## Teaching in a Socially Distanced Classroom at Yale-NUS

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On 27 July the CTL invited staff from our Educational Technology and Infrastructure teams to meet with 15 faculty representing different disciplines and teaching styles. These sessions allowed us to identify the most common questions, anxieties, obstacles, and solutions for teaching in a socially distanced classroom. Here are our findings. Please note this information is only relevant to Yale-NUS classrooms, as rooms in U-Town have different technology.

#### 1. You will have less time than normal.

Here are a few of the things that will take up time:

- a) When students arrive, you need to check on Classroom Attendance System and take photographs of the students. (More information in the DOF Newsletter.)
- b) Time for technological set-up and the occasional malfunction.
- c) At the end of class you will need to give students around 5 minutes time to a) wipe down their desks and b) exit the room while maintaining 1 metre distance from each other meaning single file and slowly.
- d) People will need to repeat themselves to be heard through masks or to be heard through Zoom if you have remote students.

All of this means **you will have less time for content/ interaction** than under normal circumstances. Planning for this will likely make it less frustrating in the moment.

### 2. Students will be able to hear the professor.

Masks create barriers to communication. However, faculty can generally be heard because they can:

- a) Use a shield instead of a mask if they prefer;
- b) Supplement verbal communication with slides and texts;
- c) Borrow a portable microphone and speaker from IT for the semester if you are teaching in a smaller room without a built-in microphone/speaker system.
- d) If you are teaching in a large room like Saga Lecture Theatre, it comes with a microphone already.
- e) Our colleagues in IT have installed Jabra Panacast webcam and speaker systems that make it easier for remote students who are joining the class using Zoom to hear what the professor and what students are saying. Here is a short instructional video to show you how to connect your laptops to the Jabra webcam using USB. You can view using the link:

https://mediaweb.ap.panopto.com/Panopto/Pages/Viewer.aspx?id=333df38e-1f2f-40dd-b050-ac0700206c94

For all these reasons, hearing the professor should not be too great a problem. However, faculty who tend to speak quietly, who speak English with a strong accent, or who have speech impediments should ask IT to borrow a very easy-to-use portable microphone and speaker for the semester. If you have students in your class with hearing impairments, this will be very important as well.

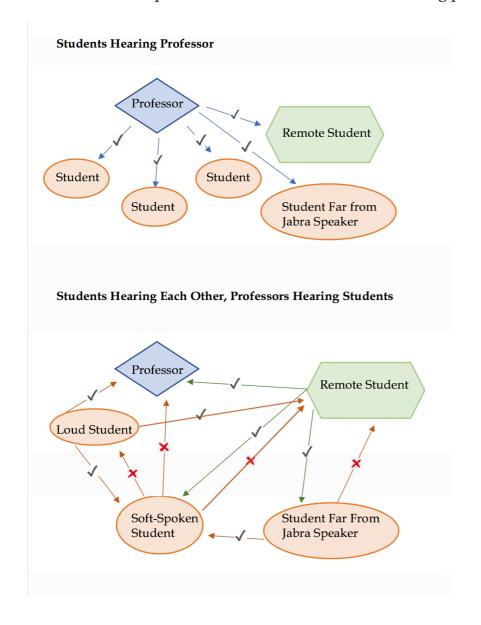
## 3. Students may have difficult hearing each other, and the professor may have difficulty hearing some students.

Students should be able to hear the professor, but it may be harder for students to hear each other and for the professor to hear them. Masks enhance the difficulty of hearing students who speak softly or who have accents you find hard to understand.

For safety reasons, you should not share the portable microphone/speaker system with students; it will have been touching your face/ near your mouth. In larger rooms with built-in microphones (Saga LT, TCT) you can pass the hand-held microphone to students but it should be cleaned with a disinfecting wipe and have its cover replaced when moving to a new user.

