Questions About Examinations: Responding to Your Questions - A Practical Approach

Presenters:
- Grady Barnhill
  Commission on Dietetic Registration
- Chuck Friedman
  Association of Social Work Boards
- Rose McCallin
  Colorado Dept of Regulatory Agencies
- Tracy Montez
  Applied Measurement Services

Promoting Regulatory Excellence

Additional Presenters
- YOU..................conference participants

How?
- Pre-conference survey: July 2, 2012
- Panelist perspective
- Your
  - Perspective
  - Comments
  - New Questions
- Interactive i-clicker
Why are you attending CLEAR?

A. My boss forced me  
B. My partner forced me  
C. I wanted to see the Golden Gate Bridge  
D. To have fun at the CLEAR conference

Which of the following best describes the size of your testing program?

A. Less than 200 candidates/year  
B. Less than 500 candidates/year  
C. 500-5,000 candidates/year  
D. 5,000-10,000 candidates/year  
E. More than 10,000 candidates/year

Which of the following best characterizes the organization with which you work?

A. Independent state licensing Board  
B. Umbrella agency of state licensing Boards  
C. Professional association  
D. National certifying organization  
E. Vendor or corporation
Which of the following best describes the delivery method for your testing program?

A. Paper-and-pencil administration
B. Computer-based testing in a proctored site
C. Online testing at home
D. In person (practical exam, OSCE, oral exam, standardized patients)
E. Other or multiple delivery methods

Session Game Plan: Top Survey Topics

1. ADA update
2. Alternative testing formats
3. Feedback and results to candidates
4. Number of times candidates can repeat exam
5. Public release of school pass-rates
   • Half Time: Your Questions

Session Game Plan-2

7. Exam security
8. Using a national licensing exam
9. State budget cutbacks: options
10. Translation/adaption issues
11. On the testing horizon
12. Extra/overtime: Your Questions
13. Other Clear Sessions, Networking!!!
What are some updates on ADA and how it affects testing? Are there matters to be concerned with?

Accommodations Interpretations Differ

• Title I (Employment Provisions)
  - *Reasonable* Accommodations: Selecting & Administering *most effective manner*

• Title III (Commercial Facilities)
  - § 309: Postsecondary Exams or Courses
  - *Testing Accommodations*: “modifications” or “auxiliary aids” *to best ensure*

  Reasonable Accommodation Distinct from Testing Accommodation

Equal Access to Credentialing Exams

• Test sites (physical, virtual)
• Processing of requests
  - Timely; Not require extensive analysis
  - No excessive or unreasonable documentation
• Administrations
  - Offer at same frequency
  - Same deadlines
  - Manner which best ensures measuring intended characteristics—not individual’s disability
Licensing Exams: Legal Challenges

- Rejected “reasonable” & adopted DOJs “best ensures” interpretation
  - Elder v. Natnl Conf of Bar Examiners
  - Enyart v. Natnl Conf of Bar Examiners
  - Bonnette v. DC Court of Appeals
- Statements of Interest of USA DOJ
  - Jones v. Natnl Conf of Bar Examiners
  - CA Dept. of Fair Empl & Housing v. Law School Admission Council, Inc.

Standardized Testing Conditions

- Tests administered in controlled environments under equivalent conditions to offer examinees comparable testing experiences to demonstrate their proficiencies
  - Standardization tends to promote fairness & appearance of fairness

Test Accommodations & Comparability of Test Results

- Accommodations to promote access and fairness in testing may lead to results that cannot be compared to or aggregated with those from standard version of test
What are alternative formats to traditional multiple-choice questions? Are they better? Worse?

Which of the following item types does your certification/licensure program use?
A. Multiple Choice only
B. Essay/Short Answer
C. Oral
D. Performance/OSCE
E. Multiple item types or other

MCQ's - 3 Choice? Really?
• A
• B
• C
Constructed Response
• Short Answer
  Essay ---- Uncued -- yay!

Standardization/Constraining the problem
Grading Standardization/Inter-rater reliability
Spelling

Key Features

Oral Examinations
• Fidelity
• Threats to validity
• Confidentiality
• Bias
• Structure/format/standardization
Performance/OSCE
OSCEs/"Practical" Exams
Skills, not just knowledge
Test Fidelity/ Face Validity
Standardization
Costs

Standardized Patients
See above
...and if you think 4 was bad before-

Wild Card
• Which testing alternative have you heard about or wondered about?
• What can you tell us about it?
• What might we tell you about it?

