#TeachECONference2020: Adaptable Teaching in a Post-COVID World - Summary of Discussion Q&A

In this document we summarise the three presentations delivered in the plenary session and the discussion around the topic that arose in the Zoom and YouTube chat. Each presenter was asked to explain how they approached online teaching and assessment in Spring 2020, when their institutions went into lockdown, leading to a lively discussion about the future of adaptable teaching and learning in economics. The four presenters have jointly contributed to this write-up which we hope is useful to those who attended and those who are picking up the ideas at a later date.

Simon Halliday (Smith College)

Summary of main messages

1. Showcased Slack for communication in classes (see below).
2. Discussed cutting content and changing assessment in two classes.
3. Highlighted the role of equity and inclusion when deciding on what to do in your online classroom and the choice around synchronous and asynchronous activities (e.g., please don't require your students to put their videos on!).

Q. What do Simon's syllabi look like? Can we get them?
A. My Syllabi are linked to in my presentation here:
https://slides.com/simondhalliday/teachingtimecovid

Q. Why Slack instead of a discussion board in your Learning Management System/virtual learning environment? Are you using Slack for interaction only? Is that embedded in your learning management system/virtual learning environment?
A. There are *many* reasons for this:

- Emoji responses to messages (generally doesn't happen on discussion boards); so you can see what they're interested in, when they respond to comments you make, and so on.
- It's designed better and can be used easily on a phone, iPad, laptop.
- Slack integrates PollEverywhere for polling now, which I like and is WAY better than polls on Zoom.
- Slack has an excellent "search" feature.
- Students can "pin" important chats/threads.

- It's better for code. You can insert code blocks (big chunks of code), have brief lines appear as code, and more. (My students use Stata and R depending on the course).
- Take a look at this presentation by my superhero colleague Albert Kim in Stats & Data Science on using Slack in classes.
- Also take a look at this piece that Bert, Jordan and Ben wrote about using Slack: https://stattlc.com/2020/05/29/slack-for-asynchronous-course-communication/

Q. What did you do in 'meetings' in Behavioural? Was it assessed?

A. The meetings were in Development not Behavioral. My bad if I confused that.

- I asked questions I'd typically ask in a presentation -- What is your research question? Can you explain what (kind of) data would help you to answer your question? (they didn't actually have to work with data for this). What do you find interesting about your research question and how would you explain that to others? (the "so what" question; but phrased more kindly?). And similar.
- Yes, it was assessed, but basically there were three grades; "Didn't do it (0); Did it well enough 4/5' and "Did it excellently 5/5." Mostly it was for me to give them feedback.

Q. Simon brings up important points--inequality intersects with access to broadband as well. What a thoughtful approach to your class. How can we ensure colleagues consider equity and access aspects?

A. I wish I could provide a good answer to this. Our dean of diversity, equity and inclusion is obviously on board and trying to get other faculty on board. There are "teaching circles" hosted by the Sherrerd Center for teaching and learning that promote these ideas. But, I worry that in both of these cases you end up with faculty preaching to the converted. I'm pretty low down in the hierarchy and wish there were both more and louder discussion of these issues by higher ups in my college/uni and others.

Q. In using tools and deciding content, how do you consider cognitive load for students?

A:

- Great question. Like I said toward the end of my presentation I'm trying to think about ways of helping my students plan out their week.
- Similarly, I hope to coach them on study skills and a discussion about how much time I expect them to be available for communication with me (through Slack).
- I also didn't know quite how many students appreciated Slack (for example) until the end of the semester when I got feedback from students commenting on how helpful it was for them to go back and search for issues that came up (it has a very helpful search function); student can also "pin" discussions so that they are easy to find if they find them important. This meant I was worried at first about some students not using it as much, but you do get some students who only adopt it once they see it's benefits much later and as you coach them on its use.
- At the same time, yes, more apps/tech implies diverse and potentially more cognitive load. I don't know yet what is best and I'm trying to muddle my way through. My impression is that most Learning Management Systems/Virtual Learning Environments are terrible and I'm trying to cobble together a better experience for my students as we move online.

Q. Do comments on the need to be mindful of pressures on students at the moment mean more asynchronous is better?

A. I think that offering flexible options is the best idea here and that, yes, asynchronous is better from the perspective of equity.