Remote students are easy to hear through the Jabra speaker system, but soft-spoken students in the classroom will be hard for the remote students to hear, especially if they are sitting far from the Jabra speakers. There are two Jabra speakers, one will be at the front of the room near the camera (which is where the professor probably needs to sit/stand) and the other is a satellite speaker which can be moved. We recommend you ask quieter students to sit near the speaker system or move it closer to them. Even if all your students are in the room together, you may want to use a GoogleDoc or the Zoom chat function for students to share comments/questions in writing.

Here is a visual representation of easier and harder hearing pathways.



## 4. Remote students will be able to see the professor or the students in the class, but not both at the same time.

This is a function of the cameras installed in the classrooms. They need to be connected to the professor's computer so the professor has to sit behind the camera. They operate on a wide-angle lens when facing the student, and a narrower lens when facing the professor.

To help remote students be more included, you can **project them onto the in-classroom projector screen**. This will help everyone remember they are there, and make it easier for them to signal their desire to speak/ ask a question.

## 5. Classroom whiteboards may not be very accessible. Seriously consider digital whiteboard alternatives.

#### For Professor Using Whiteboard:

If you are teaching in a very large room where there is a lot of space between where students sit and where you are teaching (e.g. TCT or Saga LT) you will be able to use the whiteboard. However, if you are teaching in a more standard seminar room, there are a number of obstacles to whiteboard usage:

- a) Students will often be sitting within 1 metre of the whiteboards, making it difficult for you to use the board without violating the 1 metre distancing rule. You can ask them to get up and make room for you, but that is disruptive and can then make them too close to their peers.
- b) The only whiteboard you can easily access without getting too close to students will likely be the one behind the projector screen, and you may want to use that screen for slides and to display the remote students joining your class via Zoom.
- c) If you have remote students joining you via Zoom, they will have a very hard time seeing anything you put on the in-classroom white board. This was the greatest complaint we heard about remote teaching at the end of last academic year that remote students could not see the physical whiteboard/ projector screen.

For these reasons, you should seriously consider using slides rather than the physical board, and learn how to use a digital white board such as a Wacom digital whiteboards you can get from our IT department. With these you can project the digital whiteboard on the in-classroom projector screen. It will be clearly visible to students who are on Zoom via "screen share" and those in the classroom. You can also use your own computer or better yet a tablet with the whiteboard function in Zoom or a free digital whiteboard/ presentation app like Padlet or Miro. For advice on the technological aspects of this contact <a href="mailto:yncit@yale-nus.edu.sg">yncit@yale-nus.edu.sg</a>.

#### For Students Using Whiteboard:

If you are teaching in a very large room (e.g. TCT or Saga lecture theatre) you can rather easily invite students to come to the board individually or in small numbers separated by 1 metre of space. In smaller rooms, students will be able to use the part of the board closest to them, if they are sitting immediately next to the white board. It will be challenging for students to use the physical white board if other students are sitting or standing near it, because of the 1 metre rule. You may therefore want to experiment with having students use the Zoom whiteboard function even if they are all in the physical classroom, or using something like a shared GoogleDoc. Both Zoom whiteboard and a GoogleDoc can be projected on the classroom projector screen and seen by all.

#### 6. Student interaction opportunities are limited but not impossible.

Students can use the white boards so long as they can maintain 1 metre distance from each other. They can pass paper and whiteboard markers to each other, but it is recommended you use disinfecting wipes when passing items. Breaking students into groups is difficult because they have to speak to each other over a distance, making for a very loud classroom. Paired activities are preferable or you can ask half the groups to leave the room to reduce the noise. Activities like gallery walks or jigsaws, fishbowls (small circles inside larger circles) are probably not feasible. Additionally, it is important that no furniture be moved at all, as seats have been measured to be 1 metre apart. This is primarily about maintaining student safety but also protecting our ability to continue teaching in the classroom should the campus received a surprise inspection.

