

Online Testing and Assessment

In consideration of the mixed teaching modalities for Fall 2020, the following is offered as alternatives for face-to-face exams. Should anyone have any questions or want to visit further about anything discussed, please reach out to Micah Logan at the Center for Innovative Teaching and Learning (CITL) via email (micah.logan@wku.edu) or contact the CITL at citl@wku.edu and we would be happy to help.

Online proctoring/monitoring options

The following are options instructors might consider for proctoring an **online** exam. Please note that there are other platforms available such as Examity or Proctorio that are not supported by the institution but may be available through outside vendors. These platforms are costly and can be difficult for students to use. Please also be aware that many of the online monitoring platforms, including some listed below, are not compatible with all devices and/or web browsers, so technology can be problematic.

For any of the following options, it is important that you are clearly communicating expectations well before the exam and are troubleshooting potential issues (technology, scheduling, illness, etc.) prior to the exam. Consider polling your students to identify what technology limitations they may have so that you can arrange for accommodations in advance. Also, consider doing a practice quiz or zero point test a week or two before your first exam so that you and your students can identify areas of difficulty or concern and walk through the process before it is a high-stakes situation.

- [DELO Testing Center](#)

While this is a wonderful resource for WKU, considering the circumstances created by social distancing protocols, this is currently not the best option. The center's resources, both staff and facilities, will be stretched thin and are limited by the restrictions due to COVID-19.

- Blackboard Tools

- [Respondus Lockdown Browser & Respondus Monitor](#)

- Respondus Lockdown Browser is a tool through Blackboard that locks down the student's browser so that they are unable to access other programs. The primary limitation of Lockdown Browser is that it does not limit access to other devices or resources and does not provide any kind of visual monitoring. A tutorial on how to use Lockdown Browser is available at https://itweb.wku.edu/training_atech/index.php?fuseaction=view.courses&mode=vt.
 - Respondus Monitor is Blackboard's solution for web monitoring. Monitor builds upon Lockdown Browser with the addition of a webcam for monitoring student's movement during an examination. With this platform, faculty review any questionable footage after the exam has been submitted.

[Blackboard Collaborate Ultra](#) is Blackboard's videoconferencing tool. Faculty may consider monitoring an exam through a virtual classroom space following some of the strategies below under Zoom.

- Zoom

Some faculty are choosing to administer exams through videoconferencing platforms such as Zoom. Some use the program to monitor or proctor the exam and others use it simply to have students all together and to be available via chat for problems or questions that arise. The thought behind being online for availability is that perhaps students will be discouraged to look things up and/or use forbidden resources if the instructor is present as a reference. Faculty who have used videoconferencing as a method of proctoring utilize a variety of techniques depending on class size. Some placed students into smaller groups/rooms and recorded the session for future review, if necessary, and others simply monitored the entire gallery. As you are thinking about how

you would like to administer the Zoom meeting, be sure to identify what device you would like students to use for the Zoom camera (laptop, phone, tablet, etc.) and what angles/items you would like the camera to capture. Outlining procedural expectations is critical.

Alternative design/assignments to discourage or deter academic dishonesty

The research on academic integrity in online courses is extensive and we know that it is not uncommon for students to cheat on online exams. However, rather than focusing on deterring students from cheating and aggressively monitoring their behavior, the CITL would like to encourage you to take a more positive and proactive approach to assessment and academic integrity. If you are able to consider alternative methods of assessment, you might think about how something like one of the following suggestions could work in your course. If any of these suggestions are of interest to you and your course format, size, etc. provides you with the option to consider alternative ways to summatively assess your students' learning, the Center for Innovative Teaching and Learning is here to help you! Please contact [Micah Logan](#) or the [CITL](#) and our team will work with you to think about how these alternative options might work in your specific course.

Modified exam

Perhaps instead of providing students with a standardized multiple-choice test, you alter the format of the exam to include short answer or perhaps you increase the rigor of the exam and make it open book or open resource. Depending on the number of students you have, you might also convert the exam to a take-home format that asks students to apply their knowledge to a real-world problem. If you are unable to modify the exam, for instance you have 200 students and cannot grade 200 essay exams in the time given, please consider the resources below on test construction to help strengthen your multiple-choice questions.

Two part exam: individual & group

While the specific logistics of a group exam will look different for each faculty, the general format is that students take a test individually and then immediately work together as a group to re-take the exam as a team. Grades are figured through a combination of both the individual and group submissions. Some of the benefits of group testing are that students are learning while taking their assessment and they receive immediate feedback on how they did on the individual portion of the test. This format also encourages students to work harder in their individual preparation as they will be asked to "sell" their answer and teach the material when there is disagreement on a question. While originally designed for face-to-face testing, this could also work in Zoom breakout rooms in which the instructor can "pop in" on the various groups to ask further questions and monitor discussion. Considerations for group testing include group size, group distribution or assignment, grade distribution, timing and whether or not you would like to add any additional questions to the group exam.

