

 Council on Licensure, Enforcement and Regulation
2011 Annual Educational Conference




Pittsburgh Pennsylvania

Regulators' Role in Establishing Defensible Credentialing Programs

Presenters: Steven S. Nettles, EdD and
Lawrence J. Fabrey, PhD

Applied Measurement Professionals


Promoting Regulatory Excellence

CLEAR 2011 Annual Conference  September 8-10
Pittsburgh, Pennsylvania

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


2

CLEAR 2011 Annual Conference  September 8-10
Pittsburgh, Pennsylvania

Summary of Examination Development Process


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



CLEAR 2011 Annual Conference  September 8-10 Pittsburgh, Pennsylvania

AVAILABLE RESOURCE MATERIALS FROM CLEAR, AND ICE/NCCA


4

CLEAR 2011 Annual Conference  September 8-10 Pittsburgh, Pennsylvania

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)


5

CLEAR 2011 Annual Conference  September 8-10 Pittsburgh, Pennsylvania

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)


6

CLEAR 2011 Annual Conference  September 8-10 Pittsburgh, Pennsylvania

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.


7

CLEAR 2011 Annual Conference  September 8-10 Pittsburgh, Pennsylvania

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.


8

CLEAR 2011 Annual Conference  September 8-10 Pittsburgh, Pennsylvania

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...

9


CLEAR 2011 Annual Conference  September 8-10 Pittsburgh, Pennsylvania

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



10


CLEAR 2011 Annual Conference  September 8-10 Pittsburgh, Pennsylvania

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)

11


CLEAR 2011 Annual Conference  September 8-10 Pittsburgh, Pennsylvania

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.

12


CLEAR 2011 Annual Conference  September 8-10 Pittsburgh, Pennsylvania

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




13

CLEAR 2011 Annual Conference  September 8-10 Pittsburgh, Pennsylvania

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


14

CLEAR 2011 Annual Conference  September 8-10 Pittsburgh, Pennsylvania

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*)

15

CLEAR 2011 Annual Conference  September 8-10 Pittsburgh, Pennsylvania

Final Steps

- Document the study
- Pay/Collect the money!




16

CLEAR 2011 Annual Conference  September 8-10 Pittsburgh, Pennsylvania

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



17

CLEAR 2011 Annual Conference  September 8-10 Pittsburgh, Pennsylvania

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

18


CLEAR 2011 Annual Conference  September 8-10 Pittsburgh, Pennsylvania

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




19

CLEAR 2011 Annual Conference  September 8-10 Pittsburgh, Pennsylvania

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


20

CLEAR 2011 Annual Conference  September 8-10 Pittsburgh, Pennsylvania

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...


21

CLEAR 2011 Annual Conference  September 8-10 Pittsburgh, Pennsylvania

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


22

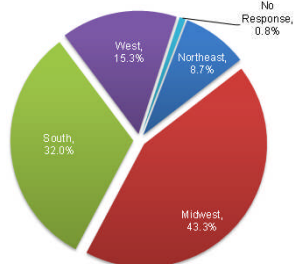
CLEAR 2011 Annual Conference  September 8-10 Pittsburgh, Pennsylvania

Sampling plan and responses

- Nearly 45,000 e-mail invitations distributed, mostly to AMP states
- Nearly 8,000 postcard invitations
- Approximately 1,200 responses

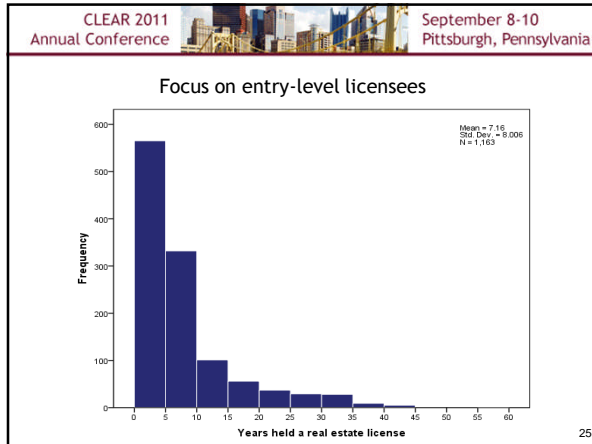
23

CLEAR 2011 Annual Conference  September 8-10 Pittsburgh, Pennsylvania



Northeast - CT, MA, ME, NH, NJ, NY, PA, RI, VT
 Midwest - IA, IL, IN, KS, MI, MN, MO, ND, NE, OH, SD, WI
 South - AL, AR, DC, DE, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, WV
 West - AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, WY

24



CLEAR 2011 Annual Conference September 8-10 Pittsburgh, Pennsylvania

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 in your current real estate practice?

1) Agency Relationships and Contracts

Agency Relationships

	Not part of practice	Not significant	Somewhat significant	Quite significant	Extremely significant
1) Creating Agency	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2) Types of Agency (including implied agency)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3) Rights, Duties and Obligations of the Parties	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4) Termination and Remedies for Non-Performance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5) Disclosure (related to representation)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>


26

CLEAR 2011 Annual Conference September 8-10 Pittsburgh, Pennsylvania

Salesperson Decision Rules

Decision Rule	Criteria to Eliminate Tasks	Topics eliminated*
1) Part of practice	More than xx% of the respondents report a rating of zero (not performed)	39
2) Significant to practice	Overall mean significance rating less than x.xx	34, 38, 72, 78
<i>Significant to relevant subgroups:</i>		
3) Regions of the U.S.	Mean significance rating less than x.xx for more than one region	No additional topics
4) Years of Experience	Mean significance rating less than x.xx for either 'entry-level' group	73
5) Number of Transactions	Mean significance rating less than x.xx for more than one group	35, 36, 46, 74, 76


27

CLEAR 2011 Annual Conference  September 8-10 Pittsburgh, Pennsylvania

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

31

CLEAR 2011 Annual Conference  September 8-10 Pittsburgh, Pennsylvania

Comparison: Standard to Logical JA

<ul style="list-style-type: none">• Standard<ul style="list-style-type: none">- 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	<ul style="list-style-type: none">• Logical<ul style="list-style-type: none">- Less than 100 SME involved- Competencies reviewed "holistically"- 1-6 months to complete- \$\$- Sufficient evidence collected in support of validity
---	--

32

CLEAR 2011 Annual Conference  September 8-10 Pittsburgh, Pennsylvania

Speaker Contact Information

- Larry Fabrey, PhD
Senior VP, Psychometrics, AMP.
- lfabrey@goamp.com
- Steve Nettles, EdD
Senior VP, Psychometrics, AMP.
- snettlles@goamp.com


Applied Measurement Professionals, Inc.
18000 W. 105th Street • Olathe, KS 66061-7543 • 913.856.4800 • Fax 913.856.4650 • info@goamp.com
www.goamp.com

33