## 7. Get yourself mentally/ emotionally prepared to demand that students leave the room.

All of this is for nothing if students come to class sick. It will be your job to tell students they need to leave class if they show any symptoms of sickness (coughing, sneezing, etc.) or if they do not qualify to attend class according to the NUSSafe screening system. For many of us, telling a student they have to leave class is extremely uncomfortable. Decide what kind of language you want to use for this and alert students early that you will be asking them to leave under these conditions. The more you are prepared to help them continue learning using online tools like Zoom, the less resentful they will be and the less anxious you may feel forcing them to leave the classroom. If they feel they can keep learning remotely, they are less likely to come to class concealing a sore throat or runny nose.

### 8. Visit your classroom, and familiarize yourself with the space and technology.

The one metre rule will make more/less difference for your teaching depending on the nature of your room and how many students are in the room. Even if you don't start the semester with remote students, you may have students go remote mid-semester if they are sick or contact traced. The more prepared you are the smoother these transitions will be.

### 9. Additional Information/ Advice

- Students can share whiteboard pens and pass other materials to each other (like an attendance sheet, workbook, beaker, etc.) but ideally plastic and glass/ non-porous items should be wiped with a disinfecting cloth before passing.
- Students can use the whiteboards but must maintain 1 metre distance from each other and from the professor.
- Plastic face shields will be issued to faculty conducting F2F teaching sessions before classes start. Face shields can be used by instructors who are teaching face-to-face classes. Infra will be distributing face shields to the offices of these faculty. Part-time lecturers can contact <a href="mailto:infra@yale-nus.edu.sg">infra@yale-nus.edu.sg</a> for a pre-arranged pick-up of these face shields.
- IT will be available during night and weekend classes if you need assistance. Call the number in the classroom.

- You may want to book a classroom or meet outside for your office hours if you want to see multiple students at a time.

# 10. You are responsible for ensuring student compliance with official safe management measures.

- Students are required to take daily temperature taking twice a day and declare their temperature through the "uNivUS" mobile app.
- Only students who are shown to be fit for class (having made health & temperature declaration and "Green Pass" in NUSafe) may attend face-to-face classes. Further information on classroom attendance and registration will be provided in Week One of the semester.
- Students must remain 1 metre apart at all times. (They can walk quickly by each other if they absolutely must, e.g. to go to the restroom, but should not linger within close proximity.)
- Students must keep their masks on at all times (except to take a quick sip of water).
- Do not move furniture.
- All rooms have disinfecting wipes. Students and faculty must wipe their desk before leaving the room.
- You and your students can bring a bottle of water to the classroom, but no food.
- Disallow students who show up symptoms of flue, cough, cold, or any other respiratory symptoms and deny entry to those who have not made their health and temperature declaration.
- Here is the checklist for all instructors from our Infrastructure Team. It will be posted in each classroom as well.

### **Checklist for Tutors/Instructors conducting F2F (Face to Face) Sessions**

Prior to start of the F2F session:  Make your daily health & temperature declaration Wear face-shield or face-mask at all points of time Ensure students wear mask at all times Wear your lanyards with Yale-NUS Access Card Ensure students displayed Student Card when on campus No food and drinks allowed in the teaching venues. Plain water is allowed.  No shifting of furniture in the classroom at all times	During F2F session:  Maintain social distance and wear face shield  For small venues such as the seminar rooms, if necessary, use the personal portable microphones (issued by MCT)  For lecture theatre with AV system, use microphone covers over the microphones if need to use a microphone (issued by MCT)
<ul> <li>Use Fit-for-Class dashboard to check that only students who are fit and have declared their health and temperature are allowed to attend F2F class</li> <li>Use online Attendance Taking System to take class attendance in contactless manner</li> <li>□ Take photographs of students in the class and upload the photographs</li> </ul>	End of F2F session:  Wipe down the instructor's table using the wet wipes provided  Remind and ensure students wipe down their table too  Clean face shield and wear face mask again

## 11. Faculty responsibilities for cleaning in UTown

- Rules in the checklist above only apply within the Yale-NUS campus. NUS has its own set of cleaning protocols, provisions and requirements that should be posted in u-town classrooms.
- Faculty and students are not required to bring wipes to clean the classrooms at UTown.