

The Inclusive Classroom: Course Modality and the Experiences of Minoritized Students

Tavishi Bhasin

**Professor, School of Government and International Affairs
Interim Director, Master of Science in International Policy Management
Kennesaw State University**

Charity Butcher

**Interim Director, School of Conflict Management, Peacebuilding and Development
Kennesaw State University**

Abstract

Online education, already an important part of higher education, was brought quickly and unexpectedly into focus as a necessary mode during 2020, thanks to the COVID-19 pandemic. While universities and colleges continue to grow their offerings of online and hybrid courses, in the wake of the pandemic, it is increasingly important to consider how these various course formats impact student experiences, especially for minoritized students. In this paper, we expand the existing research on course modality (face-to-face, hybrid and online) and their impact on the students' learning environment and their feelings of belonging to a larger university community. We use data from three surveys of over 2700 respondents consisting of students in introductory American Politics courses. We asked students their preferences for course format and their experiences in online, hybrid, and traditional classrooms with respect to expressing their individual voices, hearing from people from different backgrounds, and providing a sense of community. We are interested in assessing how students from diverse backgrounds (gender, race, disability status) experience these varied formats of learning. Overall, this study aims to better understand the potential benefits and challenges of different course formats, particularly for minoritized students.

Online education, already an important part of higher education, was brought quickly and unexpectedly into focus as a necessary mode during 2020, thanks to the COVID-19 pandemic. While universities and colleges continue to grow their offerings of online and hybrid courses, in the wake of the pandemic, it is increasingly important to consider how these various course formats impact students' experiences, especially for minoritized students. In this paper, we expand the existing research on modes of learning (face-to-face, hybrid and online) and their impact on the students' learning environment and their feelings of belonging to a larger university community.

This paper presents the results of three rounds of a survey, each covering between 700 and 1000 undergraduate students enrolled in our introductory American Government political science courses, for a total of more than 2700 participants. Our large, public, suburban university provides an especially good natural laboratory for studying the impact of course modality on students from the beginning of the pandemic to the current period, as it is not new to varied modalities of education. It has long offered traditional face-to-face courses, hybrid, and online courses and even offers some undergraduate and graduate degree programs entirely online. There is strong faculty development support for transitioning courses from in-person to online. Our student body is extremely diverse, across the areas of race, ethnicity, age, veteran status, and varying levels of ability, and our university also serves many international students. As such, the university provides us with a great environment to study the impact of different course modalities.

In particular, students were polled in courses taken in Spring 2020 and Fall 2020, during the early days of the pandemic, and then again in Fall 2022, once the pandemic was having less impact on the modality of courses offered at the university. Students were asked about their preferences for course format and their experiences in online, hybrid, and traditional face-to-face classrooms with respect to expressing their individual voices, hearing from people from different backgrounds, and providing a sense of community. We are interested in assessing how students from different backgrounds view these different formats and activities differently. Might the anonymity of the online environment give students greater freedom to voice divergent opinions, thus increasing the diverse range of perspectives discussed in the classroom? Do students find these online spaces safe to engage with and learn from students with gender, orientation and ethnic or racial identities different from their own, or do the online courses simply replicate patterns seen in traditional classrooms? Overall, this study aims to better understand the potential benefits and challenges of different course formats.

Course Modalities and the Student Learning Environment

Significant research has considered how different modes of learning, and particularly how different course modalities (i.e. online, hybrid, face-to-face) might affect student learning outcomes. Online courses have been associated with positive student outcomes in a variety of studies and been shown to be at least as effective as face-to-face courses in terms of student learning (for example see Alrushiedat and Olfman 2013; Nguyen 2015)

An important aspect of course modality is how such different modalities might impact learning for different populations of students, and particularly underrepresented or marginalized

populations. Hannon and D’Netto (2007) find that cultural differences can impact student satisfaction with online courses. Athens (2018) finds that student perceptions of online courses impacted their performance in these courses, with students that had higher positive perceptions of engagement and learning community also generally had higher grades. However, these results also varied across groups of students. For example, the survey found that Hispanic and Black students were more engaged than White students but earned lower grades. These results indicate that students from historically minoritized populations may have different experiences in online course.

Jaggars (2011) considers how online learning may help low-income and underprepared students. She finds that online learning offers flexibility and convenience to students. At the same time, online coursework can also create challenges for students, including technical difficulties, a sense of isolation, less structure than face-to-face courses, and less support.

Ashong and Commander (2012) consider the impact of ethnicity and gender on perceptions of online learning. The authors find that students, across ethnicity and gender, report highly positive perceptions of online learning. The study considers a variety of elements of the online learning environment, including computer usage, teacher support, student interaction and collaboration, personal relevance, authentic learning, student autonomy, equity, enjoyment, and asynchronicity. In addition, there were some differences between the perceptions of African-American and Whites in relation to online learning and between women and men. In particular, African-American students reported less positive perceptions than Whites in relation to asynchronicity and women reported a more positive view than men in terms of teacher support, student interaction and collaboration, personal relevance, authentic learning, and student autonomy. These results suggest that for female students, online learning might be a particularly positive experience, in terms of their interactions with teachers and other students. Similarly, McSparran and Young (2001) found that women, and particularly mature women, performed better in the online environment than younger male students.

Other studies have considered how online learning can impact the quality of life of students with learning disabilities. Lambert and Dryer (2018) find that participation in online courses had a negative impact on the quality of life for students with regard to psychological well-being, including stress, anxiety, and self-esteem. The additional time and effort students reported needing for online courses was found to be one of the primary reasons for this negative impact. On the other hand, online courses are known to be quite flexible, and could offer many advantages to students with mobility issues or other disabilities that might negatively impact their accessibility to a physical campus.

Some of the potential challenges to online learning can be ameliorated with specific and thoughtful actions by instructors. For example, research has suggested the importance of engagement, interactions, building rapport, and building community in online courses to improve student outcomes and learning. Lundberg and Sheridan (2015) find that a supportive campus environment and encouraging contact among students from different backgrounds were strong predictors of student learning in online classes. Glazier (2016 and 2021) and Glazier and Harris (2020) find that building rapport and community within online courses can help increase student success and satisfaction with courses and increases retention and progression rates.

Hypotheses

This paper expands on these previous findings related to online learning and considers how students perceive different course modalities (face-to-face, online, and hybrid) in terms of their effectiveness in creating a sense of community, providing opportunities for students to express their opinions and beliefs, and opportunities to hear from students from a variety of backgrounds.

Based on the literature discussed above, we expect to find some variation between different demographics of students in terms of their perceptions of courses in general. However, we are particularly interested in how these differences play out during online courses, which many students are increasingly taking due to the flexibility they offer and which many students were forced, out of necessity, to take during the COVID-19 pandemic.

In addition, we expect to find some differences in perceptions of online courses between Spring 2020, Fall 2020, and Fall 2022. Given that many students were forced to take online courses during the pandemic (especially in Fall 2020), and the “Zoom fatigue” that plagued so many during the pandemic, the lack of other in-person social opportunities, and general negative impact of living in a pandemic, we expect students to express lower levels of positive perceptions of online courses in Fall 2020 than in Spring 2020. At the same time, we think that Fall 2022 will show higher student perceptions of online courses overall, as they will have moved past this pandemic fatigue, professors without online teaching experience prior to the pandemic have now gained the same and will have learned to create even better courses with the practice teaching online, and the types of students taking courses in Fall 2022 are likely to include groups that have had a stronger history of online courses, and thus will be less skeptical of these formats.

H1: We expect more students to find face-to-face courses to be effective in all dimensions compared to online and hybrid courses.

H2: We expect the least number of students to find online courses to be effective in all dimensions compared to face-to-face and hybrid courses.

H3: We expect that online courses will fare the worst in student perceptions of their effectiveness in building a strong sense of community.

H4: We expect little variation in student perceptions of online courses from students from different racial groups.

