Remote Assessments
Tests and Quizzes in a Virtual Learning Environment

Bob Pelayo & Chris Davis
Caveats before I start:

• I don’t claim to be an expert or even an advocate of these.

• Test everything yourself. Once you find a setup you like, stick to that.

• These services are updated often; things might work differently from how I remember.

• Things might work differently from the documentation you find online.
Respondus Lockdown Browser & Respondus Webcam Monitor

• Respondus Lockdown Browser prevents students from doing anything on their computers outside of the quiz environment.
  • (Can’t access websites, instant messaging, ...)
• Webcam Monitor also records the students using their Webcam. Can be reviewed later by instructor.
  • In my experience, it mostly serves as a deterrent.
• Not clear (to Chris) if we are allowed to require these services.
Respondus Settings I used in Math 2A

- Don't require Respondus Monitor for this exam
- Require Respondus Monitor for this exam
- Either Respondus Monitor or a proctored lab can be used to take this exam

**Startup Sequence**
The Startup Sequence is the set of optional events that occur before a Monitor webcam session begins. You can choose the items to be included in the Startup Sequence, and can edit the text unless it has been locked by the administrator.

- Webcam Check
- Additional Instructions
- Guidelines + Tips
- Student Photo
- Show ID
- Environment Check
- Facial Detection Check

**Facial Detection Options**
- Prevent students from starting the exam if face cannot be detected during Startup Sequence.
- Notify students during the exam if face cannot be detected (prompt for a fix)

**Advanced Settings**
- Allow another application to use the microphone during this exam.
- Make webcam videos additionally available for viewing on mobile devices (allow 24 hours).

Enter a demo student username for use by the instructor:

**Sample Resp**

- **LockDown Browser Settings**
  - Don't require Respondus LockDown Browser for this exam
  - Require Respondus LockDown Browser for this exam
  - Require LockDown Browser to view feedback and results

- **Password Settings**
  - Access code for this exam (optional)

- **Advanced Settings**
  - Lock students into the browser until exam is completed
  - Allow students to take this exam with an iPad (using the "LockDown Browser" app from the App Store)
  - Allow access to specific external web domains
  - Enable Calculator on the toolbar
  - Standard Calculator
  - Scientific Calculator
  - Enable Printing from the toolbar

- **Monitor Webcam Settings**
  - Don't require Respondus Monitor for this exam
  - Require Respondus Monitor for this exam
  - Either Respondus Monitor or a proctored lab can be used to take this exam

- See also advice from Rachel Lehman and others on https://www.math.uci.edu/~remote_teaching/
Respondus Lockdown Browser & Respondus Webcam Monitor

- Difficult to test Respondus as the instructor. (Preview causes my computer to crash. Use Student View.)
- You can incorporate a simple built-in calculator, but the students don’t like it.
- The students can’t upload anything while in the Respondus environment.
Respondus Warnings

• It’s another piece of technology the students need to download.
• Don’t for example have a pdf-download within the Respondus test.
• My fault: A few times images did not show up in Respondus.
• The students can’t upload anything while in the Respondus environment.
Canvas Quizzes

• Have nothing to do with “quizzes” in particular; could be midterms or exams or ungraded surveys or ...
• Easy to import and export.
• No way to duplicate that I know of other than by import-export.
• Pretty easy to customize: give a student extra time, alternate due dates, etc. Once published, go to “Moderate this quiz”.
Many different question types

• Can be auto-graded: True-False, Multiple Choice, Numeric Answer, Matching

• Or you can grade them: Fill in the blank, free response, file upload (if you’re not using Respondus)

• I’ve only used a handful of the question types. Let me know if you have a favorite type I didn’t mention.

• By default, 0 seems to always be a correct numeric answer unless you delete it.
LaTeX in Canvas quizzes

• Not bad, no keyboard shortcut for accessing it as far as I know.
• The math produced is an image file which can be re-sized and edited or copy-pasted without much trouble.
• I never like the spacing after it... I often force a space inside the LaTeX code, like \sin(x)\;
Warnings

• Images, pdfs, etc you upload on a quiz are visible to the students by default in the Files section.
• Students see their score with 0 for all the non-auto-graded questions
• Comments do not save, scores do not update, unless you tell them to update.

