



TALE Teaching Tip:

Best Practices of Online Exams & Quizzes: Pandemic Edition

If faculty and students had signed up for online courses, the best practices for online exams would differ, somewhat, from the recommendations below. When students voluntarily participate in online learning, faculty can expect students fulfill technology requirements that enable monitoring. When a disruption occurs that compels a sudden shift to remote teaching and learning, we face many challenges, personal and professional. In this context, such as the pandemic, our students may have problems with internet connectivity; economic upheaval; working more hours in essential services; students or their family members infected by COVID-19; a very uncertain future; weighing the costs and benefits of a college-education when unemployment has reached levels not seen since the Great Depression. We are dedicated to creating a fair and equitable examination process that also helps us measure to what extent our students have achieved essential learning goals -- learning goals which we may have down-sized given the disruptions. As we enter a new academic year, these concerns have not changed. For the next few months, we will still be required to engage in social distancing and continue to use distance education tools. What is more the university has lost millions, and so we also need to weigh the costs of test monitoring against the need to prevent cheating on exams.

Goals of Quizzes, Exams, and Cumulative Finals

Are quizzes or exams being framed as a learning opportunity? Are the quizzes and exams meant to quantify what has been learned? Are they perceived as punitive in the false hope that students will complete readings or do their homework? Does the quiz or exam encourage students to apply or synthesize in order to make the learning relevant to their lives? How students answer these questions may shape their dedication to doing well; it might lead them to cheat if they do not recognize the learning potential in exams, quizzes, assignments, projects, performances. The central question for faculty: will the assessment help measure whether or not the students have achieved the learning goals? Quizzes and exams create opportunities for students to practice retrieval, to discover what they have and have not learned. A final exam, assignment, or project affords opportunities to relate, apply, evaluate, analyze using the thinking and creative skills honed during the semester.

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General Guidelines for Administering Quizzes and Exams

Communicate expectations and exam structure up front

- Tell students how many questions, types of questions, time limit on the exam, whether or not you are setting a sharp deadline or flagging late results, window in which to take the exam, and time limit for the exam. Often these questions are addressed in a face-to-face classroom. Every course that they take may be different so knowing these details will help them prepare and reduce anxiety.



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Make clear your expectations of what is allowed

- Faculty are understandably concerned about cheating, but do students know what you define as cheating? In a physical classroom space, examination norms are more obvious and stated verbally. Is texting a friend, cheating? Can they use notes or their book? For those assigning papers and essays, have you defined plagiarism and appropriate use of sources?

Make the exams open notes/open book

- We cannot easily monitor students taking an exam at home; we should assume that they will use their resources. Consider encouraging them to do so to make the exam more equitable. Posing questions that require students to apply, evaluate, synthesize will allow them to use the foundational knowledge from books and notes to respond in meaningful ways. Having these resources available rarely gives a student who has not been studying an advantage.

Consider alternative forms of assessment to objective exams

- If the goal of the assessment, especially end-of-the-semester, is to allow students to demonstrate their learning, written assignments, recorded oral presentations, videos, etc will demonstrate if the students have achieved the learning goals and reduce the potential for cheating. However, be sure to explain any expectations you have about citing sources. You should not assume that students know the difference between authentic and inauthentic paraphrasing, summarizing, and plagiarism. After all, we live in a world of memes in which quotations are often shared without attribution.

Consider combining forms of assessment on an exam

- If you want to test students' ability to recall or recognize foundational knowledge, then provide a shorter, lower stakes objective exam combined with a written assignment, short answers, paragraphs, essays, performance, audio, video, etc.

Consider including an academic integrity statement

- In a face-to-face class, you can more easily detect a student peering at another exam, using cheat sheets, and even using a smart watch. However, we lose that control in this remote learning environment. In studies that have been conducted on cheating, the inclusion of an academic integrity statement that clearly outlines what is and is not allowed has reduced the occurrences even in an online environment. If we have primed our students to understand why cheating undermines learning and violates academic integrity, that message is more likely to stick.

Create Question Types that Reduce Cheating or Collaboration

- Create a large pool of questions and question types.
- Avoid asking questions that can easily be googled. If you need to examine students on fundamental facts, then perhaps reduce the point value of these questions compared to other portions of the exam. Anything that requires synthesis or analysis cannot easily be googled.
- If your questions are an applied/anecdote type that uses personal names, use the names of celebrities. When these are googled, the results will generate considerable noise.
- Try googling your own questions to see how easy it is to find the answers online.
- Include open-ended questions that require short answers or essays that typically require higher-order thinking skills and a greater depth of knowledge.
- If you ask students to solve problems, require them to briefly describe how they arrived at their answer, or have them record a video talking through the process. You would not need to have them explain their process with every question or problem, you could have them do so randomly or with exemplars. (Use Mediasite; Zoom; or check out the easy to use and share screen recording software: <https://www.techsmith.com/>)

Offer flexibility with the timing of your exam

- Follow the university's final exam schedule. However, consider enlarging that window.
 - Students taking exams from home may have weak internet connectivity or may have out-of-the-ordinary family and work obligations that prevent them from taking the final at the scheduled time.
 - You still have the option of imposing time limits on the exam; create a reasonable time limit and then flag results as late rather than closing students out of the exam.
 - Be sure to add extended time for students with testing accommodations.
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Availability of an online exam

Strategy: Provide a narrow window of availability for your online exam but avoid restricting students to the actual class time or the time frame of the final. You can specify a **start date** and time when students can actively begin the exam and an **end date** and time when students can no longer access the exam.

