

*Online Assessment: Panacea, Pandora's  
Box, or Somewhere In Between? Best  
Practices, Thoughts, and Current  
Challenges with Un-proctored and  
Proctored Online Testing*

IPMAAC

St. Louis, MO

June 11, 2007

# Representative Perspectives

- David Hamill (Session Chair)
- Sebina Netto (Vendor/Public Sector)
  - JobAps
- Jim Beaty, Ph.D. (Vendor/Private & Public Sector)
  - PreVisor
- Jeff Feuquay, Ph.D., Esq. (Legal)
  - Attorney & Psychologist
- Eric Palmer (Public Sector User)
  - City of Ft. Worth
- Michael Blair (Private Sector User)
  - Embarq

# Session Format

- Individual Panel Members
- Panel Discussion of Hot Topics in UIT
- Audience Q&A
- Final Thoughts

# Attitudes Towards UIT

- Unproctored Internet testing (UIT) for has too many pitfalls and drawbacks to be used in for employment purposes.
  1. Strongly Disagree
  2. Moderately Disagree
  3. Neutral
  4. Moderately Agree
  5. Strongly Agree

# Types of Unproctored Internet Testing

- Open
- Invitational
- Supervised

# Sabina Netto

## Directs Customer Implementations at Job*Aps*

Prior to joining Job*Aps*, she was a Supervising HR Analyst at the County of Santa Barbara, California.

## Our Customers are the Experts - Interviews with our Customers

- ◆ **State of California** - Daisy McKenzie
- ◆ **State of Oklahoma** - Hank Batty
- ◆ **State of Delaware** - Cheryl Rice
- ◆ **Hillsborough Co., Florida** - Kurt Wilkening

## Oscar Jackson - State of Oklahoma

Director OPM, President of IPMA

### Warning:

“Bring a roll of chicken wire to protect the panel from the tomatoes that your audience might throw.”



# Daisy McKenzie - **State of California**

Manager of Exam Services



- ❖ Success- for professional classes that have license, degree, certification (already tested)
  1. Self-rated online MQ screen
  2. Followed by self-rated online T&E

## Daisy McKenzie - **State of California**

Manager of Exam Services

❖ Failure -Staff Services Analyst

1. Self-rated online T&E - criterion evaluation of test - Failure (estimate 50% falsification)
2. Redid Job Analysis/Validation Study → Online proctored M/C Test (1% dismissed for cheating)

Daisy McKenzie - **State of California**

Manager of Exam Services

❖ Biggest Surprise

“How many resources we saved once we figured out how to automate”

“We calculate the effort is reduced by 90%”

## Kurt Wilkening - Hillsborough Co, Florida

Personnel Research Manager



- ❖ Would like to eventually have a proctored online test environment.
- ❖ Does not believe that non-proctored online tests will work due to cheating - unless used as a screen with follow up proctored testing.

Kurt Wilkening - Hillsborough Co, Florida

Personnel Research Manager

❖ How about an Online Non-Proctored Power Test  
(Timed Test)?

It may help eliminate cheating, but we would not  
want to exclude people who may think more  
slowly.

## Cheryl Rice - State of Delaware

### Automation Project Manager



- ❖ All classes utilize a self-scoring and self-screening supplemental questionnaire that assesses competencies using different rating scales.
- ❖ Legislative change accompanied automation project - refer top 30 scores instead of 10

## Cheryl Rice - **State of Delaware**

### Automation Project Manager

- ❖ Results - number of applications has increased 3 to 4 times
- ❖ Hiring Agencies love it
- ❖ More metrics to come

## Hank Batty - State of Oklahoma



Deputy Director, OPM

- ❖ Electronic testing since 2003, always provide a paper option - 80-90% online.
- ❖ "Biggest surprise - how quickly applicants took to it."



## Hank Batty - State of Oklahoma



### Deputy Director OPM

- ❖ "I know electronic testing is more secure than paper and pencil."
- ❖ "Big savings from non-proctored testing, but people will cheat."