Documentation of work

For many STEM courses, it is essential that you are able to see how students are working through problems or solutions and it is important that they are able to show their work. As this often requires written submissions, you might provide additional time for students to take and upload pictures of their work. In disciplines where students are able to find and copy solutions online, you might also ask them to provide a short video recording or written statement explaining their work – identifying the theories, steps, etc. necessary to solve the problem.

Alternative assignments

Another idea is to provide students with a multi-tiered assignment in which students create their own problem, based on criteria outlined by the instructor, and write out the solution with an error. This problem and solution is shared with the instructor who then distributes it to another student who is asked to identify the mistake and explain how to correct the error. Students would be graded on both submissions.

You might consider asking students to work together to solve a problem and submit either a poster or report outlining their findings and solution. Students could work collaboratively through Zoom or Blackboard without ever having to meet in person. These projects could be presented to the entire class in an online conference at the end of the semester.

Course Design Considerations

To help alleviate the pressure of exams, you might also consider including additional low-stakes or no-stakes assignments in which students are able to demonstrate their knowledge and receive more immediate feedback on how they are doing. This also helps to provide students with multiple opportunities to engage with the material and identify areas in which they need to work harder. To this end, for students to be truly successful on examinations, complex testing and analysis should be modeled and scaffolded. Students need to see examples of questioning PRIOR to the exam (i.e. quizzes, in class questioning/polling/discussion, homework) so that they know what will be expected.

Resources

General Discussion on Online Examination

<https://groups.google.com/a/podnetwork.org/forum/#!searchin/discussion/testing%7Csort:date/discussion/1g3RhRKXEVk/sm0H0qRNAQAJ>

A discussion of POD Network members (faculty and faculty developers from institutions across the country and Canada) related to policy/procedure/conversations regarding proctoring for online exams. Many of the following resources were compiled from POD discussions.

<https://keepteaching.ucdavis.edu/test/final-exam-options>

This resource on exam options from UC Davis' "Keep Teaching – Strategies and Resources for Instructional Resilience" offers alternatives to exams along with implications for student impact and well-being based on the election of the alternative assessment. They also address suggestions for faculty who are not able to utilize alternative assignments and note that online proctoring should only be used by those faculty with prior experience.

The above resource is linked from a broader page related to testing

<https://keepteaching.ucdavis.edu/test> that outlines some key questions and considerations for faculty to consider as they plan for assessment. This page also includes outlines strengths and limitations for online proctoring through Examity and Zoom – UC Davis does not have access to Respondus.

https://drive.google.com/file/d/19h-CHPzAWKIMYwrmATknNzBdca_j2ogC/view – a condensed Google Doc from University of Michigan-Dearborn of UC Davis' material on Exam Strategies.

Alternative Assessment

<https://www.kent.edu/ctl/collaborative-learning-through-group-testing>

This cite from the Center for Teaching and Learning at Kent State University outlines some of the benefits and considerations of group testing. They also provide answers to frequently asked questions as well as links to additional resources on group testing.

<https://www.maa.org/programs-and-communities/curriculum%20resources/instructional-practices-guide>

An instructional practices guide from the Mathematics Association of America – it includes a link to a PDF of the guide of evidenced based practices.

<http://tlinnovations.cikeys.com/teaching-learning/the-role-of-assessment-in-students-pursuits-of-chemistry/>

This blog post from a department chair and professor of chemistry from the California State University Channel Islands is part of a larger series “Resilient Teaching.” The author, Blake Gillespie, poses questions for consideration regarding the purpose and meaning of traditional assessment (specifically multiple choice exams) as well as resources and suggestions for alternatives.

<https://teaching.berkeley.edu/resources/improve/alternatives-traditional-testing>

This cite from the Center for Teaching & Learning at UC Berkley offers a list of alternative assessments that faculty might consider to replace the more traditional exam. Each alternative offers a description as well as examples from a variety of disciplines.

*UC Berkley opted to NOT allow additional online proctoring for Spring 2020 due to issues of privacy and accessibility/equity <https://www.dailycal.org/2020/04/05/online-exam-proctoring-no-longer-allowed-for-uc-berkeley-classes/>

Test Construction

<https://www.chemedx.org/article/3-dimensional-assessments-and-helping-students-develop-necessary-skills> & <https://pubs.acs.org/doi/10.1021/ed500076x>

Both of these resources address test construction for higher quality multiple choice assessments that are directly linked to learning outcomes/objectives.

Academic Integrity

https://docs.google.com/document/d/1Zvmidiw7D3MPaHmLHyCiG_BSZaNI0jxtuDuxZPKc/edit#heading=h.q9c04vvc04fo

Found on the POD Discussion Group, this is a Google Doc of an annotated bibliography by Chris Heard (Pepperdine) on Mitigating Academic Dishonesty in Online Testing.

<https://www.facultyfocus.com/articles/educational-assessment/fourteen-simple-strategies-to-reduce-cheating-on-online-examinations/>

Written by Stephanie Smith Budhai for a May 2020 piece in *Faculty Focus*, “Fourteen Simple Strategies to Reduce Cheating on Online Examinations” offers some tangible suggestions for helping faculty to combat students’ inclination or temptation to cheat when taking an online exam.