# Hybrid teaching concepts

Covid-19 has turned virtually every facet of everyday university life on its head. This autumn, many universities have announced hybrid teaching strategies in which some students attend classes by sitting far away from each other in a meeting room wearing masks, while the rest are virtually beamed in from a distance via Zoom or other conferencing technology.
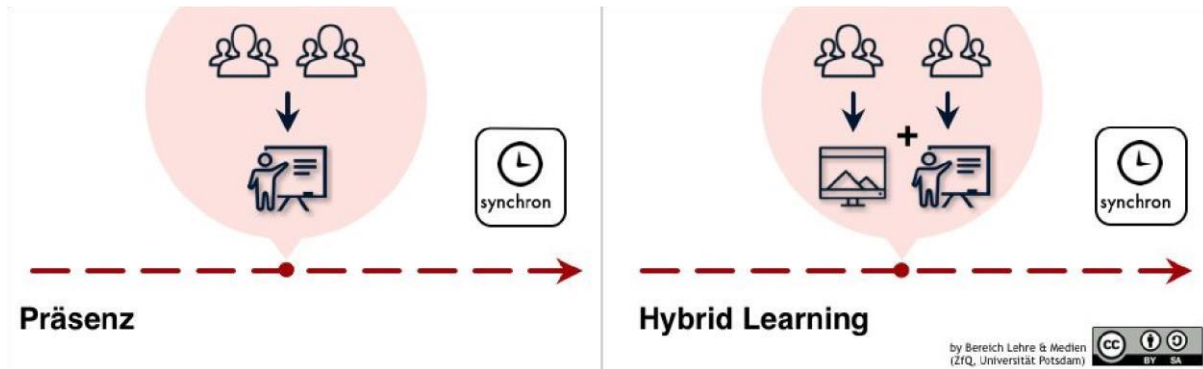
To begin with, teaching and learning in this way will be a challenge. The biggest one is probably to facilitate active learning and discussion for all participants.

Ideas for implementation

Create a starting position

- The online students are visible and audible to the students present in person, either because the teacher projects the video conference on a large screen or because the students present in person are also logged into the video conference, with the sound muted or wearing headphones.
- All students can participate synchronously. (How students who cannot participate synchronously for various reasons can be included on an equal footing requires further elaboration. See HyFlex model).
- Students on site have a digital device (laptop, tablet, phone) that they can use to participate.
- Remember, when watching a recording, the direct involvement and activation of the students goes away, but it remains a good learning resource that students know how to use.

A field report from the University of Potsdam:

"The course organised by jura.plus took place at Griebnitzsee in H03 with 22 students on site. At the same time, 29 students were connected via zoom and the event was recorded. We used the lecture hall microphone incl. loudspeakers and a clip-on radio microphone as well as an external webcam on a tripod in parallel.

The participation of the Zoom participants took place exclusively via the chat moderated by an additional person. The students sent in their questions, which were passed on to the lecturer, who in turn answered them verbally. The students in attendance were neither visually nor acoustically recorded. Questions and answers from the face-to-face participants were briefly repeated by the lecturer so that the content could also be found in the recording/transmission.

There was a lot of very positive feedback. The only real problem was that half an hour before the end of the six-hour event, the batteries of the radio microphone were completely empty, so the laptop microphone had to be used. Unfortunately, the sound was very reverberant, but you could still understand what was said.

(Anja van Bernum, E-Learning Coordinator of the Faculty of Law, 28.08.2020)

Engage students & enable active engagement with content:

How can teachers facilitate discussion, group work and other forms of active learning this autumn? If they are in the classroom and half or a third of the students are in the room with them, but they are sitting two metres apart wearing masks while the rest of the students are participating in class via video conferencing, what strategies could be used to engage all students in learning activities?

We are likely to see a handful of courses that are entirely face-to-face, more courses that are entirely online, and some courses that are taught in some kind of hybrid or blended format.

The following notes are partly taken from Derek Bruff's blog post of 11.06.2020: "Activ e Learning in Hybrid and Physically Distanced Classrooms" . His ideas have been taken up and adapted for the conditions at the University of Potsdam.

Group discussion

Challenge: Making questions or speeches from students audible
Situation: Not only do you have two different audiences (present and online), but the students in front of you are masked and have to stay two metres apart. If the course room is not wired with microphones in the room, questions or speeches from students who are in the course room might not be heard well by the online participants or in the recording of the session.

Proposed solutions.

- **Interplay: Muting and Unmuting the Microphones**
- the students who are live also log into the Zoom session
- their microphones are muted to avoid feedback or echoes
- If a student from the live audience has a question, the teacher mutes their microphone and has the student activate their microphone.
- Hand signals can help here to ensure that really only one microphone in the classroom is unmuted at any time.
- this slows down the conversation but allows for student involvement

- **Additional external microphones** (this variant is omitted under the currently applicable hygiene regulations)
- External microphones passed around the room for the audience to use
- The ZIM has, for example, a catchbox microphone (microphone that can be "thrown around" in the room).

