

 Council on Licensure,
Enforcement and Regulation

NASHVILLE
Tennessee

2010 Annual Educational Conference • September 23-25

**Thefts, Threats and Cheating:
Addressing Security Issues in the
Credentialing Process**

Presenters: Stacy Lawson, Prometric


Promoting Regulatory Excellence

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Agenda

- Examination of threats to testing integrity- both high and low tech
- For both CBT & PBT Environments, discuss methods & recent trends in:
 - Prevention
 - Detection
 - Response




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Threats - Cheating vs. Exam Theft


- Cheating- Can be done by individual or group, usually limited to personal gain only
 - Often low impact to examination program if not widespread or a high stakes professional licensure exam
- Exam Theft- Objective is to remove exam content, or obtain entire exam for wide distribution
 - Can have very high impact if a large amount of the exam is compromised
 - Can result in cancelled future administrations, cost to exam sponsors to republish exams can be several hundred thousand dollars to republish

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Common Cheating Methods- Low Tech





- Copying from other examinees
- Cheat sheets hidden in clothes
- Notes or formulas written on hands or legs
- Notes on testing documents
- Notes hidden inside books or testing exhibits
- Notes underneath hats or taped to brim
- Notes inside medicine bottle, water bottle labels
- Notes inside food packages or wrappers
- Accessing notes while on a break/notes hidden in bathroom
- Bribery





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Common Cheating Methods- High Tech

- Cell Phones/Text Messages
- I-Phones/Blackberries
- I-Pods- notes & formulas hidden as song names, audio study texts
- Bluetooth ear pieces
- Digital Watches

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Common Exam Theft Methods- Low/High Tech

- Sneaking out exam questions on scratch paper or test documents
- Documenting memorized questions while on a break
- Theft of exam question booklets
- Memorization rings, unethical training schools trying to capture actual exams
- Micro cameras - cell phones, pens, buttons, jewelry, etc.
- Audio recorders - mini microphones hidden in clothes
- USB storage devices
- Tampering with test center equipment

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Organized Cheating & Exam Theft

- Unethical training schools sending students to steal questions
- Collection of PBT exam booklets
- Sharing of "recalled" questions in study groups, on-line discussion forums, or chat rooms
- Sharing across time zones - Windowed exams
- "Legacy Systems" passed down by college upper classmates
- Proxy Testing- individuals making high quality fake IDs and testing for others

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Prevention



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Examinee Notification of Test Center Regulations


- Done via exam bulletins, websites, registration confirmation, posters in test center, exhibits during check-in, agreement at beginning of exam, etc.
- No possession of personal items in the test room
- No copying or sharing of exam content by ANY means, to include after the exam
- No disruptive or abusive behavior
- Notification should include penalties for non-compliance- exam invalidation, forfeiture of exam fee, testing ban, revocation of existing status, certification, or license
- Implement a candidate conduct agreement - signed if possible

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Test Center Staff- Requirements & Training


- Background Checks- include 5-7 year country criminal search, State Police are an inexpensive option
- Formal Training & Certification Program with annual re-certification required
- Exam Administration Policies should be detailed, clear, and reviewed for update twice per year.
- Conflict of Interest Restrictions - NDA
- Performance Incentives for enforcement of security
 - \$25 - \$50 gift cards for cheaters caught!!
 - Recognition in newsletters or bulletins




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Facility- Paper Based Testing

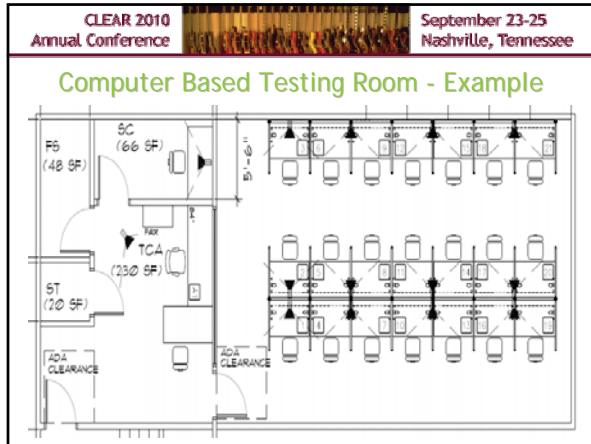
- Separate areas for check-in and testing with restricted access
- All testing materials kept secured by proctor
- Optimum proctor to examinee ratio- 1:20, examinees monitored at all times
- Provide storage for personal belongings, examinees turn pockets out prior to sitting for exam
- Exam booklets numbered, tracked
- Maintain examinee seating chart
- Monitor examinees on breaks

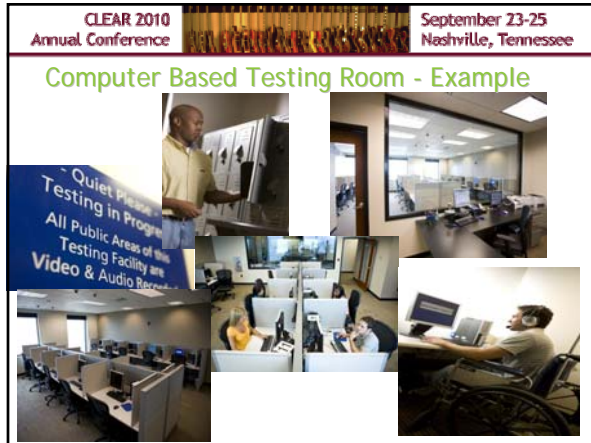


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Facility- Computer Based Testing

