Remote Teaching Best Practices for the Social Sciences

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Pedagogical Approaches under Remote Instruction

This document aims to bring together many of the best practices for remote teaching that are particularly relevant to the social sciences. The task force aimed to include the various experiences that faculty from various departments have shared this past spring in the unplanned shift to remote instruction. Our goal was to give starting points for pedagogical approaches and specific tools that have been shared by teachers on our campus and evident in national conversations. While *online* teaching is a much larger endeavor with specialized resources and infrastructure (with an expectation of Ted-style talks, or self-paced modules), we emphasize here tools and approaches that are key to *remote* teaching for our immediate need in the case of courses that are normally taught in person but are temporarily disrupted. As with in-person teaching, successful courses will begin with planning of pedagogical goals and objectives of the course and decisions regarding which of these can or cannot be accomplished with a remote setting or need adjustment and/or the use of new teaching tools to accomplish.

Campus also has several resources for instruction to be delivered mostly hybrid or fully online, including new approaches, effective strategies, and best practices to support remote learning:

Remote Teaching Guide: provided in bCourses as a self-enrollment course specifically for UC Berkeley instructors and GSIs.

Join Teach-net: Teach-Net is a moderated email forum open to Berkeley faculty and staff to share ideas and resources, and communicate about teaching.
To subscribe: email teach-net+subscribe@lists.berkeley.edu

If you need equipment: There is some limited audio-visual equipment available for check-out to support remote instruction for Fall 2020. Use this form to request.

The Digital Learning Services (DLS) and the Center for Teaching and Learning (CTL) have various workshops, through the Research, Teaching, and Learning Services (RTL).

Lectures: Asynchronous vs. Synchronous Lectures

Synchronous lectures on Zoom

Some instructors use two devices: one main device for slides / writing / talking and another with a gallery view of students and GSIs and possibly a chat window.

If your course has less than *300 students,* you should use regular Zoom meetings for your lectures. If your course has more than 300 students, you can request to use Zoom webinar account for your lectures. Please contact digitallearning@berkeley.edu to request Zoom webinars.

Attendance: The most common challenge reported by instructors this past term was a struggle to maintain engagement during lecture. Many instructors reported a large drop off of attendance (1/3 attendance rather than 2/3). Some of this may have been due to P/NP grading in the spring. But, some is also undoubtedly due to the students having the option to watch the recorded lectures at other times.

The Spring instructors mention the following approaches aimed to counter this:

Using the Zoom Chat Channel during Lecture:

Several instructors suggest that using Zoom's chat channel during lecture is key to getting good student engagement during lectures. Doing this can be tricky for some because it is hard to both lecture and monitor the chat channel. A solution to this problem is to ask the GSIs to help manage the chat channel during lecture. The GSIs can answer simple clarifying questions and interrupt the lecture to bring more substantial questions to the attention of the Instructor. Some attention may need to be paid to setting ground rules regarding chat etiquette.

Some classes (Data Science 8) seem to have set up a live Piazza channel during lecture monitored by a GSI as an alternative to Zoom chat.

Using the Poll function on Zoom to keep student engaged

Several instructors used the poll function in zoom. You can create questions (with multiple choice answers, or yes or no) that you add to the given zoom scheduled lecture, and can call each up with a matching PPT slide. Students then use their zoom interface participant panel to answer the poll, results can be shown and discussed during the live lecture. This was used in some classes as a replacement for iclicker in lecture use to promote engagement and learning.

Adding a Participation Grade

Giving weight to participation in grading may also help with engagement. Care must be taken not to disadvantage students that reside in different time zones in designing a system for a participation grade. One option is to assign (easy) multiple choice quizzes each lecture. These could be posted before lecture and due 12 hours after lecture. Easy for anyone who actually listened to the lecture and available long enough for students in any time zone to complete. Or short assignments or answers to one question after each lecture.

