Managing Test Security

Jarret Dyer
Sherry Machacek
I'm not sure which is more exciting: proctoring a test or sitting through an inservice on how to proctor the test.
“There is right and there is wrong, and there is what people around us tell us is right and wrong. The people around us are often more powerful.”
Agenda

Managing Test Security

– Why students cheat
– How students cheat
– What can be done to prevent it
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Why students cheat

– Josephson Institute for Ethics
  • 1940 – 20% of college students admitted to cheating
  • 2015 – 85% of college students admitted to cheating
  • Students most likely to cheat were engineering and business students
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Why students cheat

“Students driven by purely extrinsic motivation are more likely to cheat. They care about the reward for learning….rather than learning itself, and are willing to cut corners to get that reward.

If they don’t see how the course material is relevant to their lives, or if the instructor cannot help them see it, they never develop the intrinsic motivation that leads to deep learning and makes cheating less likely.”
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Statistics on Why College Students Decide to Cheat
by Ralph Heibutzki, Demand Media

1. Ambiguous Attitudes
2. Competitive Pressures
3. Institutional Apathy
4. Lack of Understanding
5. Self Interest
   1. 38% ready to cheat for a scholarship
   2. 35% would cheat threatened with disqualification

For many students, cheating is simply seen as a shortcut to academic success.
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Academic Honesty Survey
April 2015

- 10 question survey, including free response
- 291 engineering students; 22% response rate
- COD was the first of eight schools to be surveyed.
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Academic Honesty Survey

April 2015

1. I believe that if someone else took the exam before, you have every right to get information from them. It is a strategy that should not be penalized.

2. I don't mind cheat sheets for equations.

3. In our society today, grades are more important than knowledge. We all must compete with this so in order to keep up, most resort to cheating.

4. I will use any resource I can to succeed if I can get away with it. I would be an idiot not to.
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Academic Honesty Survey
April 2015

6. I've noticed students who use their smartphones to take pictures of tests after they're returned.

7. What the teacher doesn't know, won't hurt him or her. It's not that we want to cheat, but it gives us another open window.

8. The rules for "cheating" weren't specified specific enough. For example, there's no such rule [that states] writing a formula on your hand is illegal.
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Academic Honesty Survey

April 2015

9. If you are under supervision of proctor or Professor, then it is unacceptable to "cheat". If you are at home, it's fair game.

10. Anyone would do anything they can get away with if they are desperate enough and if it means succeeding. If you are an instructor and you give an exam then expect at least some level of dishonesty.
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– **Why** students cheat

– **How** students cheat
  • Low Tech
  • High Tech
  • Future Tech
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Cheating Stories from Across the Nation

- August 2015
- Best cheating, attempted cheating and test center management stories from the National College Testing Association
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Uniformly Accelerated Motion: \( \ddot{\mathbf{v}} = \mathbf{a} \)

Newton’s Second Law: \( \mathbf{F} = m \mathbf{a} \)

Gravitational Potential Energy: \( E = mgh \)

Force Due to Gravity: \( \mathbf{F} = \mathbf{mg} \)

Heat Energy: \( Q = mc\Delta T \)

Gravitational Constant \( G = 6.67 \times 10^{-11} \text{Nm}^2/\text{kg}^2 \)

Acceleration Due to Gravity \( g = 9.8 \text{ m/s}^2 \)

Speed of Light in a Vacuum: \( c = 3.00 \times 10^8 \text{ m/s} \)

Ohm’s Law: \( V = IR \)

Power Dissipated in a DC Circuit: \( P = IV \)

Power Dissipated in a Resistor: \( P = I^2R \)
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The Label Maker
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The Label Remover
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Proctor Discomfort Techniques
Managing Test Security

Proctor Discomfort Techniques
Managing Test Security

Proxy Testers
Managing Test Security

Spy Pen

Spy Pen Camera DVR (Gold) - Amazing Video Recorder
by 1 Eye Products
4.5 out of 5 stars · 20 customer reviews | 5 answered questions

Price: $19.99 Prime
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Spy Keychain

Car Alarm Remote Keychain DVR Camera
by Toto

Price: $9.88

amazon.com
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Spy Thumb Drive

9. The standard formula used by mechanics to find the length \( L \) of a fan belt of a car is as follows:

\[
L = 2C + \frac{11(D + d)}{7} + \frac{(D - d)^2}{4C}
\]

where \( D \) and \( d \) are the diameters of the wheels around which the belt runs, and \( C \) is the distance between the centers of the wheels.