Note: Students can go past the end date if the time limit allows it, however, if the student is dropped from the quiz for any reason (internet connectivity issue, computer crash, etc...) they will **not be able to re-enter and finish** because the end date has passed. Be sure to **deselect** the Hide from Users checkbox, otherwise students will not be able to see the online exam in BOLT, even after the Start Date.

Additional Details:

[How do I set availability and due dates on quizzes?](#)

Hide from Users

Due Date

Has Due Date

5/6/2020 4:00 PM Now

United States - New York

Availability

Has Start Date

5/6/2020 12:00 PM Now

United States - New York

Has End Date

5/6/2020 4:00 PM Now

United States - New York

Display In Calendar

Exam Time Limits

Strategy: Enable the **Enforced Time Limit** setting in BOLT to a specific time constraint that is reasonable to complete the exam. Students will see a countdown timer while they take the exam. You can also allow a **grace period** for students to finish answering a question after the time limit is over.

Note: Students will **not** see a timer for the grace period. If a student exceeds the exam time limit or the grace period (if enabled) the instructor and student will be aware as the **system flags the attempt** as time limit exceed. You can prevent the student from making further changes after the time limit is exceeded by selecting this option under the Timing section of the Quiz Restrictions page.

Timing

Recommended Time Limit Enforced Time Limit

Time Limit: 120 minute(s) Grace Period: 5 minute(s) before flagged as exceeded time limit

Exceeded Time Limit Behaviour

After the grace period, flag the quiz attempt as exceeded time limit, and

Allow the student to continue working

Prevent the student from making further changes

Allow the student to continue working, but automatically score the attempt as zero after an extended deadline.



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Special Access

Strategy: Allow Special Access to the online exams for students with accommodations or for others who have special circumstances requiring a modification to the exam start/end date or time limit. Special Access is applied per student so you can tailor the specific access to each student as needed without creating a separate exam.

Note: Special Access can also control the enforcement of **Respondus LockDown Browser (RLDB)** for specific students. For example, if a student only has a **Chromebook** they will not be able to complete an online exam that requires RLDB as the device is not supported. You can add Special Access for a student in this situation so they can complete the online exam without RLDB while still requiring RLDB for all other students.

Additional Details:

[How do I add special access to a quiz?](#)

Be sure to save your changes.

Special Access

Type of Access

- Allow selected users special access to this quiz
- Allow only users with special access to see this quiz

Add Users to Special Access

Assessing Online Exams

Strategy: When using the grade book feature in BOLT we recommend you associate your online exam with a grade book item. Best practice is to use the same name for both the online exam and the grade item to maintain consistency across the course and limit confusion for students.

Strategy: If you want students to see their score immediately upon submitting their attempt, setup **Automatic Grade** for your online quiz by enabling the feature to allow attempts to be set as graded immediately upon completion. The score displayed is only what the system can auto-grade. If an item requires manual grading (like a written response question), you may want to leave this setting off as students will not see their actual final score at end of the online exam, only what could be automatically graded by the system and may create confusion.

Note: This setting must be turned on for grades to be automatically sent to the grade book, and for the default submission view to be released to students when they complete an attempt.

Strategy: If you do not want students to see results until all quizzes or exams are completed, which might reduce collaboration, then **do not select** Automatic Grade or Auto Export to Grades. When you are ready to grade, then select Automatic Grade, Auto Export to Grades, and select Publish in the gradebook.

Strategy: Setup **automatic export to the grade book** by enabling the feature. When Allow automatic export to grades is enabled, the system can send auto-graded attempt scores directly to the grade book. This requires that a grade item is associated with the online exam. If Allow attempt score to be seen immediately upon completion is not enabled, you must set attempts as marked in the Grade Quiz page to populate the grade book with attempt scores.



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Additional Details:

[How do I set up automatic grading in a quiz?](#)

Assessment

Automatic Grade
 Allow attempt to be set as graded immediately upon completion ?

Grade Item
Final Exam ▾ [add grade item] ?

Auto Export to Grades
 Allow automatic export to grades ?

Grade item can be created here

Student views of questions

Strategy: Allow students to view the questions they answered incorrectly. By default, students are only shown their score immediately after completing their online exam. While you can update the default submission view to show questions answered incorrectly a more secure approach is to create a new submission view that is available after the online exam period ended and all attempts completed. This prevents students from sharing the questions and answers with peers still taking the online exam.