At the same time, I think it also requires us to have, e.g. expanded office/student hours. Truth be told, I don't know what these should look like and I wish I had more research on it. I suspect we could do with having more student mentors/TAs available as well as the professor for such consultations, e.g. I know my students would typically use the student tutors/TAs during the semester on weeknight and Sunday evenings. I can't really be available 7-9pm on a Weds/Sunday. Who is? What might that look like?

Q. What were Simon's book recommendations?
A.

- Small Teaching Online
- 99 Tips for Creating Simple and Sustainable Educational Videos: A Guide for Online Teachers and Flipped Classes

James Tierney (Asynchronous)

Summary of main messages

1. Don't underestimate the value and power of asynchronous teaching and learning.
2. Use short videos, your own or from YouTube (or similar), and reading material
3. Need to redesign how you teach and how you take students through what they need to do
4. Assessment changes needed

Q. What are the reasons for going all asynchronous?
A. My classes were both over 250 students and I felt it was unfair to require students, who were already going through so much, to have to set aside specific times to be on Zoom. I also wanted to make sure all the technology worked correctly.

For the fall this may be different but I do know, for non traditional and mainly adult learners, asynchronous online is better. There isn't' a lot of research on students signing up directly for a synchronous online class.

Q. Do you give students indication of how long they should spend on reading and other asynchronous activities, week by week?
A. Yes. I told them they need to be spending the same amount of time each week as they usually did during the regular year: 10 total hours a week on average.

Q. How do you decide what to put as text and what gets a short video?
A. I tried to figure out what I would explain in class using the doc cam/white board and put that in a video. Anything where I was showing slides and doing definitions I put in text.

Q. For videos, how well do transcripts work with diagrams? Seems not that different from assigning a textbook reading?
A. The reason why this is different from the textbook is that it is written in the professor's voice. Students also seem more eager to read something you put effort into rather than just assigning the text.

Q. Do you monitor students' engagement "officially"? If so, how?
A. No.

Q. Can see the value of delivering lecture (replacement) material asynchronously. What is the advantage of synchronous lecturing? The costs (for students) seem a bit too high. If sync must be 100% interactive
A. I agree. I don't see benefits of sync unless you are able to to have small discussions.

Q. How about having several synchronous sessions at different times of the day?
A. That would create much more work than I am willing to put in at my current salary.

Doug McKee (Running live sessions)

Summary of main messages
My in person class is highly interactive (about 40% of class time is lecture), and I wanted to maintain that interactivity in my online class.

1. **Lecture:** I lectured live in Zoom and it allowed me to take questions in real time. I could react to those questions and how students did on the in class problems. I could see a live audience and gauge their non-verbal reactions.
2. **Individual problem solving:** iClicker's app worked great remotely.
3. **Small group activities:** I preassigned Zoom breakout rooms and had students work together multiple times per class. The peer-to-peer interaction was extra valuable given how all my students were isolated from each other at home. My TA's and I would move between the rooms answering calls for help and just checking in.

Q: What will you do with the 5% in your assessment linked to lecture attendance if all lecturing is online?
A: I spent 40% of my Zoom time lecturing and the rest having students working--Just like my f2f class. 5% of my students' grades in the f2f class came from attendance, but this spring I abandoned that because I didn't want to penalize students who couldn't attend the live sessions. I'm not sure what I'll do in the fall, but my tentative plan is to incentivize attendance for students in close time zones and provide another way to get these points for students that are far away.

Q: Did most students have their videos on and real names? If so, do you think that has to do with the fact that you met them around before? Do you think that will continue in a new year?
A: I asked students to turn their video on if they felt comfortable, and about ⅓ actually did. Everyone used their real name because we required students to login with their campus email address. This was critical to making the preassigned breakout rooms work too. I don't foresee a problem with either of these in the fall.

Instead, I think the big issue is building social capital within the groups. My students are randomly assigned to 4-5 student groups on day one and they work in those groups both inside and outside class. This happened in person at the beginning of the spring semester, and it will need to happen online this fall.

Q: Agreement in chat that human contact is important for students and lecturer. What kind of feedback did you get from students on the value of just seeing familiar face(s)?
A: Anecdotally, several students said they really appreciated that. And when I would visit the breakout rooms, the discussion was almost always lively, just as it was in the real classroom.

Q: What specific apps are good in place of iclickers?
A: iClicker has its own app that works great from anywhere--It's an awful lot like PollEverywhere. Recommendations in chat included Mentimeter and PollEverywhere (allows images, word clouds, etc.). Another suggestion was to put clicker questions into Zoom polls. Personally, I find it too much work to create new

zoom polls on the fly--This is nearly effortless in iClicker. You could also convert these into questions that are embedded in recorded video using Kaltura.

