Teaching practices that minimize student cheating in online courses

This short guide describes research-based practices that are used to successfully minimize student cheating in any teaching modality. These practices are briefly described and then examples are provided. As you consider these practices, keep in mind that you can seek out support in adopting them in your teaching by contacting ITLAL for an individual consultation here.

1. Use more frequent, low-stakes instead of high-stakes assessments.

When students believe that a single assessment or assignment will determine their success or failure in a course, students may decide it is safer to cheat than to risk a low grade. Instead of a midterm and final exam being large determinants of students' grades, consider smaller, more frequent assessments that carry less weight for students' final average.

Examples of frequent, low-stakes assessments

Assessments that involve solving problems

The instructor gives weekly quizzes that are 5-10 items in length. Students can drop the lowest score of the 14 quizzes. Students are informed that each quiz is worth 4% of the course grade. Students can choose to rework a certain number of problems (in office hours or discussion section in the presence of an instructor or TA), identifying how they worked the problem originally, where they went wrong, and how they now understand the conceptual work they originally struggled with.

Assessments that involve student papers or projects

The instructor requires students to submit small pieces of a large project each week (i.e., decisions about topic of paper, three possible resources for a paper, a plan for conducting research, a draft of first paragraph, a progress report on analysis and writing, a draft of interpretation or key ideas about the research, etc.). These one- or two-page assignments require students to share their work to date but also their thinking about that work: students are asked to write the thinking or action steps they took to complete this piece of the work as well as a difficulty they encountered and what they learned that will guide them in their next assignment.

2. Help students see the value of assessments.

When students see assessments and assignments as just a hoop to jump through, they don't see the need to engage in the work those assessments require. Take the time to explain to students—in writing—how their assessments will give them valuable information about what they've learned this semester. Remind them that they can use this information about their learning as they continue their academic work and prepare for their future careers.

Examples of communicating the value of assessments to students

Language to use when the assessments involve solving problems

"Over the course of the semester, you will practice applying principles of physics and concepts related to climate to make predictions about weather. Our midterm is largely based on that kind of predictive work and the items on it will be familiar to you. This midterm will allow me to see how you are putting all the pieces of our course together, and I've designed it so that I can see clearly where you are still struggling as well as where you are doing well. In the areas where there is confusion, I will revisit that work with you and provide further feedback and practice to strengthen your thinking. It's okay to make mistakes on the midterm and I will provide ways for you to regain

points. In your future work in the field, you will need to practice making good judgements about weather patterns quickly. Be sure to put your own honest effort into the test—it will pay off in what you learn about your own learning and what I learn about how I can help you improve in areas that are still challenging."

Language to use when the assessments are papers or projects
"You will work on the final project all semester and make changes based on feedback you get from me and from your classmates. The project will showcase how you can now use sociological theories to analyze and respond to a current social issue. I am assigning this project because I want you to be able to use what you learn in this class long after the semester ends. The project will allow you to practice skills like research, argument, and problem solving, which are skills you will use in every dimension of your life at the University: both academic and personal problems can be solved when we do some research into the problem, use theories to guide our research and thinking, and present our solutions in ways that are clear and focused. I want you to put your all into this project so that you can use sociological principles to lead a better life."

3. Help students prepare for assessments—and understand how that preparation is helping them.

Students who do not feel well-prepared for an assessment or believe that an assessment is unfair will be anxious, and this will make them more likely to cheat. As you design course activities, make sure that there are multiple opportunities for students to practice using the skills your assessments require, and explicitly communicate the value of that practice to them. Remind them before assessments that they have spent time practicing what they need to succeed on the exam, paper, or project.

Examples of using and communicating preparation effectively

It's wise to communicate the preparatory steps that you've planned as an instructor in your syllabus, but you can also point out to students throughout the course how the work that they are doing is iterative and builds toward the work of your assessments. Here is an example of that kind of language in an Economics syllabus:
"I've planned work for you this semester that builds toward the three case study papers that are the big assignments for our course. Each week, I will present you with a short scenario and guide you to practice analyzing it in the same way that you will be required to analyze the three case studies. Some weeks, you will analyze the scenarios on discussion board with your classmates. Other weeks, you will practice analyzing problems and proposing solutions by first generating some ideas individually in a Blackboard Journal and then sharing your ideas in smaller groups during our Zoom class meeting. I will ask you to draft a short written analytic response to two of those scenarios after we've worked on them. This will allow me to see how your skills are developing and to give you ways to improve your thinking. Those analytic responses and my feedback will prepare you for the longer case study papers. I also want you to note that the three case study papers are weighted differently: the first is worth less than the second and the second is worth less than the third. This means that I expect your skills to build over the course of the semester. Applying economic principles to real scenarios and cases is hard work, but with practice you will develop your skills. You will be ready when the final case study comes!"