Hank Batty - **State of Oklahoma**



Deputy Director OPM

“Smart People make better employees than people who are not smart. If the test discerns that - it is helpful. We can teach skills.”

Hank Batty - **State of Oklahoma**



Deputy Director OPM

- ❖ “Online Testing is not a panacea, but if used as intended, it is cool stuff and can help you.”

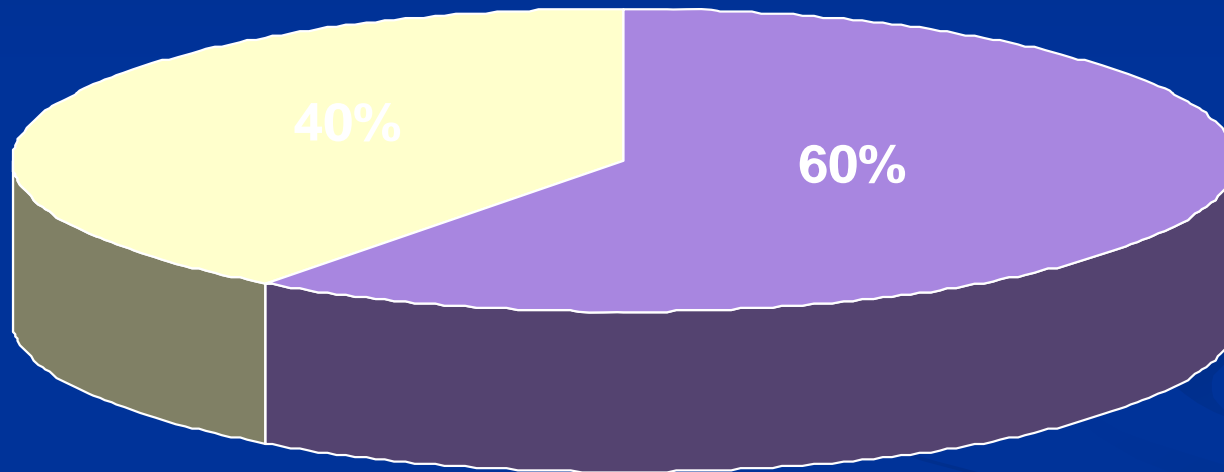
# Jim Beaty, Ph.D.

## PreVisor

- Chief Scientist
- Oversee R & D at PreVisor
- 10 years experience doing personnel selection
- 7 years experience developing unproctored internet tests