Q: If students are on phone or laptop window, how much can they have open at one time? Zoom + slack + pdf of notes + whatever else they're doing
A: There's nothing stopping them from running as much as they want simultaneously, but a laptop has only so much screen real estate and phones have even less.

Q: Can you recommend a help site for pre-assigning breakout rooms in Zoom? Following the Zoom helps never work for me.
A: Zoom has a youtube channel with good help videos, including breakout rooms: https://www.youtube.com/user/ZoomMeetings or go to https://support.zoom.us/hc/en-us/articles/206476313-Managing-Breakout-Rooms.
I've found two things really help:

1. Require students to login to connect to the meeting using their campus email address. That's what you use in your .csv file to specify the groups.
2. Before pressing the "Open All Rooms" button, choose to Recreate->Recover to pre-assigned rooms. When I didn't do this, several of my students wouldn't be assigned to their rooms.

Q: Is "call for help" in the breakout room something you enable or always there?
A: I'm pretty sure the option is always there.

Steffie Paredes-Fuentes (Assessment)

Summary of main messages

1. Remote assessments are not inferior to invigilated exams and students don't necessarily find these to be easier.
2. Let's rethink how our current assessments assess the course's learning outcomes. Remote assessments can offer the opportunity to assess different skills that time-limited exams can't.

3. Good assessment design can help to mitigate poor academic practice and students are as worried as we are about this, as this may affect the perception of their degree for future employers
4. Technology helps, but we need to make sure we understand the pros and cons of any technological tool we use and how it would work under different scenarios.

Q. The longer-term problem, though, is cheating. How can we get better, lower-cost, online tools to mitigate that?
A. Chat noted the need for a large pool of questions, scrambled, one question at a time. Doug noted it's a lot more work to build this kind of exam, but worth it. Oswego State University New York shared slides on their approach: https://docs.google.com/presentation/d/1TIu5m13yVJVkuI7Fdn7FO9WQOmD0uGsn0POG0lLdgM8/edit#slide=id.p7

Q. Uploads to Chegg.com, a BIG problem for my department this past Spring. Have you searched your questions on Chegg.com or other sites?
A. No one said they had

Q. Another suggestion is two-stage exams. Students take a normal exam individually and hand it in. Then they are assigned to groups and do the exact same exam. The final score is a weighted average of the two. Thoughts on these?
A. Chat recommended teachbetter blog: https://teachbetter.co/blog/2018/04/03/all-in-on-two-stage-exams/

Answer (Steffie)
I usually set assessments in which students have to engage with current events. This means that I change assessments every year most of the time so even if past assessments end up in test banks or similar, I am not too worried. This is also less time consuming than it looks, as with time, we get practice. e.g. every year I adapt some exercises on the labour market (using price-setting/wage-setting curves) to the UK labour market using a recent article from the Financial Times. The first year it took me a whole afternoon to set this, but now inspiration usually comes over a coffee, when I read the news.

Q. Is it time to move away from a world where we test the ability to 'remember' and focus on the ability to source information correctly?
A. One person in chat strongly argues that you still need to remember. To think critically you need to have stuff in your head. The cognitive scientist Dan Willingham makes this point. Another person agreed on the need to remember concepts/ideas but maybe not everything we 'test' in exams needs to be remembered. Steffie noted that if we ask students to analyse/evaluate/create, they still have to remember things.

Answer (Steffie):
Let me add something. I agree remembering is important and I am not saying the opposite but, as explained above, we need to remember/understand in order to analyse/evaluate/create. For exams, those students who remember the basics will definitely be advantaged as they can use this knowledge to start answering the questions earlier, while those students who have to research for even the basics, will waste lots of time in looking for information and then start trying to analyse/evaluate this. I try to make students aware of this before the exam, and some students notice it. A comment from one of my students:

"If the questions are designed correctly [...] such questions involve students already knowing the material quite well and the different aspects of a single question, which cannot be answered well if the student relies only on the 24h time frame to find the answers in the material already provided".

Q. Some of my students (and yours probably) just ask/pay other people to take the test for them. I think it is <10%. Should I just not worry about that?
A. Chat notes that some students, economically, are unlikely to pay a good "ringer". Chat noted worries about essay mills and students being approached and offered paid help for exams.

