The Chinese University of Hong Kong
Centre for Learning Enhancement And Research

<u>Report for Teacher Survey on Teaching Experience with Zoom</u>

<u>Background</u>
The first ever university-wide online teaching on Zoom, a cloud platform for video and audio conferencing, started on 17 February 2020. To provide timely support to teachers and students, the Centre for Learning Enhancement And Research conducted two user experience online surveys to collect feedback of teachers and students on using Zoom to teach and learn. This report presents the key findings of the teacher survey in two parts. Part I includes findings from the quantitative data while Part II includes an analysis of the responses to open-ended questions of the survey.

<u>Administration of survey</u>
Period – 17 to 22 February 2020
Means – uReply   (Survey link was sent to all teachers by mass email. Full survey is available at *Appendix I*)

<u>Part I: Key findings from quantitative data</u>
A total of 374 responses from teachers were collected. This section presents a summary of the key findings of the whole sample.

1. Course information
1.1.   Course Level
About two-third (68.7%) of the teacher respondents were teaching undergraduate level courses (3000 level or below). About a third (31.3%) were teaching postgraduate level (4000 level or above).

Coursel Level	Percentage
Level 1000	32.8%
Level 2000	17.9%
Level 3000	17.9%
Level 4000	6.3%
Level 5000 or above	25.1%

1.2.   Class size
More than half (57.2%) of the classes had less than 30 students. About a quarter (28.8%) had between 31 and 60 students.

Class size	Percentage
Less than 30	57.2%
Between 31 and 60	28.8%

Between 61 and 90	6.4%
91 or more	7.6%

1.3. *Course duration*

Most of the lessons were either 2 hours (45.1%) or 3 hours (40.4%) long.

Course duration	Percentage
1 hour	9.8%
2 hours	45.1%
3 hours	40.4%
Longer than 3 hours	4.7%

2. Attendance rate

The average attendance rate was 90.8%. The figure was calculated by dividing the reported attendance figure by the reported enrolment figure, so that the attendance rate for some courses exceeded 100%.

Attendance rate range	Percentage
80% or less	18.3%
Between 81% to 90%	17.5%
Between 91% to 100%	56.9%
More than 100%	7.3%

Large classes with more than 61 students were more likely to have a low attendance rate (defined as 90% or lower). Undergraduate courses were more likely to have a low attendance rate, while postgraduate courses were more likely to have a high attendance rate.

3. Feedback on Zoom Functions

3.1. *"Share screen" & "Chat"*

An overwhelming majority of the teachers have used "**Share screen**" (98.4%) or "**Chat**" (94.0%) functions in Zoom. Most also found the two functions easy to use (93.0% & 91.7% respectively) or facilitative of teaching (96.5% & 86.3% respectively).

3.2. *"Breakout room" & "Poll"*

Close to half of the teachers have used "**Breakout room**" (48.6%) or "**Poll**" (43.0%) functions. Only about a third found the two functions easy to use (40.1% & 35.4% respectively) or facilitative of teaching (33.8% & 36.4% respectively).

Zoom functions	Ease of operation			Facilitative of teaching	
	Yes	No	Not used	Yes	No
Share teacher's computer screen	93.0%	5.4%	1.6%	96.5%	1.6%
Chat	91.7%	2.2%	6.0%	86.3%	8.0%

| Breakout Room | 40.1% | 8.5% | 51.4% | 33.8% | 9.6% |
| Poll | 35.4% | 7.6% | 57.0% | 36.4% | 4.8% |

3.3. Comparison among teacher segments on Zoom functions feedback

Teachers with a large class size (i.e., larger than 61 students) were significantly less likely to report that breakout room was facilitative to teaching. Teachers of postgraduate courses (i.e., level 4000 or above) were significantly more likely to report that breakout room was facilitative to teaching.

4. Teaching effectiveness using Zoom

4.1. Coverage of content

Most (64%) teachers reported that they covered everything they have planned. About a third (29.6%) said they covered around 75% of the content planned.

Percentage of content covered	Percentage
100%	64.0%
Around 75%	29.6%
Around 50%	5.5%
Around 25%	1.0%

4.2. Effective virtual lesson

About two-third of the teachers agreed (50%) or strongly agreed (15%) that Zoom has enabled them to deliver an effective virtual lesson.

