Letter of Transmittal

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March 26, 2022

Dr. Santa J. Ono, President & Vice-Chancellor of the University of British Columbia

7th Floor, Walter C. Koerner Library

1958 Main Mall

Vancouver, BC, V6T 1Z2, Canada

Dear Dr. Santa J. Ono:

This report, 'Improving UBC Students' Experience in Hybrid Courses,' studied preferences and opinions on hybrid courses for finding better ways of designing hybrid courses. As the pandemic caused a great shift in the educational environment, it seems we need to think about the way of delivering educational content and instructions. Therefore, the study purposed to suggest how to improve hybrid courses based on the opinions of members of UBC.

The study was conducted for a week, having a survey of 32 UBC students and an interview with 2 UBC professors. As a result of the study, the report presents three suggestions: considering which parts should be online, using gamification, and recognizing the university's roles. You can check the further details in the report below.

Hopefully, this report helps improve the quality of education at UBC. Please get in touch with me via hansol94@student.ubc.ca if you have any opinions to discuss with me. Thank you for your interest and efforts on improving educational quality at UBC.

Best Regards,

Hansol Yang

Improving UBC Students' Experience in Hybrid Courses

for

Dr. Santa J. Ono

President & Vice-Chancellor

University of British Columbia

by

Hansol Yang

UBC student (ENGL 301)

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Contents

Abstract

Appendix: Survey and Interview Questions

References

Figures and Tables

Abstract

The research was planned to figure out better methods of designing hybrid courses for UBC students. For this purpose, the research investigated what students and professors in UBC think about the three kinds of modalities, online, hybrid, in-person, using a survey, and an interview. According to the research, UBC students prefer hybrid courses, especially for accessibility to lectures. However, they also believe some parts should be delivered in-person due to the issue of controllability. Professors also feel that hybrid courses are necessary even though there are some burdens and concerns on students' engagement in the lectures. Therefore, to provide better experiences in hybrid courses, there should be more consideration on the controllability, lowering burdens, and increasing engagement, such as dividing online and in-person parts more considerably, using gamification, and offering more support by universities.

I. Introduction

Since the first COVID-19 case was found, there was a big wave of change from offline to online. The university education was not an exception, and most universities shifted the offline courses into online courses. Now, as the pandemic shows its end but still with the danger of COVID-19, many universities and professors accepted hybrid courses, using online platforms spontaneously with in-person lectures. However, since students' opinions on the course modalities are not clarified, the university does not have clear instruction or supports on the hybrid courses, and some professors have burdens of offering course instructions in both ways. To solve this problem, students' opinions should be studied in detail, and the university should recognize the situation and offer proper guidelines. Therefore, in this study, I will investigate the current situation and opinions regarding hybrid courses and recommend improving the hybrid courses to improve the satisfaction of students on the UBC courses and lessen the burden of professors.

A. 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). It does not mean that all the courses using online platforms 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 should be done in online spaces.

B. 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 still offer distance teaching. In this situation, UBC students could experience all three modalities, online, in-person, and hybrid, and think about their preferences and needs on course delivery. However, the preferences and needs have not been studied yet, so many courses depend on professors' own decisions. To help professors to know the students' wants on the modalities and suggest a good way of improving students' satisfaction, investigating students' preferences for the courses modalities is highly important.

C. Purpose of this report

This study is aimed to find out what students want for the courses and recommend ways of designing better hybrid courses. To determine what the students desire for the courses, the study investigates students' experience and preferences in the course modalities. Also, the study researches the professors' perspectives on the course modalities. By analyzing the opinions on the hybrid courses, this study suggests course designs for offering hybrid courses with better experiences for UBC students.

D. Brief description of data sources

First, this study investigates the UBC students' opinions on hybrid courses using a survey. The survey asked questions about experience and preference for hybrid courses to 32 UBC students. The survey result was used to analyze how students think about hybrid courses, what they want from the hybrid modality, and possible factors that affected their preference for the hybrid courses. Also, to check the suggestions from professors' perspectives, an interview with two UBC professors was conducted. The interviewees were limited to the professors who experienced delivering hybrid courses.

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

E. Scope of this inquiry

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

The scope of the survey was 32 UBC students. The survey was conducted until exceeds 30 participants for statistical significance. The survey asked for opinions and preferences for online, hybrid, and in-person courses based on their experience. Also, to find out possible influences on different preferences for hybrid courses, the survey contained background information questions.