H5: We expect women will have higher positive perceptions of the effectiveness of online and hybrid courses than men in each of the areas we consider.

H6: We expect students living with disabilities will have a lower perception of online courses than other students.

H7: We expect student perceptions of online courses to be generally lower in Fall 2020 than in Spring 2020 and expect student perceptions of online courses to be higher in Fall 2022 than during the pandemic.

Methodology and Context

A 2019 survey of 822 students enrolled in American Government courses at Kennesaw State University showed that 75.7% (622) had taken an online course at the university. Flexibility was reported as the most important reason for taking online courses by over 80% of these students. Interestingly, the second most important reason reported by students for taking online courses was that they preferred them. These pre-pandemic results suggest that many students were not only already taking online classes at our university, but that they really liked the flexibility these courses offered and liked the online format.

However, with the COVID-19 pandemic, many students were forced into the online class environment through necessity. Understanding how students perceive online courses, and how online courses may be perceived differently by students from different historically disadvantaged groups, is extremely important.

This paper considers student experiences within courses of different modalities, including face-to-face, online, and hybrid formats. Students were surveyed from American Government courses at KSU during the Spring 2020, Fall 2020, and Fall 2022. Results from 729 students in Spring 2020, 769 students in Fall 2020, and 1248 students in Fall 2022 are reported.¹ Introduction to American Government is a required general education course for all KSU students but may be taken at any point in the student's career, and thus students within these courses are a representative sample of the general student population at the university. During Spring 2020, all courses eventually moved into an online format due to the COVID-19 pandemic. In Fall 2020, the majority of courses at KSU were taught online, though there were some face-to-face courses. Finally, in Fall 2022, the university had long since returned to "business as usual" and courses were offered in a variety of formats, consistent with pre-pandemic course offerings. We consider and compare results from these three semesters, specifically focusing on student perceptions of how effective online, hybrid, and face-to-face courses are at promoting a sense of community, providing an opportunity to express one's opinion, and providing opportunities to hear diverse voices.

Data Analysis and Discussion

Course Modality Preference

Though we know students often take online courses because they like the flexibility they offer, we also expect that many students, all else being equal, prefer face-to-face courses. We asked students about their preferences for course format and find that, indeed, most students rank the face-to-face modality as their first choice. Tables 1, 2 and 3 show the results from Spring 2020, Fall 2020, and Fall 2022, respectively.

Table 1

¹ Note that the number of students that answered each question may vary.

Student Ranked Preferences: Online, Face-to-Face, and Hybrid Courses (Spring 2020)

	# (%) Ranked First	# (%) Ranked Second	# (%) Ranked Third	Total N
Online	160 (22.4%)	189 (26.5%)	365 (51.1%)	714
Face-to-Face	367 (52.5%)	184 (25.8%)	162 (22.7%)	713
Hybrid	184 (25.9%)	343 (48.3%)	183 (25.8%)	710

Table 2**Student Ranked Preferences: Online, Face-to-Face, and Hybrid Courses (Fall 2020)**

	# (%) Ranked First	# (%) Ranked Second	# (%) Ranked Third	Total N
Online	196 (25.6%)	150 (19.6%)	419 (54.8%)	765
Face-to-Face	371 (48.4%)	217 (28.3%)	178 (23.2%)	766
Hybrid	198 (25.9%)	399 (52.2%)	168 (22%)	765

Table 3**Student Ranked Preferences: Online, Face-to-Face, and Hybrid Courses (Fall 2022)**

	# (%) Ranked First	# (%) Ranked Second	# (%) Ranked Third	Total N
Online	174 (18.6%)	212 (22.7%)	549 (58.7%)	935
Face-to-Face	509 (54.4%)	251 (26.8%)	174 (18.7%)	935
Hybrid	252 (27.0%)	472 (50.5%)	211 (22.6%)	935

While face-to-face courses were the most preferred first choice in all three semesters, online courses were ranked third/last by the most students in all semesters. At the same time, in terms of first choice, online and hybrid courses generally were preferred by a similar number of students in Spring and Fall 2020, but online was decreasingly preferred by students by Fall 2022. There was a slight decrease in the percentage of students preferring face-to-face in Fall 2020 (compared to Spring 2020), a slight increase in those preferring online courses. Though this isn't a statistically significant difference, this result is not particularly surprising since online courses in Fall 2020 were considered a safer option than face-to-face courses due to the pandemic. At the same time, we also see that more students ranked online courses as their least preferred option, making online options a bit more polarizing in the Fall 2020 semester (though these results are not statistically significant). In Fall 2022, the number of students preferring online courses as their first option is the lowest of all three years while those preferring hybrid courses is the highest in the three periods. Again, given the lack of social interactions during the pandemic, and general "Zoom fatigue," it is not particularly surprising to see this potential reaction to the purely online environment.

Providing a Strong Sense of Community***Face-to-Face Courses and Sense of Community***

One important part of any classroom environment is building a strong sense of community between students and between students and the professor. Our results indicate that most students (79% in Spring 2020, 88% in Fall 2020, and 84% in Fall 2022) perceived face-to-face courses to

be effective at providing a strong sense of community. This is significantly higher than students reported in relation to hybrid and online courses and building a sense of community, providing support for hypothesis one. However, there is a notable difference between each of these semesters. Students in Fall 2020, and to a lesser extent, Fall 2022, felt more strongly about the effectiveness of face-to-face courses. This is not particularly surprising given that during Fall 2020 the COVID-19 pandemic was in full swing, and students were likely craving more face-to-face contact.

Face-to-Face Courses and Sense of Community and Gender

In terms of gender (See Table 4), there was no significant difference between men, women, and gender nonconforming students in their responses for Spring 2020. In Fall 2020, gender-nonconforming students were less likely to find face-to-face classes to be as effective for providing a strong sense of community. On the other hand, in Fall 2022, gender nonconforming students were slightly more likely to find face-to-face classes effective for providing a sense of community. However, in each of these samples there are few students in this gender category, making it difficult to draw conclusions.

Face-to-Face Courses and Sense of Community and Race

There were only very minor differences between white students and students of other racial backgrounds regarding their perceived effectiveness of face-to-face courses for building a sense of community. In Spring, 80% of white students and 76% of non-white students reported these courses to be effective at promoting a sense of community. In Fall, there was no difference between racial groups, with 88% of white students and 88% of other racial groups suggesting that these courses were effective on this question. Finally, in Fall 2022, 85% of white students and 83% of non-white students reported face-to-face courses as being effective at building a sense of community. Thus, overall, there do not appear to be significant racial differences in perceptions of face-to-face courses providing a sense of community (Table 7).

Face-to-Face Courses and Sense of Community and Disability Status

There were differences between students that reported living with a disability and those that weren't, though these differences were not consistent across semesters. Around 79% of students in Spring 2020, 88% in Fall 2020, and 84% in Fall 2022 without a disability reported finding face-to-face courses effective at providing a sense of community, compared to 66% in Spring 2020, 87% in Fall 2020, and 88% in Fall 2022 for those that reported living with a disability (Table 10). These differences were not significant for Fall 2020 or Fall 2022 but were significant in Spring 2020. This is likely an artifact of the Spring 2020 semester providing an odd transition to an online format for many face-to-face courses, which may have resulted in lower satisfaction with these courses, particularly among students that may have had educational needs that were not fully met during this transition.

Hybrid and Online Courses and Sense of Community

When considering online and hybrid courses, we find some notable differences. First, fewer students, generally, found online and hybrid courses to be effective at providing a sense of community. In Spring 2020, around 34% of students found online courses to be effective at providing a sense of community. However, in Fall 2020, only 21% of students said online courses were effective in building community. Similarly, in Fall 2022, 25% of students reported

online courses to be effective at providing a sense of community. This is much lower than student thoughts regarding face-to-face classes and provides support for hypothesis 2. On the other hand, these findings only provide partial support for hypothesis 7, which expected lower satisfaction in Fall 2020 (which we see), but higher ratings in Fall 2022, which we do not really see, at least for this question.

