My War on Cheating

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Abstract

I love teaching, but I confess that I am frustrated by cheaters and the lax attitude toward cheating by many of my colleagues. When faculty members do not aggressively pursue cases of academic misconduct, students begin to feel that it is acceptable to invent lab results, copy the work of classmates, and plagiarize. In this presentation, I will share some of my war stories, some insights shared by students, and some of my approaches to combat the problem. Time for discussion will be allowed.

Introduction

Cheating! It is a hot topic for teachers and for students, a problem that never disappears. I frequently hear professors bragging that their students do not cheat, but then overhear students discussing the cheating that occurs in that same professor's class. Not noticing suspicious similarities between students' work and not being observant of the small dishonesties that occur only encourages the problem. In order to minimize the frequency of academic misconduct, all faculty members should aggressively work toward stopping cheating.

When I was a student, I knew that people cheated. Everyone had copies of old exams and lab reports and few of us considered that cheating. We were not using them directly. We would just read them to have an idea of what the teachers were looking for and to see what had received good and bad grades in the past. Of course, we knew others were cheating. The most extreme case was a nontraditional student who spent hours each week flirting with the secretarial staff. On more than one occasion, he was seen with the blue sheets from the old mimeograph as he went home to study for the test. When teachers gave take-home tests, he was reported to hang out in the building and wait for people to slide their tests under the professor's door. Once they left, he slid a yardstick with double-stick tape under the door to fish for their exam. My friends and I were afraid to study with him because we did not want to be accused of cheating. Yet, we did not report him out of fear for the repercussions. We reassured ourselves that his lack of knowledge would not harm anybody, because his uncle owned a small oil company and he was going straight into management when he graduated.

Many studies have been conducted to determine how serious the cheating problem is. Whitley analyzed this and estimated that 70% of university students have cheated at least once. Sociologists Lambert, Hogan and Barton looked at 20 different forms of cheating, the frequency, and the rationale. They found that 83% of the students in the study had cheated while at the university and that they were much more likely to cheat in college if they had cheated in high school. One can conclude that if the behavior is not stopped, it will persist into our students' professional lives. Recently multiple news stories have focused on post-graduate individuals

self-destructing by cheating. This summer, Yahoo CEO Scott Johnson resigned because he had lied about his education. This is far from a unique case. (Consider the cases of George O'Leary, former Notre Dame coach, and David Edmondson, former CEO of Radio Shack, for instance.) We are flooded with news stories of sports figures using performance-enhancing drugs, politicians covering up embarrassing personal decisions, business executives embezzling from their companies, and numerous examples of professional dishonesty.

We are in a position to educate our students about the importance of integrity. Preventing cheating in our classrooms is an important way to do that.

The Early Years

My first introduction to students cheating occurred in an exam I was administering while pursuing my doctorate. The students had been seated in columns with an empty space between them to make it more difficult to view the work of others. Midway through the exam, one young man suddenly began rubbing his eye and blinking as if he had something irritating it. I thought it odd when the gentleman reached into the seat beside him and picked up a mirror compact to check the irritation. When he then began leaning back further and further to gain a better view of the paper behind him, I recognized that he was attempting to copy his neighbor's paper. The two students involved in the incident were both student athletes and were panic-stricken when I called them into my office to discuss the situation after class. My horror at the situation only intensified when they closed my office door and offered me free groceries for as long as his parents owned a small food store in town if I would drop the accusation.

After that, I moved to making alternate versions of the exam. Initially I put the two versions on different color paper so that students knew not to cheat from a neighbor with a different exam. Of course, they knew exactly who had their version of the exam, so they became more creative in their efforts to see the exams of neighbors that were not quite so close. My response was to change the game. I continued to give alternate versions (A and B), but I copied half of each version on different colored paper (say white and yellow). I continued to alternate versions of the exam, but one row would have white A/yellow B and the adjacent row would have yellow A/white B. By sometimes doing the usual use of color and sometimes using this modified use of color and sometimes having different versions on a single color of paper, I began catching students cheating regularly.

More Recent Stories

When one brings up the topic of cheating, first thoughts generally run to cheating on exams. For closed-book exams, some students spend more time figuring out how to bring in extra notes to the exam than they spend studying for the exam. Calculators are frequently used in the engineering classroom to hide programs that aid in calculations or students may slide a sheet or two of notes in the calculator case. Writing key words or equations on the sole of a shoe or a brim of a hat are also tried-and-true favorites. Less common approaches to sneaking in a few extra notes include fake labels for water bottles and note cards taped to the inside hem of a short skirt to be flipped up during the exam. I have found that the easiest way to prevent these forms of cheating is to write open book and/or open note exams. The questions on the exams must be *Proceedings of the 2012 Midwest Section Conference of the American Society for Engineering Education*

somewhat more challenging, but it seems to be easier to proctor and the students feel less anxious.

