .140, partial η^2 = .006. Though experiencing a variety of disruptions and uncertainty, students reported a range of boredom, with graduate students reporting significantly less than undergraduate students, and juniors and seniors reporting significantly less than first-years and sophomores, $F(1, 4)$ = 16.87, $p <$ .001, partial η^2 = .053. Understandably, students reported a high amount of stress, with seniors reporting significantly greater stress, $F(1,$ 4) = 5.90, $p <$ .001, partial η^2 = .019. Similarly, students reported a high amount of worry, with graduate students reporting the least amount of worry, $F(1, 4)$ = 5.31, $p <$ .001, partial η^2 = .017.

Table 2 – Frequency of Emotions Reported in the Last Week

	First-years	Sophomores	Juniors	Seniors	Graduate students
Happy	2.57[a]	2.79[b]	2.73[b]	2.84[b]	2.44[a]
Safe	1.46	1.76[a]	1.82[a]	1.76[a]	1.81[a]
Optimistic	2.70[ab]	2.82[a]	2.78[a]	2.81[a]	2.48[b]
Bored	2.98[a]	2.96[a]	3.36[b]	3.32[b]	4.21
Stressed	2.41[a]	2.16[b]	2.17[bc]	1.99[b]	2.36[abc]
Worried	3.02[a]	2.73[b]	2.70[b]	2.65[b]	3.16[a]

[2] Partial eta squared (η^2) is a measure of effect size for analysis of variance (ANOVA). In interpreting these effect sizes, an appropriate ruleset for magnitude is 0.01 = small, 0.06 = medium, and 0.14 = large. The majority of effect sizes reported in this paper are small to medium.

Note: Means within a row that share a superscript do not differ significantly (p > .05).

Weekly Activities

Students reported engaging in a wide range of activities throughout the week, reinforcing that classwork is difficult to fit into their full schedules, which is a recurring challenge discussed below. Because of the wide ranges of time students reported for each of the activity categories, both the means and standard deviations as well as the median number of hours are reported. Table 3 lists these values along with the ranges for each of the five activity categories across class levels.

All students across class level are working around 30 hours a week on class activities and assignments, with an overall significant group difference in mean hours, $F(1, 4) = 2.41$, $p = .048$, partial $\eta^2 = .008$. While all groups reported working several hours a week at a job or internship, graduate students are working significantly more hours, $F(1, 4) = 19.64$, $p < .001$, partial $\eta^2 = .076$. Students are managing a high amount of caregiving responsibilities in addition to their courses and jobs, with graduate students engaging in significantly more care labor than other groups, $F(1, 4) = 7.59$, $p < .001$, partial $\eta^2 = .055$. Though first-years are spending more time on BSU sports, there were no significant mean differences across groups, $F(1, 4) = 1.25$, $p = .290$, partial $\eta^2 = .021$. Finally, juniors are spending the most time engaging with BSU student organizations, $F(1, 4) = 2.45$, $p = .046$, partial $\eta^2 = .030$.

Table 3 – Means, Standard Deviations, Medians, and Ranges for Weekly Activities by Class Level

	Class-work	Jobs	Care-giving	BSU Sports	BSU Orgs
First-years					
Mean	28.46[ab]	22.42[a]	23.47[a]	18.79[a]	5.95[ab]
Standard deviation	16.48	16.77	34.05	25.48	10.97
Median	25.00	20.00	9.00	11.00	3.00
Range	3-90	0-100	0-100	0-100	0-65
Sophomores					
Mean	25.28[a]	24.10[a]	20.88[a]	14.71[ab]	7.39[ab]
Standard deviation	17.20	16.42	27.35	21.56	8.13
Median	20.00	20.00	9.50	9.00	5.00
Range	2-100	0-100	0-100	0-96	0-39
Juniors					
Mean	29.45[b]	27.49[b]	39.93[bc]	13.84[ab]	9.31[a]
Standard deviation	18.63	17.63	39.67	19.95	17.11
Median	25.00	27.00	20.00	10.00	3.50
Range	3-100	0-100	0-100	0-100	0-100
Seniors					
Mean	27.26[ab]	29.67[b]	35.57[bc]	10.85[b]	4.37[b]
Standard deviation	16.65	15.09	36.70	20.12	4.96
Median	23.00	30.00	20.00	0.00	3.00
Range	2-100	0-100	0-100	0-100	0-30
Graduate students					
Mean	25.08[ab]	42.83	49.05[b]	8.56[ab]	4.50[ab]
Standard deviation	17.81	17.59	38.83	17.39	6.93
Median	20.00	44.00	41.00	0.00	1.50
Range	2-100	0-100	0-100	0-46	0-20

Note: Means within a column that share a superscript do not differ significantly ($p >$ .05).

Technology Needs

Accessing Course Materials

Students were asked to select all locations where they accessed course

materials, what devices they used to access their course materials, and what platforms

they used in class. Totals and percentages for both undergraduate and graduate

students for all access questions are listed in Table 3. Note that participants were able

to select multiple options.

Undergraduate students. A large majority of undergraduate students access

course materials from home (n = 1,026, 84%). Most undergraduate students access

their materials on laptops (n = 1,098, 89%), though nearly half also (or instead) use

their phones (n = 505, 41%). The most common platforms undergraduate students

are using in their courses are D2L (n = 1,148, 94%), Zoom (n = 1,057, 86%), and

email (n = 1,045, 85%). More than one hundred students indicated they were using

other software in their courses, including publisher platforms (e.g., Cengage's MindTap,

McGraw Hill's Connect, WW Norton's InQuizitive), Adobe suite products (e.g.,

Illustrator, Photoshop), and other engagement platforms (e.g., Top Hat, Flipgrid,

Discord).

Graduate students. As with undergraduate students, a large majority of

graduate students access course materials from home (n = 64, 91%) as well as at their

job (n = 25, 36%). Also like undergraduates, graduate students mainly use a laptop (n

= 62, 89%) and use D2L (n = 63, 90%), email (n = 55, 79%), and Zoom (n = 49,

70%).

Table 3 – Locations, Devices, and Platforms for Course Access

	Undergraduates		**Graduates**	
	N	**%**	**N**	**%**
Location				
Home	1,026	84	64	91
Library	214	17	7	10
Coffee shop or restaurant	212	17	8	11

Job	210	17	25	36
Residence hall	176	15	1	1
Parking lot	58	5	2	3
Device				
Laptop	1,098	89	62	89
Smart phone	505	41	18	26
Desktop	158	13	13	19
Tablet	101	8	2	3
Software/platform				
D2L Brightspace	1,148	94	63	90
Zoom	1,057	86	49	70
Email	1,045	85	55	79
Microsoft Teams	210	17	9	13
MediaSpace	101	8	4	6
Something else	133	11	2	3

Technology Assistance Needed

From the full sample, 471 students responded to the question of what kind of technological assistance would be helpful in improving their course success. Many students' responses fell under a theme of *general technology issues*. These students mentioned that they had difficulties in access course software or hardware, struggled with unreliable or unstable internet, or were struggling financially to address both of these issues. For example, one student mentioned, "My laptop does not have webcam capabilities, so a webcam or new laptop would be extremely useful for me to be able to interact with other students, as I am using zoom on my phone." Others also stated that their current computers were not in good shape for the requirements of the semester.