Do your agree ZOOM has enabled you to deliver an effective virtual lesson?	
Strongly disagree	7.7%
Disagree	8.7%
Neutral	19.0%
Agree	49.8%
Strongly agree	14.8%

5. Student engagement in virtual lessons

Compared with face-to-face lessons, teachers reported a general decrease in student engagement in virtual lessons:

5.1. Attention

One-third (33.3%) of the teachers disagreed (24.8%) or strongly disagreed (8.5%) that students were more attentive in virtual lessons. Only about one-in-seven agreed (12.1%) or strongly agreed (2.3%) with the statement. About half (52.4%) of them were neutral.

5.2. Ask more questions

Close to half (42.8%) of the teachers disagreed (29.4%) or strongly disagreed (13.4%) that students asked more questions in virtual lessons. About a quarter (24.8%) said they agreed (19.9%) or strongly agreed (4.9%) with the statement.

5.3. Engaged in breakout sessions

Nearly three-quarter (72.2%) of the teachers were neutral about whether students were more engaged in the breakout session. About one-in-five (18.6%) said they disagreed (12.3%) or strongly disagreed (6.3%). Less than one-in-ten (9.2%) said they agreed (7.4%) or strongly agreed (1.8%) with the statement.

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Students were more attentive in virtual lessons	8.5%	24.8%	52.4%	12.1%	2.3%
Students asked more questions in the virtual lessons	13.4%	29.4%	32.4%	19.9%	4.9%
Students were more engaged in the breakout sessions	6.3%	12.3%	72.2%	7.4%	1.8%

6. Overall satisfaction

Around two-third (67.1%) of the teachers were satisfied (55.4%) or highly satisfied (11.7%) with the use of Zoom in conducting online teaching.

Indicate your overall level of satisfaction with the use of Zoom in conducting online teaching	
Highly unsatisfied	3.6%
Unsatisfied	7.5%
Neutral	21.8%
Satisfied	55.4%
Highly satisfied	11.7%

7. *Faculty affiliation*

Teachers from all eight Faculties were represented. Faculty of Art was the biggest group (32.1%), while the Faulty of Law was the smallest group (0.7%). Note that only about 37% of respondents have answered this question since the question was added after 18 February—one day after the survey started.

Faculty Affiliation	No. of responses	Percentage
Arts	45	32.1%
Business Administration	13	9.3%
Education	27	19.3%
Engineering	18	12.9%
Law	1	0.7%
Medicine	4	2.9%
Science	5	3.6%
Social Science	23	16.4%
Other academic units	4	2.9%
Total	**140**	**100%**

Part II: Qualitative comments
There were two open ended questions on the good aspects of Zoom, as well as the difficulties faced. A detailed breakdown of the comment can be found in *Appendix II*.

1. Comments on good aspects:
A total of 297 comments on good aspects were received. More than half (69.7%) of the comments were related to technical feature (e.g., user-friendly, different functions), followed by its ability in facilitate teaching (20.9%), and ability in facilitate learning (6.7%). Some typical comments are:
*   **Students more willing to share their thoughts:** "Students have shown more of their friendliness and appreciation. For example, they are patient and supportive for the online teaching, and they expressed their gratitude in the "Chat" area towards the end of the class."; "Students actively raise questions and are willing to share their opinions and comments in class, especially via Chat."
*   **Convenience**: "It's ubiquitous. You can transcend space. Some people must find it very convenient to use ZOOM"
*   **User-friendliness:** "easy to use" ; "The share screen function is easy to work with." "It's almost as good as face-to face teaching. For personal consultation (1 on 1/2/3 sessions, 15-45 minutes) it's even better , because of its "Share Screen" function , which is easy to work with."
*   **More comfortable for students to raise question:** "Students seems to be more willing to ask questions as Zoom allows private chats."
*   **A good substitution in the current situation**: "I still prefer the real classroom for its higher interactive nature, but Zoom serves our current purpose fairly satisfactorily."
*   **Engaging atmosphere**: "Most students wouldn't mind showing their faces and speaking in the mic today. The overall atmosphere was pretty engaging with students responding to polls, asking and responding to questions either by unmuting themselves or typing on chat pretty instantly. Some of them said it's just like a face-to-face session."

2. Comments on difficulties or supported needed
A total of 497 comments on difficulties or support needed were received. Most (50.9%) of the comments reported difficulties that were technical in nature, including basic technical issues answerable by existing guidelines (12.1%), and more advanced issues that required further support (38.8%). More than a fourth (26.8%) were related to pedagogical problems (e.g., reduced interaction, unable to make sure students had pay attention or not). Other issues such as limitation of network access in other countries and the long time for Zoom to convert sessions to video were also mentioned. It is worth to note that 93 comments (18.7%) reported that Zoom worked well at the moment and 5 comments (1.0%) reported that they disliked Zoom anyway. Some typical comments are:
*   **Students' attention:** "Not being able to see the students makes it harder to gauge if the students are following the materials. It's also more difficult to spot if any students are drifting away."
*   **Interaction in class:** "Not as interactive as I want. Do not know the responses of students. The teacher does most of the talking and students sharing has decreased."
*   **Hard to use**: It is difficult to manage several windows and button at the same time. It is quite challenging to deal with and switch between all the controls (ppts, chats, sharing screen, breakrooms).

