

Applying Technical Advances in Assessment Centers



Warren Bobrow, Ph.D.
The Context Group

Michelle Schulz, M.S.
Southern California Edison



Live and Computer Based Simulations

- Simulations Have Been Shown To Be Valid Predictors of Job Performance
- Computers Are Limited in Their Ability to Analyze Open-Ended Responses
- Is the Lower Cost of Computer Simulations Worth the (Presumed) Lower Validity



Simulations for Call Centers

- Call Centers
- Background of JASS
- Description of JASS
- Demo JASS



JASS Factor Structure

	Factor 1	Factor 2	Factor 3	Factor 4
Typing Call A	X			
Typing Call B	X			
Typing Call C	X			
Speed Call A	X			
Speed Call B	X			
Speed Call C	X			
Empathy Call A		X		
Empathy Call B			X	
Empathy Call C				X
Listening Call A		X		
Listening Call B			X	
Listening Call C				X



Live Simulations

- Designed as a Traditional Simulation Exercise
- Describe of Simulation
- Describe Scoring



Live Simulation Factor Structure

	Factor 1	Factor 2	Factor 3
Speed Call 1	X		
Speed Call 2	X		
Problem Solving Call 1		X	
Problem Solving Call 2			X
Efficiency Call 1		X	
Efficiency Call 2			X

Validities:

Live vs. Computer Simulations

	Live	Computer
Cost Per Applicant	\$70	\$35
Median Correlation with Productivity	0.24	0.23
Median Correlation with Customer Satisfaction	0.21	0.22

Live $k=3$, Computer $k=21$



Moral to the Story

- Multiple Choice Format Does Not Lead to a Decrement in Validity of Quality
- Computer Provides Higher ROI



Improvements to Computer Tests

- Better, More Sophisticated Branching Techniques
- Voice Recognition of Tone, Not Just Words



Applying Technological Advances in Assessment Centers at Southern California Edison

Michelle Schulz
Performance Assessment Services
Southern California Edison



Outline

- Company Background
- Assessment at SCE
- Organizational Drivers
- System Operator: A Simulator-Based Assessment at SCE
- Advantages
- Disadvantages
- Practical Considerations
- Future of Assessment at SCE



Company Background

- Utility Company over 100 years old
- Approximately 12,000 Employees
- 4.2 million Business and Residential Customers
- 50,000 Square Miles of SCE Territory
- Various Job Classifications
 - Technical/Non-Technical
 - Union/Non-union



Assessment at SCE

- Extensive Testing
 - Historically
 - Union Jobs
 - Aptitude Tests
 - Knowledge Tests
 - Non-union jobs
 - Interviews
 - Current Trends
 - Assessment Centers
 - Computer-based Testing
 - Performance Tests
 - Job Simulations



Organizational Drivers

- ROI
 - Not Real-Time
 - CMI (Customer Minutes Interrupted)
 - Safety
 - Utility
 - Training and Selection
 - Several Job Classifications
- Management looking for more comprehensive assessment of candidate's performance
- Increase in the number and cost of errors



System Operator: A Simulator-Based Assessment at SCE

- System Operator Job Description
 - Directs switching on transmission, subtransmission, and distribution systems
 - Coordinates outages for parts of system not under GCC jurisdiction
 - Monitors and controls system MW and voltage in real-time
 - Coordinates response to relay operations



System Operator: A Simulator-Based Assessment at SCE, cont.

- Selection Process

- Past

- Knowledge Test (Paper & Pencil)
 - Program Writing Test (Paper & Pencil)

- Present

- Knowledge Test
 - Job Simulation of 11 critical tasks on OTS Simulator
 - Tasks 1-5: Outage Planning/Program Writing
 - Tasks 6-7: Routine Switching Procedures
 - Tasks 8-11: Emergency Operating



System Operator: A Simulator-Based Assessment at SCE, cont.

- Development of Job Simulation

1. Partnered with Training Organization
2. Conducted JTA
3. Identified 11 most Critical Tasks
4. Determined Conditions, Standards, and Tools (e.g., programs)
5. Developed Scenarios (i.e., script and scoring guides)



System Operator: A Simulator-Based Assessment at SCE, cont.

- Trained Raters
- Pre-pilot Test
- Pilot Test
- Revised and Implemented



Advantages

- Face Valid for Candidates- Job Relatedness
- Richer feedback for Candidates
- Provides a more accurate picture of candidate's ability - can see the application of knowledge prior to job
- Helped the Training Organization establish best practices



Disadvantages

- Not an exact replicate of real environment
 - Does not always look exactly like real world
 - Limited to what you can test
- Candidates may not take it seriously
- Very demanding on resources
 - Time
 - Cost!
 - Development/Set-up
 - Maintenance



Practical Considerations/Lessons Learned

- System Requirements
- Trained Raters
- Administration Limitations
 - Scheduling/Coordinating
- Test Maintenance
- Unforeseen Technological Difficulties
- Candidate's Reactions



Future of Assessment at SCE

- Modify current tests, administration and scoring procedures to become more technologically advanced
- Create more technically advanced assessments such as computer-based tests, simulations, etc.