Academic Integrity in the Digital Learning Environment

What is contract cheating?

- Purchasing an assignment online.
- Participating in unauthorized discussion groups or sharing answers for assessed work (such as online quizzes).
- Paying or arranging for an assignment or test to be completed by others.
- Using online services such as chegg.com or coursehero to help source answers to a test or assignment for assessment.
- Engaging with a company or person to solicit assistance on an assignment that is to be completed individually.

Unauthorized collaboration, **according to McCabe (2005)**, is the most common cheating behaviour. This might include working with others on an assessment that was meant to be done individually, potentially copying or contributing to responses. This is often not perceived as "cheating".

Why do students cheat?

According to Gregory J. Cizek in *Cheating on Tests: How to Do It, Detect It, and Prevent It (1999):*

- "Cheating is about grades, grades, grades." (Pages 32 - 36).
- "The strongest predictor for cheating is previous cheating or seeing others cheat or seeing cheating go unpunished." (page 123).
- "Students whose motivation for performance is to earn a grade (as opposed to learning) are significantly more likely to report engaging in cheating to accomplish that goal." (page 105).
- Increased stress levels or poor time management skills can lead to a heightened probability of cheating.

"I have used student numbers to generate unique test questions and answers.This way students can and still will discuss the test questions, but they cannot compare their answers."

Universities around the world have found that, even with proctoring, academic integrity has been compromised for online examinations. I believe instructors have to get creative to minimize cheating. No matter what we do, students will still find ways to discuss the exam. One approach that I have used to minimize academic dishonesty is to have the question constant dependent on individual student numbers. The student can still discuss the test questions, but they cannot compare their answers because their student numbers are unique. I have now used this method in five different exams and the average for face-to-face and online exams was similar. Using the proposed method requires spending more time creating a marking key, but this has been an effective approach in my courses to minimize 'cheating'.

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Assessment types most vulnerable to cheating:

- Traditional assessments: Multiple choice question (MCQ) assessments, true/false, and matching questions are most vulnerable to student cheating, especially if re-used from previous courses, quizzes, or shared by colleagues.
- Strictly timed & high-stakes assessments: Assessments with short completion time frames (i.e. between receiving the assessment and submitting) and worth a considerable portion of the final grade **often raise student stress, and with it, the likelihood of cheating.**
- Research papers or long-form written work: These raise the likelihood of plagiarized sources and improper citation.

Strategies to reduce cheating

Broad **strategies to consider** when designing assessments that may help reduce cheating:

- Create questions that involve higher order thinking (eg. getting students to analyze, infer, or explain things).
- Create different question types (eg. a mix between multiple choice, true/false, short answer, etc.).
- Create different **versions of the same test** that are randomly assigned to students at test time to reduce inappropriate collaboration.
- Design assignments that scaffold progress/contain multiple drafts, spreading out assessments into multiple low-stakes components.
- Set flexible deadlines to curb desperation/stress-fueled cheating .

Examples of specific **alternative assessments:**

- Find the error/flaw: Students identify an error in a formula/ calculation and explain how/why it is incorrect.
- Critical reflections: Students summarize and critically reflect on a theory, argument, and/or how a theory might be applied to current issues.
- Case studies: Present dilemmas and require students to apply higher order thinking skills in order to evaluate, apply knowledge and/or analyze a problem .

"The main change in both of my courses was to use current events, data and focus more on student reflection/opinions/ ideas rather than calculations."

When we transitioned to online, I was teaching GENTECH 4OM3 (Operations Management) A typical exam for this course had two parts: multiple choice and short answer, which included a prescribed vignette requiring a single calculation approach to solve.

For Winter 2020, I scrapped these types of questions and decided to make use of the flood of media coverage about operations and Supply Chain during the pandemic and to have the students engage in a more inquiry-based activity. I felt it was a rich opportunity to really have the students connect to the world around them and to affirm that what we teach is of immediate value.

I created scenarios taken directly from news coverage and gave a list of content areas that were relevant. These scenarios were given in advance of the exam for students to do research, work together and prepare responses. On the evening of the exam, students used a prepared Submission Sheet individualized for each scenario that included "drill-down" questions to further guide and direct their responses.

Students had to state why they chose the scenario, why and how the content areas were relevant, and provide evidence/artifacts. Responses were marked using a rubric that included comprehension, relevance, completeness, uniqueness and effort. The preparation for this exam was extensive but I had no issues of plagiarism nor duplicate responses.

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Specific strategies for large class sizes, limited grading capacity and MCQ-based assessments:

- Collaborative testing: Sanction and formalize collaboration on tests among students, thereby reducing the chances of employing contract cheating .
- Add explanation fields to MCQ: Answers are graded automatically (eg. Avenue) while still requiring the student to provide either a verbal or quantitative rationale. Explanations can be qualitatively examined by TAs to ensure a reasonable level of effort/authenticity.

*Please refer to linked resources for more complete explanations of assessment strategies.

Setting community norms around cheating

- Instructor-initiated conversations throughout the course to create a shared understanding of "community norms" sets standards for academic integrity and reduces cheating in your class throughout the term.
- Discussion topics: (1) What does cheating look like (Give examples); (2) Why do students cheat?; (3) What is the connection to professional associations' character and ethics expectations, where applicable? (eg. Engineering, Kinesiology); and (4) What on-campus resources are available for support? For example, Student Success Centre and Library Services.

Contact Information

For more information on academic integrity, please contact:

Kimberly Mason, Academic Integrity Officer
Office of Academic Integrity | **acinteg@mcmaster.ca**

For more information on alternative assessment design and implementation, **request support from the MacPherson Institute** or visit **mi.mcmaster.ca.**

"I used online proctoring, which I know isn't necessarily a popular choice with everyone, but I felt it was appropriate for my course."

I used online proctoring, which I feel was appropriate for my course. I was very open with my students about my reasons for choosing to use proctoring, and I told them that catching someone committing academic dishonesty was actually low on my list of reasons for choosing it. I chose to use it for the final exam since I felt it was important to assess individual competency at some point (yes, group work is important and encouraged, but so is learning the material for yourself!).

I also wanted to improve students' confidence in the security of the assessment (i.e., students do not feel at a disadvantage because they did not participate in a particular Facebook group chat). As well, I felt that it provided me flexibility in assessment questions (i.e., not all questions had to be abstract and obscure to discourage cheating, timing could be very generous, etc.).

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