Methods to Mitigate Cheating

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Methods to Prevent Cheating

A common concern among professors using online homework systems is the fear that students will copy answers from one another and/or from online sources. Copying homework (as well as cheating on exams) has been a part of education since before computers or online programs existed. Despite the fact that there are students who copy, homework is still shown to be useful in student learning. Online programs do not prevent copying, but they lessen copying by:

- Providing content that is varied among students (ex. randomized question content, different order of questions, Adaptive Follow-up assignments, and Dynamic Study Modules)

- Offering students guidance (hints and feedback) to help them with their homework.

- Encouraging students to use hints and feedback by removing any wrong answer penalties for hints and making hints more visible

- Giving instructors the ability to track student work.

How can you help students decide not to cheat?

Massachusetts Institute of Technology example

In a Massachusetts Institute of Technology study, a group of educators investigated how copying homework affects students' performance. They found that homework copying is associated with decreased learning. In an effort to remedy the copying, they implemented the changes below.

- Changed the instructional format from a lecture-recitation to a **technology-enabled active learning format** that encouraged collaboration**.** This studio physics increased and personalized interactions between instructors and students and let students help each other honestly.

- Showed students that **repetitive homework copiers** (**those who copied >30% of their problems) scored progressively lower** on all but one successive test over the semester.

- **Switched the grading policy** from pass/no record to A, B, C/no record based on suggestions in their student interviews that "copying would not affect my grade under pass or fail."

Suggestions to Mitigate Cheating

Often the best prevention is low-tech and old-fashioned Help your students love the process of learning. Students are honest when the emphasis of the course is on learning rather than competition, when they feel the course is set up to help them learn. Teach students how to learn, to rise to challenges, and to accept struggle and failure as part of learning, and, studies say, your students will tend not to cheat.

Talk to your students. Explain the correlation of time-on-task and course success. Remind students that cheating on assignments only hurts them in the long run. Show them the MIT study on copying on the first day of class to show them that repetitive copiers score lower on exams.

Assign tutorials, which dispel common misconceptions and include explanations and hints. Tutorial questions are designed to teach students rather than test them.

Successful learning environments address students' fears: that they will be judged rather than taught; that grades will determine their entire future; that they will have to make their entire way through the course alone. As far as you can, even in online courses, know your students and be sensitive to any special circumstances.

Regular communication with instructors and fellow students helps students feel they're in control. Use social media. Consider allowing extra collaboration and cooperation in online courses. Studies have shown that students help each other learn and discover more sophisticated problem-solving strategies than any single student would discover alone. Group and team projects show the lowest incidence of cheating.

It can be argued that some forms of cheating, such as collaboration when the course doesn't permit it, are students' way of helping themselves learn more effectively. In a famous example at MIT in the 1990s, student programmers who weren't allowed to collaborate did so anyway—and became much more effective programmers. Collaboration is now the norm at MIT.

Consider active learning approaches in your courses. Have students read the material and listen to a video lecture beforehand. Then, use class time for critical thinking and peer instruction. For example, the Pearson Learning Catalytics tool provides a way for you to ask open-ended questions that don't have a correct answer during class and group students based on their responses.

Both students and instructors can foster a culture of honesty. Instructors should be clear with students about *why* they consider certain behaviors unacceptable. If you can't explain why it's unacceptable, consider letting your students do it. For example, a UCLA professor of game theory decided to let his students cheat on the midterm, and gave them a week to decide how to cheat. The students all used game theory and learned.

When do students cheat?

It's unclear whether students cheat more in online classes than in blended or traditional ones. Some studies indicate that the level of student cheating hasn't changed much since the 1920s. It is known, though, that the Internet makes cheating easier, because all forms of information discovery and reuse are now easier.

Some "cheating" is the result of simple confusion. It's common, especially for international students, to have different ideas of what's allowed. Make your rules clear to everyone. Different rules often hold for tutorial assignments, assessments, and exams. Make clear why that is. Signing an honor code may or may not make a difference; knowing what the code is does.

In the [MIT study](#) on copying, they monitored copying by developing algorithms that gave a probability that a particular submitted solution had been copied. They also administered a dishonesty survey and conducted follow-up interviews with students. Overall, the educators at MIT found that "students are more likely to copy a problem if it is more difficult, if it is later in the assignment, if they do it closer to the deadline, or if the assignment is later in the term".

They discovered that student copying grew rapidly in the first three weeks of the term, probably indicating increased academic load as well as time to form social networks that facilitate cheating. Student copying increased dramatically after the midterm exams as well. The student survey and interviews confirmed that copying was most likely due to time pressures that build over the term and are exacerbated by delaying the start of work until the day it is due.

How do students cheat?

- Students look up answers online by searching on the text of the question.
- One student buys access twice and uses the "phantom student" to fish for answers. The actual student then submits the correct answer.

- Students share answers with friends or a group of friends.

- To get extra time or undeserved credit, a student says that he or she has already submitted the assignment but "the computer lost it." (MyLab and Mastering records all standard assignment work once a student clicks the Submit button. In over 15 years of use, we have not found an example of "losing" work that has been submitted.)

- Students hire other students to take either an entire course or, more often, only the quizzes and exams. Companies such as wetakeyourclass.com are built on this business.