FYMSiC Online Conference: Teaching Math and Stats Courses in Interesting Times (to say the least)

Saturday, May 23rd, 2020

Session 2: Online Assessments NOTES

Session 2: Remotely Delivered Assessments

Breakout Rooms 1, 5, and 9: Expectation for Students

- What is reasonable to expect of students during these times? (Access to a computer, high-speed internet, a webcam, a printer and a scanner? Availability at a set time for live sessions? Consent to ProctorU looking around their room? Time and space to focus on their studies? ...)
- How do we avoid grading privilege instead of mastery of content (to the extent we can)?
- What kind of support do students need? And how much of that is our responsibility?

Deliverable: Either

A) A list of three items that you feel are important and reasonable to expect of every student during these times.

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- B) A list of three items that are relatively widely expected of students that you feel are unreasonable.
 - 1) Students should also be reasonable in their expectations, and have full ocmmittment to the course.
 - 2) For fall, reasonable to assume students will have strong enough internet connection that will allow upload/dl video.
 - 3) Minimum tech package is reasonable to expect, and should be clearly defined from the start.
 - 4) Unreasonable to expect high speed internet, that they can work in our time zone, top-line equipment.
 - 5) We can't expect students to read our minds: we have to be very clear and detailed about what our expectations of them are, and what they can expect from us.
 - 6) Internet an issue especially for rural students.

Breakout Rooms 2, 6, and 10: Formative Assessments

- How do we design and deliver remote formative assessments that help students learn the course material?
- How can we better gauge students' learning throughout the term via remote assessments?
- What do we do in place of in-person formative assessments such as in-class quizzes and lab assignments?

Deliverable:

A list of three ideas and/or practices for conducting remote formative assessments. (Your list can be generic, or focus on either large or small classes.)

- 1) Weekly quizzes where students have multiple attempts, designed to help students build skills, using things like WebWork integrated with a LMS; Mobius in Canvas;
- 2) Use formative assessments to prepare students for the method of the formative assessment. Especially in high-tech environment, they need
- 3) Low stakes engagement work vs. middle-stakes weekly assignment work
- 4) Making use of peer-assessment, using something like PeerScholar(sp?), UBC Compair
- 5) Short reflective essays. Francis Su has some great reflection questions: https://www.francissu.com/post/7-exam-questions-for-a-pandemic-or-any-other-time
- 6) Demonstration of test grading in-class.
- 7) Multiple attempts for formative assessment

8)

Breakout Rooms 3, 7, and 11: Summative Assessments

- How do we design and deliver remote summative assessments that measure students' mastery of the course material?
- Should the composition of questions change (e.g. conceptual versus procedureoriented) for remote assessments? If so in what ways?
- Should summative assessments make up a larger or smaller component of the course grade in remotely delivered courses? If so, why?

Deliverable:

A list of three ideas and/or practices for conducting remote summative assessments. (Your list can be generic, or focus on either large or small classes.)

- 1. Sean Fitzpatrick, Peter Taylor: Allow longer time frames for tests, eg. 72 hour take home exam.
- 2. Miroslav Lovric: Write problems that are difficult to search or look up, for example, ask for a counterexample to a weakened theorem or ask to find and fix an error in a proof.

- 3. Sean Fitzpatrick: Write questions with unique wording (kohlrabi, enchilada) to make them easy to find if students post them.
- 4. Lauren DeDieu: Changing to only more conceptual problems has large institutional barriers and workload issues.
- 5. Lauren DeDieu: Offer more frequent, lower stakes assessments.
- 6. Reduce the weight of the final exam to reduce the incentive to teach. If nothing is proctored, then no point of having highly weighted final exams.
- 7. Shift procedural to formative, and make summative all conceptual.
- 8. Make use of oral examinations
- 9. Maybe no way to solve this problem. Maybe no summative assessment? Maybe
- 10. Educating students about academic integrity
- 11. Maybe institutions can have the final assessment in-person, at least for small classes, but this is problematic because some students are not local,
- 12. This problem is forcing changes in policy: weight of exams, necessity of final exams,
- 13. Plan assessment thinking about the good student, not the bad student. How do you best evaluate the honest student?

Breakout Rooms 4, 8, and 12: Academic Integrity

- How can we detect and deter cheating in remote assessments?
- How hard should we try to catch cheaters and litigate academic integrity cases?
- How do we strike the balance between invigilating a remote exam and inconveniencing our students and invading their privacy? Should there be department/institute-wide policy on this or should instructors have the right and responsibility to handle this on a case-by-case basis?
- Given that websites like Chegg and Coursehero aren't going anywhere, how do we adapt?

Deliverable:

A list of three ideas and/or practices for upholding the integrity of remote assessments. (Your list can be generic, or focus on either large or small classes.)

- 1) Ideal: remote proctoring tool, which starts with an academic integrity pledge
- 2) How do we identify cheating?: Gradescope allows grouping of student submissions to easily compare.
- 3) Can submit take-down requests to Chegg(sp?)

- 4) Randomize final exam questions.
- 5) Must communicate with students about academic integrity
- 6) Tools for exams: lockdown browsers, etc. are limited in what they can achieve and too invasive.
- 7) Randomized oral questions
- 8) Open book timed exams
- 9) Small classes can perhaps hold on-campus exams with students distanced.
- 10) Frequent regular assessments to make external hires more expensive, and make it less convenient for a friend to sit-in.
- 11) Use higher level questions that focus more on understanding than calculation.