What is \( L \) (in inches) if \( D = 12 \) inches, \( d = 2 \) inches, and \( C = 25 \) inches?
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Texting

He got bolder. Turning to page one of his completed exam, Nayeem lifted his phone just enough to snap a picture of that page, then put the phone down again. Over the next few minutes, he photographed the whole test booklet—all fifteen pages.

The night before, Nayeem had sent a group-text message to 140 classmates: “If you guys get this, I’ve got the answers for you tomorrow.” The students on
Technology Enhanced Cheating

• Smart Rings

* Available June 2015
Technology Enhanced Cheating

- Smart Rings*

  - Stargaze
    - Black Onyx
  - Wine Bar
    - Pink Sapphire
  - Daydream
    - Rainbow Moonstone
  - Into the Woods
    - Emerald

*Available Spring 2015
Technology Enhanced Cheating

• Earbud Cameras
Technology Enhanced Cheating

- Smart Watchbands

* Available June 2015
Technology Enhanced Cheating

• Smart Watches
Technology Enhanced Cheating

- Kupi Cheating Watch

Cheating Watch Black
by 24Kupi

Note: This item is only available from third-party sellers (see all offers).
Available from these sellers.
Technology Enhanced Cheating

The Future - Smartwear

OMsignal Biometric Smartwear
Smart Shirt. Smart App. Smart Results.

Heart Rate Monitor, Calorie Counter, Step Counter, Breathing Monitor, Fitness Tracker
Technology Enhanced Cheating

The Future – Projected Displays
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Best Practices/Strategies

Best Practices

– Proctoring Best Practices – NCTA/ATP
– TILSA Test Security Guidebook - Fremer
– Handbook of Test Security – Wollack
– Test Proctors Share All - Dyer
“...provides a comprehensive overview of best practices in proctoring that will not only maximize test security but also ensure the validity of the test data and the quality of the testing experience for the test taker.”

Available for check-out in the COD Library
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Available for download through the COD Library at http://dc.cod.edu/oer/1/
NCTA Professional Standards & Guidelines
(rev. 2014)

NCTA PROFESSIONAL STANDARDS AND GUIDELINES
FOR POST-SECONDARY TEST CENTERS

PURPOSE AND BENEFITS

The NCTA Standards and Guidelines are intended to serve as a model for post-secondary test centers in the delivery of quality testing services. The term “test center” in this document refers to the office or portion of an office at an educational institution that is responsible for test administration duties. This includes virtually all educational institutions, including those for students with disabilities, virtual charter schools, classrooms, computer labs, and test centers used in examinations that are standard and used throughout the state and nation. These Standards and Guidelines have been developed by the NCTA Test Center Certification program to ensure that certified centers are following best practices.

This document contains two major divisions, the Standards and the Guidelines. The Standards contain policy and procedures that are applicable to all test centers, while the Guidelines are very specific to procedures for Paper-Based Testing (PBT) and Computer-Based Testing (CBT). The Guidelines are intended to provide helpful information to new testing professionals and institutional personnel setting up a new test center, or test center staff who are reorganizing an existing test center.

The NCTA Standards and Guidelines define requirements without directly enforcing them, allowing discretion to specific programs. They have been and will continue to be updated by NCTA to reflect developments in the testing field. These Standards and Guidelines have important benefits for all involved in the testing process.

Benefits for Examiners
- Offer the best opportunity for students to demonstrate their knowledge, potentially improving the accuracy of test scores.

Benefits for Test Companies (any organization that contracts with test centers to administer tests)
- Promote standardized testing procedures.
- Facilitate the selection process by encouraging a pool of test centers that adhere to established standards.
- Improve communication with test centers by clarifying roles and responsibilities.
- Ensure test company clients with a pool of high-quality test centers and facilities.
- Maintain a level playing field so that test centers may be comparable with the specifications of a variety of test companies.
- Share the awareness of all parties regarding appropriate testing conditions and procedures for standardized testing.
- Provide guidance that can be used by test centers across college campuses.

Benefits for Test Centers
- Enhance professional stature of test center and staff.
- Provide a united group of test centers that adhere to a single set of standards.
- Provide a united network of test centers with an excellent test center with an excellent environment for students.
- Improve communication with test companies by encouraging more direct contact.

