Adaptive Training and Testing Techniques

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Water Sector Challenges During COVID-19 Pandemic

• Operator Training for CEUs
  • In-Person Training Lacking
  • CEUs Not Always Accepted by Primacy Agency for Online Training

• Operator Testing for Certification and Renewals
  • In Person Testing Availability
  • Virtual Testing Options
Web Based Training For Operators
The Challenge

CORONAVIRUS ≠
Involve The Stakeholders

- State Primacy Agency
  - course approval
  - attendance tracking
- Instructors
  - willingness vs. ability
- Prospective Students
  - "if you build it they will come"
Select a Webinar Platform

Considerations:

• The learning curve – for instructors & attendees
• Desired features - open or closed?
• Cost
• Other considerations
Microsoft Teams

We already had Office365 on our computers, so no additional costs.
Lessons We’ve Learned (the hard way)

Good Internet Connection!!!
Lessons We’ve Learned (the hard way)

Technical Support
Lessons We’ve Learned (the hard way)

The Rock Star Instructor
Lessons We’ve Learned (the hard way)

Designated Internal Support
Lessons We’ve Learned (the hard way)

Vary Training Styles

Interactive
Lecture
Demonstrate
Video
Lessons We’ve Learned (the hard way)

Eliminate Distractions
Lessons We’ve Learned
(the hard way)

Eliminate Distractions
Lessons We’ve Learned (the hard way)

It Happens

MOST OF ALL HAVE FUN!
Thank You!

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REMOTE PROCTORING:
Iowa’s Golden Ticket for Exam Delivery

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Pre Covid Exam Delivery in Iowa:

- **Six Regional IDNR Field Offices**
  - Proctored by regional office front desk staff
  - Computer based with automatic scoring and diagnostics upon completion

- **Community College Computer Lab**:
  - Walk in hours six days a week; open late on T and Th
  - Proctored by computer lab staff; ABC trained
  - Computer based with automatic scoring and diagnostics upon completion
In a Pickle...

- Venues closed indefinitely: March
- Ambiguity as to when, if, and at what capacity venues would reopen...
- Regress back to paper exams?
Remote Proctoring as a solution?

- Iowa’s training infrastructure had made almost an immediate switch to virtual

- Iowa’s educational system, secondary and post high school, had made the leap to online instruction and virtual, secure testing.
Association of Boards of Certification to the rescue..

- Iowa was already contracting with ABC for the electronic delivery of ABC National Standardized exams.

- ABC’s relationship with a company who had been providing this service globally for years: PSI
Remote Proctoring:

- A testing candidate can take an exam from anywhere 24/7 as long as they have the following:
  - Laptop or Computer with camera and microphone
  - Quiet, secluded spot
Remote Session Security:

- Live proctor check in: ID check
- Proctor to Examinee Ratio: 1:8
- Scan of surroundings
- Session recorded
- Calculator & Formulas on screen
Iowa Exam Process:

- Apply Online or Paper Application:
  - FY20- 88% were online submittals
- Eligibility Letter issued by State
- Operator contacts us to let us know if they want to take exam remotely or at a specific venue
  - In a few months they will be able to indicate their choice online during application submittal.
Exam Process in Iowa:

- Iowa Venue Electronic Delivery:
  - Iowa staff emails a spreadsheet with the following info to ABC:
    - Operator Name
    - ID#
    - Phone/ contact number
    - Exam Category, Type and Grade
      - (i.e. Drinking Water Treatment Grade 3)
  - ABC sets up electronic exams with secure User IDs and Passwords for Iowa Proctors
IA Exam Process Continued:

- Remote Proctoring Delivery:
  - Iowa staff enters info into an “Iowa specific” dashboard PSI calls a “Bridge.”
    - Operator Name
    - ID#
    - Email address
    - Exam Category, Type and Grade
      - (i.e. Drinking Water Treatment Grade 3)
Remote Proctoring Delivery once PSI has operator information:

- PSI emails operator individual link for exam scheduling
- Operator has complete control over scheduling and rescheduling
- PSI offers 24/7 technical assistance for any IT issues
Downsides to Remote Proctoring?

Higher Price per Exam Package (Debunked):

- Scheduling & rescheduling all done by Operator
- Exams can be taken 24/7
- No travel / per diem
- Less time away from system operations
- Customer Service & TA provided by testing company - not DNR program staff
Downsides to Remote Proctoring?

- Inadequate Internet Infrastructure? (Debunked)
  - Experience drawn from switch to virtual continuing education
  - Experience drawn from switch to web based, electronic exams years ago
Thanks to COVID-19

- Increase in exam accessibility
- Future pandemics (knock on wood) there will be no “interruption” in service
- Accelerated the sometimes slow wheels of bureaucracy.
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