A second major theme was *specific course issues*. Responses in this category included a lack of consistency in D2L organization, a lack of their faculty's knowledge

about D2L, a lack of faculty communication, and a desire for flexibility in the course

(particularly with respect to due dates). A suggestion stated by many students was for

faculty to provide weekly to-do lists:

> "I really think that the professors have done an excellent job with the transition
>
> to online, the one thing I wish could be possible is being able to see more clearly
>
> what needs to be done each week because some teachers don't put due dates so
>
> its extremely frustrating to have to search though course materials to find if
>
> things are due."

Many responses in this second theme echo findings from other open-ended questions,

in that students whose faculty are either not as familiar or as comfortable with using

D2L features find it difficult to keep track of assignments, expectations, and other

course elements.

Specific Experiences and Challenges in Synchronous and Asynchronous Class Meetings

Out of all undergraduate students, more than three-fourths ($n = 929$, 76%)

reported having a class with synchronous sessions and about the same number

reported having asynchronous courses ($n = 974$, 79%). In contrast, only 25 graduate

students (36%) reported having synchronous courses, while about two-thirds ($n = 47$,

67%) reported having asynchronous courses.

Synchronous Class Meetings

Undergraduate students. Of those students who indicated having synchronous class meetings, nearly all (n = 851, 92%) said that they regularly participate in the real-time meetings. In their ideal synchronous session, approximately the same number of students would prefer microphones (n = 707, 57%) and cameras (n = 714, 58%) to be optional (rather than mandatory).

The top five challenges reported by undergraduate students in synchronous classes were: (1) work schedules; (2) distractions from others in class, either in person or online; (3) unstable or unreliable internet access; (4) unclear communications or expectations from instructors about attending class; and (5) test-taking issues, like proctoring or the time window to complete them. The full list of challenges with totals and percentages is in Table 4. Beyond those listed in Table 4, students also mentioned as challenges: the lack of participation or interaction from classmates in meetings; having Zoom meetings for different classes scheduled simultaneously; a lack of motivation to engage with the course; and, difficulties with Zoom as a substitute for F2F instruction.

Graduate students. Fewer (but still a majority of) graduate students regularly participate in synchronous meetings (n = 19, 76%). Similar to undergraduate students, graduate students largely prefer optional microphone (n = 12) and optional camera (n = 18).

The top five challenges that graduate students reported in synchronous courses overlap with those indicated by the undergraduate students: (1) work schedules; (2) unstable or unreliable internet access; (3) managing class meetings with other family

members needing to use shared technology; (4) a lack of a quiet place to attend class

meetings; and (5) distractions from others in class, either in person or online. The full

list of challenges with totals and percentages is in Table 4.

Table 4 – Challenges to Synchronous Learning

	Undergraduates		Graduates	
	N	*%*	*N*	*%*
Work schedules	364	29	13	52
Distractions from family, friends, or classmates during class	323	26	6	24
Reliable/stable internet connection on your end	313	26	9	36
Unclear communications or expectations from instructors about attending class	253	21	2	8
Issues related to taking tests (like proctoring or time on tests)	244	20	0	0
Lack of a quiet or private place to attend class	220	18	7	28
A requirement to have video on (not just microphone)	200	16	4	16
Attending class meetings as scheduled due to family or others needing to use shared technology	124	10	7	28
Confusion about how to use the videoconference software or application for class	59	5	1	4
Attending class meetings as scheduled due to time zone	18	2	1	4
Lack of live or closed captioning or ASL interpreters	18	2	0	0
Access to assistive technology hardware or software	17	1	0	0

Asynchronous Class Meetings

Undergraduate students. For the undergraduate students taking courses

without synchronous meetings (that is, asynchronous courses), there was considerable

correspondence in the challenges they reported and those indicated by the students in

synchronous courses. The top five challenges reported for the undergraduate students

were: (1) managing time and completing all necessary coursework; (2) feeling

disconnected from instructors; (3) unclear communications or expectations from

instructors about participating in the course; (4) feeling disconnected from classmates; and (5) work schedules.

The full list of challenges with totals and percentages is in Table 5. Beyond those listed in Table 5, students also mentioned as challenges: a lack of interaction with or support from the instructor; feeling as though they were teaching themselves the material; psychological distress such as depression and/or anxiety; and limitations of technology.

Graduate students. The graduate students reported largely the same difficulties with asynchronous learning, though in a different order. The top five challenges reported for the graduate students were: (1) managing time and completing all necessary coursework; (2) work schedules; (3) unclear communications or expectations from instructors about participating in the course; (4) feeling disconnected from instructors; and (5) unstable or unreliable internet access.

Table 5 – Challenges to Asynchronous Learning

	Undergraduates		Graduates	
	N	**%**	**N**	**%**
Managing your time and completing all your coursework	556	45	28	60
Feeling disconnected from instructors	555	45	12	26
Unclear communications or expectations from instructors about participating in the course	444	36	17	36
Feeling disconnected from classmates	440	36	9	19
Work schedules	305	25	22	47
Confusion about how to access or use course materials	262	21	6	13
Lack of a quiet or private place to complete coursework	162	13	8	17
Issues related to taking tests (like proctoring or time on tests)	148	12	0	0
Reliable/stable internet connection on your end	142	12	10	21
Lack of live or closed captioning or ASL interpreters	65	5	1	2

| Access to assistive technology hardware or software | 31 | 3 | 1 | 2 |

Suggestions and Future Plans

Pedagogical Strategies

Students reported their preferences for three different types of pedagogical strategies: flexibility of deadlines; flexibility of schedules; and level of access to course materials. Participants were able to select multiple options; thus, totals for each option will add up to more than the number of total participants.

Undergraduate students. There was more endorsement for flexible deadlines for course assignments and exams ($n = 673$) than for firm deadlines ($n = 439$) or having no deadlines ($n = 98$). There was a little more preference for flexible course schedules ($n = 541$) compared to firm course schedules ($n = 433$). Finally, undergraduate students equally preferred having access to all course materials at the beginning of the semester ($n = 538$) compared to having course materials and information provided one week at a time ($n = 516$).

Graduate students. There was twice as much endorsement for flexible deadlines for course assignments and exams ($n = 44$) than for firm deadlines ($n = 22$) and no students preferred having no deadlines at all. There was slightly more preference for flexible course schedules ($n = 29$) compared to firm course schedules ($n = 22$). Contrary to the undergraduate students, graduate students largely preferred having access to all course materials at the beginning of the semester ($n = 39$)

compared to having course materials and information provided one week at a time ($n =$ 23).

Preferred Method of Faculty Communication

Regardless of level of program, students generally ranked methods of faculty in communication. Students largely preferred email, followed by D2L announcements and video chat/conferencing (such as Zoom). Undergraduate students ranked texting over D2L discussions, while graduate students reversed these; both groups ranked phone calls as the least preferred method of communication.

Faculty Virtual Office Hours Visits

In the transition to remote teaching and learning, most faculty modified their office hours to be held online, either via email or chat/text exchanges or through Zoom. A majority of undergraduate students had not visited faculty during virtual office hours ($n = 662$, 60%) and the same proportion of graduate students reported not having visited faculty, either ($n = 42$, 60%). Despite a minority of students taking advantage of these opportunities to connect with their faculty members, those who did found the sessions overwhelmingly helpful (undergraduate students: $n = 399$, 90%; graduate students: $n = 20$, 95%).

The students who had not attended virtual office hours were asked their reasons for not going. Their responses fell into three broad categories: they did not feel a need to attend them; they could not attend them; or they did not want to attend them.