One interesting trend we see here is that student perceptions that online courses provide a sense of community are significantly lower in Fall 2020 and Fall 2022 than they were in Spring 2020. This finding is likely due to a pandemic effect. Fall 2020, where the fewest students found online courses effective at building community, was the height of the pandemic and a time when most social interactions were online. Students were likely suffering from significant “Zoom fatigue” and missing face-to-face interactions with their peers. Even by Fall 2022, where these numbers are still lower than Spring 2020, students appear to still find face-to-face interactions far superior for building community.

In terms of hybrid courses, most students found hybrid courses to be effective in building a sense of community in all three semesters. However, the results indicate more students in Fall 2020 found hybrid courses effective in this way than in Spring 2020 or Fall 2022. In Spring 2020, around 57% of students reported hybrid to be effective at providing a sense of community. In Fall 2020, around 63% of students reported these classes as effective, while by Fall 2022, around 60% of students reported hybrid courses as effective at providing a sense of community. These differences, however, are not extremely large, with the largest impact being during the pandemic.

Hybrid and Online Courses and Sense of Community and Gender

While the majority of students (across categories) found online courses to be less effective than face-to-face courses in providing a sense of community, more women tended to find online courses to be effective than men and gender nonconforming students did. Around 29% of men in Spring 2020, 19% in Fall 2020, and 22% in Fall 2022 found online courses to be effective in this regard, while 30% of gender nonconforming students in Spring 2020, 6% in Fall 2020, and 10% in Fall 2022 answered similarly. On the other hand, around 37% of women in Spring 2020, 22% in Fall 2020, and 27% in Fall 2022 found online courses to be effective (Table 4). In general, women found online courses to be more successful in building community than others, even though these numbers are still low. These findings support hypothesis 5.

Similar to the data for online courses, women were more positive in their perceptions of hybrid courses providing a strong sense of community than other gender categories, providing support for hypothesis 5. Around 64% of women in Spring 2020, 67% in Fall 2020, and 64% in Fall 2022 said that hybrid courses were effective at building a sense of community compared to only 47% of men in Spring 2020, 58% in Fall 2020, and 55% in Fall 2022. Finally, 50% of gender nonconforming students in Spring 2020, 41% in Fall 2020, and 56% in Fall 2022 found hybrid courses to be effective at building a sense of community (Table 4).

Hybrid and Online Courses and Sense of Community and Race

There were not significant racial differences in terms of perceptions of online or hybrid courses providing a sense of community, but there were racial differences in both semesters related to online courses. In Spring 2020, 31% of white students and 39% of non-white students reported

online courses to be successful in building a sense of community. In Fall 2020, only 17% of white students and 25% of non-white students found online courses to be effective in this way. Finally, in Fall 2022, 23% of white students and 27% of non-white students found online courses to be effective at building a sense of community. Thus, more minority students reported finding online courses to be effective at building a sense of community than white students did (Table 7). This is contrary to our expectations in terms of race and online courses.

In terms of racial differences in hybrid courses, there were not significant differences between racial categories, though non-white students were slightly more likely in each semester to find hybrid courses as effective at building a sense of community than white students, and this difference was greatest in Fall 2022, with 58% of white students and 63% of non-white students finding these hybrid courses effective in this regard.

Hybrid and Online Courses and Sense of Community and Disability Status

In Spring 2020 and Fall 2022, there were no significant differences between students with and those without disabilities in terms of online courses and their perceptions of how effective these courses were for building community. However, there were some differences in Fall 2020. Only 5% of students living with a disability reported online courses to be effective in building a sense of community, compared to 34% of students without a reported disability. In relation to hybrid courses, again, there was no difference in the Spring 2020 data, but some differences in the other semesters. In Fall 2020, 65% of those without a disability said that hybrid courses were successful in building community compared to 47% of those living with a disability. Similarly, in Fall 2022, 61% of students without a disability reported hybrid courses as effective in building community, compared to 51% of students living with a disability.

Thus, those living with disabilities, particularly in Fall 2020, were very negative about online courses and their effectiveness at building community (Table 10). Similarly, in two of these semesters, those living with a disability were more negative about hybrid courses building a sense of community. These findings provide support for hypothesis 6 and could suggest some potential issues of accessibility in these online and hybrid courses, which might lower the feeling of community for students living with disabilities.

Opportunities to Express Thoughts and Opinions

Face-to-Face Courses and Opportunities to Express Thoughts and Opinions

We also asked students how effective each of the different course formats were in providing opportunities for them to express their thoughts and opinions. Again, like the other questions, most students found face-to-face courses to be effective in this regard, with nearly 76% of students in Spring 2020, 75% in Fall 2020, and 80% in Fall 2022 saying face-to-face courses were effective. Hybrid courses were generally seen as the next most effective, and online courses scored the lowest. This is consistent with our expectations in hypothesis one.

Face-to-Face Courses and Opportunities to Express Thoughts and Opinions and Gender

There were some gender differences in the data, though not in all semesters. There was little noticeable difference between genders in Spring 2020 regarding this question. However, in Fall 2020 and Fall 2022, women were slightly more likely to say that face-to-face courses were

effective, and gender nonconforming students were less likely to find these courses effective in providing opportunities to express their thoughts and opinions. The number of gender nonconforming students is low, making it difficult to draw significant conclusions (Table 5).

Face-to-Face Courses and Opportunities to Express Thoughts and Opinions and Race

There were not significant differences between different racial groups and their views on the effectiveness of face-to-face courses to provide opportunities for students to express their opinions, particularly in Spring 2020 and Fall 2022. In Fall 2020, there was a slight difference, with 76% of white students and 81% of non-white students saying that face-to-face courses were effective in this regard (Table 8).

Face-to-Face Courses and Opportunities to Express Thoughts and Opinions and Disability Status

There were some major differences between those living with disabilities and those without. In both Spring and Fall 2020, 66% of those living with disabilities found face-to-face classes to be effective at providing opportunities to express one's opinion, compared to 76% in Spring and 79% in Fall for those without disabilities. In Fall 2022, there was less difference, with 82% of those living with disabilities reporting face-to-face courses being effective and 80% of those without a disability reporting these courses as effective in providing opportunities to express thoughts and opinions. These results indicated that in 2020, students living with disabilities were generally less positive about face-to-face courses in this regard than those without disabilities, though both groups were generally positive. However, this difference is not found in the more recent 2022 data. This may indicate a difference that was driven, at least in part, by the pandemic. (Table 11).

Online and Hybrid Courses and Opportunities to Express Thoughts and Opinions

Though students found online courses generally less effective than face-to-face at providing opportunities to express their thoughts and opinions, still a majority of students reported that online classes were effective in this regard, though the numbers were significantly lower in Fall 2020 than in Spring 2020 and Fall 2022, supporting our hypothesis. In Spring 2020, 63% of students responded that online courses were effective at providing opportunities for students to express their thoughts and opinions. In Fall 2020, only 51% of students reported online courses effective in this regard. Finally, in Fall 2022, we see these numbers increase, with 69% of students finding online courses as being effective at providing opportunities to express thoughts and opinions. These findings may indicate that student negative perceptions of online courses, particularly regarding this issue, were particularly impacted by the height of the pandemic. One potential reason for the Fall 2020 lower numbers could be that many professors were teaching online that had not taught before in that format, and thus, did not have the experience to make the courses more engaging for students. The more recent semester indicates a much higher rating for online courses on this measure, suggesting either some professors may have moved back to face-to-face courses, if that was their preference, and/or became increasingly adept at teaching online courses.

