**Improving UBC Students’ Experience in Hybrid Courses**

for

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by

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**Letter of Transmittal**

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**Abstract**

1. Introduction

 Since the first COVID-19 case was found, there was a big wave of change from offline to online. University education was not an exception. Most universities shifted all the offline courses into online courses. Now, as the pandemic shows its end but still with the danger of getting COVID-19, many universities and professors accepted hybrid courses, using online platforms spontaneously with in-person lectures. In this study, I will investigate the current situation regarding hybrid courses and preferences and recommend improving the hybrid courses.

1) Definition of Hybrid Courses

 Hybrid course means courses that have properties of both face-to-face instruction and distance teaching. Therefore, hybrid courses are composed of two components: in-person class time and online cyber space time (Lei and Lei 2). Most courses use online platforms these days, but not all the courses are hybrid. As the definition shows, in hybrid courses, students spend time on the online platform. For example, using Canvas only for announcements and sharing lecture materials will not fit for hybrid courses. To design a hybrid course, any kinds of time-consuming class activities, such as lab, pre-lecture, live streaming, or lecture recording, should be able to be done in online space.

2) Background on the course delivery issue

 Due to the pandemic, UBC had shifted all the in-person courses to online courses until last August. Even though most courses went back to in-person-based delivery, many courses also offered distance teaching. By experiencing all the three methods, online, in-person, and hybrid, UBC students got preference and needs on course delivery. However, the preference and needs have not been studied yet, so many of the courses depend on the circumstance of professors’ own decisions. To design better hybrid courses, investigating students’ preferences for the courses modalities is highly important.

3) Purpose of this report

 This study is aimed to find out what students want for the courses and recommend the way of designing better hybrid courses. To find out students’ needs and wants for the courses, the study will investigate students’ experience and preferences on the three modalities: online, hybrid, and in-person. Also, the study will research the professors’ perspectives on the course modalities.

4) Brief description of data sources

 First, the primary data investigating the UBC students’ opinions on hybrid courses were collected by a survey. The survey asked questions about experience and preference for hybrid courses to UBC students. Also, to check the reality of designing hybrid courses, an interview with two UBC professors was conducted. The interviewee was limited to the professors who experienced delivering hybrid courses.

 Along with the primary data, secondary data was used to study the global trend on hybrid courses.

5) Scope of this inquiry

 The scope of this inquiry was limited to UBC students and professors, currently having courses in UBC. As UBC most students and professors in UBC experienced at least two among online, hybrid, and in-person courses, there were no other conditions for the recruitment.

 The scope of the survey was at least 30 UBC students for statistical significance. The survey asked opinions and preferences for online, hybrid, and in-person courses based on their experience. Also, to find out possible influences on different preferences on hybrid courses, the survey contained background information questions.

 The scope of the interview was two professors who experienced hybrid courses. The interview asks the satisfaction on each course methodology they experienced, and the anticipation and preference for hybrid courses.

2. Data Analysis

1) Worldwide trend on hybrid courses

 Affected by COVID-19, experience on the online courses changed students’ preference for in-person courses. According to research, US students show more preference for online learning than pre-pandemic. As expected by this result, students’ preference for hybrid courses got higher due to the experience of the online courses.

Figure 1. Student Changes in Attitudes Since Prior to the Pandemic (McKenzie, *Students Want Online*)

¡) Online tool usage in universities

 Even before the pandemic, many universities used online platforms or provided some online learning courses. In 2017, 33.5% of higher education students in the US took courses in some form of distance or online learning (Roberts). Also, two of the most popular learning management system, Canvas, and Blackboard, had 1,218 installations and 1,216 installations each at U.S. institutions in 2018 (McKenzie, *Canvas Catches*). The two data shows that many of the university-level educational institutions already accepted online tools, both in online and hybrid modalities. Growing usage of mobile devices is one factor of growing online tool usage. According to research, 67% of US college students have used mobile devices in course-related activities (Bouchrika). Considering that online tool usage grew a lot in the pandemic, it can be expected that most universities now use online tools actively.

¡¡) Satisfaction on hybrid courses

 Many studies show that students’ satisfaction with hybrid courses is high. As seen in Figure 2, most students think online education is better or about the same as in-person education.

Figure 2. College-Level Learning Experience: Online vs. Classroom (Bouchrika)

 Similar results are found in other studies. In a study comparing online, hybrid and in-person courses conducted on public health courses, satisfaction on hybrid executive program sections was 93.2% on average, while that of in-person on-campus sections was 83.3%. One reason for the high satisfaction might be affected by engagement. 75.7% of students who took hybrid courses agreed that they were more engaged, while only 33.6% of in-person students agreed on the same question (Walker et al. 33). While in-person lectures require to be in right time and place to engage in the course and all the students are in the same classroom, having limited opportunities to reach out to professors or each other, hybrid courses offer more channels to access the lecture itself and people in the courses. Therefore, hybrid courses give better chances to engage in the courses, and consequently, the satisfaction for hybrid courses gets higher.