Answer (from Steffie):
We don't have stats on how diffuse this practice is, but I do believe with good assessment design, this practice can be minimised. Tim Burnett is doing research around this and I learnt a lot from it and use this to shape my assessments (even before COVID).

It seems though that essay mills are good to deal with 'simple' essay questions, but really struggle with more specific ones. Therefore, my advice is to think about the

type of questions you ask. If these are the typical ones that anyone with some knowledge in Economics and good Google skills can answer, then avoid. My typical example “Why are some countries rich and some poor?” (I have used this question in the past!). This question is an easy target for essay mills. If you ask more specific questions in which students have to connect dots from the lecturers and add more research, it is actually easy to find out when students have not done their homework and the marks they get may be very low in any case, even if they have paid an essay mill.

Difficult that students manage to find someone willing/good to write a 24/48h assessment in their place (of course, this will change as everything - including these companies - will adapt to the market requests). The best option they may have is a good student from the same cohort, but likely this person will be writing their own exam. Again, a more tailored question that requires students to engage with the lecture discussions, the teaching material offered in order to provide a good answer will make it more difficult to allow for poor academic practice.

Of course, this doesn’t mean that I believe no one cheats. I can’t avoid this but I choose not to be too worried. If we over-focus on this, we will go back to 100% invigilated exams. However, students also cheat in invigilated exams (more than we want to admit), plus invigilated exams have some serious disadvantages (especially on disadvantaged students) that we usually neglect in favour of our own peace of mind due to higher (perceived) control over students.

Q. If assignments are similar to the 24hr exam then students will be more comfortable and less stressed. How do you coordinate across courses so that students are not taking multiple classes each with a 24hr exam at the same time/close together?

A. This is a good point and yes, exams need to be coordinated, but I don’t think this is too dissimilar to what we had to do before when we had only exams. In my university this coordination is done by the exam office in the case of the exams or someone from the UG/PG team if this is outside the exam period.

One key point to make is that, while students have 24/48h to submit their work from when this is released, I make clear that the assessment can be completed in 2-3h (and few students did it!). The idea is that students have the time to reflect on their answers and go back to them and improve them, rather than full 24h non-stop work

as this will defeat the initial purpose of helping students to feel less pressure and manage the levels of stress. However, coordination is very important as you still don't want one student to have 4 (which would require around 12h of work in a 24h window!) of these exams in the same timeframe while others only have one.

Q.You mentioned the distribution of marks in your module was the same, how about the average and the median?

A. All very similar. For one of the modules:

Academic year (type of assessment)	*Average*	*Median*	*St. Dev.*	*%first*
17-18 (invigilated exam)	*61%*	*62.5%*	*12.7*	*24%*
18-19 (invigilated exam)	*60.9%*	*63%*	*12.53*	*26.5%*
19-20 (remote assessment due to COVID)	*61%*	*62.5%*	*12.38%*	*24.13%*

Q. Multiple Choice or Written Exam? Which measures better?
A. There are pros and cons to both (and within "written exams" there are many options). Need to think about the course design and which one would help students to demonstrate their learning outcomes.

I prefer not to use MCQ as the main assessment but quite like using these as lower-stake assessments (up to 20% of the final mark). They are super useful to keep students engaged with the material. One of the key advantages of MCQ is that it makes marking super easy (i.e. it is mechanised). However, one thing to consider is that *good* MCQ takes time to create, especially if we want to ask questions beyond remembering. I talk more about it in this blog entry (point 5).

Written exams can take many forms. How we decide to set these exams depends on learning outcomes and teaching resources.

Another aspect is the technology that is available. If setting time-limited exams (e.g. 2-3h), and your exam requires many graphs/equations, consider if the technology is adequate to this (some aspects include the system not been able to deal with the heavy size of the files due to the pictures included), and if the students have enough time to upload all what is required. I see this created some issues for students during submission time adding extra burden that has nothing to do with learning outcomes, but with the limitations of the system.

Q. My students are given the option to choose online exams now or physical exams later after school reopens probably in August/September. What do you think of this idea?

A.I think this is a good idea as, for obvious reasons, not all students will be able to sit their exams in June/July (e.g. they may be ill), so it is only good that they can come back later to sit their exams. The only issue that we need to consider is that if they sit in August/September and don't achieve the mark to pass, would they have an opportunity to resit? It may be the case that if students fail the first sit in August/September have to take a one year break, if time for resit is not available.