- **Text chat - students in the role of moderators**
- Greater use of the text-based chat as a dialogue stream, also by the students present
- "Voice of the chat" or "co-moderation": the moderation of the chat can also be done by the Students can be assigned alternating responsibilities per session-> Their task is to sort out important comments or questions from the text chat and speak them out loud at the appropriate time.

Create communication opportunity - text chat as feedback channel

The text cha t can be used as a so-called **backchannel** for class discussions. The spoken dialogue between you and the on-site or online students forms the 'front channel', while the text chat provides a forum for complementary discussions among students. A backchannel can be useful to foster dialogue and even a sense of community among on-site and online students.

Note that, as with live voting, you can add a second platform if the built-in chat tool of your video conferencing tool is not suitable. These platforms can also be useful outside of class time for less formal communication between students and lecturers. Also note that some video conferencing platforms (e.g. Zoom) lose the previous chat history if a student drops the call and then re-enters the session. This would be another reason to use a second platform.

Monitoring and responding to the feedback channel can of course be a challenge for lecturers. Therefore, the recommendation is to appoint someone as the **'voice of the chat'.** This role can be taken on by students (on a rotating basis) or teaching assistants or colleagues (perhaps you can return the favour in their courses). Your

The task is to monitor the feedback channel and look for questions or comments that should be brought to the teacher's attention. For example, plan '**voice of the chat' moments in** your lessons, where you will be told about requests to speak, questions and comments. You can also signal these moments on your slides by using an appropriate graphic.

Talk to your students about how to use the backchannel productively during lessons. You may want to establish some community norms - called netiquette - about the appropriate use of text chat.

Allison Leich Hilbun, Ph. D., Senior Lecturer of Biological Sciences:
"I feel like engaging students can be helped by having honest conversations with the students about how they are feeling about this novel approach to learning. Even stopping class to ask how students feel emotionally and whether or not they feel connected could potentially help foster social connections and comfort with the new system."

Taking notes together

A variation of the backchannel approach is to take notes together. This usually involves the
Setting up a document that students can use during class to take notes on class discussion. Often two or three students are appointed as lead note takers for a particular session, with this role rotating among students throughout the semester, but all students are invited to read and edit the shared notes.

This approach provides a structure for active listening during the event session - note takers do not participate in the discussion but try to capture everything they can, while the rest of the students can concentrate on participating in the discussion without having to worry about note taking.
[Note on Pad.UP - the online text editor of the University of Potsdam. Pad.UP is a so-called "Etherpad" in which you can create simple text documents together with others. In the process, the changes and the origin of the change can be traced in each case].

Live voting

An easy way to engage students in the learning space is to use a live polling tool to ask questions about the course material. One way is to use the voting feature that Zoom offers. For example, Zoom polls allow you to easily ask multiplechoice and multiple-mark questions. [Detailed e Notes on Zoom Voting] This would mean that your students would have to be present on the spot in the Zoom session, which has advantages. However, if your Zoom screen gets too crowded, you can have your face-to-face students turn off their cameras. If it is difficult to have your face-to-face students in the video conference, or if you want to ask more complex questions (free-response questions, questions with clickable images, etc.), you could switch to a second platform like Pingo or even a Moodle course room. This does mean some extra work for lecturers and virtual students, but if you want to use the applications regularly, this learning curve could be worth it. Instead of relying on classroom discussions, ask students to answer your questions through live polls, in Zoom. These polls can also help the conversation (e.g. queries).

Group work

Live polling, backchannel and collaborative note-taking are useful activities that do not require students to leave their physical or virtual seats. But what about group work in a hybrid classroom where face-to-face students are not free to move around the course room? Let's consider one possible scenario:

You have three discussion questions for your students to discuss in small groups. Under normal circumstances, you might have posted these questions in a PowerPoint slide or included them in a printed handout. However, in your hybrid classroom, you have placed your three questions at the top of a collaborative document, one question per column. You divide your students or ask your students to divide into groups of two or three, with the face-to-face groups sitting at tables two metres apart and your online students going into side rooms of your video conferencing platform. Beware, however, of the automatic assignment of breakout rooms [Notes on the Zoo m breakout rooms] . If the students present are also registered with Zoom, they will also be assigned to the rooms. You will give your students some time to discuss the questions in groups and report their answers using the document, with each small group choosing an unused line of the worksheet to document their answers.

Normally you could circulate between the working groups. This is not possible now, but the document serves a similar purpose. The progress of the groups can be monitored, for example, in the Pad.U P. While the students are working, keep an eye on the pad, monitor your students' progress during the activity and get a feel for their answers (so you can plan the debriefing at the end of the activity). When the group work is finished, highlight some student responses to share with the whole group. Together with your comments reflecting and summarising the students' ideas, this will help them to shape the results review phase.

This approach has the advantage that your face-to-face and online students are essentially doing the same activity. Your online students may even have an easier time if your face-to-face students have difficulty speaking remotely and through masks. However, if the small groups have some kind of collaborative document available, they have some options for managing the group conversation. For example, a group could assign each question to another student to write a response to, and then share the questions for editing and revision. The coordination would be done through simple face-to-face communication, but the writing of the answers would be done in the shared document.

