

Designing an Assessment Strategy

Course Objectives



- Provide a broad overview of assessment goals
- Outline current and emerging assessment options and models
- Identify steps and variables to consider when developing an assessment strategy
- Discuss implementation issues and considerations

Agenda



- Background and Context
- Assessment Models and Options
- Building an Assessment Strategy
- Implementation Considerations
- Summary and Conclusion





Background & Context



Assessment: Defining the Terms



- Assessment: a systematic approach to gathering information about individuals; this information is used to make employment or career-related decisions about applicants and employees
- Assessment Tool: any test or procedure (for example, ability test, structured interview, work sample) used to measure an individual's employment or career-related qualifications and interests

U.S. Department of Labor, *Testing and Assessment: An Employer's Guide to Good Practices*, 2000

Assessment: Defining the Terms



Assessment Strategy: an established plan for designing and implementing one or more assessment tools for an organization, occupation, or a specific situation.



Barriers to Effective Assessment



- Lack of teamwork among key players in the Federal hiring process
- Lack of assessment expertise
- Narrow perception of assessment
- Information technology systems may not easily support a range of assessment options
- Lack of meaningful data to evaluate effectiveness of assessments

The Importance of Effective Assessment



- Increases the likelihood of hiring employees who possess the right competencies and will contribute to agency success
- Results in hiring, placing, and promoting greater numbers of superior performers
- Results in reduced turnover



The Importance of Effective Assessment



- Results in cost savings to the organization
 - "Bad" hire estimated to cost 2-3 times salary in year one
 - Lower training and performance management costs
- Decreases the likelihood of a "bad" hire and associated consequences
 - Poor work quality
 - Dissatisfied customers
 - Lower morale among fellow employees



Assessment Models & Options

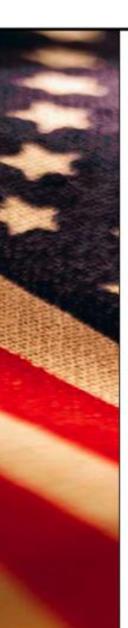


Topics Covered



- Broad assessment considerations
- Assessment options
- Emerging Assessment Options
- Multiple hurdles approach
- Case studies

Assessment Considerations



- Development and implementation costs
- Administration methods and costs
- Time and expertise required
- Applicant acceptance/face validity
- Potential for adverse impact
- Reliability and validity evidence
- Security of test materials

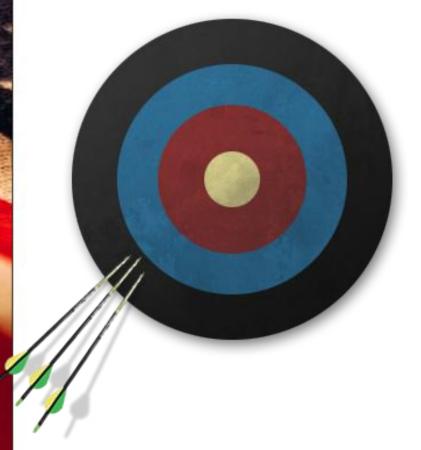
For more information about assessment considerations, please visit the Assessment & Selection website:

http://opm.gov/policy-data-oversight/assessment-and-selection/

Reliability and Validity: An Example

High reliability is a necessary condition for high validity, but high reliability does not ensure validity.

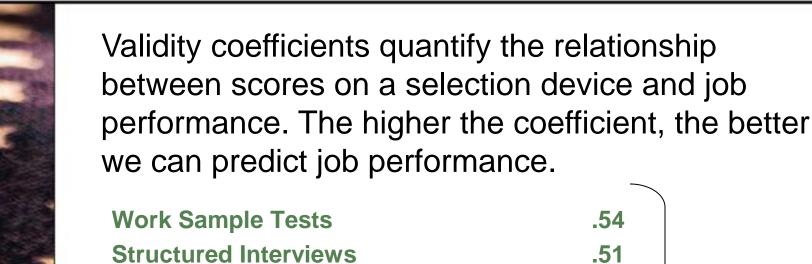
Reliable, but not Valid



Both Reliable and Valid



Validity of Various Assessment Tools





Schmidt, F., & Hunter, J. (1998). The Validity and Utility of Selection Methods in Personnel Psychology: Practical and Theoretical Implications of 85 Years of Research Findings. *Psychological Bulletin*, 124, 262-274.