Copying during an exam is the biggest problem that I encounter. Some students just hope to be able to see their neighbors work – with or without their permission. Occasionally I find a student that comes up to the front of the room to ask questions frequently. Sometimes the questions are legitimate, but sometimes they are simply trying to increase the number of papers they can look at on their stroll to the front of the room. If space permits in the room, I prefer to go to the student's desk to answer the question. Otherwise, I ask the frequent questioners to sit at the front of the room on future exams or quizzes. Using alternate versions of the exam aids in catching these cheaters.

Some students seek help outside the classroom (yes, during the test!). Requests to go the restroom have occasionally proven to be a request to go talk to their tutor or look at copies of old exams that have been secreted in the restroom. I routinely have my departmental assistant or graduate students on call to investigate when a student asks to leave the exam for any reason. Cell phone cameras present a new threat. Students take photos of their work and send it to others in the classroom or send the question to a friend outside of class to get some assistance. In my classroom, touching a cell phone immediately earns a grade of 0 on the exam.

Unfortunately, exams are not the only way that students cheat. In lab, students may make up numbers or "dry lab" the experiment. Chemistry professors tell me that this is a frequent problem in their courses. It is not as common in my engineering courses. I find that the more frequent problem is students using spreadsheets from previous years to do their computation often with little understanding. This is a very common form of cheating. It is frequently accompanied by plagiarized reports because the students do not adequately understand the implications of the results. In my courses, these reports are submitted electronically. As a result I have an extensive file of old reports for comparison when there are questions.

Plagiarism is a serious problem on research reports as well as lab reports. This past year I had a student that argued that since he had changed 3 words in a 34-word sentence, it was not plagiarism. In another case, two students turned in reports that directly followed the same order of sentence topics. Although the wording was different, the thoughts were the same and in the same order throughout the paper. Plagiarism is very difficult for students (and sometimes faculty) to understand. At the summer 2012 ASEE meeting, Lisa Bullard made a presentation on the use of plagiarism screening software such as TurnItIn.com.³ Software such as this can make it much easier to detect this form of cheating.

Students frequently cheat on homework. Solution manuals are available through numerous websites or as imports from other countries. Assigning problems from the textbook is easy and the problems may be very effective, but giving much credit for obtaining the answer seems to reward the cheater and penalize the students that do their own work. Many colleagues routinely look for the problems with "wrong answers" in the solution manual. Some of us try to thwart this problem by writing our own problems or modifying the problems from the book. In some classes, I give very few points for homework and grade that homework on effort not answers. I have not found a good solution to this problem.

Submissions of computer program assignments are also frequently copied. On routine programming assignments, I check the file properties page to see who created their file, who last saved their file, when it was created, and when it was last saved. I frequently find that the file was created a year earlier by a student in a previous course or that the same person created the file for multiple submissions. Of course I look at their work also. This year a group of students submitted very similar programs for the semester project. The programming was much more sophisticated than what I had taught them in that freshman-level course. By investigating the properties page (see Figure 1), I learned that the students had hired Wipro, Ltd., an outsourcing company in India that will write software for clients.

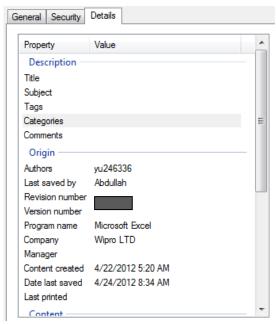


Figure 1. An example of the properties page from a computer file that was created by one person and submitted by someone else.

Conversations with Students

I frequently chat with students about cheating. Many good students are concerned because they are bothered that their grades do not look as impressive when some students have artificially enhanced their grades. They often observe cheating and do not know how to respond to it. One student, came to me a year after she graduated to tell me about another student who had befriended housekeeping staff to obtain access to faculty offices, computers, and grade books. She also shared stories of other ways this student had cheated throughout high school and college. I was appalled to hear of the lengths this student had gone to improve his grades.

Some students cheat only once or twice. These students often want to discuss why they did it. They typically have become overwhelmed by the course (or, sometimes, other aspects of their life) and cheat out of desperation. They are very embarrassed to have been dishonest and to have been caught. I have had many conversations with students that I believe they found cathartic.

They often want to talk at length about other forms of cheating that they have seen and how it makes them feel.

I have also found that quite a few students cheat habitually. A few do it because they cheated through the last several years and do not have the prerequisite knowledge to perform well in your course without this illegal assistance. I have met several students that do it for the thrill (like compulsive shoplifters). Many students, especially those from other cultures, will argue that their behavior was not wrong. Some cultures emphasize the need to help your brother to the extent that the student thinks that giving their answers to another student is just an altruistic form of helping them. Other students feel justified because they have paid a lot of money for this course and they have a right to a good grade. I have learned that students that want to learn do not cheat. Students who just want a degree and a job are likely to cheat.

