

Enhancement in Assessment Technology: Is There Steak with the Sizzle?

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7/20/10





Today's Discussion

- Evolution of web-based employment testing
 - Late 1990's/Early 2000's
 - Mid 2000's
 - Today
- Trends
 - Current usage of enhanced assessments
- Pros/Cons of enhanced assessments
- Where we're headed

Evolution of Web-based Employment Testing: Late 1990's/Early 2000's

- Advent of web-based testing
 - Part of the e-commerce boom
- Translation of paper/pencil assessments
 - Simple text
 - Simple graphic images
 - Questions of validity (still remains this way)
 - Security issues
- Singular testing sessions
 - No step processing of assessments
- Singular testing platforms
 - Lack of integration



Evolution of Web-based Employment Testing: Mid 2000's

- Moving beyond simple translation
 - Focus on security and unproctored testing
 - Tippens, Beatty, Drasgow, Gibson, Pearlman, Segall, & Shepard (2006)
 - Test Security
 - Examinee Identification
 - Cheating
 - Ethics
 - Subgroup and Cultural Issues
 - Standardization
- Solutions
 - Web-based computer adaptive testing
 - Item banking
 - Enhancement in security
 - Item randomization
 - Enhancement in security
 - Assessment step processing





Evolution of Web-based Employment Testing: Today

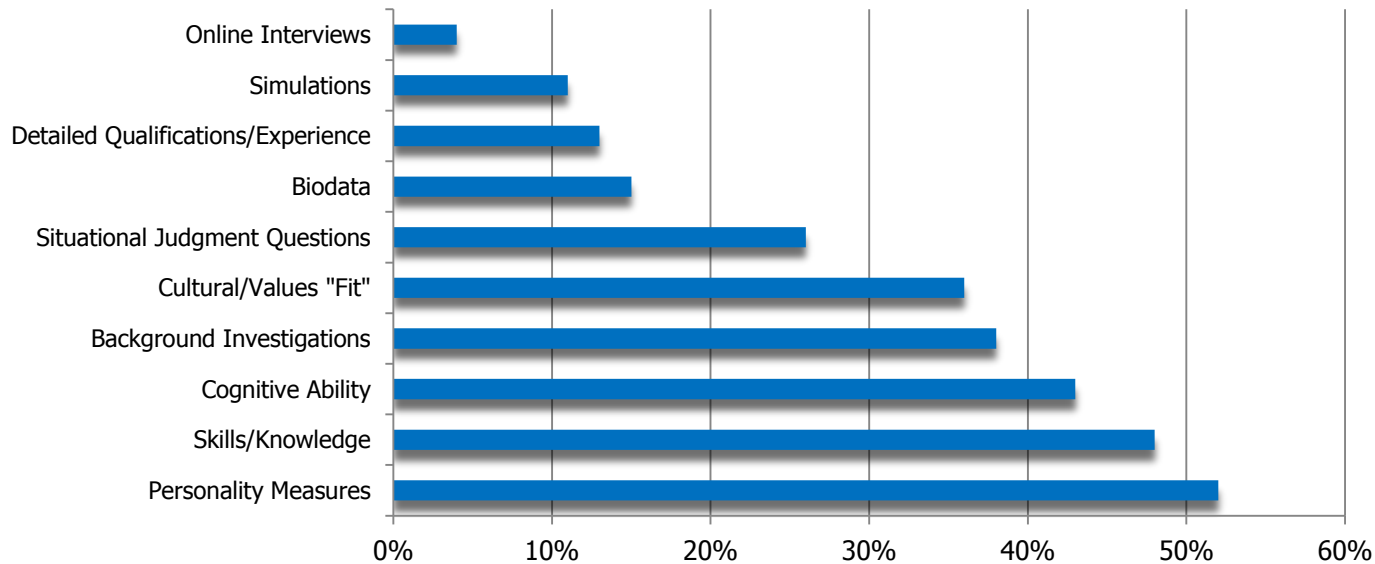
- Focus on innovation
 - Web-based simulations
 - Interactive
 - Realistic
 - Multi-media situational judgment tests
 - Video and audio based
- Focus on data integration
 - System integration
 - Assessment platform with other systems (e.g., ATS, HRIS)
 - Assessment data portability
 - Multiple uses for assessment data



Usage Trends of Enhanced Assessments

- Use of simulations and situational judgment has grown, though not yet dominant
- Rocket-Hire 2009 Assessment Usage Survey

Percent of Organizations Using Assessment Type





Users of Enhanced Assessments

- Call Centers
 - Computer ability
 - Multi-tasking
 - Accuracy
 - Customer service
- Manufacturing
 - Gauge readings
 - Logical reasoning
 - Safety scenarios
- Managerial
 - Leadership
 - Planning
 - Decision Making
- Healthcare
 - Customer service
 - Diagnostics
- Administrative
 - Interpersonal/Social skills
 - Teamwork/Collaboration
 - Time management

Various Multi-Media Formats

Step 1: Scenario

Your store manager has offered a monetary incentive to the employee with the highest total flower sales during the course of a week. The store has more potted roses in stock than other options, but they are also the most expensive (i.e., \$45). You notice that the man is looking at the roses and decide to approach him.



Watch the following video and choose the most and least effective course of action from the options below.

Step 2: Choose

Try to keep him interested in buying the more expensive roses by coming up with reasons why the purple daisies are inferior, such as having a shorter life span, or being perceived as a cheaper, but less classy, alternative to nicer flowers.