For hybrid courses, students appear to increasingly see this modality as being effective for providing opportunities to express thoughts and opinions. In Spring 2020, 65% of students perceived these courses to be effective, in Fall 2020, 70% of students reported hybrid courses

effective, and in Fall 2022, 77% of students reported hybrid courses effective at providing opportunities for students to express their opinions. Again, this may indicate additional learning on the part of professors teaching in these modalities.

Online and Hybrid Courses and Opportunities to Express Thoughts and Opinions and Gender

There were some gender differences in perceptions of online courses. In Spring 2020, 54% of men, 68% of women and 80% of gender nonconforming students said such courses were effective at providing these opportunities. In Fall 2020, 47% of men, 54% of women, and 35% of gender nonconforming students reported similarly. Finally, in Fall 2022, 59% of men, 75% of women, and 67% of gender nonconforming students reported online courses as being effective at providing opportunities for students to express thoughts and opinions. Thus, similar to the results for building community, fewer men than women were likely to find online courses as effective at providing opportunities to express viewpoints (Table 5). This is consistent with our hypothesis.

Regarding gender differences, the results for hybrid courses were similar to those found with online courses. In Spring 2020, around 55% of men, 71% of women, and 70% of gender nonconforming students found hybrid courses to be effective at providing opportunities to express opinions. In Fall 2020, 63% of men, 75% of women, and 53% of gender nonconforming students shared these positive views. Finally, in Fall 2022, 73% of men, 80% of women, and 82% of gender nonconforming students reported online courses as being effective at providing opportunities for students to express thoughts and opinions. Thus, fewer men than women in all samples were likely to see hybrid courses as being effective at providing opportunities for expressing their opinions (Table 5). Again, this supports our hypothesis.

Overall, these results suggest that men appear to be significantly less satisfied with the opportunities to express their opinions in online and hybrid formats compared to women and gender nonconforming students, though the results for Fal 2020 seem to be an outlier for gender nonconforming students. Although we do not know the specific reasons students reported these perceptions, one potential explanation is that participation in online courses and in the online portions of hybrid courses tends to be more equal – with all students having more equal opportunities to express their views. Such an outcome may provide fewer opportunities for men, who may be more vocal in face-to-face courses, and more opportunities for individuals that may not have an equal opportunity, or may feel more intimidated participating, in face-to-face classes.

Online and Hybrid Courses and Opportunities to Express Thoughts and Opinions and Race

In terms of racial differences, there were no strong racial differences for online or hybrid courses in terms of providing opportunities to express opinions in any of the three semesters of data. This conforms to our expectations.

Online and Hybrid Courses and Opportunities to Express Thoughts and Opinions and Disability Status

There were differences in terms of students living with disabilities compared to those without. In Spring 2020, 52% of those living with a disability and 63% of those without found online courses to be effective at providing opportunities to express one's opinion. In Fall 2020, 42% of students with disabilities and 52% of those without answered similarly. Thus, in both semesters, students living with disabilities found online courses to be less effective at providing

opportunities for expressing opinions than those without disabilities (Tables 11). However, contrary to these results, in Fall 2022, 74% of students living with disabilities reported online courses to be effective at providing opportunities to express thoughts and opinions, compared to 68% of students without disabilities. As mentioned previously, these divergent findings for 2022, compared to 2020 could indicate that professors were more well equipped to deal with online courses by Fall 2022.

The results are similar for hybrid courses. In Spring 2020, 59% of students with disabilities and 64% of those without found these courses to be effective on this factor; in Fall 2020, 66% of students with disabilities and 71% of those without answered similarly. Finally, in Fall 2022, 85% of students living with a disability and 77% of students without a disability found hybrid courses to be effective at providing opportunities to express their opinions (Table 11). Thus, again, students with disabilities were less positive about hybrid courses in 2020 than they were in 2022.

Overall, these results suggest that in 2020, during the pandemic, students living with disabilities found all three course formats to be less effective at providing opportunities to express one's opinion than those students without disabilities. However, in 2022, these differences were not found, and students living with disabilities were actually slightly more likely to find all types of courses to be effective in providing opportunities for them to express their thoughts and opinions. These findings do not support our expectations in hypothesis 6.

Opportunities to Hear from Students from a Variety of Backgrounds

Face-to-Face Courses and Opportunities to Hear from Students from a Variety of Backgrounds

One part of an overall educational experience is for students to hear perspectives from a wide variety of students from different backgrounds. Compared to the previous two questions, there were fewer differences in the responses to this question between the various semesters. As with previous questions, the vast majority of students (81% in Spring 2020, 82% in Fall 2020, and 83% in Fall 2022) reported that they found face-to-face courses to be effective at providing opportunities to hear from students from a variety of backgrounds. Again, students found face-to-face courses to be the most effective in this regard, providing additional support for our hypothesis.

Face-to-Face Courses and Opportunities to Hear from Students from a Variety of Backgrounds and Gender

There were some noticeable gender differences regarding face-to-face courses. In all three semesters, women were more likely than men to perceive that these courses were effective at providing these opportunities. There were also some differences in perceptions across semesters among gender nonconforming students. In Fall 2020 significantly fewer gender nonconforming students felt face-to-face classes were effective than did students in Spring 2020 (47% compared to 80%). On the other hand, 100% of the gender nonconforming students in Fall 2022 found face-to-face courses to be effective at providing opportunities to hear from students from a variety of backgrounds. As stated previously, the sample size for this group is quite small in both semesters, making it difficult to draw definitive conclusions (Table 6).

Face-to-Face Courses and Opportunities to Hear from Students from a Variety of Backgrounds and Race and Disability Status

In terms of face-to-face courses and providing opportunities to hear from students from a variety of backgrounds, there were few racial differences and few differences between students with disabilities compared to those without. In Fall 2020, disability status seems to be more important than the other semesters, with only 76% of students living with disabilities reporting face-to-face courses as being effective at providing these opportunities, compared to 83% of those without disabilities (Tables 9 and 12). Again, this is likely to indicate a pandemic effect.

Online and Hybrid Courses and Opportunities to Hear from Students from a Variety of Backgrounds

As with the previous questions, fewer students reported online and hybrid courses to be effective at providing opportunities to hear from students from a variety of backgrounds, supporting hypothesis two. In terms of online, only 53% of students in Spring 2020, 50% in Fall 2020, and 59% in Fall 2022 said these courses were effective in this regard. In terms of hybrid courses, 65% of students in Spring 2020, and 67% in Fall 2020 and Fall 2022 reported these courses to be effective for this question (Tables 6, 9 and 12).

What is notable here is that the number of students perceiving online courses to be effective in providing opportunities to hear from students from a variety of backgrounds increased in Fall 2022 compared to the other semesters. Similar to the results with providing opportunities to express thoughts and opinions, it appears that students are finding online courses are better now than they were previously.

Online and Hybrid Courses and Opportunities to Hear from Students from a Variety of Backgrounds and Gender

There were gender differences in the results on this question for both online and hybrid courses. In Spring 2020, 46% of men, 58% of women and 60% of gender nonconforming students said online course were effective. In Fall 2020, 47% of men, 52% of women, and 53% of gender nonconforming students reported similarly. Finally, in Fall 2022, 59% of men, 65% of women, and 60% of gender nonconforming students reported that online courses were effective in this regard. In each case, men were less likely than women and gender nonconforming students to find online courses effective. Similarly, men were less likely to find hybrid courses effective at providing opportunities to hear from students from a variety of backgrounds. In Spring 2020, 54% of men, 72% of women, and 80% of gender nonconforming students reported hybrid courses to be effective on this question. In Fall 2020, 60% of men, 72% of women, and 55% of gender nonconforming student reported similarly. Finally, in Fall 2022, 68% of men, 76% of women, and 88% of gender nonconforming students found hybrid courses effective in this regard. Thus, in all three semesters, fewer men were likely to report online and hybrid courses as being effective at providing opportunities to hear from students from a variety of backgrounds (Table 6). As with previous questions, this is consistent with hypothesis 5.