For those who did not feel a need to attend virtual office hours, the reasons were generally that the students did not have any questions for their instructors or their answers could be answered and/or were answered via email. As an example, one student reported that, "I believed I understood the information well enough during class hours." Another mentioned that, "Everything that I have needed from them was able to be figured out over email."

Students whose responses fell into the *could not attend* category had a variety of reasons. For many, their other synchronous course schedules or their work schedules conflicted with the faculty's office hours or their own schedules were too uncertain to set an appointment. As one student said, "Most of their office hours are during times I have other classes." Another stated, "You need to schedule office hours with my professors and my schedule is constantly changing so I don't want to schedule something and then miss it." Another major reason was that the student was unclear about how they could meet with the instructor or how the virtual office hours worked, as one student remarked, "Many of my teachers have not told me when or if they have office hours to go to." Still other students did not know that virtual office hours were a possibility; some of these students may have misunderstood the virtual aspect, as they listed distance or an unwillingness to visit campus as their reason.

Finally, many students reported that they had no desire to take advantage of virtual office hours. These students may not have seen the point of meeting, such as the student who said, "I procrastinate and have no motivation most of the time. Online learning is draining and unrewarding; we are not allowed to make personal connections

with professors and students, so why bother showing up to stare at someone talking on

a screen?" Similarly, other students reported a negative reaction to the idea of further

Zoom meetings: "Zoom makes me feel disconnected. When I am speaking to a

computer I feel like I am in a different reality." Feelings of awkwardness may have also

led to resistance to meeting virtually with faculty. One student mentioned, "I feel like it

is an imposition and I don't know that I would have specific questions to ask. Generally

I am just intimidated and think if I need to use the open hours it is because I am not

putting in the work." Another stated, "That's weird to have to call them." It's also

important to keep in mind that some students are living with disabilities that make

engaging in Zoom sessions difficult. One student reported:

> "I don't like talking to a professor one On one. I have major anxiety talking over
>
> zoom. I have dyslexia/dysgraphia. My dyslexia is not one that you flip numbers
>
> and letters around its a comprehension disability. I have trouble wording things,
>
> I have trouble thinking of what I want to say and how to put words together to
>
> day it."

Another student detailed:

> "I hate zoom and find it awkward. As someone with autism it's hard to read
>
> social cues over video, and I get stressed or start stimming. It's just too hard, it's
>
> bad enough doing this with class trying to read the room. One on one I feel like
>
> I'd have trouble being professional. I can't be professional from home in the
>
> same way without visual cues like a desk and an office to remind me how to act

or where I am. Socially it's incredibly difficult and screws with the way my brain

processes things."

Thus, while faculty may desire their students to visit virtual office hours if they have

questions about course material, students are unable to do this for a variety of reasons.

Spring Break Plan Preferences

When given the option to indicate their preference to keep spring break as is in

2021 or to eliminate it and end the semester a week early, approximately half the

undergraduate students chose keeping spring break as is ($n = 620$, 51%) though only

22 graduate students did. Conversely, 336 undergraduate students (27%) vs. 27

graduate students opted for ending the semester early to eliminate spring break.

Challenges for Staying Engaged During Remote Learning

Out of the full sample, 777 students responded to a question about what

challenges they were experiencing in remaining engaged during remote learning. In

general, students reported the biggest challenges were the high workload, a lack of

time to get everything finished, and a feeling of stress about remote learning (and

everything else). A major theme in their responses was *challenges inherent to

remoteness*. Students felt disconnected from instructors and as though they were

teaching the course to themselves. Part of this feeling stemmed from receiving unclear

or no directions from their instructor on completing specific activities and assignments,

along with a lack of communication in general from their instructor. Another challenge

they indicated over remote learning in general was staying in contact and engaged with

their classmates and instructors, and relatedly, feeling isolated from others. For example, one student reported:

> The teachers that do not have zoom class schedules it would be nice if they checked in more and seemed more available. They seem kind of distant and I feel as though I have to figure things out on my own more. When you ask for help it has not been the most helpful either. I just get short emails back that I get the impression they don't have time for my questions.

Another student stated:

> The workload expectations of many professions feel very unrealistic when so many people are having to adapt to online learning for the first time and are also dealing with exacerbated mental health issues. Having several small assignments in every single class every day is draining.

These responses also address issues raised in other parts of the survey; students (and faculty) are having difficulty adjusting to a new delivery mode, which may be worsening existing mental health concerns among students and faculty.

A second major theme in the responses was *challenges within specific courses*. This category of responses focused on aspects of their individual courses they found challenging. Many students discussed how the lack of synchronous class meetings was difficult, as this student did:

> I cannot word this strongly enough, we need to have our scheduled classes each session. I cannot learn the materials in the most effective way when instead of

class three days a week for example, we only meet live on zoom once or not at

all. 3 out of my 4 classes only meet once or not at all on zoom. Not only do I feel

that I am not learning as much as I could be, I don't see why I should be paying

full price for such a class. I am very frustrated as an older student being out of

school for more than 20 years. Since class can't be in person, I really need those

live interactions on zoom for instruction to really be useful. I really hope this can

be addressed and changed for next semester.

Reinforcing that, 48 students indicated that they need F2F instruction to be successful.

Another issue was the lack of participation from classmates either in full Zoom

sessions or breakout rooms, or in course group activities. Some students struggled

with uncertainty in their courses, as due dates were unclear or changed. Similar to

responses given to other questions, students also noted frustration at the feeling of

teaching themselves course material or their instructors reading off powerpoint slides in

synchronous sessions without providing further context, as one student noted, "boring,

not interactive, professors just read off of the slides, waste of time."

The Impact of Faculty Preparedness

A related question to challenges of remote learning asked participants whether

and how their learning experience has been affected by the level of their instructors'

preparedness to teach remotely. From the full sample, 626 students responded to this

question. Themes in these responses are discussed below, but it's also valuable to note

that 233 of those students (37% of the responses) were "no"; that is, their learning

experience was not impacted by faculty preparedness.

Perhaps unsurprisingly, the two major themes found in the responses to this

question were *negative impacts* and *positive impacts*, with more negative than positive

comments. The most frequently cited negative impacts to students' learning experience

and the frequency of each impact is listed in Table 6 below. Note that some students

may have reported more than impact.

Table 6 – Students' Reported Negative Impacts of Faculty Preparedness on Their
Learning Experience

Negative Impact	N
Lack of communication in responding to emails, course/exam/assignment expectations	49
Issues with subject matter being taught remotely or the faculty's ability to teach subject matter remotely	49
Disorganization in course design, layout, maintenance	45
Faculty preparedness in teaching online	34
Faculty struggling with D2L or Zoom	25

These results echo responses to prior questions about challenges and frustrations in

remote learning. Students also noted other struggles that were not strictly relevant to

faculty preparedness, including: too much or too little course material available at a

given time; material being made available at the last minute or at unusual times; and,

too high of expectations of workload for remote courses.

Some of the positive comments about faculty preparedness included the

timeliness of posted materials, such as this student who remarked, "In many of my

classes, my professors upload assignments/materials in advance so that way I can

come to class prepared." Another consistent area of comments related to the

helpfulness of regularly scheduled synchronous Zoom sessions, such as this student's

response that, "Yes, professors keeping students engaged and interested during Zoom

meetings and required participation is key." Thus, the positive impacts discussed

generally related to consistency, organization, and reliability of feedback and

communication from faculty.

