

# How's That Working for You?

## Back to Basics in Test Development

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# PA State Civil Service Commission



- ▶ 57,000 state employees (2/3 of all) in 37 state agencies
- ▶ 9,000 county & local employees in 300 agencies
- ▶ Testing for about 1,000 different job titles
- ▶ 8 computer testing sites

# What we do in the TDD

- ▶ We develop tests to establish employment and promotion lists for the using agencies of the State Civil Service Commission
- ▶ We work with the using agencies SMEs and HR offices to do our jobs
- ▶ We serve the applicants as well as the using agencies

# Goal for Tests

- ▶ Valid
- ▶ Reliable
- ▶ Timely
- ▶ Accurate
- ▶ Best candidates score the highest

# The Assessment

- ▶ Identifies people who have the KSAs to do the job
- ▶ Allows hiring based on job related criteria
- ▶ Increases likelihood of successful employees
- ▶ May then reduce turnover and costs
- ▶ Integrates with performance evaluations and promotions



# How we do it - in a nutshell

- ▶ Review/recommend Minimum Qualifications
- ▶ Job Analysis – Content Validity Model
- ▶ Plan and construct the test
- ▶ Prepare all materials



# How we do it (cont'd)

- ▶ Monitor application and testing process
- ▶ Follow-up
- ▶ Meetings with SMEs in all phases
- ▶ Document everything!

- ▶ We compile test results, item analysis, score information, and all other data
- ▶ We keep a record of candidate complaints and other problems that arise
- ▶ We obtain feedback from raters, proctors, test administrators, and evaluators

# Then...

- ▶ An exam may be updated or reopened the next time it is needed
- ▶ OR an exam may remain open continuously or until positions are filled



# The Follow Up Study

## - A Model for Quality Assurance

- ▶ Completed after hires have established themselves
- ▶ Obtains additional feedback from hiring agency staff, HR and program
- ▶ Presents an opportunity to continuously improve our product – the test

# So what goes wrong?

- ▶ “We aren’t getting the people we want.”
- ▶ “The test has the wrong kind of questions.”
- ▶ “The test is too hard.”
- ▶ “We’re not getting enough applicants. It must be because they have to test.”

Is it the **TEST** ?



Probably not. So...

LET'S GO BACK TO THE  
BASICS TO ANALYZE THE ISSUE.

WE MAY ALSO FIND OUT WHAT THE  
PROBLEM REALLY IS!

**Quality assurance** is the activity of providing evidence needed to establish quality in work, and that activities that require good quality are being performed effectively. All those planned or systematic actions necessary to provide enough confidence that a product or service will satisfy the given requirements for quality.

Wikipedia

# Systematic Review

- ▶ Minimum Qualifications & Requirements
- ▶ Job Analysis Information
- ▶ Test Method and Content
- ▶ Test Materials
- ▶ Recruiting and Application Process
- ▶ Test Administration
- ▶ Related Issues



# Can it be the Minimum Requirements?

- ▶ Too broad
- ▶ Too narrow
- ▶ Do not accurately reflect the KSAs
- ▶ Do not link well to the work performed
- ▶ Include requirements that may not be needed for all positions

# What about the Job Analysis Information?

- ▶ Representative Sample?
- ▶ Work performed?
- ▶ KSAs or competencies?
- ▶ Linkages?
- ▶ Accurately identified as entry-level?

# Job Analysis (cont'd)...

- ▶ Has the job changed?
- ▶ How old is the job analysis?
- ▶ Operational and behavioral definitions?
- ▶ Good SMEs?

# Is the Test a Factor?

- ▶ Best measurement method used?
- ▶ Scoring?
- ▶ Weighting?
- ▶ Item analysis?
- ▶ Reliability measures?

# Is the Test a Factor? (cont'd)

- ▶ Applicability of items?
- ▶ Instructions or test content?
- ▶ Was there a test tryout?
- ▶ Test materials or test site problems?

# Best measurement method?

- ▶ Oral to written or SJT – Hires speak well but cannot do the job well
- ▶ E&T to Written – Not all experience is good
- ▶ Written to SJT – Hires are knowledgeable but can they apply the knowledge
- ▶ Written to E&T – Nurses, Surveyors

# Scoring

- ▶ Was it done accurately? Mis-keys?
- ▶ Data Analysis?
- ▶ If using raters, review the ratings and justification comments – do they fit?
- ▶ Is the weighting done correctly?

# What about test content?

- ▶ Definitions of terms used – i.e., traffic plan survey (counting cars or surveying land?)
- ▶ Level of KSA – writing, math, depth and scope
- ▶ Outdated terminology – IT, medical, education, security

# What about test content? (cont'd)

- ▶ Outdated content – IT, mining flame lamps
- ▶ Changes in the field of work – DDT, GPS, technology and other tools!
- ▶ Do test questions link to the KSAs?

# Test Materials/Instructions

- ▶ Did candidates receive all materials?
- ▶ Were proctors instructions followed?
- ▶ Was everything proofread for errors?
- ▶ Was the timing of the test accurate?
- ▶ Any test site problems?

# What about Recruitment?

- ▶ How many people applied?
- ▶ How many tested?
- ▶ What was the recruitment plan?
- ▶ What was done at job fairs?
- ▶ Advertising?

# More recruitment...

- ▶ Did the candidate pool change?
- ▶ Review applications for information
- ▶ How did people hear about the job?
- ▶ Survey the applicants!

# Related Issues

- ▶ Budget and costs
- ▶ Technology – candidate capabilities
- ▶ Regional differences – urban/rural
- ▶ Available workforce
- ▶ Salary and tax differences – Cost of living

# Other related issues...

- ▶ Negative information about the job, i.e., high turnover, heavy workloads, poor training, or making the headlines
- ▶ High burnout jobs
- ▶ Veterans Preference

# Complete the Follow-up Study

- ▶ How many candidates were hired?
- ▶ Did they possess the entry-level KSAs?
- ▶ How did they do during the first six months on the job?
- ▶ What are the areas of concern?
- ▶ Document it all!

# Follow-up...

- ▶ Use SMEs, HR staff, and TD colleagues to develop a plan to address the weaknesses
- ▶ Determine what needs to change
- ▶ Document and discuss recommendations
- ▶ Be a resource

# Questions?



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