Assessment Options



Occupational Questionnaire

Task- and competency-based self-report questionnaires used to screen and rank applicants based on their job-related training and experience

Strengths	Considerations
Can be administered and scored electronically in a non-proctored setting	Requires subject matter expert (SME) involvement to develop
High face validity and convenience for applicants	Applicant response inflation must be addressed
Wide variety of competencies can be assessed	Less suitable for entry-level and unspecialized positions
Low adverse impact	

Occupational Questionnaire: Example #1



Indicate the extent to which you have communicated orally with various levels of employees to obtain and provide information.

- A. I have had no experience in performing this task.
- B. I have communicated orally with others to obtain or verify information or to provide routine information.
- C. I have communicated orally with supervisors, managers, or office personnel to notify them of decisions, problems, or further actions needed, or to explain the organization's programs or services.
- D. I have given short oral presentations at departmental or organizational briefings and meetings to convey information on program activities or to describe the impact of new organizational policies on operational responsibilities.
- E. I have led briefings or taught courses on highly technical or complex material to audiences such as high-level managers or executives.

Occupational Questionnaire: Example #2



Manage a financial management information system that supports accounting, budgeting, procurement, disbursing, and/or statistical reporting.

A....

B....

C....

D....

E.....

If you rated yourself D or E, in the text box below, please write in the name of the financial management system you managed and the relevant position(s) you held.

Biographical Data Questionnaire (Biodata)



- Items about past events and behaviors that predict overall performance for a given occupation
- Items scored using a research-based scoring key

Strengths	Considerations
Can be administered and scored electronically in a non-proctored setting	Requires SME involvement and measurement expertise to develop
High validity	Somewhat low face validity for applicants
Low adverse impact	

Biodata: Example



This questionnaire asks you to describe your educational, work, and other experiences in specific areas which relate to successful job performance...

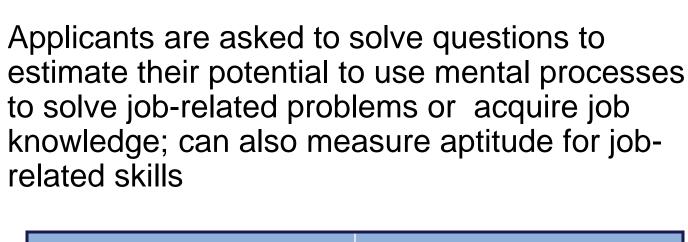
My peers would probably describe me as being:

- A. much more confident than most
- B. somewhat more confident than most
- C. about as confident as anyone else
- D. somewhat less confident than most
- E. much less confident than most

During high school (grades 9-12) I made the semester honor roll:

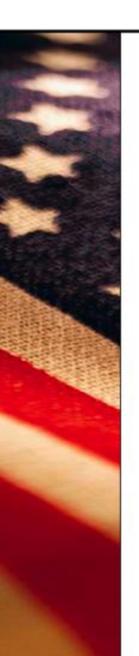
- A. never
- B. once or twice
- C. three or four times
- D. five or six times
- E. seven or eight times

Cognitive Ability Test



Strengths	Considerations
Can be administered and scored electronically	Security of test materials
High validity	Can adversely impact minority groups
	Requires measurement expertise to develop

Cognitive Ability Test: Example

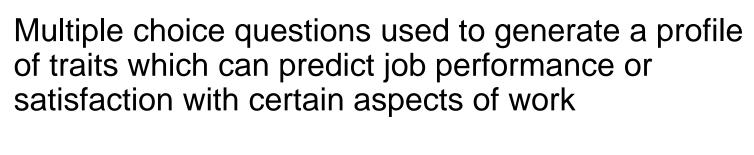


The bus fare is increasing by 10%. The old bus fare was \$20. What will the new fare be?

- A. \$20
- B. \$21
- C. \$22
- D. \$23



Personality Test



Strengths	Considerations
High validity	Must be linked to job- relevant information
Can be administered and scored electronically in a non-proctored setting	Requires measurement expertise to develop and interpret results

Personality Test: Example



I find it easy to see things from someone else's point of view.