Q. Can you really trust low turnitin scores as a sign of no cheating?

A. No. Low turnitin (or high!) are not enough to understand if students have engaged with poor academic practice. Turnitin mainly picks if sentences are copied from either other students or other sources. This is only one of the poor academic practices students can engage with. Risking repeating myself, assessment design is important. We need to ask questions that cannot be answered by simply copying from the book/lecture notes (e.g. definitions, formulas) or a quick Google research (e.g. what is the role of commercial banks?) for both cases Turnitin scores are going to be very high, but we can't establish the level of poor academic practice.

Students may be good at paraphrasing (or use websites that do this for you) and this may help to get low Turnitin scores, but if the question requires to put various concepts/ideas together and apply their knowledge to answer something more complex, copying and rephrasing from other sources will not give them high marks in any case.

Q. In my Environmental Economics course this year I have higher marks on average on my coursework assessments, however that coincides with the quality of the work being significantly better than when assessed through 2h invigilated exams. The diversity of answers in terms of content was better than in the past. I made "use of original and valuable sources" part of the marking scheme. Do you agree that higher marks is less of an issue if the quality of output is better?

A. Completely agree. It is difficult to make comparisons across years as of course there is a cohort effect plus we do make improvements every year to help students with their performance.

Q. Do we need to accept that collaboration will happen and build it into assessment?
A. Chat noted that it was a great employability skill to develop. Being fair in giving a mark becomes very hard. Institutions may require individual grades, not team grades. Doug McKee noted that he explicitly allowed student collaboration within my groups for most of the exams. If you can't stop it (or make it difficult), you are just taxing the honest students. Another comment was that it depends very much on the class. For some classes our job is to assess individual ability at techniques. Doug noted that he supplemented the group part of the exams with a short multiple choice exam that was randomly generated for each student. And they had a very short period of time to take it. The pool of questions was much larger than what each student had. Suggestion made to get students to mark each other's contribution to the group helps limit free-riding.

Answer (from Steffie):
Completely agree with Doug. I made clear to students that I know they will be able to collaborate. I mentioned that this doesn't matter and that if that helps to make their own answers better, that is great. However, I did explain that the final work has to be their own, so they needed to put together the ideas they got from talking with each other, and then make their own conclusions. I think I would like to set an "exam chat" so that students can talk with the rest of the classroom (if they wish so) as it preoccupies me that some students may be more isolated and not have the "whatsapp" networks. Something to consider for next academic year though.

Agree also with the use of MCQ in this scenario (hopefully it is not very high-stake), see my answer above.

Q. What is your experience with discussions on video proctoring? Our campus counsel decided it was a violation of privacy in spring and said it couldn't be used. But this week they announced it was ok to zoom-proctor for summer & fall terms.

A. No personal experience. I don't think we need proctoring and it adds some stress about the technology that is unnecessary for students and for us. The need to monitor students while doing exams arises from our conviction that if we are "present" (even through video), students don't cheat. In Italy, some universities have introduced this to avoid cheating, but students have already found ways to navigate this method in any case. If we are really concerned about students cheating, we can always set some Viva/interviews after the exams so that students can talk about their work.

Discussion/General/All

Q. Is it easier to teach macro than other subjects in the current context (big shocks)?
A(Steffie): I am a Macroeconomist, so my answer may not be as relevant and hopefully some Microeconomists engage with this question. However, I find it really sad that in Microeconomics subjects, we focus so much on maths and less on what it is actually under analysis. Our microeconomics world is shaken too (think of choices we made when going to the supermarket, toilet paper gate, changes in consumption preferences, production effects of working at home for single businesses, etc). Econometrics will have a lot of fun explaining how to treat 2020 in all the future data.

Q: What happened to your GPA and evaluations when you moved to online teaching?

A (Doug): My grades were much higher than usual in large part because the exams were collaborative and they had more time to complete them. I've been giving a standard assessment (AESA) of applied econometrics skills for several semesters now as a low stakes assessment at the end of the course. I do not believe students collaborated on this, and the time limit was the same as previous years. Scores were very similar this spring to previous years which tells me they learned a similar amount. My course evaluations were better than usual. I believe this was in part the

higher grades and in part because my transition was relatively smoother than many of my colleagues at the university.

Q: *Has anyone used Perusal for synchronous small group activities or mini lectures?*
Answer in chat: I used perusal for collaborative student engagement with assigned journal articles. I use it to both facilitate and assess engagement.

