Job Analysis and Assessment Development for Automated Systems

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Job Analysis

Job Analysis - Traditional

- Many different methods
  - Two main categories: Inductive or Deductive

- Traditional methods of job analysis can involve:
  - A pilot sample of SMEs
  - Use of job analysis questionnaires/surveys,
  - Data analysis, and
  - Revisions
  - Considerable amounts of time and expense

- Traditional methods involve assumptions about:
  - The sample of SMEs
  - The ability to accurately profile a position/job & incumbent

Job Analysis – Challenges

- Development issues
  - Shorter development times
  - "All at once" mindset
  - Small number of SMEs available

- Organizational issues
  - Lack of "Buy in" at many levels
  - Uninitiated SMEs – don't know why they are in a JA workshop
  - Dealing with legacy information

Job Analysis – Challenges

- Competing demands
  - Job content coverage
  - Ability/inability to assess KSAs in an automated fashion

- Purpose of the JA
  - Pre-screen
  - Self selection device
  - Actual selection device

- Providing good content validation evidence for item development/use

Job Analysis - Solutions

- Have job analyst do more prep work
  - The job analyst has to do more work to compensate for having less development time.
  - Have job analyst do more prep work – draft lists, draft linkages, draft questions
  - Have SMEs do more review work rather than generation work

- Capitalize on past work
  - O*net,
  - past JAs for similar positions, etc.
  - Possibly use job analysts more than SMEs

- Develop processes/methods to automate the process
  - Systems or databases that can allow work to be done remotely
  - Methods that automate the data analysis
  - Systems that facilitate item development
  - Create forms and systems that allow for easier collection of JA data

Job Analysis - Solutions

- Get organizational "Buy in"
  - Get support from the top
  - All relevant parties should be informed
  - It helps to have a champion

- Consider the use of several workshop types:
  - In person workshop
 - Remote workshop
  - Hybrid
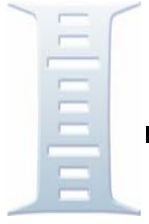
Item Development

Background on T&Es

- T&E measures are the most common personnel selection instruments
  - Tradition; Can't make a selection decision without reviewing an application or resume
  - Education and experience are thought to be indicators of important job-related KSAs
  - Most reviews of T&E can be performed by those without test and measurement skills
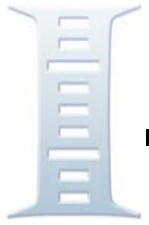
What are T&Es

Five Types

- Holistic Judgment

- Minimum Qualifications

- Point & Task Methods

- KSA-oriented Methods

- Accomplishment Records

KSA-oriented Methods

- Applicants indicate experience performing activities related to the job

- Measures experience as indicator of KSAs

- Focuses on *amount* of experience

- Models the experience-job performance relationship

- Validity as high as .43

T&E Item Development Overview

- Conduct development in phases
- Consider "off-the-shelf" systems
- Be ready for significant tailoring
- Be ready to design own system
- Expect long term gains for short-term high costs
- Involve internal staff
  - Technical
  - Users
- Establish network of communication with all individuals involved in development
- Get input from managers, HR Reps, and others
- Monitor impact on applicant pool
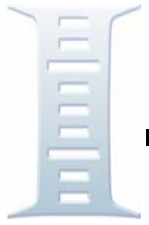
T&E Item Development Overview

- Ensure that items are not ambiguous
  - Avoid double-barreled statements
  - Use concrete, behavioral terms

- Plan to deal with inaccurate responding
  - Warnings
  - Reviews
  - Mechanisms to detect distortion

T&E Item Development Overview

Working with Agencies

- Agency champion helps
  - Believes in the process
  - Understands the process
  - Sees value in the process

- Dealing with legacy of many different systems/ methods across agencies
  - Path of least resistance
  - Concerns about defensibility

T&E Item Development Issues

- Assessment vs Pre-Screen
- Inclusion of minimum qualifications (MQs)?
- Use existing assessment items?
- Item Format
- Number of items per KSA
- Validity

T&E Item Development Process

- Write draft questions for each KSA
  - Does applicant possess KSA?
  - How has applicant acquired the KSA?
  - How has the applicant applied the KSA?

- Review questions with SME panel
- Send questions to other SMEs who rate relevance (Content validation phase)
- Submit questions for uploading into system

Conclusions

- Define reason for JA and item development
- Be reasonable in expectations for the selection system
- Keep in mind the time and resource demands to achieve system goals
- Understand the operating parameters of the automated system you are using
- Consider using systems/methods that can facilitate the process
- Get "buy in" from all levels
- Document process for purposes of validation support