Mixing in "whiteboard" style lecturing with PPT style lecturing

Another approach to increasing engagement was to mix in "whiteboard" style lecturing. An alternative to using a touch screen is to use a "document camera" and write on old fashioned pieces of paper. These can then be scanned and shared with students after lecture. An additional alternative is to record yourself sketching things out either a) on an old fashioned piece of paper or b) in Keynote/PPT and then narrating in real-time as the video plays.

Lecturing with an Actual Whiteboard through Zoom:

Several instructors use an actual whiteboard through Zoom. This can be done on your regular laptop/desktop camera and microphone without any extra attachments. Some instructors got an actual physical whiteboard: this whiteboard can purchased on Amazon. Amazon also sells stick-on wall whiteboards that can easily be removed from the wall in question after the semester.

Moving to a "flipped classroom" approach:

Here the pedagogical approach is that students first explore new course content outside of class by viewing a pre-recorded lecture video or digital module, or completing a reading or preparatory assignment. In-class time is organized around student engagement, inquiry, and assessment, allowing students to grapple with, apply, and elaborate on course concepts. In-class sessions then can entail collaborative coursework and use of active learning strategies, including case studies, problem sets, or structured discussion.

Setting Up Zoom and Recording Lectures:

With the pandemic instruction measures in place all instructors are required to record their lectures and post for students that cannot attend synchronous lectures. They can be posted on bCourses or BDrive.

Zoom allows you to create a recurring meeting. Doing this cuts down on the complexity of managing Zoom links for the class. In a big class with lots of sections and office hours, you may want to create a sheet on BCourses where you post all the links to the various lectures / sections / office hours.

Tips when setting up Zoom meetings:

- Mute participants upon entry
- Use a random ID, not your personal one to limit zoom bombing
- Can use password to limit zoom bombing.
- Choose "only enter with the waiting room," and we suggest you make your GSIs co-hosts during lectures so they can handle entry. Enabling the waiting room feature lets you see who is coming into each class (like a greeting at the door and also limits zoom bombing).
- Set to record the meeting automatically in zoom cloud/device to download later. It will record three files: video of you and slides/share shown, the audio file, and the chat box file. ETS/DLS recommends saving to your device and then uploading to your Berkeley Drive, but these are very big files do we suggest cloud, but note that zoom will delete after 30 days by default. ETS suggests saving your files to Drive as opposed to BCourses because BCourses was not designed to handle lots of large files (also the viewer is worse than the Google viewer) but they say that saving to BCourses will work. After you save to your Drive you can create a link that you share on BCourses. When you create that link, you can choose who can assess it. In particular, you can choose the UC Berkeley option, which means that people need to log in through CalNet to get access when they click on the link.

Sections/Labs Working with GSIs/Readers

The need for regular interaction between the instructor and GSIs is likely higher than normal. We recommend weekly interaction between instructors and GSIs either by email or in person.

 GSIs/Readers/Tutors who do not have access to Zoom Pro, should email telecom@berkeley.edu and request Zoom Pro access, with a brief (one-sentence) description of their need for Zoom Pro.

As with all instructors, during the pandemic all GSIs must record sections even if they are running their sections synchronously.

There is a wide range of section and lab formats across the social sciences division. No one solution will work for all departments or courses.

Synchronous Sections: Some courses kept the same section schedule and format - simply moving each section online with GSIs presenting and discussing material live or showing lab material live. This is ideal for sections where the bulk of time is already pedagogically designed to be a "flipped classroom" approach where students normally prep readings/ lab exercises before coming to the synchronous section or lab. Some GSIs used the Breakout Room feature on Zoom in this format. Be clear to on what is done in breakout groups: content - what are students being asked to do in the breakout room? Does the task lend itself to conversation and collaboration?; checking in -GSIs need to jump from room to room and check in with each group; reporting out our regrouping - students need to anticipate that they will be expected to report out once the b/o room closes

Asynchronous/Hybrid Sections: In some courses the practice of having each GSI give two or three repetitions of the same section in a large class is probably not optimal. Instead in some, GSIs record a single one-hour section asynchronously, made available to all students in the class at the beginning of the week.In a class with several GSIs, this responsibility could rotate across section times. Then instead synchronous sections were used for small-group conversations, Q&A, hands-on helping students solve problems. Here, each 30 student section could be broken into two 15 student groups that meet once a week. Each student would then have one hour of asynchronous lecture type section material and one hour of synchronous small-group interactive section. Students would be expected to already have watched the asynchronous section recording. So, these small group sessions would hopefully have a flipped classroom feel to them.