- A. Strongly agree
- B. Somewhat agree
- C. Neither agree or disagree
- D. Somewhat disagree
- E. Strongly disagree



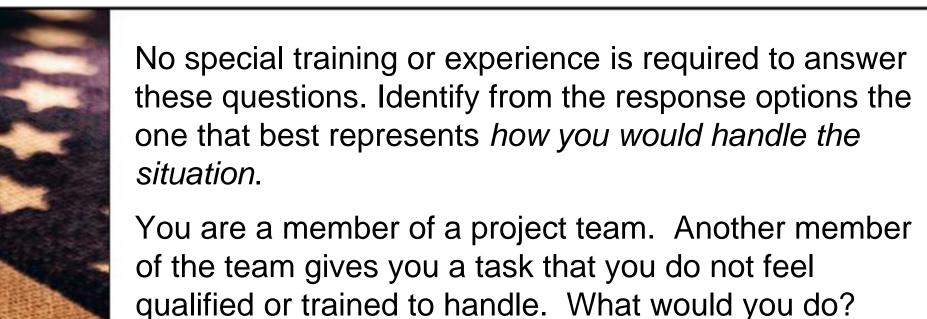
Situational Judgment Test



Presents applicants with a description of a work problem or critical situation, and asks them to identify how they would deal with it (can be paper, computerized, or video-based format)

Strengths	Considerations
High validity and face validity for applicants	Requires SME involvement and measurement expertise to develop
Can be administered and scored electronically	Security of test materials

Situational Judgment Test: Example



- A. Complete the task as best you can.
- B. Consult with your supervisor.
- C. Ask someone in the office who knows how to do the task to help you.
- D. Ask the staff member to reassign the task to a more qualified team member.

Job Knowledge Test

Comprised of specific questions developed to determine how much the candidate knows about particular job tasks or responsibilities

Strengths	Considerations
High validity and face validity for applicants	Requires SME involvement and measurement expertise to develop
Can be administered and scored electronically	Security of test materials
Low adverse impact	Most appropriate for specialized or technical jobs

Job Knowledge Test: Example



A corporation repurchased some of their own stock purchase warrants. The price that they paid exceeded the amount that was assigned to the warrants at issuance. How should the excess paid be treated?

- A. expensed
- B. charged to capital stock
- C. charged to additional paid-in capital
- D. charged to retained earnings
- E. capitalized and amortized

Writing Assessment



- Presents applicants with exercises similar to the writing that they would be required to perform on the job
- Scored by raters using professionally-developed benchmarks or by complex automated protocols

Strengths	Considerations
High validity and face validity for applicants	Requires SME involvement and measurement expertise to develop
Multiple ratings/consensus leads to increased reliability	Resource intensive rating process
Can be administered electronically	Security of test materials

Writing Assessment: Example



You are the supervisor in charge. You have been provided a list of information gathered by one of your team members during an investigation; this list of facts is in no particular order. You will need to prepare an Incident Report to document the situation. When generating your Incident Report, use the information provided as the basis for your document. Additional analysis of the facts provided is not required.

- suspect: male
- occurred 3:30pm
- Sergeant Smith on scene saw everything
- found near east entrance white powder
-

Work Sample/Simulation



- Requires applicants to perform tasks/ activities that are identical or highly similar to tasks/activities performed on the job
- Generally rated by assessors using professionallydeveloped benchmarks

Strengths	Considerations
High validity and face validity for applicants	Requires SME involvement and measurement expertise to develop
Multiple ratings/consensus leads to increased reliability	Resource intensive rating process
Can be administered electronically	Security of test materials

Work Sample/Simulation: Example



- For the purposes of this exercise, you are to assume the role of a new analyst with OA Consultants (OAC). OAC is a small consulting firm that evaluates various organizational processes for public and private sector clients. Your supervisor, Chris Carpenter, has asked you to review the attached materials and respond, in writing, to the request found in the memo from the customer.
- The purpose of this exercise is to evaluate your Reasoning, Customer Service, and Writing skills.
 Please be sure to state the request and discuss your findings and conclusions in your report. You will have one hour to review the materials and write your report.

Accomplishment Record



- Applicants provide a written description of a situation to illustrate their proficiency in critical job-related competencies
- Evaluated by a panel of trained raters against competency-based benchmarks

Strengths	Considerations
High face validity for applicants	Somewhat burdensome for applicants as a prescreen
Multiple ratings/consensus leads to increased reliability	Resource intensive rating process
Can be administered electronically in a non-proctored setting	Results should be verified at a later stage in the assessment process

Accomplishment Record: Example



Analytical Reasoning is critical for the Program Analyst position. Analytical Reasoning is defined as...

