Regulators’ Role in Establishing Defensible Credentialing Programs

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Applied Measurement Professionals

Promoting Regulatory Excellence

Session Overview

- Regulatory Mandates:
  - ensuring that a national examination reflects state/provincial practice and that reciprocity is appropriate across jurisdictions
  - maintaining the currency of the examination in times of limited resources.

- Learning objectives:
  - Identify the minimum requirements of a JA in support of an examination program;
  - Identify the steps needed to complete a job analysis;
  - Describe how to use the results of a job analysis to create examination specifications;
  - Identify the challenges of using national results for creating jurisdiction-specific examinations;
  - Describe methods to achieve a balance to create national examinations appropriate to the jurisdiction.

Summary of Examination Development Process

- Job Analysis
- Test Specifications
- Item Writing/Review
- Examination Building
- Standard Setting
- Administration and Scoring
- Score Reporting
Evaluating Exam Providers

http://clearhq.org/default.aspx?pageId=1097087

• Questions/topics that may be used by regulatory administrators to evaluate the performance of a testing company
  - Is there evidence that the testing program has been developed based on the foundation of a job analysis? If yes, is the job analysis updated on a regular basis?
  - Do all test development activities undertaken relate back to the purpose and intent of the examination? Can all development activities link back to the job analysis? (see handout)

CLEAR Questions and Answers

• Q: We know that a practice analysis should be performed to identify the subject matter that should be included in our examinations, but the results generate a multitude of statistical data. What is the best way to use the results of the practice analysis in constructing the test specifications?
  • A: There is no one correct way to use the results of a practice analysis to determine test specifications. What is important is to use a rational and defensible process to construct the test specifications that is facilitated by an experienced psychometrician. Subject matter experts (SMEs) should be involved in the entire process. Their role is to review all data generated from the practice analysis and use it along with their expert judgment to develop the test specifications. (See handout)
FAQs from NCCA

• Our job analysis is currently based on a focus group method. Is this acceptable or is a survey required?
  A survey is not required... Focus groups or other methodologies could be suitable in certain instances. The certification program should understand that while it may save costs by not distributing and analyzing a survey, the job/task analysis must nonetheless be rigorous enough to support the validity of the examination results. ...need to provide a clear and complete description of the process used and how that process led to the development of the assessment instrument specifications.

FAQs from NCCA

• How often should our certification program conduct a job analysis?
  The NCCA has not set fixed or established time frames... However, it is important that there is a process and time frame for the job analysis. The applying program should provide the rationale for the expected schedule... Many programs typically conduct a job analysis every five to seven years.

FAQs from NCCA

• How many individuals are required to serve on a job analysis committee?
  ...do not require any specific minimum or maximum number of individuals serving on a job analysis committee... review will focus on ensuring the certification program had thoughtfully considered committee membership and that the subject matter expertise is appropriate to meet the needs of the research design for the study. Similarly, the sample size for a job/practice analysis is not specified, although the sample should be appropriate to the profession...
A job analysis by any other name…

- Functional Job Analysis (FJA)
- Position Analysis Questionnaire (PAQ)
- Job-Task analysis
- Task analysis
- Role delineation study
- Practice analysis

Definition of Job Analysis

- A general term referring to the investigations of positions or job classes to obtain descriptive information about job duties and tasks, responsibilities, necessary worker characteristics (e.g., knowledge, skills, and abilities), working conditions, and/or other aspects of the work.

  - *Standards for Educational and Psychological Testing* (AERA, APA, NCME, 1999)

New Draft of the Standards

- **Standard 11.13**
  The content domain…test should be defined clearly…credential-worthy performance in an occupation. A rationale…to support a claim that the knowledge...assessed...consistent with the purpose for which the licensing...program was instituted.
  - **Comment:** Typically, some form of job analysis provides the primary basis for defining the content domain.
Recommendations for a JA Study

- Subject matter expert (SME) input
  - Diverse perspectives reflecting the profession
- Evidence collection
  - Usually through a survey
- Data evaluation
  - Objectivity in decision making
- Establishment of test specifications
- Documentation

Typical steps in a standard job analysis

1. Identify SMEs
2. Generate a list of competencies
   - Tasks and/or KSAs
3. Create a survey; distribute to large sample
   - Collect demographics and competency ratings
4. Set decision rules for inclusion
   - Needed for practice, importance to practice, needed at entry, percent performing

Using the JA to set specifications

- Include competencies that meet criteria
  - Establish Test Specifications
    - Dimension 1: Number of items by domain (and sub) *(required)*
    - Dimension 2: cognitive level *(recommended)*
Final Steps

- Document the study
- Pay/Collect the money!