Effective Strategies for Staying Engaged with Peers and Instructors in

Remote Learning

Despite the challenges discussed above, 728 students responded to a question

about effective strategies they could use for remaining engaged in their remote classes.

These ideas fit into two general themes, *staying in contact during class* and *individual*

student strategies.

Strategies for staying engaged during class time focused on things students

could do to interact with classmates and instructors and these largely aligned with

participating in the full course. For example, many students mentioned attending

synchronous Zoom sessions. Relatedly, they suggested actively engaging with activities

and discussions in Zoom breakout rooms (note that lack of engagement in breakout

rooms is cited across multiple questions as a challenge), as this student did:

So far the best strategy is when you are in a zoom class to have time when we

go to breakout rooms and have time to discuss as a small group of your

classmates. Instead of the teacher talking to whole time or trying to get

someone to say something in front of the whole class.

Other students indicated that posting frequently and meaningfully on D2L discussion

boards also helped them stay engaged, along with reaching out to instructors with

questions:

Regular discussion postings in which each student has to post their own

answer/perspective/example and then engage with at least two others posts is

helpful for making connections with peers. Being able to email (and get a

response) from a professor has been really helpful.

Examples of strategies that individual students can use to stay engaged include

setting up a schedule to stay organized for each course, establishing a reliably quiet

workspace, having their cameras on during meeting-style sessions (compared to

webinar-style sessions, where only panelists' camera feeds may be shown), and setting

up a study group with classmates. For example, one student mentioned that, "I usually

try to take notes and keep my camera on so I can stay accountable."

Several students also noted positive experiences they've had with remote

classes, with some even observing that they are doing better remotely. For example,

one student said:

"I like the scheduled zoom classes way better than in person classes. I feel I

learn more and less distractions than when I would sit in a room full of students.

I also feel I don't waste as much time because I don't have to drive to class, find

a parking spot, walk a mile, and than after class do it all over again."

While this sentiment was not shared by a majority of students, it's important to keep in

mind that some students and instructors may find that the availability of technology to

facilitate remote courses can have benefits over a totally F2F experience, particularly as

COVID continues to pose a major health risk for so many.

Helpful Experiences While Learning Remotely

We asked participants to give examples of helpful experiences they had with

remote learning and out of the full sample, 764 responded. There were four broader

themes in these responses: *recordings and video content*, *flexibility from professors*,

organized course experience, and *less than helpful experiences*.

Many students discussed the effectiveness of instructors including video content

in their D2L shells. This video content could be YouTube videos about specific course

content, tutorials for assignments and activities, and/or recordings of asynchronous or

synchronous lectures. Students appreciate having multiple ways to consume course

content, whether audio and visual or just audio (like podcasts). One student

mentioned, "I have really enjoyed having the recorded lectures. I feel like I am learning

so much more because if I don't understand something I can go back and re watch the

lecture or rewind to go over concepts again." Another stated, "Clear information on

how to do assingments (*sic*) with directions. Like videos with step by step solving an

example."

A central kind of help that students appreciated was flexibility and responsiveness from professors, in both the course's schedule and in deadlines for completing activities and assessments. Many also pointed to how helpful they found it when professors showed that they understood students' struggles and checked in on mental health issues, either in a general class format (e.g., questions and answers in synchronous Zoom meetings) or individually via email. As some students reported that they were concerned about returning to campus in the middle of the pandemic, several also expressed gratitude for being able to complete their courses while remaining distanced, safe at home. A final common suggestion in this category was the desire for clear to-do lists for each week or section so that students did not miss assignments. As one student noted:

 "My most helpful experiences are when professors are very responsive over email and clear about what they expect. I like to have access to the entire course, but also like when professors still send out a weekly "to do" list about what they are expecting for the week. It also helps to have flexible deadlines since this semester is different for everyone."

As mentioned above, disorganization of D2L course shells was reported as a challenge by many students. Unsurprisingly, many students indicated that one of their most helpful experiences in remote learning was an organized course shell and materials. Relatedly, they were grateful for transparency in their course schedules so that they could plan to work on specific projects or arrange their work schedules to accommodate course meetings: "Teachers sending out reminders for assignments,

teachers posting all of the material at once, a very detailed syllabus/ schedule for assignment."

Despite the question framed to assess helpful incidents related to being remote, some students gave us examples of negative experiences, many of which reinforced findings from other questions. One of the more common complaints involved the feeling that students are teaching themselves the course material, whether due to the presentation style of the instructor, a lack of synchronous meetings, unclear or ambiguous instructions, or from the perceived absence or lack of responsiveness from the instructor. For example, one student noted:

> When my professors do powerpoints and talk over them with their picture still on the screen. For me, this is the closet thing to the classroom experience I have gotten and is the best way I have learned this semester. When it feels like I am teaching myself it makes it hard to stay motivated, focused, on task, and confident that I am learning the right material."

A related sentiment was the disappointment from students who felt they were wasting money on remote classes, as one student stated, "Almost nothing remote learning is a joke and I didnt pay to get a degree online. Waste of my money."

Suggestions for Spring 2021

At the end of the survey, we asked students if they had any additional suggestions to help us plan for the spring 2021 semester; out of the full sample, 496 students completed a response. Regarding delivery mode, 139 students asked that

classes be given F2F and 81 asked that classes be given online. Additionally, 28

students requested a reduced or refunded tuition for remote learning.

Some of the suggestions students gave for improving their specific course

experience included: (1) better D2L organization; (2) grades and assignment feedback

provided sooner; (3) smaller enrollment for courses; (4) better, more responsive

communication from faculty; (5) weekly to-do lists provided for all course activities and

assignments; and (6) wanting more video content, particularly recorded synchronous

Zoom sessions. Several students also mentioned a desire to have hyflex courses (note

that they did not use this term, but they described it).

Comments unrelated to specific pedagogical activities included: (1) greater

residence hall capacity; (2) needing access to computers, labs, and the library; (3)

offering courses usually offered only in the summer; (4) more ways to feel connected to

classmates, instructors, and the campus; (5) wanting more information about BSU's

COVID response and the current case number information; and (6) general comments

about stress, finances, and other concerns.

Post-Hoc Analyses

At the suggestions of others, we analyzed the potential differences in daily life

experiences among online, F2F, and mixed online/F2F students and between resident

and non-resident students. The purpose of these analyses was to determine if a

specific group of students is faring worse with remote learning.

Online vs. F2F vs. Mixed Online/F2F Students

Broadly, students who would otherwise be taking only F2F courses are doing worse than exclusively online students and students who would be taking a mix of online and F2F courses. Table 7 shows the means for the emotion frequency reported the previous week (similar to Table 2 but separated by ideal delivery mode). These groups of students differed in their reported levels of happiness ($F(1, 2) = 10.04$, $p < .001$, partial $\eta^2 = .016$), optimism ($F(1, 2) = 20.61$, $p < .001$, partial $\eta^2 = .033$), boredom ($F(1, 2) = 60.16$, $p < .001$, partial $\eta^2 = .091$), stress ($F(1, 2) = 8.31$, $p < .001$, partial $\eta^2 = .013$), and worry ($F(1, 2) = 10.04$, $p < .001$, partial $\eta^2 = .016$). There were no significant group differences in safety ($p = .114$). The pattern for the majority of group differences was the F2F group being significantly different from the other groups, with no significant differences between the online-only and mixed online/F2F groups. The only emotion reported as significantly different for each of the groups was boredom, with online-only students reporting the least amount.