Online and Hybrid Courses and Opportunities to Hear from Students from a Variety of Backgrounds and Race

There were no real racial differences in Spring 2020 data, though some small differences in Fall 2020 and Fall 2022. In Fall 2020, around 48% of white students found online courses to be

effective at providing opportunities to hear from students from a variety of backgrounds compared to 52% of non-white students. In Fall 2020, around 65% of non-white students and 61% of white students found online classes effective in this regard. Similarly, in Fall 2020 around 64% of white students found hybrid courses to be effective in this regard, compared to 71% of non-white students, while in Fall 2022, 71% of white students and 75% of non-white students found hybrid courses effective. Thus, for both of these course formats, minority students had a more positive view of effectiveness than white students, though these differences are quite small (Table 9). Given the small size of these differences, these results are largely consistent with our expectations.

Online and Hybrid Courses and Opportunities to Hear from Students from a Variety of Backgrounds and Disability Status

In terms of online courses and students with disabilities, there were some significant differences Spring 2020, but no real differences in Fall 2020 or Fall 2022 data. In Spring, 41% of students with disabilities reported online courses to be effective at providing opportunities to hear from students from a variety of backgrounds, compared to 54% of those without disabilities. In Fall 2020, 48% of students with disabilities, compared to 50% of those without, reported similarly. Finally, in Fall 2022, 59% of students living with disabilities, compared to 63% of those without reported online courses to be effective on this measure (Table 12).

For hybrid courses, in both Spring 2020 and Fall 2020, 61% of students with disabilities reported these courses to be successful or very successful in providing opportunities to hear from students from a variety of backgrounds, compared to 65% in Spring 2020 and 67% in Fall 2020 of students without disabilities. In Fall 2022, there was no difference between these student populations. Thus, for the 2020 semesters, slightly fewer students with disabilities compared to those without reported hybrid courses to be effective in this regard, but this difference was not noticeable in the 2022 data (Table 12). These findings are particularly consistent with our expectations but indicate that perhaps courses and faculty are becoming more adept at meeting student needs.

Conclusions and Recommendations

Overall, our results suggest that face-to-face classes were viewed by more students as being effective at providing a sense of community, providing opportunities to express thoughts and opinions, and providing opportunities to hear from students from a variety of backgrounds than online or hybrid courses. At the same time, hybrid courses were generally seen as effective by a majority of students for each of these and a majority of students ranked online courses as effective in terms of providing opportunities to express thoughts and opinions and providing opportunities to hear from students from a variety of backgrounds. Thus, online and hybrid courses were generally also viewed positively in many respects. These findings generally support hypotheses 1 and 2.

Online courses fared the worst at providing a strong sense of community. This is not surprising, since there is generally less direct meaningful interaction in online courses, particularly those which are delivered asynchronously. These findings support hypothesis 3. Also not surprising was that student views of the effectiveness of online courses were lowest at the height of the

pandemic, a time when students were already missing other opportunities for social interactions. Also as expected, for all three of the questions in our study, student perceptions of online courses improved in Fall 2022, though this improvement was not very large for students' perception of online courses helping provide a sense of community, suggesting more work to be done in this area.

Our paper was interested in how different demographics of students view various course formats. The results demonstrate that there are some key differences among various groups. In particular, and as we expected, women tended to view online courses as more effective in a variety of ways than men did. This may indicate that women were able to participate in a more equal way in their online courses and thus viewed them more favorably. Also as expected and in keeping with the majority of the existing literature, there were fewer racial differences in perceptions of course format effectiveness. However, when there were differences, these generally showed that minorities were more favorable toward the effectiveness of online courses than white students.

There were also notable differences in perceived effectiveness of courses for students living with disabilities compared to those without. For the most part, students with disabilities felt that courses, regardless of the format, were less effective. These results are consistent with our expectations and indicate the need to increase accessibility for students in all course formats. Research shows that online courses often increase stress and anxiety for students, and this is one way that students living with disabilities may be particularly impacted, heightened further by unique circumstances of the pandemic. Providing flexible course designs that attempt to alleviate some of the pressure that students face in the classroom could make all courses more accessible for all students.

In addition, it is clear that more work needs to be done to increase community building in online courses. We think the work of Rebecca Glazier (2016, 2021) is particularly useful in providing professors with specific, actionable, steps for building rapport and community within the online classroom. Other ways to build community could include using active learning and simulations within the online classroom to help students work closely with one another and feel a sense of connection to each other beyond typical discussion boards. Online debates can also be useful, in lieu of online discussions, for building community and connections between students in an online course. We would also like to examine how neurodiverse students approach online and hybrid courses versus those online, given the differences in the social interactions required of them and the clarity and structure of these online interactions.

Building community is important for student success in courses, but many professors may find it difficult to create a strong sense of community in online courses. We recommend that professors be creative in their approach to online courses, incorporating activities that may be more unusual in an online course and work to build rapport with students. Such endeavors are likely to not only increase student success, but also increase faculty satisfaction in their own teaching.

Bibliography

- Alrushiedat, Nimer and Olfman, Lorne. 2013. "Aiding Participation and Engagement in a Blended Learning Environment," *Journal of Information Systems Education* 24 (2): 133-146.
- Ashong, Carol Y., and Commander, Nannette E.. 2012. "Ethnicity, Gender, and Perceptions of Online Learning in Higher Education." *Journal of Online Learning and Teaching* 8 (2): 98.
- Athens, W. 2018. "Perceptions of the Persistent: Engagement and Learning Community in Underrepresented Populations." *Online Learning* 22(2): 27-58. doi: 10.24059/olj.v22i2.1368
- Glazier, Rebecca. 2016. "Building Rapport to Improve Retention and Success in Online Classes." *Journal of Political Science Education* 12(4): 437-456.
- Glazier, Rebecca. 2021. *Connecting in the Online Classroom: Building Rapport between Teachers and Students*. Johns Hopkins University Press.
- Glazier, Rebecca and Heidi Harris. 2020. "How Teaching with Rapport Can Improve Online Student Success and Retention: Data from Two Empirical Studies." *Quarterly Review of Distance Education* 21(4): 1-17.
- Hannon, John, and D'Netto, Brian. 2007. "Cultural Diversity Online: Student Engagement with Learning Technologies." *International Journal of Educational Management* 21(4): 418-432.
- Jaggars, Shanna. 2011. "Online Learning: Does It Help Low-Income and Underprepared Students? (Assessment of Evidence Series)." *Community College Research Center*, CCRC Working Paper No. 26. <https://files.eric.ed.gov/fulltext/ED515135.pdf>
- Lambert, David C., and Dryer, Rachel. 2018. "Quality of Life of Higher Education Students with Learning Disability Studying Online." *International Journal of Disability, Development and Education* 65 (4): 393-407.
- Lundberg, Carol A., and Sheridan, Dennis. 2015. "Benefits of Engagement with Peers, Faculty, and Diversity for Online Learners." *College Teaching* 63 (1): 8-15.
- McSporran, Mae, and Young, Stuart. 2001. "Does Gender Matter in Online Learning?." *ALT-J* 9 (2): 3-15.
- Nguyen, Tuan. 2015. "The Effectiveness of Online Learning: Beyond No Significant Difference and Future Horizons." *MERLOT Journal of Online Learning and Teaching* 11 (2): 309-319.