2) Studies on students’ experiences

 Based on the survey targeting UBC students, this study examines the students’ experiences on each modality and measures their preference for them, especially the hybrid courses. 32 UBC students participated in the survey without any other screening conditions or quota restrictions.

¡) Online tool usage in universities

 Most of the students who participated in the survey experienced all three modalities, online, hybrid, and in-person. Among the methods of using online tools in hybrid courses, lecture recording was the most often used method. However, the experienced rates were not that different among the given methods; there are various kinds of methods using online tools, and students are easily exposed to many kinds of the methods. However, preference on the methods differs a lot, concentrated mostly on the lecture recording. As shown in Figure 3, most students prefer lecture recording the most, and the second most preferred method is lecture live streaming. The result shows that UBC students have needs on taking lectures without time and space limits.

Figure 3. UBC students’ experience and preference for online tool usage

¡¡) Satisfaction on hybrid courses

 Most students do not feel dissatisfaction with both in-person and online/hybrid courses, but online/hybrid courses show higher satisfaction in the average of 4.44 out of 5 while in-person course satisfaction is 3.56. Among the students who participated in the survey, 62.5% picked hybrid courses as the most preferred modality among online, hybrid, and in-person.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Online | Hybrid | In-person | Total |
| 1st  | 9.5% | 62.5% | 28% | 100% |
| 2nd  | 43.6% | 21.9% | 34.5% | 100% |
| 3rd  | 46.9% | 15.6% | 37.5% | 100% |

Table 1. Preference Rank of the Three Modalities: Online, Hybrid, and In-person

 In hybrid courses, most students prefer the courses designed as conducting mostly online (46.9%) or using online and in-person in fifty-fifty (40.6%). The percentage of students who wanted hybrid courses to be conducted mostly in-person and partially adapt online methods was only 15.6%. On the parts fit for online and in-person, there are various opinions, but most students agree that labs/tutorials (57.1%), discussions (60.7%), and exams (67.9%) are better to be in-person. As seen in Figure 4, students preferred in-person to online in these three parts. The percentage of students who thought the three parts are better to be online was only 18.8%, 37.5%, and 12.5% respectively. Office hour was the only part that preference for online is higher than in-person. The top three parts preferred to be online were learning materials (100%), assignments (94.4%), and pre-lecture contents (88.9%). As most courses offer the three parts online, it seems that students regard these three parts as the basic properties of hybrid courses. Besides the three parts, lecture streaming was also thought as good to be provided as online in hybrid courses, shown in 72.2% of the answers.

Figure 4. Preference for Online/In-person in Parts of the Courses

 Most students want lecture recordings to be provided in hybrid courses (96.9%). Lecture streaming and online discussion forum were also high, 78.1% and 75% respectively. Also, there were other opinions besides the given choices, such as online lab, online office hours, and online student chat during the lecture. These answers show that students want various values in university education beyond the quality of the lecture, such as networking.

¡¡¡) Background factors affecting students’ opinions

 The research collected three factors that can affect students’ preference for course modalities: educational value, status (domestic or international), and school year. According to the ANOVA test estimating the influence between students’ preference for the modalities and the three factors, there is no significant evidence to say that any of the factors influence the preference. As seen in Table 2, no factor has a p-value less than 0.05 of significance level, it is hard to say that the educational values students think as important, students’ status as domestic or international, or the school year.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Educational value | Status | School Year |
| F statistic | 0.215 | 0.764 | 0.591 |
| p-value | 0.648 | 0.393 | 0.452 |

Table 2. Test Statistic and P-value of ANOVA Test Between Three Factors and Preference for Modalities

3) Professors’ opinions on hybrid courses

 As the interview recruited only 2 professors, this study concentrates on the voices of professors more than the statistical elements in this part.

¡) Opinions on current hybrid courses

 The professors mentioned students’ engagement and contents organization as advantages of the hybrid courses. Both professors are satisfied with the students’ participation in discussions on the online platform and in-person lectures, sharing opinions both online and in-person any time they need help. Also, as they provide pre-lecture materials via online platforms, they mentioned that they can concentrate more on the examples and important points in the lecture. Even though they need to provide pre-lecture contents, they do not feel that is a big burden as they can use the contents from former courses that they prepared before. However, they are concerned that providing all the materials including the lecture recordings might make some students not come to in-person lectures. Still, they prefer hybrid courses to in-person or online courses, especially to online courses. They both did not prefer the online courses since they felt the learning and teaching environment in online lectures is not ideal for education. It is hard to control all the distractions, like barking dogs and unexpected interruptions by students who did not realize that their mic was turned on. Also, they felt dealing with the online platforms and tools is also a burden. It seems that the ideal course of them is delivering lectures in-person and most other parts online.