Table 7 – Frequency of Emotions Reported in the Last Week by Delivery Preference

	F2F	Online	Mixed Online/F2F
Happy	2.81	2.51[a]	2.60[a]
Safe	1.75[a]	1.67[a]	1.62[a]
Optimistic	2.90	2.46[a]	2.56[a]
Bored	2.98	3.88	3.55
Stressed	2.08	2.39[a]	2.29[a]
Worried	2.70[a]	3.03[b]	2.85[ab]

Note: Means within a row that share a superscript do not differ significantly (p > .05).

While there is no difference in the amount of hours per week the three groups of students are spending on class activities and assignment, online-only students are spending significantly more hours engaged in jobs ($F(1, 2) = 52.37$, $p < .001$, partial η^2

= .099) and caregiving responsibilities ($F_{(1, 2)}$ = 68.64, $p < .001$, partial η^2 = .208).

There were no overall group differences for time spent on BSU sports or other BSU

student organizations. Table 8 below gives all group means, standard deviations,

median, and ranges for these activities.

Table 8 – Means, Standard Deviations, Medians, and Ranges for Weekly Activities by Preferred Course Delivery Method

	Class-work	Jobs	Care-giving	BSU Sports	BSU Orgs
F2F					
Mean	28.36	23.96	17.16	16.55[a]	6.84
Standard deviation	17.72	16.20	26.43	24.06	10.41
Median	25.00	20.00	7.00	10.00	4.00
Range	2-100	0-100	0-100	0-100	0-100
Online					
Mean	26.43	37.63	53.29[a]	6.04[b]	5.10
Standard deviation	16.77	15.78	37.71	12.22	7.58
Median	20.00	40.00	49.50	0.00	3.00
Range	5-100	0-100	0-100	0-46	0-29
Mixed Online/F2F					
Mean	26.48	29.43	45.32[a]	10.80[ab]	5.79
Standard deviation	16.65	17.29	40.41	13.91	16.43
Median	20.00	30.00	30.00	7.00	2.00
Range	3-100	0-100	0-100	0-50	0-100

Note: Means within a column that share a superscript do not differ significantly (p > .05).

Delivery Mode by Class Level

With the aim of determining whether students at a particular class level are

struggling more, particularly for those who would prefer being F2F, we conducted 3

(delivery method) x 5 (class level) ANOVAs for the emotion and activity variables.

Emotions. The results of the factorial analyses largely mirrored the one-way ANOVAs detailed above.

Happiness. For happiness, there was a main effect of class level ($F(1, 4)$ = 2.46, p = .044, partial η^2 = .008) and delivery mode ($F(1, 2)$ = 8.92, $p < .001$, partial η^2 = .015), but the interaction was not significant (p = .089). Seniors reported significantly less happiness than did first-years and sophomores. F2F students reported significantly less happiness than did online-only or mixed mode students.

Safety. For safety, only the main effect of class level was significant ($F(1, 4)$ = 4.38, p = .002, partial η^2 = .014); neither the delivery method main effect nor the interaction was significant (ps > .21). First-years reported feeling significantly safer than did juniors, seniors, and graduate students.

Optimism. For optimism, there was a main effect of delivery mode ($F(1, 2)$ = 14.75, $p < .001$, partial η^2 = .024) and a significant interaction between class level and delivery mode ($F(1, 8)$ = 2.19, p = .026, partial η^2 = .014); however, there was no main effect of class level (p = .484). F2F students reported significantly less optimism than did online-only or mixed mode students. Graduate students who would prefer F2F courses were particularly low on optimism (compared to online-only and mixed graduate students).

Boredom. With boredom, the main effect of class level ($F(1, 4)$ = 3.57, p = .007, partial η^2 = .012) and delivery mode ($F(1, 2)$ = 18.20, $p < .001$, partial η^2 = .030) were significant, but the interaction was not significant (p = .087). Graduate students

reported significantly less boredom than did all levels of undergraduate students. First-

year students also reported significantly more boredom than did juniors.

Stress. For stress, the main effect of class level ($F(1, 4) = 3.73$, $p = .005$,

partial $\eta^2 = .012$) and delivery mode ($F(1, 2) = 5.20$, $p = .006$, partial $\eta^2 = .009$) were

significant, but the interaction was not significant ($p = .070$). Seniors reported

significantly more stress than did first-years and sophomores.

Worry. Finally, for worry, there was a main effect of class level ($F(1, 4) = 2.80$,

$p = .025$, partial $\eta^2 = .009$) and delivery mode ($F(1, 2) = 7.22$, $p = .001$, partial $\eta^2 = $

$.012$) and the interaction between the two was also significant ($F(1, 8) = 3.23$, $p = $

$.001$, partial $\eta^2 = .021$). Seniors reported significantly more worry than did first-years

and sophomores. F2F students reported significantly greater worry than did online-only

or mixed mode students. First-years reported the least amount of worry of the F2F

students and graduate students the most. Sophomores reported the least worry of the

online-only students and juniors the most. Graduate students reported the least worry

of the mixed-group students and seniors the most.

Activities. The only significant effects were for hours spent working jobs and

hours spent providing care for children or adults.

Class activities and assignments. There were no main effects of class level

or delivery mode nor interaction for class activities ($ps > .340$).

Jobs and internships. For time spent working at jobs, there was a main effect

of class level ($F(1, 4) = 8.44$, $p > .001$, partial $\eta^2 = .035$) and delivery mode ($F(1, 2) = $

20.06, $p > .001$, partial $\eta^2 = .053$) and the interaction between the two was also

significant ($F(1, 8) = 2.14$, $p = .030$, partial $\eta^2 = .018$). Graduate students reported

working significantly more than did the undergraduate students, seniors reported

working significantly more than did the first-years and sophomores, and juniors

reported working significantly more than did the first-years. All delivery mode groups

were significantly different, with online-only students reporting the most hours worked

and F2F students the least. Generally for each class level, online-only and mixed-group

students reported working more than did F2F students (with the exception of the first-

year mixed-group students, who reported working less than F2F first-years).

Caregiving responsibilities. For caregiving labor, only the main effect of

delivery mode was significant ($F(1, 2) = 32.88$, $p < .001$, partial $\eta^2 = .114$; other $ps >$

.010). As with working jobs, all delivery mode groups were significantly different, with

online-only students reporting the most hours spent on caregiving and F2F students the

least.

BSU sports. There were no main effects of class level or delivery mode nor

interaction for sports participation ($ps > .530$).

BSU student organizations. There were no main effects of class level or

delivery mode nor interaction for student organization participation ($ps > .310$).

Resident vs. Non-Resident Students

To determine if there were differences in emotional experiences for students

living on-campus and those living off-campus, one-way ANOVAs were run for each

emotion. There were no differences by housing type for happiness (p = .534), safety

(p = .786), and optimism (p = .812). There was a significant difference by housing

type for boredom, such that students living in residence halls (M = 2.77, SD = 1.20)

were significantly less bored than off-campus students (M = 3.23, SD = 1.21), F(1, 2) =

10.11, p > .001, partial η^2 = .025. There was also a significant difference by housing

type for stress, such that students living in residence halls (M = 2.37, SD = 1.16) were

significantly less stressed than off-campus students (M = 2.04, SD = 1.07), F(1, 2) =

6.19, p = .002, partial η^2 = .015. Finally, there was a significant difference by housing

type for worry, such that students living in residence halls (M = 3.06, SD = 1.26) were

significantly less worried than off-campus students (M = 2.62, SD = 1.21), F(1, 2) =

9.48, p > .001, partial η^2 = .023.