Discussion Groups and Threads

With remote instruction it becomes even more essential to create a sense of community among students. There are various tools available via bCourses, and other discussion platforms such as google chats, or Piazza to provide opportunities for student-to-student interaction and discussion threads.

Discussion Assignments: you can create a discussion assignment where students will receive a grade for their participation, you can moderate the thread.

Advantages:

- you can monitor and guide discussions, encourage productive discussion threads and redirect unproductive threads
- students are able to do this in various time zones asynchronously, and you can even grade these in Bcourses using speed grader.
- give credit for contributions to shared google docs curated by students, or really, almost anything that can be done in writing over the internet.
- The addition of written modes of participation like discussion threads/boards/shared docs allows less voluble students to express themselves, and if done well, it can encourage conversations among students.
- You can also create a discussion that is not graded to provide a venue for students to interact.

Other tools in bCourses can provide different types of interaction among students such as:
Collaborations on bCourses: there is integration with Google Docs, and Suite C, a tool developed at UC Berkeley to allow for easier sharing of visual materials and group work collaboration.

Piazza: Piazza is a learning management system which allows students to ask questions in a forum-type format. Instructors are able to moderate the discussion, along with endorsing accurate answers.

Mural: digital workspace for visual collaboration. Allows students to join a board or document, like a PDF to annotate, or as a blank page. Uses sticky notes, text draw images.

Using Media

Posting media and lectures: Campus has provided a new video platform for Fall Courses called **Kaltura**. Kaltura is a web-based, secure platform that integrates with bCourses allows instructors, students and staff to upload, edit, manage and share videos and other media through bCourses. Think of this platform as a centrally supported and protected version of YouTube for instructional media files you need to share with your students or they need to share with instructors and peers.

Course capture for recording of lectures in classrooms will also be still available, and will use Kaltura as its publishing platform (no longer be publishing to YouTube). The benefits of using Kaltura include course-restricted access to recordings. Instructors will also have options to trim and review their recordings before making Course Capture recordings available to students. Instructors can also view analytics for valuable insight and feedback on how their students are engaging with Course Capture recordings.

The UC Berkeley Library Media Resources Center has various streaming collections that can be shared with students, include clipping features and are mostly captioned or subtitled in English. The Center can often caption videos and help locate digital versions through these sources.

DSP Accommodations:

Accommodating DSP students will require special attention. See campus DSP best practices.

Students with disabilities who participate in your alternate instruction may need additional accommodations for participation. All online content must be accessible to the DSP students in your course when posted. It's important to make sure all documents used in remote classes are readable by a screenreader and videos have captioning because there may be students who use those tools, even if they don't have an LOA (letters of accommodation) on file. This is a ***good opportunity to build accessibility into your development process.***

The largest challenge with the shift away from in person instruction, is that any media shared or assigned in remote classes, must still have captioning; be sure to work with the DSP office to get your materials made into accessible content. As instructors, this is not only our legal obligation, but also our efforts in course planning that take a variety of academic participation modes in consideration affirms UC Berkeley's commitment to creating an environment inclusive of all students, regardless of their individual ability.

Evaluation: Exams/Quizzes and Proctoring

We also highlight a few of the approaches adopted by some of our spring instructors, "best practices" associated with administering exams remotely. See also the detailed [campus report](#), which complements the existing guidance on [Best Practices for Remote Exams](#); we encourage all instructors to read it carefully. To be clear, we are not recommending one approach over another. The goal of this document is simply to bring attention to certain teaching practices and to highlight some of the tradeoffs associated with different assessment strategies.