The scope of the interview was two professors who experienced hybrid courses. The interviewees were asked about their satisfaction with each course methodology they experienced, and their anticipation and preference for hybrid courses.

A. Worldwide trend of hybrid courses

Affected by COVID-19, experience in the online courses changed students' preference for course modalities. According to research, US students prefer online learning now than pre-pandemic, as at least 47% of participants became more optimistic about online learning. (McKenzie, *Students Want Online*) As expected by this result, students' preference for hybrid courses got higher due to the experience of the online courses.
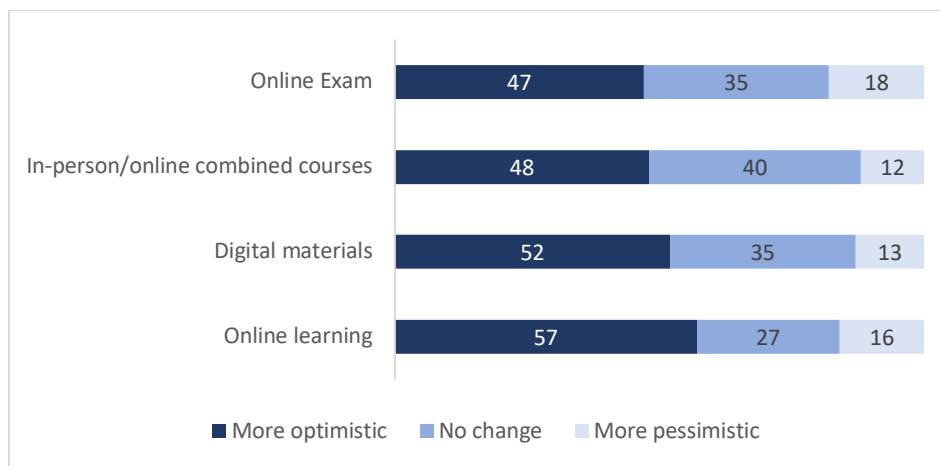
Figure 1. Student Changes in Attitudes Since Prior to the Pandemic (McKenzie, *Students Want Online*)

1) Online tool usage in universities

Even before the pandemic, many universities used online platforms. In 2017, 33.5% of higher education students in the US experienced distance 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 imply that many 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 during the pandemic, it can be expected that most universities now use online tools actively.

2) Satisfaction with hybrid courses

Many studies show that students are satisfied with hybrid courses. As seen in Figure 2, around 90% of students think online education is better or about the same as in-person education. (Bouchrika)
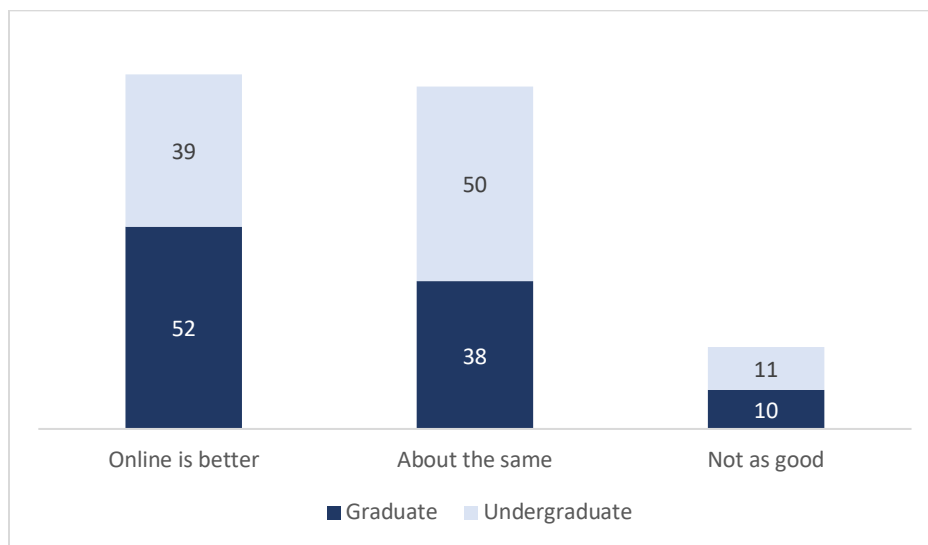
Figure 2. College-Level Learning Experience: Online vs. Classroom (Bouchrika)

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 is a higher engagement rate. The study showed that 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 students have to be in a certain place in

certain time for in-person lectures and get limited opportunities to reach out to professors or other classmates, 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 such learning environment leads to higher satisfaction.