Discussion

As a very brief recap, this survey was undertaken to provide a brief snapshot of

the experiences of Bemidji State University students while remote learning in the

COVID-19 pandemic. Broadly, the results indicate that many students are struggling

with this new course delivery mode. They are stressed, worried, and bored, frustrated

by a variety of challenges and obstacles in both synchronous and asynchronous

courses, and still devoting a lot of time each week to classwork, jobs, and caregiving.

Below we provide more context for specific findings and offer suggestions for the spring

semester.

Challenges for Remote Learning

Echoing findings across the globe (Crawford et all, 2020; Paudel, 2021), the transition to remote learning for previously F2F courses has presented several challenges to Bemidji State students. Students who haven't taken online courses prior to the pandemic needed to learn new technology, practice a higher degree of self-regulation and self-motivation to manage and complete coursework, and balance coursework with other family and financial obligations, among other challenges.

Challenges for Synchronous Courses

For both undergraduate and graduate students, the biggest challenge reported for synchronous courses was scheduling conflicts with their work schedules. On average, all students are doing about 30 hours of coursework a week, as well as working 20-30 hours a week at a job (graduate students are working more than 40 hours a week on average). Data from the 2018-2019 National Survey of Student Engagement (NSSE, 2019) show that first-year students reported working for pay an average of 8.6 hours a week while seniors reported working for pay an average of 22.5 hours per week. Thus, it seems that one effect of the pandemic is that first-years are working especially more, but undergraduates in general are working more hours than they otherwise would. This could be due to the perceived or actual flexibility in remote courses (for example, synchronous meetings may not be required or may only happen 1-2 times per week), in addition to the reality that students may be needing to help contribute to household costs where they are, with the drastic rise of unemployment due to COVID-19 (in September 2020, the Minnesota rate of seasonally adjusted

unemployment was 6.0%, compared to 3.2% in September 2019; Labor Market

Information Office, 2020).

In addition to difficulties with navigating work schedules and class schedules,

both undergraduate and graduate students struggle with having reliable and stable

internet as well as having a dedicated, or at least consistently quiet and private, space

for attending class and completing coursework. One-fifth or more of undergraduate

participants reported that distractions in their own environment or online were a

challenge for synchronous meetings (similar to graduate students), as well we unclear

or ambiguous instructions and communications from their instructors, and test-related

issues. Additionally, graduate students mentioned that coordinating who in their family

would have access to technology and when was a problem, signaling that many

graduate students are trying to figure out their own remote learning as well as possibly

figuring out their children's remote learning. This is reinforced by the amount of

caregiving responsibilities that graduate students reported: they are doing on average

almost 50 hours a week of caregiving labor. Undergraduate students, too, reported

doing more than 20 hours a week of caregiving on average. The upper range for all

student class levels was 100 hours a week, indicating that some students are doing a

significant about of caregiving labor, beyond labor related to coursework and jobs.

Other challenges that students mentioned in open-ended responses point to the

feeling students have of teaching themselves their courses. Many students mentioned

frustration with a lack of synchronous meetings, a lack of interactivity in synchronous

meetings, and a lack of communication (or responsive communication) from their

instructors. While it's important to recognize that many faculty are engaging in online/remote teaching for the first time this year, many students are also learning remotely for the first time and they may need more instructional clarity than faculty initially expected.

Challenges for Asynchronous Courses

By far, the biggest issue that both undergraduate and graduate students struggle with is managing their time and workload. Both graduate and undergraduate students also struggle with managing coursework and work schedules, though this was more of a concern for graduate students. All students also reported dealing with feelings of disconnection with both their instructors and their classmates. As reviewed earlier, this is an issue reported in multiple studies (e.g., Son et al., 2020) and may lead to increased psychological distress (Besser et al., 2020; Husky et al., 2020; Salerno et al., 2020). As with students in synchronous courses, many students reported a common challenge of asynchronous courses was a lack of clear instructions or communication from instructors, as well as confusion about how they should access or complete course materials. This confusion may also be driven by the amount of faculty who may not have a lot of experience using D2L and also echoed by students' mentioning disorganized D2L shells as a challenge across all courses.

Daily Experiences

In terms of emotional experience, students are on the whole feeling safe. However, they are also feeling stressed and worried, particularly undergraduate seniors,

who may be concerned about post-graduation opportunities in a recession. Students

reported scores around the midpoint (anchored as "about half the time") for happiness

and optimism. While there were no group differences by class level for optimism, first-

years and graduate students reported significantly greater happiness. The lower levels

of happiness for other undergraduate students may be evidence of their displeasure at

being remote, particularly for students who have already experienced being and

learning on campus and are now frustrated to be unable to do so. First-year and

sophomore undergraduate students also reported greater boredom than upper-level

undergraduates, and graduate students reported the least amount of boredom overall.

This may be a result of the pandemic-related confinement, as students are unable to

socialized and engage in leisure activities the way they otherwise would. As graduate

students are working the most and caregiving the most, they may not be experiencing

as much downtime or unfilled hours as earlier undergraduate students.

For weekly activities, students are engaging in a lot of work – work related to

their courses, their jobs, and caring for others. As discussed above, all students are

spending on average about 30 hours per week on course activities and assignments,

though the reported ranges for all class levels have a reported ceiling of 100 hours.

Likewise, undergraduate students are working around 30 hours a week at a job and

graduate students are working just over 40 hours per week on average. While

undergraduates are doing on average 20-35 hours of care work per week, graduate

students reported doing almost 50 hours on average. As a snapshot of how students

are spending their time each week, these results indicate that, like faculty, students are

juggling a variety of responsibilities and obligations.

Differences by Course Delivery Preference

When we examined group differences by preferred course delivery method, we

found significant differences between remote students who would prefer to be F2F and

other students. This group of students reported less happiness, less optimism, and

more worry than online-only students and students who would be taking a mix of F2F

and online courses. These findings are likely the impact of adjusting to remote delivery,

among other factors. It's also important to note that there were a couple significant

interactions between preferred delivery mode and class level. In particular, graduate

students who would prefer F2F courses were the lowest on optimism and highest on

worry. Conversely, first-years preferring F2F reported the least worry. These results

must be interpreted cautiously due to the small sample size of graduate students;

however, it may be worth it for faculty teaching previously F2F graduate courses to

check in with their students.

Implications for Housing Plans

Currently, the majority of undergraduate students who completed the survey are

living within 60 miles of Bemidji (approximately twice as many as those living farther

than 60 miles away), and of those a smaller subset live in the residence halls. While

there is a limited capacity for students to live on campus, only 100 students indicated

that they would move on campus if given the chance in the spring. This is likely due to

many students in the area living in apartments or other housing with a lease or contract.

Most of the students now in the area did report that they planned to remain near Bemidji in the spring and a large number indicated they would attend in-person meetings on campus if offered. Indeed, a common comment regardless of the question was that students want to be in-person. In response to requesting technology assistance, 31 students specifically mentioned wanting to be in-person, and for the question on challenges to staying engaging during remote learning, 48 students stated that they need in-person instruction to be successful. The support for faculty to try a hyflex model of instruction will undoubtedly be helpful for these students and many others.

Looking Forward to Spring 2021

While faculty cannot magically reduce the amount of work that students are doing or their caregiving responsibilities, there are several changes they could make to their courses in the spring that would help students be more successful in remote courses.