Q: Do you think the efficiency of online education is higher since we may benefit from technology more?
A (Doug): This is a great question, and I honestly don't know. My own course requires almost identical investment from me and my TA's relative to my in-person course. But I also believe there are online courses that take less than half the work to run and are more than half as good as a good in person class.

A (Steffie): Moving my course online requires quite a bit of investment, definitely more than teaching face-to-face. There are good online courses around, but there is a reason why some still prefer going to university. Students join their degrees not just because of the learning experience. There are many aspects that they value from it, including meeting people and creating good networks and living different experiences. For those with a different background, these experiences and networks may help with their future jobs.

Q: If the recordings are as good as sync...why don't we go all async? Do you not think that recordings are class B material compared to the real experience?
A (chat): Comment in chat was that you get questions from students during synchronous recording, which all benefit from. Without students asking Q's, I wouldn't have known to go back and redo/answer/etc
A (Doug): I believe live (online or in person) lecture is better because it can be reactive. And I believe students learn a ton when they are solving problems collaboratively. That could happen in an async class, but I think it's easier to manage in a live class.

Q: *How do timed exams work at your institutions? Are they 24 to 48 hours or more limited time within a window (eg, clock starts and runs for 3 hours)?*

A (Doug): We had a massive variety of assessment structures at Cornell. Even just in my class we had 24 hour collaborative exams and 30 minute individual exams composed of a random selection of multiple choice questions.
A (Steffie): As for Doug, there was a lot of variety from 2-3h exams, to 24/48h assessments and few MCQ.

Q: Do you have students in China and other countries that block YouTube and other sites that we might want to provide links to? Anyone have solutions to that?
A (Doug): We had a lot of students in this situation, and my solution was to not use resources they couldn't access.

A(Steffie): Same. I had some resources on my Google drive and I moved them all to OneDrive that is more accessible. We need to pay more attention to this. I will ask my students at the beginning of the year, which potential issues they may have in accessing resources so that I can take this into account when setting these.

Q: Did your school go to default Pass/No Pass grading?
A (Doug): Cornell allowed students to choose to take any course Satisfactory/Unsatisfactory right up to completion of their final exam. They also allowed students to choose S/U grading for required classes (like Intermediate Micro) that normally had to be taken for a grade to count for the major.

Q: *Do you organise activities for creating an on-line student community? What activities work best? I'm worried that our students and we had an established relationship in the spring when we went on line. But for fall (and spring?), that won't be the case.*
A (Doug): I think the key is assigning students (randomly) to small groups at the beginning of the term and then requiring them to work on things together in class and outside class. There is no reason this shouldn't work just as well online as it has for me offline.

A(Steffie): I am trying to create a Learning Community on Teams in which students can communicate among themselves and with me. Let's see how it works!

Q: Do you have institutional licences for Poll Everywhere or other polling software?

A (Doug): I would LOVE this, but for now, I require my students to purchase a license to iClicker. It's not expensive and the company will give you a few free licenses for students that need them. Most of the polling software services are free up to a certain number of students. My classes are always too big to qualify.

A (Steffie): We do have an institutional license to Vevox, but I haven't used it yet. So far I work with Mentimeter and it works just well with the free version. There are no limitations on the number of students who can participate (I have 360 students in one of my courses), and it works. It limits the number of questions you can ask per poll, but that is easily sorted.

Q: How about recording synchronous lectures and posting them to a space students can access? That provides both synch for those who benefit from asking Q's and responding to my Q's in real time, and asynch for those who can't/don't want to be there in real time. Thoughts?
A (Doug): This is exactly what I did this spring. It wasn't quite as good an experience as the live class for those that watched the recording, but it was similar and certainly better than nothing. And it had the added benefit that students could rewatch parts that went too fast the first time around.

A (chat): Making recording available later is identical to what happens when we have F2F teaching. Some students come to lecture, do the clicker Q's, ask Q's, etc. Others sleep in or whatever and just watch the course capture later.

A (Steffie): It depends what you are doing in the sync lectures. If you are explaining material, I agree with A(chat), it is very similar to what we already have (f2f and lecture capture). I have tried to make my f2f/sync lectures more practical (even before COVID) so I have been uploading videos or other sync material with the theoretical parts (e.g. shifts of the curves, mathematical derivations, etc). In this case, I don't think students really benefit from attending lectures.

Q: Are people depending on their institution to help train students on how to use technology or do we have to do it in context of our courses?
A (Doug): I provided some training in class and encouraged my students to ask for help when they needed it. This approach seemed to work and I saw no complaints in my course evaluations.

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