Defensive Measures

The first line of defense against cheating is to be sure that you have a clear policy in place in your course syllabus. This varies by course, but typically I include:

Academic Honesty: The policies stated in the University of Tulsa Undergraduate Bulletin will be followed. Any action by the instructor on a specific instance of alleged academic misconduct can be appealed by the student involved to the Review Board for Cases of Academic Misconduct if he or she so desires.

Any student detected cheating on homework or quiz will receive a grade of zero on the assignment for the first offense and a grade of F for the course if there is a second offense. Any student detected cheating on an exam will receive a grade of F for the course. If another student is knowingly involved in the offense, he or she will receive the same penalty.

The college dean's office will be notified in all cheating cases in accordance to the College of Engineering and Natural Sciences policies.

I describe what is fair and unfair in other statements within my syllabus, such as:

Homework and Online Quizzes are intended to be an individual grade, but discussion among students is encouraged. You should <u>create your own files</u>, not just take the files of other students. If your work is significantly related to that of a class member, please keep in mind that ALL references, including "personal communications", should be documented.

I also include statements on exams and review sheets relating to what is and is not permissible. An example is:

During the exam you may ONLY have:

- (1) the booklet of graphs & tables,
- (2) your calculator, and

(3) a pencil and eraser.

EVERYTHING else must be left under your chair or in front of the room. You may make any notes you wish in the booklet, but you may not add additional pages. There will be no equations on the test, so you need to be sure that all of the equations we have used in this course are written into your booklet! You will turn in your booklet with the exam and get it back next week.

During the exam do not wear hats with brims and do not wear sunglasses. Baseball caps may be left on if they are turned backwards.

Cell phones are not allowed during the exam. If you TOUCH your cell phone during the exam, you will receive a grade of 0. I highly recommend that you leave it inside your backpack under your chair or in the front of the room. If you normally use your cell phone for calculations, you will need to use an ordinary calculator during the exam. See me if you need to borrow a calculator.

Since the most common form of cheating on exams is copying from neighbors, I have now started videotaping my exams. This cannot be done without permission of your administration. When I first suggested this to my dean, the immediate reaction was that I could not. After much discussion, it was agreed that this was permissible as long as notice was given that video surveillance would be used. I now include in all course syllabi: "Video monitoring may be used during quizzes and exams." I also remind the students of this the week before the exam. I use two small video cameras on tripods to capture the entire space. I do not watch the videos unless I believe there was cheating going on. On the other hand, I have evidence when I suspect that Student 1 was looking at the paper of Student 2.

When I suspect that students have been cheating, I always keep the original of their paper and return a photocopy. I keep a photocopy or digital scan of their source's papers also. Occasionally I keep copies of other papers when I have reason to doubt the honesty of a student (either from past experience or due to lackluster performance by a "good" student). Students have, in the past, returned papers for re-grading with remarkably correct solutions in what was formerly blank space or on the backs of papers. If you have scans or photocopies of the original papers, it is very easy to identify this deception.

How to Respond to Cheating

At my school, the Associate Dean is to be notified in all incidents involving academic misconduct. I have a form letter that I have developed for these cases. The letter needs to include the student's full name and student ID number. It needs to include a description of the offense, a copy of the relevant passages from the course syllabus, and information on how to appeal if they believe that is appropriate. I first give a copy to the student and give them a day or two to respond. If they do not respond within this time, they usually are not going to which I take as an admission of guilt. If the student has not refuted my accusation, I give the copies of the letter to the Associate Dean and, in the case of a student from my home department, my department chair. Occasionally a student responds after I have given the copies of the letter to *Proceedings of the 2012 Midwest Section Conference of the American Society for Engineering Education*

the administrators.

In some cases I have determined that it is best to dismiss the case and a letter to that effect must be drafted with an explanation and copies delivered to all those who received the first letter. In other cases, I remain committed to my decision that this was academic misconduct and that it is a provable case. In those instances, I inform the student of the proper appeals process and point them to the appropriate online documents. Very rarely, the student continues to argue the case.

In the case of an appeal, it is important to gather as much evidence as possible. There is a tendency of appeals boards to believe that only the innocent will appeal. This is not always true. In one instance, a student appealed and the board sided with the student because of this belief. A year later, that student was arrested and convicted on a much larger cheating scandal involving a nationally administered exam. Members of the board apologized for their flippant dismissal of my cheating case. However, from this example, I learned that I need to approach any appeal with more solid evidence than I did on that first case. In a recent appeal, I was armed with numerous computer files and 24 pages of documentation demonstrating a pattern of using other's work. My grades have not been overturned lately.

Conclusion

I hope that my stories encourage you to approach breaches in academic honesty with more serious intent. If we fail to stop the problem in the classroom, our students begin to believe that small dishonesties will not be noticed and, in fact, are OK in the future. It is up to us to make the changes so that honesty becomes the norm in later life.

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Biographical Information

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