Creating a Positive Learning Environment in Zoom

To create a positive learning environment for online classes, there are 5 essential aspects that faculty at HKUST shared that proved to be successful in their online teaching.

A. Connection Before Content, Even More So in Online Classes

Connection before content, establishing a **sense of community** also helped students engage with the instructors and peers. One crucial factor is building connections with the students and understanding their needs, such as emotional needs, and building up proficiency to navigate different functions in Zoom and other EdTech tools. Various practices such as a **greeting video**, setting up an **online chat group** for after class communication, and arriving early or staying behind class to answer some burning questions for the content students do not fully understand.

Prof. Siddharth BHAMBHWANI | Assistant Professor | ACCT | SBM
- **Understanding students' needs**: A lot of students were enduring significant **stress being apart from friends** and **missing the college experience** during the pandemic, which made it important to be **accommodating** and **friendly** with them.

Delian GASKELL | Senior Lecturer | CLE | SHSS
- I've been trying to personalize my Canvas LMS usage a bit more this semester. At the beginning of every week, I try to post a 1 to 2-minute **greeting video** of myself explaining what's coming up this week for the lessons and remind students what's due if necessary. Below that I have a 'video of the week' (usually a streamed YouTube video), though students are welcome to choose a video themselves. I then **play that music at the beginning** of class when/if I arrive early and when the students are coming out of their breakout rooms. Next semester, I will ask a different student each week to choose a video instead of doing it myself.

B. Engagement Matters: Importance of Engagement in Online Environments

Engagement is crucial to student learning and satisfaction in online classes, and it is essential to build activities that enhance engagement. Sharing from faculty demonstrated several strategies to create multiple opportunities for student engagement in an online environment. These activities assist students in feeling connected and can create a dynamic sense of community. Engagement includes learner-to-learner, learner-to-instructor, and learner-to-content.

Prof. Yi WANG | Associate Professor | PHYS | SSCI
- Encourage **the students to type questions** in the **chat box**. They may be shy to speak and ask (no matter in class or online). Typing is more natural. And the instructor has the control over when to answer them.

Prof. Zhanhui CHEN | Assistant Professor | FINA | SBM
- Randomly check with students during the class to avoid sleeping students and maintain class participation. I use Zoom gallery pages showing all participants and the rule is that students located on the last (first) spot of each page needs to ask (answer) at least one question in the class (so the selection depends on the time they join Zoom sessions).

- Consultations are easier with Zoom. I usually join Zoom earlier and stay there late after classes so students can use it as **flexible office hours**.

Prof. Pak Wo LEUNG | Associate Dean | SSCI
- I post videos and animations on **Instagram** to follow up on lecture materials. My colleagues use **WhatsApp group** and other **social media to facilitate student discussion**

Prof. Siddharth BHAMBHWANI | Assistant Professor | ACCT | SBM
- **Enthusiasm and engagement**: Maintaining a high level of enthusiasm during the pandemic while allowing students to freely ask questions using the Chat Box (even in the middle of the lecture) was a huge boon to in-class engagement and exploring new topics.
- **Self-contained**: All class notes and exercises were highly detailed and self-contained while also being recorded such that missing or having disruptions during an online class would not be detrimental to a student's progress in the course

Ms. Eunice TANG | Lecturer | CLE | SHSS
- I found that for online teaching to be successful, making good use of the features of the online learning environment is the key. To me, the online learning environment makes it easier for the **participants to share information** than in a face-to-face teaching environment. If put to good use, this feature can facilitate participation. The use of various modes for sharing information (responding to multiple choices on polls, responding to questions by writing on my slides / in 'Chat', talking on the mic, sharing a document, etc) can create some surprises and encourage students with different types of personalities to contribute to the class and help instructors **analyze students' learning needs almost immediately**. This is of course possible also in face-to-face lessons, but it is so much easier for multiple students to share their ideas real-time with the class and for instructors to analyze students' reactions efficiently when it is online.

Delian GASKELL | Senior Lecturer | CLE | SHSS
- To foster a positive 'virtual classroom community' I have a MS Team chat for each class (outside our Canvas LMS). This chat is there for students to ask any questions, for me to share extra information, serves as a place to find each other if Zoom goes down (which has happened once or twice!) and (the real tip) at the end of every lesson I have an end of class request that everyone will tag at least one other student with #youareawesome with some detail about what the person did to help another student, give them some good advice, ask a pertinent question, etc. The students anecdotally really like this, especially when they don't have the chance to meet with each other face to face. It's a nice way to end the class on a positive note, and these positive comments stay there for the whole semester.