¡¡) Expectations on future hybrid courses

 Both professors agreed that hybrid courses will be a dominant modality in the future. Even though there may be no danger of a pandemic in the future, there are still many factors of preferring hybrid courses, such as increasing international students and students’ convenience. In their opinion, hybrid courses that deliver lectures in both online and in-person ways will be a major modality of university education, like lecture live streaming. As students’ needs get broader and various, giving a wider range of choices might be the best way to satisfy the majority of students. However, they suggested two concerns about the hybrid courses; First, making students participate in debates in both channels can be hard. In in-person lectures or online lectures, professors can assign students in groups easily to make the students have debates. However, if there are two groups of students, coming to the classroom and taking lectures online at the same time, it can be hard to assign both groups into smaller groups. Also, lecturing in-person and streaming it at the same time can be distracting. If professors have both in-person lectures and live streaming, they have to care for both of them. However, because they cannot be sure that the lecture is streamed well or solve the technical problems when there are any troubles, either of them can be bothered by the other’s problem.

3. Conclusion

1) Summary and overall interpretation of findings

 In summary, regardless of the educational value students regard as important, status, and school year, UBC students prefer hybrid courses to other modalities. Students are experiencing various kinds of online tool usage in hybrid courses, but the most popular methods students prefer the most and want for the future hybrid courses in lecture recording. On the other hand, labs/tutorials, discussions, and exams were preferred to be offered in-person. As most students value learning itself a lot in university-level education, the result can be interpreted that students hope to have better access to lectures, but do not pursue convenience before the quality of education. Also, it seems students do not believe in the controllability of online courses, which leads to the preference for in-person exams.

 Professors’ opinions largely followed the students’ preferences. Professors also thought hybrid courses are effective for education and will be a major trend in the future. However, preparing lecture recording or lecture streaming can be a burden or be forgotten if recording the lecture is totally put to professors. Therefore, universities’ assistance for easier recording, for instance, an automatic recording/streaming system, is required.

2) Recommendations on hybrid course

 The two major obstacles of hybrid courses are controllability and professors’ burden. Online modality is harder to control than in-person. While using online parts, it is hard to make students concentrate or not cheat. Also, unlike in-person circumstances which make everyone be in the same classroom that set for the lecture and no special tool is necessary, online circumstances are situational factors that cannot be controlled like technical problems or interruptions by external elements. Furthermore, professors have to get ready for the additional work and deal with technical devices and tools even though they are not familiar with them. To improve the experiences in hybrid courses, these two factors must be solved.

 To solve these problems, this study suggests three recommendations:

* Designing hybrid courses in two parts

 Designing hybrid courses in a proper way can solve part of the problems. First, the course elements should be divided into two: parts that should be controlled strictly, and parts that do not require such a level of control. For example, exams must be controlled strictly. When designing hybrid courses, elements in the former parts are better be in-person.

* Using gamification

Also, using gamification to engage students to concentrate more can be one way to be considered in designing hybrid courses. By giving light tasks to students at every stage and showing their progress, students can engage more and control themselves to engage in the course.

* Emphasize the university’s role

 The university’s role is also very important in improving students’ experiences in hybrid courses. Professors’ burdens on preparing hybrid courses cannot be solved easily by personal efforts. To solve the problem, the university also needs to support hybrid courses. For example, as mentioned above, providing an automatic live streaming and recording system in every classroom can make all the courses provide lecture recordings easily. Other efforts, such as assigning empty classrooms to professors who are having online lectures can be also good solutions.

**Appendix**

Survey Questions

Improving UBC Students’ Experience in Hybrid Courses - Student Survey

I am an undergraduate student at UBC, conducting a study for ENGL 301: technical writing course. This survey is purposed to investigate UBC students' experience and preference on the pedagogy of courses in UBC, especially for the hybrid courses. The data will be used as primary data for the study that aims to suggest better ways of delivering courses using online tools in UBC. The final formal report will be addressed to professors in UBC, especially to the president of UBC. The survey contains 14 multiple-choice questions at most, and it should take about 5 minutes of your time. Your responses are voluntary, anonymous, and will be used only for the mentioned study. I appreciate your participation in this survey.

Part A. Experience on Online/Hybrid Courses

A1. Please select all the types of courses you have experienced.