4. Create assessments that require students to do more than recall information.

It is much easier for students in any type of course to cheat if test items focus on simple recall of information. For online assessments, if most questions can be answered with a quick look through the textbook or a google search, many students will struggle to resist the temptation to cheat. Creating test items that challenge students to *use* their knowledge or understanding is one way to make cheating more difficult and less attractive. Another productive response is to ask students to explain how they arrived at an answer to a given question: this ensures that students have to show their thinking even if they used the book or notes (or a classmate!) to choose an answer.

Examples of test items that require students to do more than recall information (or find that information online or from a classmate)

A two-part test item that requires students to apply knowledge on a psychology exam

Alice, Barbara, and Charles own a small business: the Chock-Full-o-Goodness Cookie Company. Because Charles has many outside commitments and Barbara has a few, Alice tends to be most in touch with the daily operations of Chock-Full-o-Goodness. As a result, when financial decisions come down to a vote at their monthly meeting, they have decided that Alice gets 8 votes, Barbara gets 7, and Charles gets 2—with 9 being required to make the decision.

Question 1. According to *minimum-**resource*** coalition theory, who is most likely to be courted for their vote?

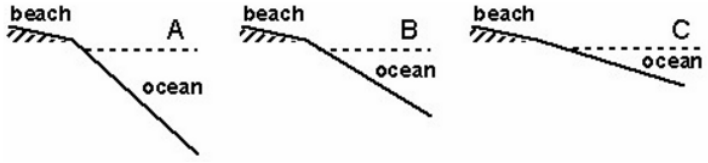
a) Alice
b) Barbara
c) Charles
d) No trend toward any specific person.

Question 2. In the scenario in question 1, according to *minimum-**power*** coalition theory, who is most likely to be courted for their vote?

a) Alice
b) Barbara
c) Charles
d) No trend toward any specific person.*

A two-part test item that requires students to apply knowledge and justify their thinking on an oceanography exam

Question 1: At which location in the diagram below would the waves break closer to the beach? A, B, or C?



Question 2: Explain your answer to question 1 using course concepts. Describe the concepts in your own words and then use about 3 sentences to justify how you responded to question 1.**

5. **Be aware of the technology tools that make it easy for students to cheat on online exams and create assessments that are specific to your course.**

Students are savvy and well aware of tools that can help them with assessments. There are "homework help" websites like chegg.com where students can easily find answers to test questions, sites where students can find papers or other projects for free, and paper mills where students can pay for assignments. It's important not only to be aware of these resources but also to ensure that our assessments make it difficult for students to succeed by using these tools.

Creating assessments that very specific to your course and the goals that you have for student learning makes it more difficult for students to use others' work in lieu of their own. Answers to and examples of such assessments can't be easily found online. Let students know that the items on the exam are not from a test bank. Inform them that the papers and projects you've created are unique not just to your course, but to this iteration of your course. This is another opportunity to frame the assessment as a meaningful and manageable measure of their thinking and learning, rather than an ordeal meant to tax them stressfully. Then follow through with these assessment design plans.

Examples of communicating your unique assessment design to students

Language to use when the assessments involve solving problems

"Our midterm is a multiple choice exam and has 45 items. I create these items each semester so that they are unique to our course and align with the work that we've been practicing. I think you'll find the items challenging at the right level. Remember, you've been preparing for this exam during the last 5 weeks through your homework and in-class activities. I'm excited to see how you're thinking about these problems so I can give you good feedback on your individual progress."

Language to use when the assessments are papers or projects

"The final draft of your Ethnography of Every Day Life paper is due in two weeks. As you know, I designed this project for you this semester because ethnographic research is only as valuable as it is applicable to the everyday problems and situations we find ourselves in. You've been turning in pieces of the project throughout the semester, so in many ways the final draft will be a last assemblage of these pieces with reflection on the changes you've made based on my feedback. I have appreciated mentoring you through these steps and observing your development as ethnographers. I am looking forward to reading the final draft and will be creating personalized feedback about your learning so that you can continue to develop your skills as an anthropology major and / or in regard to your analysis of everyday life as you move forward to use these new skills to make sense of our ever more complex social and political worlds."

*items created by Georgeanne Cooper and Michael Sweet were originally found at https://darkwing.uoregon.edu/~tep/assessment/mc4critthink.html

**items found at http://serc.carleton.edu/introgeo/conceptests/examples/waves.html