C. Technology Helps: Make use of Zoom Features to Facilitate Online Learning

Maximize the functions in Zoom, such as annotations, polling, whiteboard, and breakout room to increase interaction in the online class.

Prof. Yi WANG | Associate Professor | PHYS | SSCI
- If whiteboard instead of slides is used, using a professional camera can help get better image quality. Nowadays both Canon and Nikon have released webcam software to turn their

cameras into webcams. The cameras provide more flexible lens zoom and more precise focus. Make sure HD video is enabled in Zoom in this case.

Prof. David Rossiter | Associate Professor of Engineering Education | CSE | SENG

- Use a second device to see what the students see. While you are busy teaching during a Zoom session the only way to check what the students see is by using a second device, such as a laptop or tablet. Using that device, log in to your Zoom room (with a different account) and keep checking what is shown on the device while you teach.

Prof. Zhanhui CHEN | Assistant Professor | FINA | SBM

- Annotations definitely make instructions clear. Use a tablet or pad. Sometimes you really need to write or draw something, since students can easily get tired by earphones.

Kasina WONG | Lecturer | CLE | SHSS

- In the first few weeks of the term, we helped both teachers and students build up their proficiency and comfort level with Zoom by asking them to explore 'Chat', 'Polling', 'Annotation (typing text)', 'Whiteboard', and 'Breakout Rooms' and, after a few weeks, 'Annotation (stamps/draw)', 'using the tick and cross icons on the participants list', 'letting participants to choose the breakout rooms to join', etc. as well. We also discovered that it's imperative to cold call students in online teaching.

D. Embrace It: Make the Most out of Online Classes

Prof Sujata VISARIA | Associate Professor | ECON | SBM

- Embracing change where needed: I did not want to lose my usual interactive class environment just because we were online, so I actively found ways to use technology effectively to facilitate interaction.
- We're all in this together: In Spring 2020 I leaned on the support the university provided. (A special shout-out to Nick Noakes in CEI!). My colleagues and I exchanged ideas and tips. My students felt invested too -- they appreciated I was doing my best and they were supportive and forgiving when things didn't work; and they helped each other out when someone had tech-related questions. This was a real "we're all in this together" experience.
- Student learning is still the most important thing: My ultimate goal was still to effectively facilitate student learning. I did not lower my expectations of my students or of myself. The students rose to the challenge.

Prof. Stuart GIETEL-BASTEN | Professor | PPOL | SHSS.

- Embrace it and make the most of the gadgets we have: Seeing students names and faces made it easier to get to know them; also as Zoom developed, so could we do more things, whether this is how we manage breakout rooms, through to on-screen annotation etc.
- Making the most of mixed-mode: this involved being flexible with students, and things like moving rooms to make sure groups could still work together, but without disturbing each other too much.
- Design for online: Clearly, if you just lecture online for 80 minutes (let alone 3 hours), its going to be tough for the student - even worse than in person. Dynamic engagement online, as in person, always wins. Already having switched to blended learning/flipped classroom made the transition much more straightforward.

E. Pleasant Zoom Environment: Ensure Good Video and Audio Quality

Students spending hours each day on Zoom classes can easily get Zoom fatigue. Improving the Zoom environment, such as lighting, audio quality, and background, really makes a difference.

Prof. Yi WANG | Associate Professor | PHYS | SSCI
- Watch the recordings to identify what can be improved. For example, audio volume, video lighting, pointer of the PPT (PPT shows a "laser" pointer by Ctrl + mouse click, which works also for Presenter View).

Prof. David ROSSITER | Associate Professor of Engineering Education |CSE |SENG
- Think twice before using the virtual background feature of Zoom. Unless the space behind you is all one colour which is a colour that is not on your person then the virtual background tends to 'dance' around the outline of your body, fading in and out the edges. This can be very distracting for students and divert their attention away from whatever is being discussed.
- You don't need to use a headset. If the position of the microphone is far enough away from the position of the speakers, and the angle of both the speakers and the microphone are the same (that is, they are pointing the same direction) then usually you do not need to use a headset. Then your appearance on camera looks more natural.