Some Best Practices

1. **Have students acknowledge the [UC-Berkeley Honor Code](#):** Instructors should include the UC-Berkeley Honor Code on their syllabi and include a statement such as "I am alone in taking the exam" or "I will not take screenshots, photos, or otherwise make copies of exam questions to share with others." We recommend having students acknowledge the Honor Code at the start of an electronic examination such as Declaration of Academic Integrity: "I certify that: I have not received, I have not given, nor will I give or receive, any assistance to another student taking this exam and that all work included in this exam is my own." Having students acknowledge the Honor Code may not deter all students from cheating, but it will *promote an expectation of academic integrity*.

2. **Survey students to assess their needs:** It is important to recognize that testing conditions are not uniform across students. Prior to the exam, instructors should make it possible for students to communicate any challenges they may face and make a plan to address their students' needs. Instructors should also consult with DSP Disability Specialist Services in a timely manner if they have concerns about providing an accommodation. **Be aware of time constraints**: It is possible that students will be located across several time zones. We encourage instructors to offer either multiple exam times or a time-limited exam that students can take over a longer period of time (e.g. 24-hour window). It is important to realize that exams and answers take time to download and upload, especially when using an online platform such as Gradescope or bCourses. Instructors are encouraged to consider this when determining both the length and time window of the exam.

It is also helpful to communicate contingency plans, in case issues arise. Some instructors noted loading issues on Bcourses quizzes with images, or whole exams. Be sure students know who to email in case of issues or problems/questions during the exam time. If using Gradscope, students can be instructed that if they had

problems, they should email photos of their exam to their GSI and then upload the exam, even if they weren't able to do the uploading by the end time of the exam. Allow time grace periods to start and upload. **F*or instructions on how to create a timed exam, see here for [bCourses](#) or [Gradescope](#).***

Both Bcourses and Gradescope allow an instructor to duplicate assignments. This function can be used to create the dry run assignment with a similar setup. Duplicating an assignment in [bCourses](#) and in [Gradescope](#).

3. **Communicate the format of the exam and how it might deter cheating.** Communication about format might also deter misconduct by highlighting how it is designed to limit students sharing answers (e.g., shuffling the order of questions or answers, using different versions, etc). Students are unaware that online quizzes record start and end time, total time, that it is easy to compare test scores on questions and see if students have worked together. Telling them also helps students prepare for exams under these new conditions and anticipates any needs.

4. **Webcam proctoring.** The EVCP is currently allowing webcam proctoring via Zoom. Should instructors decide to use this proctoring option for Fall semester:

> *The campus will track remote proctoring and assess GSI feedback at the end of the semester. Instructors whose courses are part of the pilot program are required to:*
> > a. *Inform students in a prompt manner that remote proctoring will be taking place for some or all of their exams.*
> > b. *Provide accommodations for students with letters of accommodation from DSP services. Please be advised that some student's letters of accommodation will state that they are exempted from remote proctoring.*
> > c. *Provide at least one optional time for the exam so that students in time zones that are markedly different than UC Berkeley's are not at a disadvantage.*
> > d. *Provide guidance to the students on the types of backgrounds permitted. The guidance should be based on a determination of the backgrounds that work best with the zoom video conferencing program.*
> > e. *Establish procedures to help students with limited wifi access or wifi access that may be disrupted during the exam.*

Some Common Exam Approaches last term:

"Business as Usual" Model: Every student receives the same exam. The exams are timed, but to accommodate multiple time zones, the instructor offers students either multiple exam times or a 24 hours window in which to take the exam. The instructor either sends/receives the exam via email, or requires the student to download/upload the exam using an online platform, such as bCourses Quizzes or Gradescope.

***Advantages*:**
- Students are familiar with the test format.
- Transaction costs associated with sending/returning the exam are relatively low.
- Students have a lot of flexibility in how they take the exam.
- Minimal additional work for the instructor.

***Disadvantages*:**

- High potential for cheating. It is important for instructors to convey an expectation of integrity and fairness, and several students expressed concerns regarding the fairness of this approach. Several argued that the format makes cheating "risk free" and may even induce more cheating if expectations are that everyone cheats.