What type of results information/feedback reports should our Board provide to candidates: total score, content sub-scores, pass/fail only?
What is test designed to assess?

- Knowledge & skills essential to safe practice in regulated occupation
  - Minimum Competency Test

???...Fail | Pass...???

Knowledge & Skill Content Areas

A ➔ Occ ➔ B

D ➔ C

Content Area Components & Test Items

A.1 A.2
B.1 B.2
C.1 C.2
D.1 D.2
Are subscores distinct enough to report?

Results Reporting: What is useful?
- Does information have adequate psychometric utility?
- Strengths and limitations of test, including level of precision of test results
  Discourage over interpretation of information that may be subject to considerable error

Should our Board place restrictions on the number of times a candidate can take the exam?
Should our Board place restrictions on the number of times a candidate can take the exam?

A. Yes, three strikes and you’re out
B. No, it’s not fair and defensible
C. Maybe, it depends

Should a Board place restrictions on number of times a candidate can examine?

No restrictions

- Utilize on-demand testing with retake app processing time between attempts
- Assign alternate test forms for repeat attempts
- Create testing windows with wait periods between attempts

Multiple attempts by a candidate? (continued)

Place Restrictions

- Evaluate impact of repeated content exposure on exam integrity
- Assess threats to exam security
- Consider requiring additional education after a specific number of failed attempts
- Involve legal counsel
Should our Board publicly (web post) release pass-rate statistics and/or content sub-scores by school/program for all schools in our state?

A. Yes
B. No
C. Some programs yes, others no
D. Don’t know

Does your program or licensing board publish (web post) the school/program pass-rates in your jurisdiction?

<table>
<thead>
<tr>
<th>Jur</th>
<th>School</th>
<th>#</th>
<th>Pass Rate</th>
<th>% Correct by Content Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>AB</td>
<td>U Alberta</td>
<td>37</td>
<td>86%</td>
<td>68% 71% 84%</td>
</tr>
<tr>
<td></td>
<td>U Calgary</td>
<td>30</td>
<td>80%</td>
<td>77% 68% 74%</td>
</tr>
<tr>
<td>AL</td>
<td>Auburn</td>
<td>28</td>
<td>71%</td>
<td>65% 67% 65%</td>
</tr>
<tr>
<td></td>
<td>Alabama</td>
<td>98</td>
<td>100%</td>
<td>73% 78% 78%</td>
</tr>
<tr>
<td></td>
<td>ABC *</td>
<td>*</td>
<td>Less than 10 candidates</td>
<td></td>
</tr>
<tr>
<td></td>
<td>222</td>
<td>48</td>
<td>54%</td>
<td>64% 62% 57%</td>
</tr>
</tbody>
</table>

All candidates, not just first time takers. Self-report information.
Sample #2: Passing Rates for First Time Candidates, 2008 to 2011

<table>
<thead>
<tr>
<th>School</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albany</td>
<td>200</td>
<td>218</td>
<td>613</td>
<td>94%</td>
</tr>
<tr>
<td>Ferris</td>
<td>128</td>
<td>127</td>
<td>417</td>
<td>97%</td>
</tr>
<tr>
<td>UC-SD</td>
<td>52</td>
<td>58</td>
<td>164</td>
<td>100%</td>
</tr>
<tr>
<td>XXX</td>
<td>47</td>
<td>53</td>
<td>162</td>
<td>94%</td>
</tr>
<tr>
<td>YYY</td>
<td>N/A</td>
<td>N/A</td>
<td>364</td>
<td>94%</td>
</tr>
</tbody>
</table>

First time candidates, accredited schools.
N/A= no graduating class for that period.

Public release of school pass-rates?

• Pros: release to the public
  - School pass rates may be required for program accreditation
  - Public and students have the right to know how schools perform
  - Provide input to educational programs; drive educational quality
  - Accountability is part of public education

Public release of school pass-rates?

• Cons or caveats
  - Misuse of data
  - Pass rates should not be used to rank schools: different admissions criteria
  - Mission of licensure test/regulation to assess minimal competency may not fully correspond to broad educational mission
  - Small programs skew data
Public release of school pass-rates?