- **Network connection:** "Zoom got disconnected several times. It could be caused by the poor internet connection in the university staff residence."
- **Hardware support:** "We need better hardware, e.g. large screen to capture students' response." "Need advice to choose and reimbursement for the necessities of online teaching, such as noise-cancelling microphone, camera, router or data plan."
- **Third-party audio-visual materials:** "When playing them on Zoom, the quality is not high, sometimes the screen turned blurry, and it often lags. This issue particularly affect courses of film appreciation, art, and music."

Appendix I: Full teacher survey
Question 1:

Date of virtual lesson –

a. 17 February 2020 (Monday)
b. 18 February 2020 (Tuesday)
c. 19 February 2020 (Wednesday)
d. 20 February 2020 (Thursday)
e. 21 February 2020 (Friday)
f. 22 February 2020 (Saturday)

Question 2:
Level of course -

a. Level 1000
b. Level 2000
c. Level 3000
d. Level 4000
e. Level 5000 or above

Question 3: (Answer only in numbers)

(Approximate) number of enrolments for the course

Question 4 : (Answer only in numbers)

(Approximate) number of participants in the virtual lesson

Question 5:

Duration of lesson -

a. 1 hour
b. 2 hours
c. 3 hours
d. Longer than 3 hours

Question 6:

Did you find the following ZOOM function easy to operate?

Breakout room

a. Yes
b. No
c. Not used

Question 7:

Did you find the following ZOOM function easy to operate?

Chat

a. Yes
b. No
c. Not used

Question 8:

Did you find the following ZOOM function easy to operate?

Share teacher's computer screen

a. Yes
b. No
c. Not used

Question 9:

Did you find the following ZOOM function easy to operate?

Poll

a. Yes
b. No
c. Not used

Question 10:

Did you find the following ZOOM function facilitative of your teaching?

Breakout room

a. Yes
b. No
c. Not used

Question 11:

Did you find the following ZOOM function facilitative of your teaching?

<u>Chat</u>

a. Yes
b. No
c. Not used

Question 12:

Did you find the following ZOOM function facilitative of your teaching?

<u>Share teacher's computer screen</u>

a. Yes
b. No
c. Not used

Question 13:

Did you find the following ZOOM function facilitative of your teaching?

<u>Poll</u>

a. Yes
b. No
c. Not used

Question 14:

Did you manage to cover what you had planned?

a. 100%
b. Around 75%
c. Around 50%
d. Around 25%

Question 15:

Do your agree ZOOM has enabled you to deliver an effective virtual lesson?

1. Strongly disagree
2. Disagree
3. Neutral

4. Agree
5. Strongly agree

Question 16:

How would you compare student engagement and level of participation in the virtual lesson with those of a lesson in the lecture hall?

Students were more attentive in the virtual lesson.

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

Question 17:

Students asked more questions in the virtual lesson.

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

Question 18:

More students engaged in the breakout sessions.

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

Question 19:

Indicate your overall level of satisfaction with the use of Zoom in conducting online teaching.

1. Highly unsatisfied
2. Unsatisfied
3. Neutral
4. Satisfied
5. Highly satisfied

Question 20 (open-ended):

List some good aspects of using Zoom.

Question 21 (open ended):

List the problems / difficulties you have had in conducting online teaching using Zoom.

Appendix II – Breakdown of qualitative comments

1. Comments on good aspects of Zoom

A breakdown of the major comment categories is presented below:

Category	Comment	No. of response	Percentage
Technical features (n=207, 69.7%)	User friendliness	47	15.8%
	In-chat (students are more willing to ask questions, participate in discussion, and share ideas with others)	39	13.1%
	Share screen (smooth, students can present, easy to use, can catch student attention)	28	9.4%
	Satisfying functions (e.g. accessible, convenient, versatile, interactive etc.)	21	7.1%
	Breakout room (smooth, easy to operate, can enter each room, good for discussion and activities)	12	4.0%
	Recording (can pre-record, for teacher reflection, for student revision)	11	3.7%
	Whiteboard/ annotate	10	3.4%
	Good connection/ speed	7	2.4%
	Polling (encourage response, anonymous, share results immediately)	7	2.4%
	Smooth Operation	5	1.7%
	Good audio quality	5	1.7%
	Good video quality	5	1.7%
	Meeting Controls (can mute and unmute)	5	1.7%
	Other features (One-click join, report and statistics, raise hand, etc.)	5	1.7%
Facilitate Teaching (n=62, 20.9%)	Enable teaching in the current situation/ good substitution	20	6.7%
	Enable interaction/connection with students	11	3.7%
	Flexibility in time and location (can teach everywhere)	10	3.4%
	Close to real life teaching	6	2.0%
	Convenient to share materials	6	2.0%
	Teacher satisfaction	2	0.7%
	Good for flipped classroom	1	<0.5%
	Good for small class teaching	1	<0.5%
	Good for well-planned interactive, integrative and creative production activities	1	<0.5%
	Can invite guest speakers	1	<0.5%
	More focused when teaching	1	<0.5%
	Motivate teachers to ask questions to check students attentiveness	1	<0.5%
	Equal distance	1	<0.5%

Facilitate Learning (n=20, 6.7%)	Better engagement/ participation compared to F2F teaching	5	1.7%
	Better group discussion/ group work	4	1.3%
	Good student attendance and punctuality	3	1.0%
	Promote student engagement/ attention	3	1.0%
	Student satisfaction	2	0.7%
	Better communication	1	<0.5%
	Better understanding of the materials	1	<0.5%
	Students can surf the links I shared in real time	1	<0.5%
Others (n=8, 2.7%)	Save transportation time and/or cost	7	2.4%
	Students showing more patience and appreciation	1	<0.5%
Grand Total		**297**	**100%**

2. Comments on difficulties or support needed

A breakdown of the major comment categories is presented below:

Categories	Comments	No. of Response	Percentage
Basic technical questions (n=60, 12.1%)	Network connection is not stable.	35	7.0%
	Problems related to particular Zoom function (e.g., ShareScreen, Chat, and Breakout Room)	12	2.4%
	Technical difficulties (did not mention specific difficulties)	8	1.6%
	Sometimes logout suddenly.	4	0.8%
	Students may need more support.	1	<0.5%
Advanced technical questions (n=193, 38.8%)	Teachers need more support (from technical team, teaching assistants, and others)	38	7.6%
	Issues related to Breakout Room (e.g., difficult to communicate with and monitor students, not flexible, fail to assign/pre-assign students into room, and other issues)	36	7.2%
	Difficulties in switching between different functions	32	6.4%
	Issues related to ShareScreen (e.g., Hard to write on screen, poor quality in sharing pictures/films, hanged, and other issues)	32	6.4%
	Hardware/financial support (Laptop cannot run Zoom fluently, lack of headphones/microphone/data/dual screen)	27	5.4%
	Technical difficulties (reduce noise, recording Zoom sessions)	7	1.4%
	Issues related to taking attendance (remove unidentified participants, generate attendance report)	7	1.4%
	Issues related to other Zoom teaching functions (Virtual Background, Chatroom, and Poll)	8	1.6%

	Integration with other systems, such as Panopto and Blackboard.	3	0.6%
	Environmental issues: Do not have a good environment for conducting Zoom lecture	2	<0.5%
	Waiting Room use is not recommended	1	<0.5%
Pedagogical problems (n=133, 26.8%)	Cannot ensure that students are paying attention in class.	46	9.3%
	Interaction decreased	45	9.1%
	Camera and Mute functions: Require students to open camera.	17	3.4%
	Disciplinary-specific problems: (Studio art – hard to interact)	8	1.6%
	Need tips, good practices, and successful teaching experiences.	7	1.4%
	How to conduct assessment via Zoom?	3	0.6%
	Camera and Mute functions: Better not require students to open their camera or unmute them (e.g., prevent noises)	3	0.6%
	Need to gain students' acceptance	1	<0.5%
	Difficulties in adjusting a proper manner in online teaching	1	<0.5%
	Students' improper behavior	1	<0.5%
	Widen the learning differences among learners	1	<0.5%
Other issues (n=13, 2.6%)	Zoom, VPN, and Blackboard works poorly in Mainland China	7	1.4%
	It takes a long time to convert the Zoom session into a video	4	0.8%
	Health issues: eyes strain, throat hurts	2	<0.5%
Dislike Zoom anyway		5	1.0%
Up until now, Zoom works well		93	18.7%
Grand Total		**497**	**100%**