---

CourseLearningObjectives.pdf  Sep 24, 2017  Sep 24, 2017  82 KB
Quiz Files  Aug 8, 2020  --
SampleMidterm2-Solutions.pdf  Aug 26, 2020  Aug 26, 2020  Christopher J Da...467 KB
Unit1-LearningObjectives.pdf  Sep 24, 2017  Sep 24, 2017  103 KB
Unit2-LearningObjectives.pdf  Sep 24, 2017  Sep 24, 2017  112 KB
Warnings 2

• I usually wind up frustrated with the “Question Bank” feature.
• Be sure to save the question before saving the quiz.
• If you have multiple versions, the “Preview” will only show you one version.
Favorite feature: Question groups

- Easy to make multiple automated versions of the exam.
- Easy to rearrange.
- Suggestion: Use many question groups, where the questions within a group are similar.
- Suggestion: Use language/phrasings the students have seen before.
- Suggestion: Have a statement about academic integrity and copied answers at the beginning of the exam.
Take-Home Exams

General Setup
• Largely unproctored exams
• Questions are made available at specified time (via email or Canvas)
• Questions are uploaded to Canvas (or Gradescope) via assignment

Tips
• Have students practice scanning/uploading documents
• Students upload a single .pdf of their results
• Students should check their submissions
• Give students a copy of blank “response sheet” before the test starts
Utility of Response Sheets

Standardizes formatting for test responses
At-Home Exam

Take Home vs. At-Home Exam?
• At-Home Exam has some added layer of proctoring
• Useful when questions aren’t easily adapted to Multiple Choice

Considerations for At-Home Exams
• Will there be a single time slot to take the test?
• Will students need printers?
• Will students need additional time to upload their submissions?
At-Home Exams: Zoom Proctoring

**Zoom Proctoring**
- Advantage: No-record proctoring
- Advantage: Can make announcement during test (e.g., two mins left)
- Advantage: Can answer questions via chat in real-time (e.g., Do I need to simplify my answer for #2?)
- Disadvantage: Difficult to monitor large groups of students
- Disadvantage: No lock-down browser capabilities

**Tips**
- Must be done during scheduled lecture or TA discussion time
- Require students to turn on cameras, off sound, and off virtual background
- Have TAs available to check student faces to picture roster
At-Home Exams: Respondus Proctoring

Idea: Use Respondus to proctor written test
• Advantage: Recorded monitoring & lockdown browser
• Advantage: Flexible timing – all students take at same time, or students take over several hours
• Disadvantage: Complicated Set-up
At-Home with Respondus: Setup

Need 3 main components:

• Upload the test to "Files"
• Build an Assignment to upload the finished test
• Build a Quiz with 1 question
  • Respondus can only be attached to a quiz
At-Home with Respondus: Uploading File

Make sure that visibility is set to “Only available to students with link”
At-Home with Respondus: Assignment

Create an Assignment to Receive Upload of Completed Test

Test Time: Starts at 11am; ends at 11:50am; scan/upload by 12:10pm
At-Home with Respondus: Quiz

Quiz settings (this is what Respondus is attached to)

Midterm Example - Requires Respondus LockDown Browser + Webcam

Quiz Instructions:

This is your Midterm. When you start the test, you will be able to view the .pdf of the test. Write your answers to the exam on your own paper, then scan it at the end.

This is a 50 minute test with 20 mins to scan/upload your exam as a single .pdf

Test available: 11:00am
Test done by: 11:50pm
Scans uploaded by 12:10pm

Upload your scan to this assignment: Midterm Upload
At-Home with Respondus: Quiz

The Setup:

What Students See:

Click here for copy of the exam:
Midterm_May_2018.pdf

Midterm_May_2018.pdf

1. The following statements are false. For each of the following, provide a reason why the statement is false or a counterexample, and verify it is indeed a counterexample.
   a. There exists a unique $a \in \mathbb{Z}$ such that $3a + 1 \equiv 0 \pmod{2}$.
   
2. Let $a, b, c \in \mathbb{Z}$. Then $a \neq b \pmod{c}$ if and only if $a^2 \neq b^2 \pmod{c}$.

I did take this test honestly without any prohibited aids or resources.

True

False
Concluding Thoughts

- Make clear the expectations to students (frequent emails)
- Give students the opportunity to practice
  - Practice with uploading a dummy assignment
  - Practice with Respondus before high-stakes tests
- Consider giving “response sheets” early
- Tell students to *not panic* if there is a tech problem...we will fix it!