- collaborative work (Pad.UP, Moodle Wiki)
- Annotation tools (Moodle PDF annotation)
- Virtual whiteboards (Zoom whiteboard, external applications: Miro, Padlet, ConceptBoard)

You can also consider whether each group should have its own virtual space for collaboration or whether all groups should work in the same virtual space.

Note,

- that the more structure you build into the activity, the faster you will be able to analyse and answer students' responses. In large classes, very structured options, such as multiple choice polling questions, are most practical.
- that the transition to groups (face-to-face and online) and getting started using a collaborative tool will take some time for students. It's not as easy as turning to the person next to you in a traditional course room and discussing a question, but

if you design the group tasks sensibly and use the same tools regularly, this approach to group work has potential.

Pair work

Pair work is another aspect of group work: ask your face-to-face students to pair up with virtual students for a quick zoom call. If all face-to-face students are using headsets, and if you can solve the problem of matching, this could be a practical way to have pair work done during the session. It has the added benefit of fostering community between your two groups of students.

Group puzzle

In a group puzzle, students participate in two rounds of small group activities. In the first round (sometimes called 'focus groups'), each group of students is given a different reading or topic to discuss. In the second round ('task groups'), the groups are reformed so that each new group has a representative from each of the first round groups. The task groups are then asked to bring the perspectives shared in the focus groups into the conversation. The students then come back together in the focus groups to talk about the new content. In the hybrid classroom, each group work phase can be implemented using the breakout rooms. The second round groups could be intentionally chosen so that face-to-face and virtual students work together.
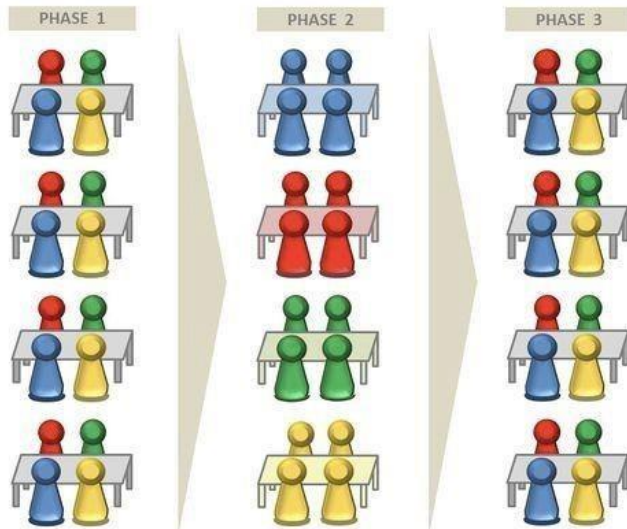
Figure: Ebel, C.: Scheme of the group puzzle method: http://vielfalt-lernen.zum.de/wiki/Gruppenpuzzle_(method)

Videos explaining the method: Cult of Pedagoguey: The Jigsaw Method (6:22): https://www.youtube.com/watch?v=euhtXUgBEts

Class discussion

One class discussion method is fishbowl. In the classic formulation, a teacher would identify a small group of students who feel the same way about a topic. These students are instructed to form a circle with their chairs in the middle of the room; they are in the fishbowl. They discuss the topic - how they feel about it, why it is important to them, etc. - while the rest of the students listen; the other students are outside the fishbowl. Then the teacher asks the observers to summarise or paraphrase what they heard; the students in the fishbowl can confirm or clarify these comments. Then the students switch places and repeat the process. This strategy is designed to promote empathy for other points of view and can be particularly useful for addressing contentious issues.

With a few modifications, the fishbowl activity should work well in the hybrid classroom. Instead of selecting students for the fishbowl based on their points of view, the teacher could select a subset of his online students as "fish". These students are asked to discuss the topic at hand from their different perspectives, while the other students (the face-to-face students and any other virtual students) listen and observe and (optionally) take notes in a shared document. After the fishbowl discussion, the observers then paraphrase or question or argue depending on the topic, perhaps using their voice, the back channel or one of the group work structures mentioned above.

Conducting a fishbowl activity in this way may not be as good at fostering empathy, but it does take advantage of the fact that in a hybrid classroom, students in the room are likely to hear the virtual students more easily than vice versa. And if the group is structured to alternate which students participate in person and which virtually, you can ensure that all students have the opportunity to be in the fishbowl over time.

Quick guide to the fishbowl method of the University of Düsseldorf (p. 19)

For a more in-depth discussion:

McMurtrie, Beth: Teaching: How To Engage Students in a Hybrid Classroom (07/2020): https://www.chronicle.com/newsletter/teaching/2020-07-09

Beth McMurtrie, Beth: Making Hybrid Teaching Work for You (07/2020): https://www.chronicle.com/newsletter/teaching/2020-07-30

Bruff, Derek: Active Learning in Hybrid and Physically Distanced Classrooms (06/2020): https://cft.vanderbilt.edu/2020/06/active-learning-in-hybrid-and-socially-distanced-classrooms/

Please direct any queries and requests for advice on the subject of hybrid teaching concepts to: Team of the Department of Teaching & Media at the Centre for Quality Development in Teaching and Learning at the University of Potsdam lehre.medien@uni-potsdam.de