“Sounds expensive and time-consuming -- any alternatives?”

How do I streamline the process?

- Reduce SME involvement
  - Smaller groups and less time commitment
- Evidence collection vs. confirmation
- Data evaluation vs. holistic judgment
- Still Required
  - Establishment of test specifications
  - Documentation
Alternatives to consider

- Committee based
  - Advisory Group (SME) judgment, e.g. “Blue Ribbon Panel”
- Logical job analysis
  - Advisory Group (SME) judgment, followed by verification of larger group of SMEs

Case Study 1 – REAL ESTATE LICENSING EXAMINATIONS

- Using national results for creating examinations appropriate to various jurisdictions
- Methods to achieve a balance to create jurisdiction-specific national examinations

AMP’s real estate licensing JA

- Traditionally:
  - Salesperson and Broker
  - National and State Portions
- Real estate licensing in 11 states
  - One was added midway through JA
- 4th RE JA conducted by AMP
- Differences each time...
Advisory Board

- Representatives from each state
- Overall authority
  - Project oversight
  - Approval of specifications for the state
- Met to approve survey and analyze data
- Preliminary work with focus groups

Sampling plan and responses

- Nearly 45,000 e-mail invitations distributed, mostly to AMP states
- Nearly 8,000 postcard invitations
- Approximately 1,200 responses
Focus on entry-level licensees

Part of the topic/task list

Real Estate 2009 Job Analysis
SECTION 2: Topic List

Considering both the importance of the topic and the frequency with which you perform tasks related to the topic, how significant is this topic to your current real estate practice?

1) Agency Relationships and Contracts

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<th>Agency Relationships</th>
<th>Not part of practice</th>
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Salesperson Decision Rules

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<th>Decision Rule</th>
<th>Criteria to Eliminate Tasks</th>
<th>Topics eliminated*</th>
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<td>1) Part of practice</td>
<td>More than xx% of the respondents report a rating of zero (not performed)</td>
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<td>2) Significant to practice</td>
<td>Overall mean significance rating less than x.xx</td>
<td>34, 38, 72, 78</td>
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<tr>
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<td>Significant to relevant subgroups:</td>
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<td>3) Regions of the U.S.</td>
<td>Mean significance rating less than x.xx for more than one region</td>
<td>No additional topics</td>
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<td>4) Years of Experience</td>
<td>Mean significance rating less than x.xx for either 'entry-level' group</td>
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<tr>
<td>5) Number of Transactions</td>
<td>Mean significance rating less than x.xx for more than one group</td>
<td>35, 36, 46, 74, 76</td>
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Subgroup analyses by state

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- Each state looked for outlying ratings

Examination Specifications

- Follow the structure of JA survey
- Content: must be relevant in all states
  - If topics were dropped, could be moved to the state portion
- # of items specified by content domain
- Cognitive level requirements
- Implemented in 2011...

Case Study 2 - Performing a Job Analysis on a budget

- Organization recognized need to redo its JA
  - Recognized budgetary constraints
  - Committee vs. Logical - Opted for Logical JA
- Advisory Committee (AC) consisted of “elite” SMEs
- Homework assigned to AC
  - reviewed background materials
    - existing Test Specifications
    - comments from candidates about test items, etc.
Case Study 2

- AC revises current Test Specifications
  - Edits competency statements
  - Reallocates items among major content domains
  - Reassigns cognitive levels to competency statements, and major content domains
- New Test Specifications sent to larger group of SMEs for review and comment
- Comments reviewed by AC to finalize new Test Specifications

Comparison: Standard to Logical JA

- Standard
  - 100s to 1000s of SME involved
  - Individual ratings on each competency; more statistics to review!
  - 6-12 months to complete
  - $$$
  - Substantial evidence collected in support of validity
- Logical
  - Less than 100 SME involved
  - Competencies reviewed “holistically”
  - 1-6 months to complete
  - $$
  - Sufficient evidence collected in support of validity

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