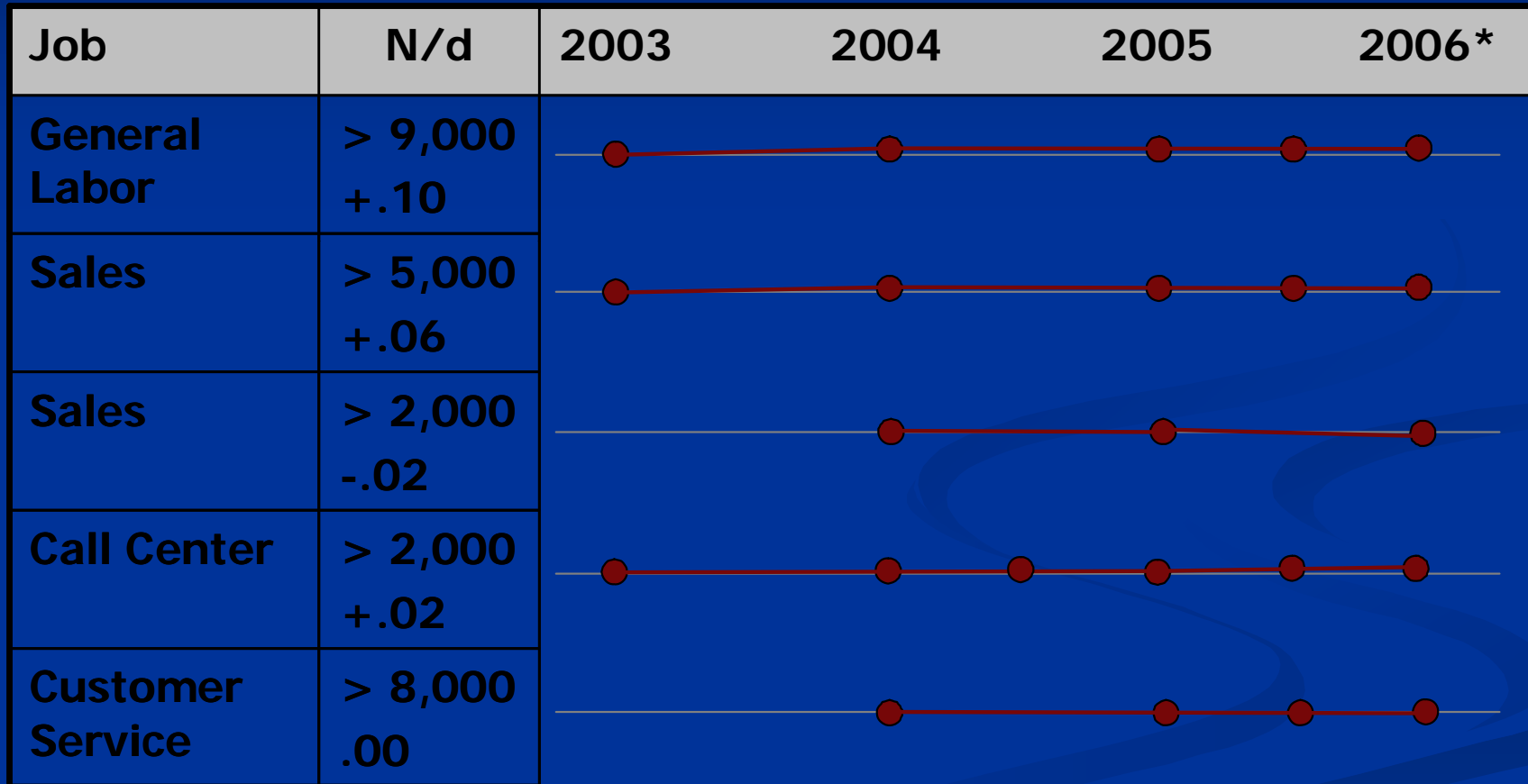


# PreVisor's Top 50 clients



■ Unproctored ■ Proctored Only

# UIT norm trends – Entry



\* Jan-Feb 2006

# UIT norm trends – Professional



\* Jan-Feb 2006



# Recent UIT Validity studies

(Competency/Solution Scores)

| Metric                                 | N          | Corrected r    |
|--|------------|----------------|
| Sales production                       | 434        | .17/.13        |
| <b>Retail sales metric</b>             | <b>480</b> | <b>.17/.10</b> |
| Call Center sales metric               | 662        | .26/.22        |
| <b>Collections metric</b>              | <b>232</b> | <b>.28/.16</b> |
| Call Center - Call quality rating      | 255        | .16/.14        |
| <b>120-Day Retention – Call Center</b> | <b>429</b> | <b>.18/.16</b> |

# Cheating Risk

**Cheating risk:  
High**

Easily identifiable  
testing process

Little or no penalty  
for cheating

Testing process is not  
easily identifiable

Severe penalty  
for cheating

**Cheating risk:  
Low**

Low Stakes  
• entry to mid level  
• test not obvious hurdle

High Stakes  
• exec level  
• test is obvious hurdle

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- Cisco CCIE-LAB
- Cisco 642-891
- Microsoft 70-284