After Final Exam

Date: May 6, 2020 6:30 PM

Show Questions? Show questions answered incorrectly

Show question answers: Yes

Statistics: none

Additional Details:

[How do I show students the quiz questions and answers after the quiz is completed? \(Submission View\)](#)

Strategies to use when adding questions to a quiz in order to reduce unsanctioned collaboration or cheating:

Build a Question Library

The question library can house quiz questions that can be pulled into any quiz in your class. You can copy the question library from a previous course into a current course. Many publishers have test banks in electronic formats that can be imported into the question library. Building a thorough question library can aid in creating deep question pools. [Benefits of Question Library \(YouTube\)](#); [Populate a Quiz with Questions from Question Library \(YouTube\)](#)



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Deep Question Pools

By storing questions in the question library, you can build test **pools** into your quiz. A test pool will randomly select a certain number of questions from a pool of questions you specify. You can add multiple test pools to a quiz to increase the variety versions of a quiz that students receive.

Question Shuffling

Question shuffling can reduce cheating by giving students questions in a random order. You can turn on question shuffling at the quiz level or in an individual section. By nature, a question pool is randomly assigned so shuffling is not needed within a pool.

Randomize Answer Choices

For multiple choice questions you can choose to randomize (or scramble) the answer choices. This is a per-question setting that ensures that students receive all answers in a random order. If enabling this setting for a question, be sure to not have any answers that rely on answer order (example: "A and B are correct", or "None of the above").

Questions per Page

You have the ability to specify the number of questions that will be displayed per-page. By default, BOLT will put all questions on a single page. You can also manually add and remove page breaks to create custom numbers of questions per page.

Paging

Enabling the "Paging" setting will prevent students from going back to a previous page. Students will not be able to change their answers or answer previously unanswered questions from a previous page. In administering a pen-paper exam, students can freely move back and forth, and they will expect to have this opportunity in an online exam. Restricting students from going back to previous pages, may prevent them from correcting errors, and it probably does not reduce the chance for cheating if you have a conservative time limit. It is recommended to let students know if this will be enabled before the quiz.

Tutorials from IMDC:

[Quizzes \(BU IMDC Infobase\)](#)

[How do I create a quiz?](#)

[How can I create sections in a quiz?](#)

[How do I randomize and shuffle questions in a quiz?](#)

[How can I add a publisher's test bank into a quiz or question?](#)

Considerations when using Respondus Lockdown Browser (RLDB) + Monitor

While Respondus Lockdown Browser (and Monitor) can be a useful tool to prevent cheating there are several considerations:

Chromebooks: RLDB and Monitor is not compatible with Chromebooks. A student with a Chromebook will not be able to take a quiz that requires Lockdown Browser. Students that only have access to a Chromebook can be put into Special Access (see above) so they will not need to use Lockdown Browser.



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Webcams: Enabling Respondus Monitor, in addition to Lockdown Browser, requires the student to use a computer equipped with a webcam. Students without a webcam will not be able to take the quiz. Some students may also have privacy concerns about being recorded. If a student must take an exam that requires Respondus Monitor, but does not have a webcam, they can be added to Special Access so they will not need to use Lockdown Browser.

Trial Quiz: To ensure proper functioning of Lockdown Browser (and Respondus Monitor) it is recommended to create a trial quiz for students to test their hardware and software setups. The trial quiz should be always open with unlimited attempts and 1 question, while not linked to a grade item. This will allow the students to test their hardware and software at any point during the semester.

Tutorials from IMDC:

[How do I connect to BOLT with Respondus?](#)

[How do I import questions from a document into Respondus?](#)

[How can I require LockDown Browser on a Quiz?](#)

Resources:

- Best Practices: The Quiz Tool, D2L Brightspace (<https://community.brightspace.com/s/article/Best-Practices-The-Quiz-Tool>, accessed on 14 April 2020)
- "Designing Better Quizzes: Ideas for Rethinking your Quiz Practices," *Faculty Focus: Special Report*, 2018 (<https://www.facultyfocus.com/free-reports/designing-better-quizzes-ideas-for-rethinking-your-quiz-practices/>, accessed on 14 April 2020)
- Kansas State University, Keep Teaching, Best Practices for Offering Exams Online (<https://www.k-state.edu/keep-teaching/online-exams.html>, accessed on 14 April 2020)
- Lang, James M. *Cheating Lessons: Learning from Academic Dishonesty*. Cambridge, Massachusetts: Harvard University Press, 2013.
- Lang, James M. "Cheating Lessons," *Advice, Chronicle of Higher Education*, Part 1 (28 May 2013); Part 2 (8 July 2013); Part 3 (19 August 2013).
- Online Testing in D2L – The Truth about Security, SRU Ed Tech (<https://sruedtech.wordpress.com/2014/02/12/online-testing-in-d2l-the-truth-about-security/>, accessed on 14 April 2020)