Ways to Address Challenges in Synchronous Courses (Specifically)

Give the option of synchronous meetings. While many students reported appreciating the flexibility of asynchronous courses, many others indicated that they appreciated real-time meetings where offered or desired to have real-time meetings. Faculty might consider providing the option to have synchronous sessions, either for an

open discussion of course material, more traditional lecture, or interactive learning. However, synchronous meetings may be most helpful if they are not required and/or are recorded and made available in the D2L shell. By not requiring attendance, faculty will provide flexibility for students who need to work to support themselves or their families and by providing the recording later, students will be able to review or re-review the material at their availability.

Do not have a mandatory camera policy. There were many conflicting comments about requiring students to be on camera. While some students mentioned that being on camera was helpful for staying engaged and connected in class, unreliable internet was a common challenge cited in synchronous courses. Relatedly, as many undergraduate students may be living at home with parents or roommates and another common issue reported was lacking a private space to attend class, some students may be reluctant to be on camera with others present in their immediate environment. Reinforcing this, in a question about students' ideal synchronous course experience the vast majority of students preferred microphone and camera to be optional. Based on other data students provided throughout the survey, some struggle with older model computers that may not have camera or microphone capability, or they are attending class on their phone, or other issues related to finances that prohibit them from having the necessary technology and software. When determining policies for synchronous sessions, faculty should consider taking a compassionate approach – while it is helpful for understanding and connection that everyone have their cameras on, the reality of some students' situations is that they are unable to do so.

Ways to Address Challenges in Asynchronous Courses (Specifically)

Provide (extremely) clear instructions. Even as students adjust to learning remotely, they will still benefit from clear instructions on any assignments or activities for the course. Faculty should consider providing detailed written or video instructions for these activities to ensure that students will understand what is being asked of them.

Regularly check in with students. A common concern from students in asynchronous courses was the lack of instructor presence. With the confusion about remote learning in general, and the possibility of feeling uncertain about specific assignments, having a way to regularly check in with students could help clear up misunderstandings before students get too far off the mark. Examples for these check-ins include: (1) a weekly announcement addressing common questions (or any questions) received over email; (2) hosting drop-in office hours on Zoom or virtual office hours via email, with a specific window of time when faculty will be immediately responsive; or (3) providing an anonymous check-in survey in D2L or Qualtrics for students to ask questions for a given unit or module.

Ways to Address General Challenges in Remote Learning

Set a schedule to respond to questions. Whether over email or in a D2L Q&A forum, responding to student questions can be overwhelming, especially with remote learning. By setting a schedule to respond to the questions (and letting students know when that is), faculty can increase the constancy or predictability of their response time and also corral responding to questions into discrete chunks (rather than

scattershot throughout the day/week). This may also help gauge whether there are common issues students are struggling with, in the event that a D2L announcement or other centralized communication to the class is warranted.

Provide weekly or module to-do lists. Many students reported wanting to have a clear list of activities and assignments they needed to complete for a given week or unit. Either by sending out a weekly announcement with the activities listed or by including a weekly checklist in D2L (via the Checklist tool), faculty can help to clarify for students their expectations. This can also help students in arranging a schedule or workflow for the week to keep on top of all the activities and assignments for each course.

Incorporate flexibility into deadlines. Given the difficulties in time management, the high workload of coursework, paid work, and care work, and internet issues, faculty should consider offering flexible deadlines for activities and assignments. This could take several different shapes, from allowing students to complete work up until the end of the course, to giving a specific grace period (e.g., 3 days) past the deadline, to a generous late assignment policy (e.g., 1 point deducted per day late, depending on total points). Both graduate students and undergraduate students preferred flexible course schedules and deadline (compared to firm deadlines and schedules or no deadlines). Incorporating more flexibility can also limit the need for faculty to grant specific exceptions to individual students, which may be a time sink for faculty now.

Consider incorporating in-person components or switching to the hyflex model of instruction (if able). While this is certainly not a possibility for all faculty, switching to a hyflex delivery model or a hybrid model with limited in-person components may help bridge a gap for students especially struggling with remote learning. As many students indicated their willingness to attend in-person meetings if they were offered, having a few meetings over the semester (e.g., once a month) or regular synchronous meetings using the hyflex model would allow students who want and need in-person instruction to get it, while allowing high-risk students or those who are unable to attend regular F2F meetings to remain in the class.

There is, of course, a large caveat to this suggestion: F2F meetings should only be held according to public health guidelines (e.g., proper social distancing, everyone wearing masks) and as long as the Bemidji area maintains a low-enough positive COVID case number. Similarly, faculty should not be forced to offer F2F meetings; many faculty themselves or people they live with are high-risk or have visible or invisible disabilities that make them unable to be consistently on campus.

Provide remote learning training. This could be done as a first-week exercise or through its own D2L shell provided to all students, but it could be helpful for students to have a more formal training for helping them adjust to remote learning. The training could include videos, resources from faculty and staff on time management and study behaviors, links to student support services, and tutorials for common software. This training would also serve as a reference to go back to if they have questions later in the semester.

Host virtual office hours on Zoom or over email. While the majority of students in the sample had not attended any of their faculty's virtual office hours, the students who did attend them overwhelmingly rated them as helpful. In order to increase the attendance at drop-in Zoom meetings or office hours, faculty might consider not having them at the same time every day, or possibly alternating weekly schedules to be flexible for students' schedules (e.g., Monday morning one week, then Monday afternoon the next week). A common category of reasons why students didn't attend virtual office hours was their lack of awareness of the hours at all or confusion about how to engage; many students were also under the impression that office hours were still being held on campus. By clearly stating how students could access office hours (whether over Zoom or otherwise), more students may be able to participate.

Provide more video content in the D2L shell. Depending on whether the course is synchronous or not, this type of content could take several different shapes. The easiest for synchronous courses would be to record synchronous sessions and post these recordings for later viewing, either by students who weren't able to attend the real-time meeting or for students who want to review material. Another option is to create lecture videos for asynchronous courses. This can help students to feel connected to their faculty, as they are hearing their faculty explain concepts and possibly also see a thumbnail video of them (depending on faculty preference in recording). Additionally, faculty can add existing Youtube video content to explain or enhance course content, provide tutorial videos for assignments and labs, or post short check-in videos clarifying course questions or showing the faculty's human side.

While there are a lot of suggestions for changes that faculty can make for spring courses, many of them do not need to involve extreme course redesigns. Faculty could included one or two high-impact practices and these could make an outsize difference in students' feelings of connection to instructors and students and success in the course.

Limitations

As this was a cross-sectional survey, we have no way of measuring students' emotional states over time or how certain points during the semester might have impacted them (e.g., midterms). We also did not ask any questions related to mental or physical health challenges, housing or food insecurity, or financial challenges. Thus, we cannot say with any certainty whether the challenges with remote learning students reported here are an accurate and full spectrum of difficulties they are dealing with.

Another limitation is that we did not ask any demographics related to identity categories. We do not know participants' genders, racial or ethnic identities, ages, or other personal information that we could explore differences between. Further, without demographic information, we cannot say how representative our sample is of Bemidji State students as a whole group. The survey was emailed and posted for all students to participate, but as with most survey research, we have a self-selection bias, and there could be important differences between the students who completed the survey and those who did not.

Final Conclusions

In summary, the data from the Student Needs Survey indicate that students have had a rough adjustment to remote learning, and many of them are still struggling. Particularly for students who would prefer being in F2F courses, perceptions that faculty are not present or responsive can compound the feelings of confusion, isolation, and frustration. Though students reported a wide range of challenges in this survey, it's important to also note that there were many responses that pointed to positive experiences with remote learning and several call-outs to specific staff and faculty who are doing exceptional work.