B. Studies on students' experiences

Based on the survey targeting UBC students, this study examines the students' experiences with 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.

1) Online tool usage in universities

Most of the students who participated in the survey experienced all three modalities, online, hybrid, and in-person. The most often used online method in hybrid courses was the lecture recordings (96.9%). Still, the experienced rates were not that different among the given methods; various kinds of online tools are frequently used in UBC, and students are easily exposed to most of the tools. However, preference for the methods differs a lot, concentrated mostly on the lecture recordings. As shown in Figure 3, most students prefer lecture recording the most (50%), and the second most preferred method is lecture live streaming (28.1). The result shows that UBC students have needs on taking lectures without time and space limits.
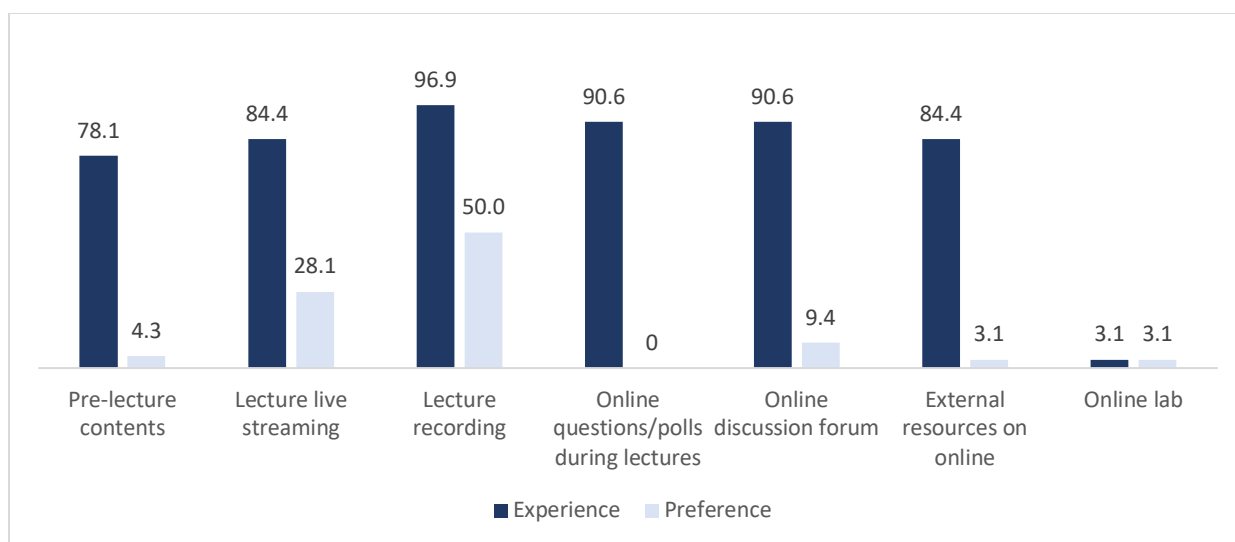
Figure 3. UBC students' experience and preference for online tool usage