- Alternatives and thoughts
  - Provide only to each school with details and caveats on interpretation
  - Restrict public dissemination/comparison of school pass rates
  - Release pass rate by jurisdiction only
  - Other factors: overall pass rates for the profession, number and diversity of schools, professional climate

Half Time

- What is on your mind? Your questions?
- Topics coming up
  - Exam Security
  - Using a national exam
  - Budget cutbacks—remote proctoring, options
  - Translation/adaptation
  - What’s on the testing horizon?

What is the biggest threat to exam security today? What is the best way to keep our program secure?
Threats to Exam Security

- The “innocent” discussion - list servs
- Previously - the fraternity “exam files”
- More currently - brain dump sites
- Prep courses
- Educators
- The cell phone
- High tech gadgets

Threats to Exam Security · What to do?

- The item bank as a bucket with holes...
- Physical Therapy (PT) experience

1. Write more items
2. Internet searches
3. Security Vendors, web crawlers
4. When that doesn’t work, See #1

What factors should a state board consider in using a national examination? What oversight responsibilities should a state assume?
Why should a jurisdiction use a national examination?
A. Because other jurisdictions use the national examination
B. Because legislation mandating use of the national examination is being considered
C. Because the national examination offers a better alternative for measuring entry-level competence

What factors should be considered when using a National licensing exam?
• Mission of national credentialing body and purpose of its examination
• Compliance with accepted professional standards and technical guidelines
  - See CLEAR Resource Briefs: Reference Guide for Auditing A Credentialing Examination Program (99-1)
• Fairness to candidates

What oversight responsibilities should a jurisdiction assume?
• Jurisdictions should understand how exam components impact a valid and legally defensible examination program
• Jurisdictions should monitor passing rates and candidate feedback
• Jurisdictions should attend annual association meetings
What are the issues and potential pitfalls in adapting or translating our examination?

Legislation requiring our exam to be offered in a different language is being considered. How should we respond?

A. Support legislation, just make sure it includes a budget increase
B. Oppose legislation, citing lack of resources
C. Evaluate factors associated with translating exam into respective language

What are the issues and potential pitfalls in adapting/translation our examination?

- Adapting vs. Translating
  - Translation is only one part of adaptation
  - Translation does not guarantee fairness
  - Translation may be a more costly strategy to implement than alternatives
Adapting/translating our examination (continued)

Practical Issues
• Consumer Protection
  - Instructional material & product labels
• Test Development
  - Use of competent translators
  - Training materials in target language
• Test Scoring/Evaluation
  - Comparability of forms & results across languages
• Fiscal/Legal

Resources

Hertz, N. (2006). To Translate, or Not To Translate: That is the Question (Resource Brief). Lexington, KY: CLEAR.


Because of budget cutbacks, our administrator wants our Board to consider less expensive means of testing our candidates, even including “remotely proctored” online testing. What are the options, and what factors are important for us to consider?
Testing Costs & Consequences of Decisions Based on Test Results
- What is being assessed?
- How are knowledge and skills being assessed?
- What are consequences of decisions based on test results?
- What changes will reduce costs?
  - Impact of changes to validity of test results interpretations

Testing Costs & Stakes Associated with Inferences Made from Test Results
1. What interpretations do you intend to make from assessment outcomes?
   A. Low-stakes inferences (minor consequences)
   B. Medium-stakes inferences (indirect consequences)
   C. High-stakes inferences (important, direct consequences)

Testing Costs: Do changes to reduce costs threaten validity of inferences?
- Construct-Irrelevant Variance (CIV)
  - Systematic error that introduces extraneous information into test results
- Construct Underrepresentation
  - Failure to capture important aspects of construct test is intended to measure
Testing Costs & Validity Threats

- CIV Components or Construct
  Underrepresentation may give unfair advantage or disadvantage to one or more subgroups of examinees

To what extent do concerns about test costs influence tolerance for threats to Validity of inferences made from test results?

What is on the horizon in the next five years that will affect the testing process for licensure and certification?

Near Horizon

- For big programs - IRT still king
- But less Computer Adaptive Testing (CAT)
- Increased focus on security, candidate identification, etc.
Near Horizon

- Increased focus on costs, reliability, outcomes, “bang for bucks”
- Move away from “secondary” test centers
- For recertification testing - more of an emphasis on competencies, online testing

Speaker Contact Information

- Grady Barnhill  
  - gbarnhill@eatright.org
- Chuck Friedman  
  - cfriedman@aswb.org
- Rose McCallin  
  - Rose.McCallin@dora.state.co.us
- Tracy Montez  
  - tracymontez@sbcglobal.net