Table 4: Course Modality and Sense of Community by Gender

	Spring 2020				Fall 2020				Fall 2022			
	Effective	Neither	Ineffective	TOTAL	Effective	Neither	Ineffective	TOTAL	Effective	Neither	Ineffective	TOTAL
Face-to-Face												
Male	233 (74.44)	75 (23.96)	5 (1.6)	313 (100)	266 (87.5)	29 (9.54)	9 (2.96)	304 (100)	376 (84.3)	53 (11.9)	17 (3.8)	446 (100)
Female	344 (81.33)	69 (16.31)	10 (2.36)	423 (100)	395 (88.76)	38 (8.54)	12 (2.70)	445 (100)	475 (83.8)	72 (12.7)	20 (3.5)	567 (100)
Neither	9 (90)	1 (10)	0 (0)	10 (100)	13 (76.47)	4 (23.53)	0 (0)	17 (100)	18 (90)	2 (10)	0 (0)	20 (100)
TOTAL	586 (78.55)	145 (19.44)	15 (2.01)	746 (100)	674 (87.99)	71 (9.27)	21 (2.74)	766 (100)	869 (84.1)	127 (12.3)	37 (3.6)	1033 (100)
Hybrid												
Male	146 (46.95)	149 (47.91)	16 (5.14)	311 (100)	178 (58.55)	95 (31.25)	31 (10.2)	304 (100)	173 (54.6)	109 (34.4)	35 (11)	317 (100)
Female	271 (63.92)	141 (33.25)	12 (2.83)	424 (100)	300 (67.27)	111 (24.89)	35 (7.85)	446 (100)	280 (63.9)	119 (27.2)	39 (8.9)	438 (100)
Neither	5 (50)	5 (50)	0 (0)	10 (100)	7 (41.18)	10 (58.82)	0 (100)	17 (100)	9 (56.3)	3 (18.8)	3 (25.5)	16 (100)
TOTAL	422 (56.64)	295 (39.60)	28 (3.76)	745 (100)	485 (63.24)	216 (28.16)	66 (8.60)	767 (100)	462 (59.9)	231 (30)	78 (10.1)	771 (100)
Online												
Male	91 (29.1)	113 (36.1)	109 (34.8)	313 (100)	59 (19.34)	84 (27.54)	162 (51.76)	305 (100)	52 (22.2)	69 (29.5)	113 (48.3)	234 (100)
Female	158 (37.3)	147 (34.7)	119 (28.1)	424 (100)	100 (22.42)	102 (22.87)	244 (54.70)	446 (100)	101 (27.3)	109 (29.5)	160 (43.2)	370 (100)
Neither	3 (30)	5 (50)	2 (20)	10 (100)	1 (5.88)	4 (23.53)	12 (70.09)	17 (100)	1 (10)	1 (10)	8 (80)	10 (100)
TOTAL	252 (33.7)	265 (35.5)	230 (30.8)	747 (100)	160 (20.83)	190 (24.74)	418 (54.43)	768 (100)	154 (25.1)	179 (29.2)	281 (45.8)	614 (100)

*Raw numbers listed; Percentages in parentheses

Table 5: Course Modality and Opportunities to Express Thoughts and Opinions by Gender

	Spring 2020				Fall 2020				Fall 2022			
	Effective	Neither	Ineffective	TOTAL	Effective	Neither	Ineffective	TOTAL	Effective	Neither	Ineffective	TOTAL
Face-to-Face												
Male	239 (76.36)	59 (18.85)	15 (4.79)	313 (100)	233 (76.64)	50 (16.45)	21 (6.91)	304 (100)	297 (77.5)	69 (18.0)	17 (4.4)	383 (100)
Female	319 (75.24)	75 (17.69)	30 (7.08)	424 (100)	361 (80.94)	59 (13.23)	26 (5.83)	446 (100)	395 (82.6)	61 (12.8)	22 (4.6)	478 (100)
Neither	8 (80)	1 (10)	1 (10)	10 (100)	8 (47.06)	7 (41.18)	2 (11.76)	17 (100)	13 (90)	4 (22.2)	1 (72.2)	18 (100)
TOTAL	566 (75.77)	135 (18.07)	46 (6.16)	747 (100)	602 (78.49)	116 (15.12)	49 (6.39)	767 (100)	705 (80.2)	134 (15.2)	40 (4.6)	879 (100)
Hybrid												
Male	173 (55.45)	130 (41.67)	9 (2.88)	312 (100)	191 (62.83)	95 (31.25)	18 (5.92)	304 (100)	177 (73.4)	48 (19.9)	16 (6.6)	241 (100)
Female	302 (71.23)	110 (25.94)	12 (2.83)	424 (100)	333 (75)	94 (21.17)	17 (3.83)	444 (100)	276 (79.8)	55 (15.9)	15 (4.3)	346 (100)
Neither	7 (70)	2 (20)	1 (10)	10 (100)	9 (52.94)	7 (41.18)	1 (5.88)	17 (100)	9 (81.8)	1 (9)	1 (9)	11 (100)
TOTAL	482 (64.61)	242 (32.44)	22 (2.95)	746 (100)	533 (69.67)	196 (25.62)	36 (4.71)	765 (100)	462 (77.3)	104 (17.4)	32 (5.4)	598 (100)
Online												
Male	169 (53.99)	90 (28.75)	54 (17.25)	313 (100)	143 (46.89)	86 (28.20)	76 (24.92)	305 (100)	113 (59.2)	50 (26.2)	28 (14.7)	191 (100)
Female	290 (68.40)	94 (22.17)	40 (9.43)	424 (100)	242 (54.26)	95 (21.30)	109 (24.44)	446 (100)	243 (74.5)	51 (15.6)	32 (9.8)	326 (100)
Neither	8 (80)	2 (20)	0 (0)	10 (100)	6 (35.29)	6 (35.29)	5 (29.41)	17 (100)	6 (66.7)	2 (22.2)	1 (11.1)	9 (100)
TOTAL	467 (62.52)	186 (24.90)	94 (12.58)	747 (100)	391 (50.91)	187 (24.35)	190 (24.74)	768 (100)	362 (25.1)	103 (29.2)	61 (45.8)	526 (100)

*Raw numbers listed; Percentages in parentheses

Table 6: Course Modality and Opportunities to Hear from Students from a Variety of Backgrounds by Gender

	Spring 2020				Fall 2020				Fall 2022			
	Effective	Neither	Ineffective	TOTAL	Effective	Neither	Ineffective	TOTAL	Effective	Neither	Ineffective	TOTAL
Face-to-Face												
Male	239 (76.36)	69 (22.04)	5 (1.60)	313 (100)	242 (79.87)	51 (16.83)	10 (3.30)	303 (100)	360 (80.9)	72 (16.2)	13 (2.9)	445 (100)
Female	355 (83.73)	58 (13.68)	11 (2.59)	424 (100)	382 (86.04)	51 (11.49)	11 (2.48)	444 (100)	473 (83.4)	73 (12.9)	21 (3.7)	567 (100)
Neither	8 (80)	2 (20)	0 (0)	10 (100)	8 (47.06)	7 (41.18)	2 (11.76)	17 (100)	20 (100)	0 (0)	0 (0)	20 (100)
TOTAL	602 (80.59)	129 (17.27)	16 (2.14)	747 (100)	632 (82.72)	109 (14.27)	23 (3.01)	764 (100)	853 (82.7)	145 (14.1)	34 (3.3)	1032 (100)
Hybrid												
Male	168 (53.85)	134 (42.95)	10 (3.21)	312 (100)	183 (60.20)	101 (33.22)	20 (6.58)	304 (100)	215 (67.6)	83 (26.1)	20 (6.3)	318 (100)
Female	307 (72.41)	108 (25.47)	9 (2.12)	424 (100)	320 (71.91)	108 (24.27)	17 (3.82)	445 (100)	331 (75.9)	83 (19)	22 (5)	436 (100)
Neither	8 (80)	2 (20)	0 (0)	10 (100)	9 (52.94)	7 (41.18)	1 (5.88)	17 (100)	14 (87.5)	1 (6.3)	1 (6.3)	16 (100)
TOTAL	483 (64.75)	244 (32.71)	19 (2.55)	746 (100)	512 (66.84)	216 (28.20)	38 (4.96)	766 (100)	560 (72.7)	167 (21.7)	43 (5.6)	770 (100)
Online												
Male	144 (46.01)	94 (30.03)	75 (23.96)	313 (100)	144 (47.21)	103 (33.77)	58 (19.02)	305 (100)	139 (59.4)	64 (27.4)	31 (13.2)	234 (100)
Female	244 (57.55)	123 (29.01)	57 (13.44)	424 (100)	232 (52.02)	120 (26.91)	94 (21.08)	446 (100)	240 (64.7)	84 (22.6)	47 (12.7)	371 (100)
Neither	6 (60)	4 (40)	0 (0)	10 (100)	9 (52.94)	5 (29.51)	3 (17.65)	17 (100)	6 (60)	1 (10)	3 (30)	10 (100)
TOTAL	394 (52.74)	221 (29.59)	132 (17.67)	747 (100)	385 (50.13)	228 (29.69)	155 (20.18)	768 (100)	385 (62.6)	149 (24.2)	81 (13.2)	615 (100)