 (Hybrid course means in-person courses using online platforms for students’ learning, including live-streaming, lecture recording, flipped courses, etc.) [Multiple]

1. In-person. -> If not selected, skip A2

2. Online

3. Hybrid -> If 2 or 3 is not selected, skip A3

A2. Delivering courses in-person is

1. Very satisfactory

2. Satisfactory

3. Neutral

4. Dissatisfactory

5. Very dissatisfactory

A3. Delivering courses online/hybrid is

1. Very satisfactory

2. Satisfactory

3. Neutral

4. Dissatisfactory

5. Very dissatisfactory

A4. Please select all the methods you experienced in hybrid courses. [Multiple]

1. Pre-lecture contents

2. Lecture live stream

3. Lecture recording

4. Online questions/polls during the lecture

5. Online discussion forum

6. External resources provided online

A5. Please select the method you preferred the most in hybrid courses. [Multiple]

1. Pre-lecture contents

2. Lecture live stream

3. Lecture recording

4. Online questions/polls during the lecture

5. Online discussion forum

6. External resources provided online

 -> Display the choices selected at A4 only

A6. Please choose the reasons you were dissatisfied with online/hybrid courses. [Multiple]

 -> Skip this question if Q3 = 1 or 2 or 3

1. Too distracting to focus on lectures

2. Hard to communicate with professors/TAs

3. Hard to communicate with other classmates

4. Privacy issues

5. Dissatisfactory platforms

6. Network connectivity

7. Poor quality control

8. Others (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)

Part B. Preference on Online/Hybrid Courses

B1. Please rank the methods of course delivery you prefer the most. [Rank]

 Rank

In-person 1 2 3

Online 1 2 3

Hybrid 1 2 3

B2. What do you expect the most in hybrid courses?

1. Mostly conducted in-person, and partially adapt online platforms. -> Skip B4

2. Using both in-person and online methods in fifty-fifty

3. Mostly conducted online, and partially adapt in-person delivery -> Skip B3

B3. Which part of the course will be fit for online? [Multiple]

1. Pre-lecture contents

2. Lecture streaming

3. Learning materials

4. Assignments

5. Discussions

6. In-lecture questions/polls

7. Office hours

8. Labs/tutorials

9. Exams

10. Others (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)

B4. Which part of the course will be fit for in-person? [Multiple]

1. Discussions

2. Office hours

3. Labs/tutorials

4. Exams

5. Others (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)

B5. Please select the method you want for your future hybrid courses. [Multiple]

1. Pre-lecture contents

2. Lecture live stream

3. Lecture recording

4. Online questions/polls during the lecture

5. Online discussion forum

6. External resources provided online

7. Online office hours

8. Online labs/tutorials

9. Online exams

10. Others (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)

B6. Please select the value that is most important for you in university education.

1. Quality of Lecture

2. Motivating Study

3. Convenience

4. Clear delivery

5. Network and friendship

6. Can focus better

7. Time management

8. Personalized learning

9. Others (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)

Part C. Background Information

C1. Please select your student type.

1. Domestic

2. International

C2. Please select your school year.

1. 1st

2. 2nd

3. 3rd

4. 4th

Thank you for your time spent taking this survey.

Your response has been recorded.

* Interview Questions

**Improving UBC Students’ Experience in Hybrid Courses - Professor Interview**

I am Hansol Yang, an undergraduate student at UBC. I am conducting a study investigating the experiences in hybrid courses in UBC for ENGL 301: technical writing course. This e-mail interview is purposed to investigate UBC professors' experience, especially difficulties and preference for delivering the lectures in hybrid ways. The data will be used as primary data for the study that aims to suggest better ways of delivering courses using online tools in UBC. The final formal report is planned to be addressed to professors in UBC, especially to the president of UBC. The interview contains 5 questions, and it should take about 10 minutes of your time. Your responses are anonymous and will be used only for the mentioned study. I appreciate your participation in this study.

Q1. How satisfied or dissatisfied are you with in-person/online/hybrid courses? Please explain the reasons for your choices shortly.

In-person:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Very dissatisfied | Dissatisfied | Neutral | Satisfied | Very satisfied |

Online:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Very dissatisfied | Dissatisfied | Neutral | Satisfied | Very satisfied |

Hybrid:

(Hybrid course means in-person courses using online platforms for students’ learning, including live-streaming, lecture recording, flipped courses, etc.)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Very dissatisfied | Dissatisfied | Neutral | Satisfied | Very satisfied |

Q2. What do you think about the pros and cons of hybrid courses?

Q3. Please explain the difficulties you experienced in online/hybrid courses based on the three phases below.

1: Preparing lecture (pre-lecture activities)

2: During the lecture

3: Post-lecture activities

Q4. In the three phases of the course, pre-lecture, during the lecture, and post-lecture, on which phase do you think it is most useful to use online tools? Please explain with examples of using online tools.

Q5. In your opinion, what will be the majority way of delivering courses in the future, among in-person, online, and hybrid? What is your biggest concern if you have to follow the way?

Thank you for your participation.

Your response will be valuable data in the study.

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