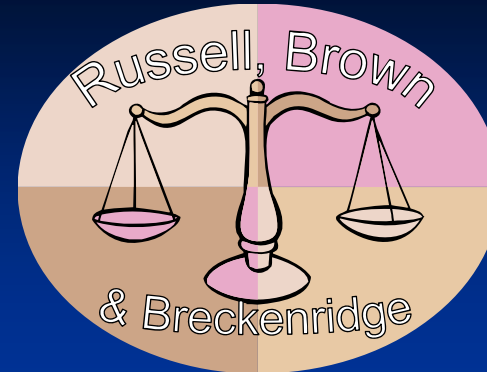
## Hot New Exams

- Cisco CCNA 640-801
- Cisco CCIE-LAB
- Cisco CCIE 350-001
- CompTIA A+ 220-301
- Microsoft 70-292
- Microsoft 70-296

# Defending against cheating

- Document the business case for implementing unproctored testing
- Design your system with a single point of entry into the online hiring process
- Maintain current recruiting efforts
- Follow unproctored tests with a proctored assessment where applicant identity is confirmed
- Warn applicants not to cheat
- Monitor and validate test scores over time.

Jeff Feuquay



**Calcitronus Gluteas Sordes Vilis**

## Internet Testing Experience

- Prosecute & defend selection lawsuits
- Decades of selection experience
- Extensive review of internet testing research and articles

# Feuquay Issues & Premises

- ▶ Test purpose, type & administration conditions
  - ▶ Proctored ↔ Unproctored
  - ▶ Low ↔ High Stakes
  - ▶ Phase in selection process
- ▶ Ethics issues, e.g., Principle 9.09(a), APA
- ▶ All the usual legal issues (Hey, they're tests.)

# Eric Palmer, SPHR

## City of Fort Worth Texas

- 7 years in public sector HR, much of it spent making the business case for investing in effective HR practices
- Ongoing interest in developing selection innovations for the public sector
- Experience working at the developmental stages of online delivery systems, including at City of Fort Worth Texas, Santa Barbara City College, and Santa Barbara County.
- Worked with Jobaps during early stages

# In Defense of High Stakes UIT

## Pro and Con: where do the sides agree?

- Difficulties controlling test environ form a strong *prima facie* case against high-stakes UIT
- Strong argument in favor is needed before high-stakes UIT warrants serious discussion

## Where do we disagree?

- There *is* such a favorable argument: the HUGE value-added potential of high stakes UIT
- Technological v. adaptive changes
  - The obstacles are technological and can be overcome
  - The benefits are adaptive, and have the potential to revolutionize how many of us approach talent acquisition



# What Problem can UIT Address?

**Applicant Pipeline Congestion:** applicant flow exceeds capacity; inability to process large numbers both efficiently and effectively

- Panel interview is usually the primary selection tool, but can only interview a few
- Quandary: how to get from large potential applicant pool to a few interviewees?
- Common maladaptive “solutions”
  - Minimize applicant pool by minimizing ads and time open
  - Apply an efficient but poorly validated screening tool to the applicant pool

**Solution: high-stakes UIT**

# The Business Case for UIT

- Replace poorly validated employment standards with highly validated tests of critical skills
- Merge application, MQs, and testing
- UIT with a validated cognitive test can screen huge numbers of applicants for true critical skills
- This enables a strategy of “maximizing the applicant pool”
  - Maximize the applicant pool
  - *Screen in* high performers based on true critical skills
  - Maximize the eligible list
  - Maximize hiring of high performers
  - Develop a high performing organization

# Obstacles to UIT

## ■ Most cheating doesn't matter!

- Cheating only matters if it results in someone on the eligible list who would not be there otherwise
- Below the eligibility list cutoff, score movement as a result of cheating doesn't matter
- Most cheating does not result in significant score movement
- It is unusual for someone in the top 10% to be there due to cheating

## ■ Cognitive v. non-cognitive UIT

- Non-cognitive is safer, but you lose one of the key benefits: a rigorously valid and predictive exam that can be efficiently administered to thousands
- Use cognitive UIT to *screen in* top performers rather than *screen out* poor applicants