While we are engaged in remote teaching and learning, it's important to remember that we are doing so to protect the health and safety of students, faculty, and staff. Though we may desire to be on-campus, to prevent the spread of COVID-19 we need to be remote. The data from this survey suggests that there are some specific ways we can make this situation easier for our students; we should endeavor to do so.

References

Ayebi-Arthur, K. (2017). E-learning, resilience and change in higher education: Helping a university cope after a natural disaster. *E-learning and Digital Media*, *14*, 259–274. doi: 10.1177/2042753017751712

Besser, A., Flett, G. L., & Zeigler-Hill, V. (2020). Adaptability to a sudden transition to online learning during the COVID-19 pandemic: Understanding the challenges for students. *Scholarship of Teaching and Learning in Psychology*. doi: 10.1037/stl0000198

Bierschbach, B. (2020, March 26). Minnesota Gov. Tim Walz: 'Stay at home'. *Star Tribune*. Retrieved from https://www.startribune.com/gov-tim-walz-tells-minnesotans-stay-home-amid-coronavirus-outbreak/569095212/

"Black Student Union social injustice demonstration sparks conversations around racism." (2020, June 11). Retrieved from https://www.bemidjistate.edu/news/2020/06/11/black-student-union-sparks-community-conversations-around-racism-and-inequality-with-social-injustice-demonstration/

Boone, A. (2020, June 3). One week in Minneapolis. *Star Tribune*. Retrieved from https://www.startribune.com/george-floyd-death-ignited-protests-far-beyond-minneapolis-police-minnesota/569930771/

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*, 77-101. doi: 10.1191/1478088706qp063oa

"BSU residence halls closed." (2020, March 20). Retrieved from

https://www.bemidjistate.edu/coronavirus/2020/03/20/march-20-bsu-residence-

halls-closing-monday-3-23-5-p-m/

Crawford, J., Butler-Henderson, K., Rudolph, J., Malkawi, B., Glowatz, M., Burton, R. …

& Lam, S. (2020). COVID-19: 20 countries' higher education intra-period digital

pedagogy responses. *Journal of Applied Learning & Teaching*, *3*, 9-28. doi:

10.37074/jalt.2020.3.1.7

Czerniewicz, L., Trotter, H., & Haupt, G. (2019). Online teaching in response to student

protests and campus shutdowns: Academics' perspectives. *International Journal*

of Educational Technology in Higher Education, *16*, 43-65. doi: 10.1186/s41239-

019-0170-1

ElSaheli-Elhage, R. (2021). Access to students and parents and levels of preparedness

of educators during the COVID-19 emergency transition to e-learning.

International Journal on Studies in Education, *3*, 61-69. Retrieved from

https://ijonse.com/index.php/ijonse/article/view/35/pdf

Garris, C. P., & Fleck, B. (2020). Student evaluations of transitioned-online courses

during the COVID-19 pandemic. *Scholarship of Teaching and Learning in*

Psychology. doi: 10.1037/stl0000229

Gillis, A., & Krull, L. M. (2020). COVID-19 remote learning transition in spring 2020:

Class structures, student perceptions, and inequality in college courses. *Teaching*

Sociology, *48*, 283-299. doi: 10.1177/0092055X20954263

Goffman, E. (1961) *Asylums*. New York: Doubleday/Anchor.

Gonzalez, T., de la Rubia, M. A., Hincz, K. P., Comas-Lopez, M., Subirats, L., Fort, S., & Sacha, G. M. (2020). Influence of COVID-19 confinement on students' performance in higher education. *PLoS ONE, 15*, e0239490. doi: 10.1371/journal.pone.0239490

Gruber, J., Prinstein, M. J., Clark, L. A., Rottenberg, J., Abramowitz, J. S., Albano, A. M., … & Weinstock, L. M. (2020). Mental health and clinical psychological science in the time of COVID-19: Challenges, opportunities, and a call to action. *American Psychologist*. doi: 0.1037/amp0000707

Hensrud, F. C. (2020a). March 12, 2020 COVID-19 update for employees; Classes suspended March 16-22. Retrieved from https://www.bemidjistate.edu/coronavirus/2020/03/12/march-12-2020-covid-19-update-for-employees-classes-suspended-march-16-22/

Hensrud, F. C. (2020b). March 14: Coronavirus update. Retrieved from https://www.bemidjistate.edu/coronavirus/2020/03/14/march-14-coronavirus-update/

Hensrud, F. C. (2020c). March 16: President's update to BSU and NTC students. Retrieved from https://www.bemidjistate.edu/coronavirus/2020/03/16/231/

Husky, M. M., Kovess-Masfety, V., & Swendsen, J. D. (2020). Stress and anxiety among university students in France during Covid-19 mandatory confinement. *Comprehensive Psychiatry, 102*. doi: 10.1016/j.comppsych.2020.152191

Labor Market Information Office (2020, October 13). September 2020 employment

analysis. Retrieved from

https://mn.gov/deed/assets/Sept2020%20Employment%20Analysis_tcm1045-

283140.pdf

Lederman, D. (2020, April 22). How teaching changed in the (forced) shift to remote

learning. *Inside Higher Ed*. Retrieved from

https://www.insidehighered.com/digital-learning/article/2020/04/22/how-

professors-changed-their-teaching-springs-shift-remote

Liu, S. R., & Modir, S. (2020). The outbreak that was always here: Racial trauma in the

context of COVID-19 and implications for mental health providers. *Psychological

Trauma: Theory, Research, Practice, and Policy*, *12*, 439-442. doi:

10.1037/tra0000784

National Survey of Student Engagement (NSSE). (2019). *NSSE 2019 frequencies and

statistical comparisons: Bemidji State University.*

"No face-to-face classes at BSU for remainder of spring semester." (2020, March 20).

Retrieved from https://www.bemidjistate.edu/coronavirus/2020/03/20/march-20-

no-face-to-face-theory-classes-at-bsu-ntc-for-remainder-of-spring-2020-

residence-halls-closing/

Paudel, P. (2021). Online education: Benefits, challenges and strategies during and

after COVID-19 in higher education. *International Journal on Studies in*

Education, *3*, 70-85. Retrieved from

https://ijonse.com/index.php/ijonse/article/view/32/pdf

Sahu P. (2020). Closure of universities due to coronavirus disease 2019 (COVID-19):

Impact on education and mental health of students and academic staff. *Cureus*,

12, e7541. doi: 10.7759/cureus.7541

Salerno, J. P., Pease, M., Devadas, J., Nketia, B., & Fish, J. N. (2020). *COVID-19-related*

stress among LGBTQ+ university students: Results of a U.S. national survey.

University of Maryland Prevention Research Center. doi: 10.13016/zug9-xtmi

Son, C., Hegde, S., Smith, A., Wang, X., & Sasangohar, F. (2020). Effects of COVID-19

on college students' mental health in the United States: Interview survey study.

Journal of Medical Internet Research, *22*. doi: 10.2196/21279

Tull, S., Dabner, N., & Ayebi-Arthur, K. (2017). Social media and e-learning in response

to seismic events: Resilient practices. *Journal of Open, Flexible, and Distance*

Learning, *21*, 63–76. Retrieved from

https://core.ac.uk/download/pdf/154808477.pdf