*Raw numbers listed; Percentages in parentheses

Table 7: Course Modality and Sense of Community by Race

	Spring 2020				Fall 2020				Fall 2022			
	Effective	Neither	Ineffective	TOTAL	Effective	Neither	Ineffective	TOTAL	Effective	Neither	Ineffective	TOTAL
Face-to-Face												
White	354 (80.45)	78 (17.73)	8 (1.82)	440 (100)	366 (88.19)	39 (87.85)	10 (2.41)	415 (100)	461 (84.6)	67 (12.3)	17 (3.1)	545 (100)
Non-White	225 (75.50)	65 (21.81)	8 (2.68)	298 (100)	282 (87.85)	30 (9.35)	9 (2.80)	321 (100)	398 (83.8)	57 (12)	20 (4.2)	475 (100)
TOTAL	579 (78.46)	143 (19.38)	16 (2.17)	738 (100)	648 (88.04)	69 (9.38)	19 (2.58)	736 (100)	859 (84.2)	124 (12.2)	37 (3.6)	1020 (100)
Hybrid												
White	244 (55.58)	179 (40.77)	16 (3.64)	439 (100)	255 (61.45)	118 (28.43)	42 (10.12)	415 (100)	234 (57.6)	124 (30.5)	48 (11.8)	406 (100)
Non-White	171 (57.38)	115 (38.59)	12 (4.03)	298 (100)	207 (64.49)	92 (28.66)	22 (6.85)	321 (100)	222 (62.7)	102 (28.8)	30 (8.5)	354 (100)
TOTAL	415 (56.31)	294 (39.89)	28 (3.80)	737 (100)	462 (62.77)	210 (28.53)	64 (8.70)	736 (100)	456 (60)	226 (29.7)	78 (10.3)	760 (100)
Online												
White	131 (29.77)	154 (35)	155 (35.23)	440 (100)	71 (17.07)	102 (24.52)	243 (58.41)	416 (100)	75 (23.1)	85 (26.2)	164 (50.6)	324 (100)
Non-White	118 (39.46)	109 (36.45)	72 (24.08)	299 (100)	80 (24.92)	79 (24.61)	162 (50.47)	321 (100)	77 (27)	93 (32.6)	115 (40.4)	285 (100)
TOTAL	249 (33.69)	263 (35.59)	227 (30.72)	739 (100)	151 (20.49)	416 (100)	321 (100)	737 (100)	152 (25)	178 (29.2)	279 (45.8)	609 (100)

*Raw numbers listed; Percentages in parentheses

Table 8: Course Modality and Opportunities to Express Thoughts and Opinions by Race

	Spring 2020				Fall 2020				Fall 2022			
	Effective	Neither	Ineffective	TOTAL	Effective	Neither	Ineffective	TOTAL	Effective	Neither	Ineffective	TOTAL
Face-to-Face												
White	334 (75.91)	76 (17.27)	30 (6.82)	440 (100)	316 (76.14)	71 (17.11)	28 (6.75)	415 (100)	391 (80)	73 (14.9)	25 (5.1)	489 (100)
Non-White	226 (75.59)	57 (19.06)	16 (5.35)	299 (100)	259 (80.69)	42 (13.08)	20 (6.23)	321 (100)	305 (80.1)	61 (16)	15 (3.9)	381 (100)
TOTAL	560 (75.78)	133 (18)	46 (6.22)	739 (100)	575 (78.13)	113 (15.35)	48 (6.52)	736 (100)	696 (80)	134 (15.4)	40 (4.6)	870 (100)
Hybrid												
White	280 (63.78)	144 (32.80)	15 (3.42)	439 (100)	281 (67.71)	111 (26.75)	23 (5.54)	415 (100)	250 (75.1)	67 (20.1)	16 (4.8)	333 (100)
Non-White	198 (66.22)	95 (31.77)	6 (2.01)	299 (100)	229 (71.56)	80 (25)	11 (3.44)	320 (100)	207 (80.5)	35 (13.6)	15 (5.8)	257 (100)
TOTAL	478 (64.77)	239 (32.38)	21 (2.85)	738 (100)	510 (69.39)	191 (25.99)	34 (4.63)	735 (100)	457 (77.5)	102 (17.3)	31 (5.3)	590 (100)
Online												
White	275 (62.50)	107 (24.32)	58 (13.18)	440 (100)	200 (48.08)	100 (24.04)	116 (27.88)	416 (100)	204 (69.4)	56 (19)	34 (11.6)	294 (100)
Non-White	187 (62.54)	76 (25.42)	36 (12.04)	299 (100)	173 (53.89)	80 (24.92)	68 (21.18)	321 (100)	156 (68.4)	47 (20.6)	25 (11)	228 (100)
TOTAL	462 (62.52)	183 (24.76)	94 (12.72)	739 (100)	373 (50.61)	180 (24.42)	184 (24.97)	737 (100)	360 (69)	103 (19.7)	59 (11.3)	522 (100)

*Raw numbers listed; Percentages in parentheses

Table 9: Course Modality and Opportunities to Hear from Students from a Variety of Backgrounds by Race

	Spring 2020				Fall 2020				Fall 2022			
	Effective	Neither	Ineffective	TOTAL	Effective	Neither	Ineffective	TOTAL	Effective	Neither	Ineffective	TOTAL
Face-to-Face												
White	358 (81.36)	73 (16.59)	9 (2.05)	440 (100)	338 (81.45)	65 (15.66)	12 (2.89)	415 (100)	441 (81.1)	85 (15.6)	18 (3.3)	544 (100)
Non-White	237 (79.26)	55 (18.39)	7 (2.34)	299 (100)	270 (84.38)	41 (12.81)	9 (2.81)	320 (100)	402 (84.6)	57 (12)	16 (3.4)	475 (100)
TOTAL	595 (80.51)	128 (17.32)	16 (2.17)	739 (100)	608 (82.72)	106 (14.42)	21 (2.86)	735 (100)	843 (82.7)	142 (13.9)	34 (3.3)	1019 (100)
Hybrid												
White	285 (64.77)	142 (32.27)	13 (2.95)	440 (100)	266 (64.10)	132 (31.81)	17 (4.10)	415 (100)	288 (71.1)	93 (23)	24 (5.9)	405 (100)
Non-White	192 (64.43)	100 (33.56)	6 (2.01)	298 (100)	227 (70.72)	76 (23.68)	18 (5.61)	321 (100)	264 (74.6)	71 (20.1)	19 (5.4)	354 (100)
TOTAL	477 (64.63)	242 (32.79)	19 (2.57)	738 (100)	493 (66.98)	208 (28.26)	35 (4.76)	736 (100)	552 (72.7)	164 (21.6)	43 (5.7)	759 (100)
Online												
White	234 (53.18)	121 (27.50)	85 (19.32)	440 (100)	201 (48.32)	129 (31.01)	86 (20.67)	416 (100)	199 (61.2)	81 (24.9)	45 (13.8)	325 (100)
Non-White	157 (52.51)	99 (33.11)	43 (14.38)	299 (100)	168 (52.34)	86 (26.79)	67 (20.87)	321 (100)	186 (65.3)	64 (22.5)	35 (12.3)	285 (100)
TOTAL	391 (52.91)	220 (29.77)	128 (17.32)	739 (100)	369 (50.07)	215 (29.17)	153 (20.76)	737 (100)	385 (63.1)	145 (23.8)	80 (13.1)	610 (100)