Benefits for Institutions
- Provide guidelines for professional testing services that reflect positively on the college or university.
- Support enrollment and retention by providing quality testing services to current and potential students.
- Provide quality services to people who depend on the institution, including community members who need to take certification exams or distance exams, maintaining the security and validity of the institution.

Revised June 2014
NCTA Test Center Certification

- Recognition for our test centers on a local and national scale
- Acknowledgement of adherence to best practices
- Validity for our test centers to prospective students, faculty, vendors, and other organizations
- Shows outside testing entities that our centers operates under the highest accepted standards and procedures
What is the CESP-Generalist certification?
The Certified Exam Security Professional (CESP) certification program is designed to provide clear standards to promote the integrity of a high-stakes testing program. By establishing a baseline of requisite knowledge and skills in this area, individuals obtaining this certification will be recognized as experts in this domain and perceived as professionals who can contribute to assuring the integrity of a testing program.

How do I earn the CESP-Generalist certification?
After your application is approved and the exam fee of $175 (US) is paid you will take the CESP-Generalist exam. The exam is adaptive with roughly 40 DMC questions and should take less than an hour to complete. A live proctor will monitor the exam, review the results and provide a final score.

What do I gain from earning the CESP-Generalist certification?

- Be recognized as an expert in the field of exam security.
- Be part of a growing community of certified exam security professionals.
- Be secure in the knowledge that you are up to speed on the latest threats and methods of cheating.
- Easily share your score report and verified badged credentials.
Top Ten Security Issues in Classroom Testing

1. Hard copies of tests should never be out of the instructor’s direct control.
   a. Never allow a student to transport a test.
   b. In class, distribute only the exact number of exams needed. Count exams collected to ensure all have been turned in.
   c. At the conclusion of testing, collect the test booklets and answer sheets from students individually. Students shouldn’t pass in completed test materials or test books by handing them to other students.
   d. Take caution when photocopying tests.

2. Students should never be permitted to choose their own seat.
   a. Randomly assigned seating charts are ideal.
   b. Pseudo-randomly assigned seating is possible if the faculty breaks up students who come in together.

3. Test taken IDs should be checked if the instructor does not know every student by sight. This is especially true if the faculty member is absent and has scheduled a substitute for that day.

4. Test taken should not be allowed to have access to any electronic devices or objects not required to test. All items must be turned off and stored out of reach in a bag or purse.

5. Students should never be left unmonitored. Proctoring is the most important security-related activity in which the instructor will be involved.

6. Walking around the room during a test session increases the likelihood that cheating will be prevented.

7. It is preferred to prohibit test room breaks during a test. If a break is necessary, only one student should be allowed to go at a time.

8. If scored tests are returned to students as part of the learning process, the instructor should create a new exam for the next test administration.

9. Non-religious headwear and calculators are commonly used by students as cheating tools. Instructors should take care when allowing headwear during test administrations. Calculators should always be inspected.

10. For computer-based exams, password security is essential. Passwords should be changed frequently.

References:

1. Hard copies of tests should never be out of the instructor’s direct control.
   a. Never allow a student to transport a test.
   b. In class, distribute only the exact number of exams needed. Count exams collected to ensure all have been turned in.
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   d. Take caution when photocopying tests.

2. Students should never be permitted to choose their own seats.
   a. Randomly assigned seating charts are ideal
   b. Pseudo-randomly assigned seating is possible if the faculty breaks up students who come in together.

3. Test taker ID’s should be checked if the instructor does not know every student by sight. This is especially true if the faculty member is absent and has scheduled a substitute for test day.

4. Test takers should not be allowed to have access to any electronic devices or objects not required to test. All items must be turned off and stored out of reach in a bag or purse.

5. Students should never be left unmonitored. Proctoring is the most important security-related activity in which the instructor will be involved.
6. Walking around the room during a test session increases the likelihood that cheating will be prevented.

7. It is preferred to prohibit rest room breaks during a test. If a break is necessary, only one student should be allowed to go at a time.

8. If scored tests are returned to students as part of the learning process, the instructor should create a new exam for the next test administration.

9. Non-religious headwear and calculators are commonly used by students as cheating tools. Instructors should take care when allowing headwear during test administrations. Calculators should always be inspected.

10. For computer based exams, password security is essential. Passwords should be changed frequently.
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Jarret Dyer
Specialized Testing
College of DuPage
dyerja@cod.edu
(630) 942 - 3202

Sherry Machacek
Academic Testing
College of DuPage
machacek@cod.edu
(630) 942 - 3725