- Separate area for check-in & enclosed testing room with restricted access
- Viewing window to test room and surveillance system (video & audio recording)
- Signs posted notifying of video & audio recording
- Secure lockers for personal items, examinee keeps key
- Partitions between workstations or privacy screens
- Surveillance cameras view desktops and candidates hands
- ADA compliant







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- ### CBT vs. PBT- Security Advantages
- Test items transported to test center in encrypted state via secure pipeline (VPN)
 - No risk of lost exam booklets or missing pages
 - Locked down PCs, no access to web browsers, USB drives, etc.
 - Exams can have multiple forms, randomized item presentation, randomized distracters
 - Performance-based testing
 - Real-time data forensics to detect suspicious testing patterns and shut down exam or flag for investigation

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Examinee Check-In Procedures


- Check-in performed 1:1 by proctor to examinee
- Examinee acknowledges understanding of Test Center Regulations
- Require at least 1 valid, government-issued ID bearing photo & signature, 2nd ID if primary does not have one of these. Use ID Checking Guide if necessary- www.idcheckingguide.com
- Roster/Log sheet to record signature, time in/out, break times, etc.
- All candidate belongings stored
- Issue color-coded scratch paper or erasable note boards
- Candidates made to turn out pockets to prove they're empty



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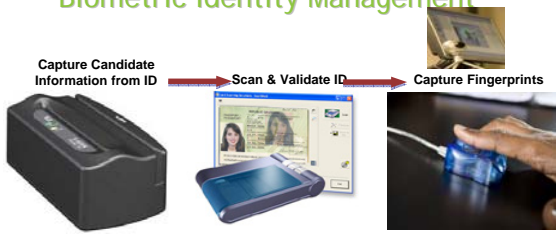
"Turn Out Pockets Policy"

- In 2008 Prometric tracked over 280 incidents of candidates caught w/ prohibited items in the test room.
- Some were innocent (car keys, hair clips, change, etc.), but many were not (notes, cell phones, etc.)
- After implementing pocket check policy in February 2009 that number dropped to 29 for the rest of the year.

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Biometric Identity Management

Capture Candidate Information from ID → Scan & Validate ID → Capture Fingerprints



The candidate's ID is swiped in the combined magnetic strip and 2D barcode reader which verifies the legitimacy of government issued ID (North America only).

The ID is then placed on a flatbed scanner which captures an electronic image of the photo ID and uses optical character recognition (OCR), to compare printed data and encoded data.

The candidate then places a finger on the fingerprint scanner, which collects a unique physical characteristic which is then linked to the candidate's identity record.

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Detection



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Proctoring


- Candidates must be monitored at ALL times
- TCAs available to relieve co-workers if busy with other duties
- Conduct frequent walk-throughs of the test room, focusing on candidates hands and desktops
- Be vigilant for suspicious behavior- going in pockets, watching proctors, excessive breaks, touching equipment
- If possible, monitor candidate activity while on breaks



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Surveillance

- Should employ video AND audio with recording, maximum storage possible
- Capable of off-loading recorded evidence to CD/DVD or USB
- Date & Time stamped
- Cameras to cover desktops and examinee hands
- Camera and microphone in check-in area to capture examinee escalations



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Surveillance example



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Security Audits

- Integrity shopping
- On-site operational reviews & audits
- Remote real time video audits via DVR Surveillance




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Emerging Trends in Detection Technology

- Wireless & Internet Jamming Devices
- Cell Phone Detectors - UK Cell Hound
- Hand Held Metal Detectors - Prometric Pilot Underway



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Emerging Trends- Data Forensics

- Post-exam score analysis conducted by testing vendors and exam sponsors
- Real-time forensics detecting aberrant testing pattern and flag for investigation or even stop test
 - Aberrant score variances
 - Suspiciously high pass rates
 - High score w/ very short exam duration
 - Multiple examinees selecting exact same answers
 - Web patrolling for posting of recalled questions/brain dumps- www.cyveillance.com

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Response




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Handling Examinee Misconduct


- Have another TCA/proctor confirm the behavior with you
- Escort candidate out of test room to address behavior
- Confiscate all physical evidence notes, prohibited aids, etc.
- Exam sponsor should have policy on whether or not to terminate exam for misconduct
- Call building security or police immediately if examinee becomes disruptive or abusive
- Retain all evidence and surveillance records
- Notify exam sponsor ASAP




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Confiscated Evidence - Chain of Custody


- Document all parties that accessed materials
- If paper, sign & date the back of each sheet
- If a device, record the make, model, & serial #
- Have a security policy to save stolen content on device for prosecution or delete, responsibility on exam sponsor
- Test vendor or exam sponsor may need to obtain signed affidavits from proctor, surveillance footage, and logs
- Always ship materials via traceable method, never use standard mail




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Notification to Test Vendor or Exam Sponsor


- Provide same day notification
- Create standard reporting template:
 - Names of all witnesses & contact info
 - Test center ID & location
 - Date & time of incident
 - Examinee name & exam taken
 - Detailed narrative of incident
 - Final disposition- exam finished or terminated?






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Test Vendor/Exam Sponsor Response

- Conduct interview with proctor
- Collect all written reports and confiscated evidence (originals to go to exam sponsor)
- Request proctor to testify in disciplinary hearing
- Implement re-training or corrective action if procedural lapses were present



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<p>Final Disposition of Examinee could include:</p> <ul style="list-style-type: none">• Exam invalidation, forfeiture of exam fee• Temporary or permanent testing ban• Revocation of existing certifications or license• Notification to employer (Financial or Insurance fields)• If violation includes theft or disclosure of exam content, criminal or civil charges may be filed 		

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<p>Questions?</p> <p>Stacy Lawson Team Leader, Healthcare Segment Prometric stacy.lawson@prometric.com</p>		