Recommendations:

- Make the exam open book or notes, and adjust the questions accordingly. For example, consider more open-ended or essay-based questions or questions that require more critical thinking or drawing connections across different concepts. Avoid asking questions whose answers are easily searchable online or in class notes, and write questions that are closely and specifically connected to course content (this strategy will also discourage internet searches).

- Increase the time pressure of the exam. This reduces the incentive for students to "search" for answers. But, it also raises two potential drawbacks: 1) Students may feel additional stress and anxiety; 2) It may exacerbate inequities in any testing environment.

- Consider using originality checks such as plagiarism software [Turnitin](). The instructor may also want to announce this before the exam to deter cheating and further convey expectations of integrity.

"Business as Usual" with Modifications: Students receive different exams assigned at random or quasi-randomly. The exams are timed, but to accommodate multiple time zones, the instructor offers students either multiple exam times or a 24 hours window in which to take the exam.

Advantages:
- Students are familiar with test format.
- Students have a lot of flexibility in how they take the exam.
- Multiple exams reduces the opportunity for students to collaborate.

Disadvantages:
- The instructor has to create multiple exams.
- Transactions costs in delivery/assignment of exam is slightly higher.
- Does not guard against online cheating.
- Different exams may not be fully comparable in level of difficulty.

Recommendations

- The recommendations from the Business as Usual approach still apply. Nothing prevents students from going online, therefore we encourage you not to ask questions whose answers are easily searchable.

- We recommend using either Gradescope or Bcourses. Both platforms are capable of assigning different tests to different students in a straightforward manner.

bCourses Exam: Several faculty held their exams on bCourses using the Quizz function. Students take the exam online in a highly controlled setting. Instructors can offer multiple time windows or one 24-hour window. A video of how to build a quiz on bCourses can be found here.

Advantages:

- bCourses offer several advanced features to discourage cheating. These include the ability to:
    - o shuffle the multiple-choice responses so that each student sees multiple-choice responses in a unique order
    - o show only one question at a time, without the possibility of going back
    - o randomize the order in which the questions appear for each student taking the exam
    - o create and use a test bank that bCourses draws from to create a unique test for each student

- The platform supports [all question types](). Because of the various cheating safeguards, the instructors are able to ask more "routine" questions (although we do not necessarily recommend this).

- Grading can be made completely automated.

- It is easy to [set availability dates]().

Disadvantages:

- Some students may not be too familiar with this testing approach.
- Several students find this approach stressful.
- Students dislike the inability to review their answers (should the instructor enable this feature) or to answer the questions in the order of their choosing.
- Because the exam is completely online, internet connectivity (and the potential inequities in testing environment) becomes more salient.
- The instructor has to create a test bank to take advantage of all of the anti-cheating features.

Recommendations:

- It is unclear how much cheating takes place in our classrooms.[1] For instructors who feel that this is an important concern, we would recommend using bCourses and all of its features. However, it comes with a non-trivial cost: it can cause stress and anxiety and it appears to be very unpopular among the students.

- One does not need to enable the "anti-cheating" features of bCourses and can simply use it as a platform delivery method, such as Gradescope. In addition, while Gradescope does not currently offer these anti-cheating features, they are currently working on LockDown Browser to enable many of these features. According to recent communication with the helpline, they expect it to be available in their next release.

Alternative Approach to Exams: Assign term papers or group projects in lieu of exams or increase the weight on them.

Advantages:

- Encourages student creativity and project management.
- Students find it much harder to cheat on a term paper or project.
- Software exists to detect blatant forms of cheating and plagiarism.

Disadvantages:
- May increase the time cost of grading.

Recommendation:

- If applicable, it can be useful to tell students they can only use course materials. This serves both to assess their learning of course material and to deter using assignments from the internet.

- Consider asking questions centered on fictional or unique scenarios. This provides a mechanism to assess how deeply students understand specific ideas while limiting the ability of students to turn to exam services or the internet for answers.