*Raw numbers listed; Percentages in parentheses

Table 10: Course Modality and Sense of Community by Disability Status

	Spring 2020				Fall 2020				Fall 2022			
	Effective	Neither	Ineffective	TOTAL	Effective	Neither	Ineffective	TOTAL	Effective	Neither	Ineffective	TOTAL
Face-to-Face												
Yes	29 (65.91)	13 (29.55)	2 (4.55)	44 (100)	54 (87.10)	8 (12.90)	0 (0)	62 (100)	63 (88.7)	7 (9.9)	1 (1.4)	71 (100)
No	558 (79.15)	133 (18.87)	14 (1.99)	705 (100)	620 (87.94)	63 (8.94)	22 (3.12)	705 (100)	807 (83.8)	120 (12.5)	36 (3.7)	963 (100)
TOTAL	587 (78.37)	146 (19.49)	16 (2.14)	749 (100)	674 (87.87)	71 (9.26)	22 (2.87)	767 (100)	870 (84.1)	127 (12.3)	37 (3.6)	1034 (100)
Hybrid												
Yes	23 (52.27)	19 (43.18)	2 (4.55)	44 (100)	29 (46.77)	26 (41.94)	7 (11.29)	62 (100)	30 (50.8)	19 (32.2)	10 (16.9)	59 (100)
No	400 (56.82)	278 (39.49)	26 (3.69)	704 (100)	456 (64.59)	190 (26.91)	60 (8.50)	706 (100)	432 (60.7)	212 (29.8)	68 (9.6)	712 (100)
TOTAL	423 (56.55)	297 (39.71)	28 (3.74)	748 (100)	485 (63.15)	216 (28.13)	67 (8.72)	768 (100)	462 (59.9)	231 (30)	78 (10.1)	771 (100)
Online												
Yes	16 (36.36)	17 (38.64)	11 (25.00)	44 (100)	3 (4.84)	17 (27.42)	42 (67.74)	62 (100)	12 (27.3)	11 (25)	21 (47.7)	44 (100)
No	238 (33.71)	249 (35.27)	219 (31.02)	706 (100)	156 (22.07)	173 (24.47)	378 (53.47)	707 (100)	142 (24.9)	168 (29.4)	261 (45.7)	571 (100)
TOTAL	254 (33.87)	266 (35.47)	230 (30.67)	750 (100)	159 (20.68)	190 (24.71)	420 (54.62)	769 (100)	154 (25)	179 (29.1)	282 (45.9)	615 (100)

*Raw numbers listed; Percentages in parentheses

Table 11: Course Modality and Opportunities to Express Thoughts and Opinions by Disability Status

	Spring 2020				Fall 2020				Fall 2022			
	Effective	Neither	Ineffective	TOTAL	Effective	Neither	Ineffective	TOTAL	Effective	Neither	Ineffective	TOTAL
Face-to-Face												
Yes	29 (65.91)	8 (18.18)	7 (15.91)	44 (100)	41 (66.13)	15 (24.19)	6 (9.68)	62 (100)	54 (81.8)	11 (16.7)	1 (1.5)	66 (100)
No	540 (76.49)	127 (17.99)	39 (5.52)	706 (100)	561 (79.46)	101 (14.31)	44 (6.23)	706 (100)	652 (80.1)	123 (15.1)	39 (4.8)	814 (100)
TOTAL	569 (75.87)	135 (18)	46 (6.13)	750 (100)	602 (78.39)	116 (15.10)	50 (6.51)	768 (100)	706 (80.2)	134 (15.2)	40 (4.5)	880 (100)
Hybrid												
Yes	26 (59.09)	17 (38.64)	1 (2.27)	44 (100)	41 (66.13)	17 (27.42)	4 (6.45)	62 (100)	40 (85.1)	6 (12.8)	1 (2.1)	47 (100)
No	458 (64.96)	226 (32.06)	21 (2.98)	705 (100)	492 (69.89)	180 (25.57)	32 (4.55)	704 (100)	422 (76.6)	98 (17.8)	31 (5.6)	551 (100)
TOTAL	484 (64.62)	243 (32.44)	22 (2.94)	749 (100)	533 (69.58)	197 (25.72)	36 (4.70)	766 (100)	462 (77.3)	104 (17.4)	32 (5.4)	598 (100)
Online												
Yes	23 (52.27)	15 (34.09)	6 (13.64)	44 (100)	26 (41.94)	17 (27.42)	19 (30.65)	62 (100)	29 (74.4)	7 (17.9)	3 (7.7)	39 (100)
No	446 (63.17)	171 (24.22)	89 (12.61)	706 (100)	365 (51.63)	171 (24.19)	171 (24.19)	707 (100)	334 (68.4)	96 (19.7)	58 (11.9)	488 (100)
TOTAL	469 (62.53)	186 (24.80)	95 (12.67)	750 (100)	391 (50.85)	188 (24.45)	190 (24.71)	769 (100)	363 (68.9)	103 (19.5)	61 (11.6)	527 (100)

*Raw numbers listed; Percentages in parentheses

Table 12: Course Modality and Opportunities to Hear from Students from a Variety of Backgrounds by Disability Status

	Spring 2020				Fall 2020				Fall 2022			
	Effective	Neither	Ineffective	TOTAL	Effective	Neither	Ineffective	TOTAL	Effective	Neither	Ineffective	TOTAL
Face-to-Face												
Yes	35 (79.55)	8 (18.18)	1 (2.27)	44 (100)	47 (75.81)	11 (17.74)	4 (6.45)	62 (100)	58 (82.9)	9 (12.9)	3 (4.3)	70 (100)
No	570 (80.74)	121 (17.14)	15 (2.12)	706 (100)	586 (83.36)	98 (13.94)	19 (2.70)	703 (100)	796 (82.7)	136 (14.1)	31 (3.2)	963 (100)
TOTAL	605 (80.67)	129 (17.20)	16 (2.13)	750 (100)	633 (82.75)	109 (14.25)	23 (3.01)	765 (100)	854 (82.7)	145 (14)	34 (3.3)	1033 (100)
Hybrid												
Yes	27 (61.36)	16 (36.36)	1 (2.27)	44 (100)	38 (61.29)	20 (32.26)	4 (6.45)	62 (100)	43 (72.9)	12 (20.3)	4 (6.8)	59 (100)
No	457 (64.82)	229 (32.48)	19 (2.70)	705 (100)	475 (67.38)	196 (27.80)	34 (4.82)	705 (100)	39 (5.5)	155 (21.8)	517 (72.7)	711 (100)
TOTAL	484 (64.62)	245 (32.71)	20 (2.67)	749 (100)	513 (66.88)	216 (28.16)	38 (4.95)	767 (100)	43 (5.6)	167 (21.7)	560 (72.7)	770 (100)
Online												
Yes	18 (40.91)	18 (40.91)	8 (18.18)	44 (100)	30 (48.39)	19 (30.65)	13 (20.97)	62 (100)	26 (59.1)	12 (27.3)	6 (13.6)	44 (100)
No	379	203	124	706	354 (50.07)	210 (29.70)	143 (20.23)	707 (100)	360 (62.9)	137 (24)	75 (13.1)	572 (100)
TOTAL	397 (52.93)	221 (29.47)	132 (17.60)	750 (100)	384 (49.93)	229 (29.78)	156 (20.29)	769 (100)	386 (62.7)	149 (24.2)	81 (13.1)	616 (100)

*Raw numbers listed; Percentages in parentheses