Ask him who he is buying the flowers for and for what occasion, to help focus his attention on the recipient rather than price. Show him a few mid-to-higher priced options that are similar to what he is looking for.

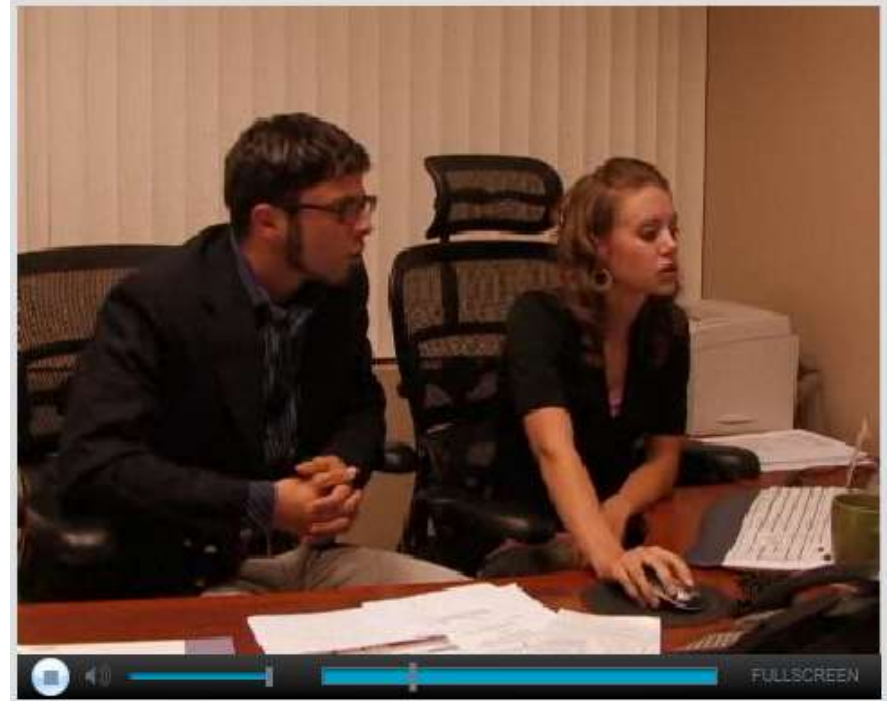
Ask him what he was planning on spending on flowers and show him some options that fit well within his price range.

Mention that the daisies are indeed popular. Describe some notable features of the roses and purple daisies to help him make an informed choice.

Most Effective Least Effective



Next



Are Enhanced Assessments “Better” Than Traditional Assessments?

- Issues to Consider
 - Predictive validity
 - Adverse Impact
 - Security
 - Candidate acceptance
 - Development cost
 - Delivery cost
 - Other factors





Predictive Validity

Traditional

- Good validity when developed and implemented properly
- Clear guidelines for developing items
- Construct relevance fairly clear

Enhanced

- Comparable validity coefficients when developed properly
- Emerging guidelines for item development (Sinar & Teeter, 2010)
- Removal of cognitive component (Tuzinski, 2010)
- Psychometric principles must take precedence over technological effects



Adverse Impact

Traditional

- Depends on the type of assessment and how it is used

Enhanced

- Tend to show less adverse impact
- Removal of the cognitive component
- Lack of evidence surrounding cultural issues



Security

Traditional

- Other technology changes have improved security, especially for unproctored testing
- Item integrity still an issue

Enhanced

- Item integrity less of an issue
- Risks of cheating mitigated



Candidate Acceptance

Traditional

- Depends on the type of assessment
 - Some personality assessments show low candidate acceptance
- Candidates used to this type of testing... for now

Enhanced

- High fidelity
- Candidates may enjoy the process



Development Costs

Traditional

- Often updating existing assessment items rather than developing brand new assessments

Enhanced

- More time intensive
 - New item types
 - More complex construct measurement
 - Additional IT requirements



Delivery Costs

Traditional

- Technology
 - Browser requirements pretty standard
 - Ease of use for both proctored and unproctored testing
 - High volume testing requires increased bandwidth, but within reason
- Assessments
 - Varies

Enhanced

- Technology
 - Requires significant bandwidth
 - Usually requires additional browser plug-ins
 - May require streaming media server
- Assessments
 - Custom implementations can be expensive
 - Off-the-shelf pricing is dropping



Other Factors

Traditional

- Realistic job preview
 - Often not a primary factor
- Training and Development
 - Increased usage
- IT coordination
 - Important

Enhanced

- Realistic job preview
 - Very strong, some simulations incorporate this into experience (e.g., Shaker Virtual Job Tryout)
- Training and Development
 - Good synchronization
- IT coordination
 - Integral to further innovation

Where We're Headed

- Increased interactivity
 - More game-like simulations
- Assessment administration portability
 - Smartphone assessment administration
- Assessment data portability
 - Utilizing assessment data for multiple purposes and organizations
- More off-the-shelf enhanced assessments
 - Tailored rather than completely customized



Concluding Thoughts

- Enhanced assessments are the future of testing, but...
- Traditional assessments will still be critical to successful selection processes
- Technological advancements will continue to make assessments...
 - More interactive/realistic
 - Accessible
 - Portable
- Psychometric principles must not be compromised for the sake of fidelity and the “wow” factor



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