## HOW DOES UIT COMPARE?

| DAY   | UIT SELECTION PROCESS  | DAY  | TRADITIONAL SELECTION PROCESS   |
|---|--|--|---|
| 1   | Recruitment opens  | 1  | Recruitment opens   |
| day 1-<br>day 14  | Online applications accepted   | day 1-<br>day 14   | Online applications accepted  |
|   | Applicants complete a unique profile in the system that acts as a gateway to the online examinations             |  | Applicants complete a T&E and supplemental questionnaire  |
|   | Applicants complete the initial (unproctored) online cognitive abilities exam (merge MQ screen & selection exam) |  |   |
| End of<br>14  | Recruitment closes   | End of<br>14   | Recruitment closes  |
| 15  | Scores from initial exam are standardized  | 15-20  | Applications screened for minimum employment standards  |
|   | "Screen-in" score established at 10th lowest score   | 21-26  | Resumes and supplemental questionnaires are reviewed to identify the 10 most qualified applicants |
|   | Top 10 scoring candidates invited to proctored exam  | 27   | Top 5-10 candidates invited to panel interviews   |
| 22  | Proctored exam administered  |  |   |
|   | Exams scored, scores standardized  |  |   |
|   | Applicants scoring below initial "screen-in" score are eliminated  |  |   |
|   | Remaining candidates ranked by score   |  |   |
|   | Top 5-10 candidates invited to panel interviews  |  |   |
| <b>8 Days from close of recruitment to invitation to panel interviews</b> |  | <b>13 days from close of recruitment to invitation to panel interviews</b> |   |

# Michael Blair, EMBARQ

- Selection & Assessment Program Manager
- Oversees Entry-Level and Promotional Assessments for EMBARQ
- 15 years experience in personnel selection & assessment
  - Public & private sector
- 10 years experience in high stakes testing

# EMBARQ

- Who is EMBARQ?
  - Total communication company
    - Local, long distance, wireless, high-speed internet, digital video
  - 20,000 employees serving customers in 18 states
    - 4.8 million households and 500,000 businesses
- Online Assessment at EMBARQ
  - Entry-level positions in call centers, retail stores, business sales, and other customer facing positions
  - Front-line supervisors in our Consumer Division
  - Screening and selection measures in both proctored and unproctored settings
  - Internet-based testing is expected to exceed 10,000 applicants for calendar year 2007

# Candidates as Stakeholders

- Candidates want:
  - A clear relationship between test content and job content
  - **Fairness and accuracy** in test scores
  - Processes that are actually needed
  - **Ease of use** and less demanding content
- Candidates prefer online assessments
  - **Preferred** over more traditional based processes
    - Frequency of administration
    - More timely or immediate feedback
    - Require less testing time
- The candidate experience is important
  - Recruitment
  - Job Satisfaction
  - Organizational Commitment
  - Job Performance

# Incumbents, Supervisors, & Managers As Stakeholders

- This group of stakeholders want:
  - **Fairness and accuracy**
  - Processes that are **related to the job**
  - Processes that identify good employees and good co-workers
    - Performance
    - Teamwork
    - Fit
- In addition, supervisors and managers want:
  - **Ease of use**
  - Results that are consistent across types of assessments
    - E.g., online test scores that align with interview results
  - Results that align with expectations of incumbent ability
  - **The perfect process**



# Decision Makers As Stakeholders

- Decision Makers Expect:
  - Fairness
  - Processes that are aligned with business goals
    - Diversity
    - Customer Service
    - Innovation
  - Return on Investment (ROI)
    - Online assessments offer bang for the buck

# Hot Topics in UIT

- Cheating
- Security of Test Content
- Identity Concerns
- Purposes of Assessment
- Validity and Reliability
- Policy Issues
- Over Automation
- Legal Pitfalls
- Adverse Impact
- Hardware & Software Standardization

# Audience Q & A



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