2) Satisfaction with hybrid courses

Most students do not feel dissatisfaction with both in-person and online/hybrid courses, but online/hybrid courses show higher satisfaction with the average of 4.44 out of 5 while in-person course satisfaction scored 3.56 on average. 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 to be conducted 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%. The participants had various opinion on the parts fit for online and in-person, but most of them 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 percentages of students who thought the three parts are better to be online were only 18.8%, 37.5%, and 12.5% respectively. Office hour was the only part that preferred to be online. On the other hand, 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 preferred to be offered online in hybrid courses, shown in 72.2% of the answers.
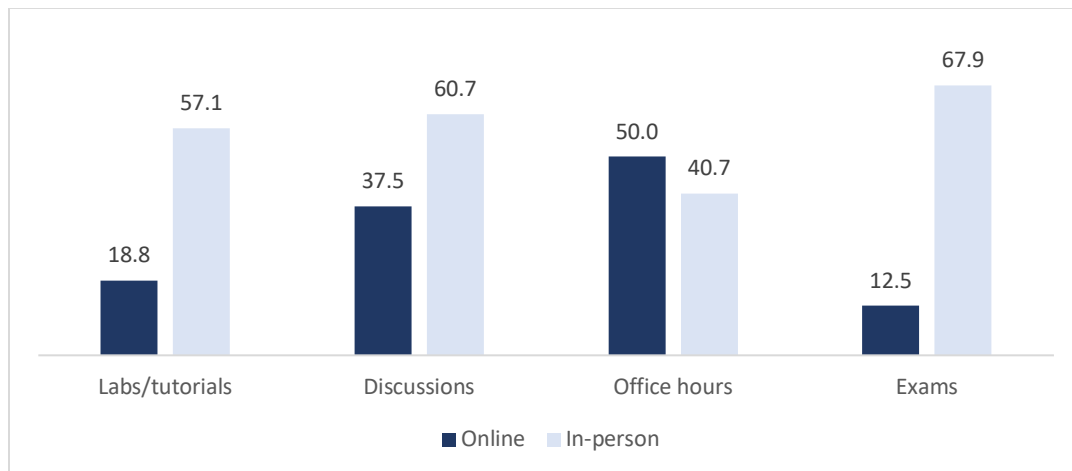
Figure 4. Preference for Online/In-person in Parts of the Courses

Most students want lecture recordings to be provided in hybrid courses (96.9%). The needs for 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 ways to have connections and discussions in online courses.

3) 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 the significance level of 0.05, which shows there are no significant factors. Therefore, it is hard to say that the educational value, students' status, or the school year influence the preference for hybrid courses.

	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

C. Professors' opinions on hybrid courses

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

1) 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 hybrid courses, sharing opinions in both ways, online and in-person. Also, as they provide pre-lecture materials via online platforms, they can concentrate more on the examples and important points

in the lecture. The burden of offering the pre-lecture materials was not that significant, because they can use the contents from former terms that they prepared before. However, they concerned that providing all the materials including the lecture recordings might make some students not come to in-person lectures, which makes the gap of engagement among students get larger. 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. It is hard to control all the distractions, like barking dogs or other unexpected interruptions. Also, they felt dealing with the online platforms and tools causes some problems. It seems that delivering lectures in-person and most other parts online is ideal for them.

2) Expectations for future hybrid courses

   Both professors agreed that hybrid courses will be a dominant modality in the future. Even though the pandemic shows its end, there are still many other factors for preferring hybrid courses, such as the increasing number of international students and students' convenience. In their opinion, hybrid courses that spontaneously 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 more students. However, they suggested two concerns about the hybrid courses; first, making students participate in debates on 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 the students participate in both online and in-person lectures, it can be hard to assign students in both channels into smaller groups at the same time. 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. As they cannot be sure that the lecture is streamed well or cannot solve the technical problems immediately, either of them can be bothered by the other's problem.

III. Conclusion

A. Summary and overall interpretation of findings

In summary, regardless of the important educational value, status, and school year, UBC students prefer hybrid courses to other modalities. Students are experiencing various kinds of online tools in hybrid courses, but the most popular method students prefer the most and want for future hybrid courses is lecture recording. On the other hand, labs/tutorials, discussions, and exams were preferred to be in-person. As most students value the quality of learning 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, students showed less trust in the controllability of online courses than in-person, which leads them to prefer 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 put entirely on professors. Therefore, universities' assistance for easier recording, for instance, an automatic recording/streaming system, is required.

B. 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 that make everyone be in the same classroom setting and no special tool is necessary, online circumstances are affected by situational factors that cannot be controlled by professors, like technical problems or interruptions by external elements. Furthermore, professors have additional work and must 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:

First, dividing the course elements into two parts, in-person and online, based on whether controllability is required. The parts that should be controlled strictly are better be delivered in-person, and the parts that do not require such a level of control should be online. For example, exams must be controlled strictly, so it is better to be in-person.

Second, using gamification to engage students to concentrate more can be one way to be considered in designing hybrid courses. Gamification, giving tasks and proper rewards, is one of the popular solutions for increasing engagements in many fields. (Bernik et al. 489) For example, professors can adopt in-class problems designed like a journey that gives rewards or giving light tasks that is interesting but related to the course. By giving such tasks to students at every stage and showing their progress, students can engage more and control themselves to engage in the course.

The final suggestion is to 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 for 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 at 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

<div align="center">Thank you for your time spent taking this survey.

Your response has been recorded.</div>

- 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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