Using the text box below, please describe **one specific instance** from your training and/or experience in which you demonstrated experience in Analytical Reasoning. In your response, please follow these important guidelines as you write your accomplishment:

- Describe the **situation** -- i.e., the challenge faced, the problem to be solved...
- Describe the specific actions you took…
- State the **outcome**, results, or long-term impact of your accomplishment...

Provide the name and a telephone number or email address or other method of contacting someone who can verify this information...

Structured Interview



- Panel interview where all candidates are asked the same job-related questions (often competency-and behavioral-based)
- Interviewers use detailed rating scales, evaluating all candidates according to the same standards

Strengths	Considerations
High validity and face validity for applicants	Requires SME involvement to develop
Multiple ratings/consensus leads to increased reliability	Resource intensive administration and rating process
Legally defensible compared to unstructured, conventional interviews	Assessors must be trained in conducting and rating the interviews

Structured Interview: Example Question

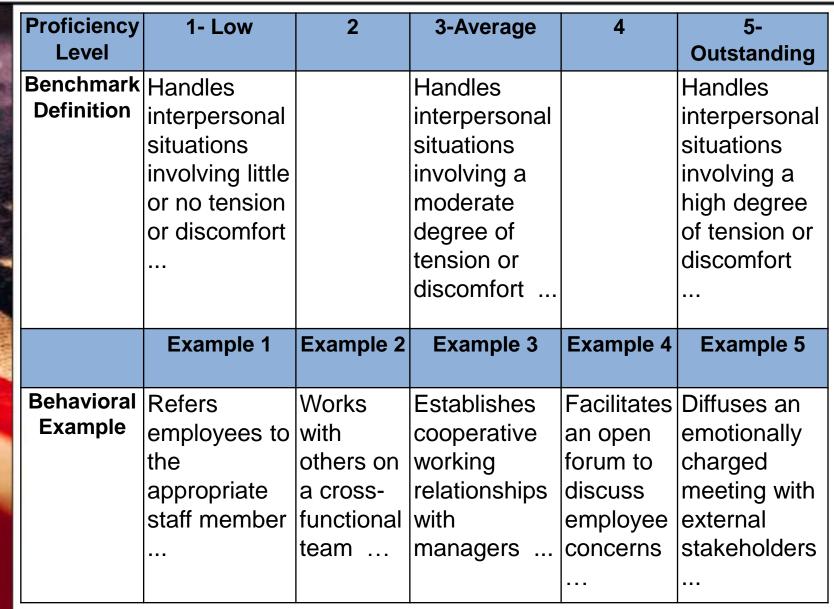


Competency: Interpersonal Skills - Shows understanding, friendliness, courtesy, tact, empathy, concern, and politeness to others; develops and maintains effective relationships with others; may include effectively dealing with individuals who are difficult, hostile, or distressed; relates well to people from varied backgrounds and different situations; is sensitive to cultural diversity, race, gender, disabilities, and other individual differences.

Lead Question: Describe a situation in which you dealt with individuals who were difficult, hostile, or distressed.

Probing Questions: Who was involved? What specific actions did you take? What was the outcome?

Structured Interview: Example Rating Scale



Assessment Center



- Consists of multiple assessments to evaluate small groups of applicants on a variety of job-related competencies
- Designed to resemble actual challenges that will be found in the job
- Applicant performance is observed and evaluated by multiple trained assessors

Strengths	Considerations
High validity and face validity for applicants	Requires SME involvement and measurement expertise to develop
Multiple ratings/consensus across multiple assessments leads to increased reliability	Resource intensive administration and rating process
Low adverse impact	

Assessment Center: Example



You are to assume the role of a new manager in *XYZ* Fictitious Agency. Today is your first day... Your schedule today will include:

- Orientation
- Individual in-basket exercise
- Role-play exercise
- Group interaction
- Writing exercise





Emerging Assessment Options



USA HireSM



Off-the-Shelf Solutions:

- Pre-constructed assessment batteries currently available for the following series:
 - o **0080**-Security Specialist
 - o **0201**-Human Resources Specialist
 - o **0203**-Human Resources Assistant
 - 0303-Miscellaneous Clerk and Assistant
 - o **0318**-Secretary
 - 0343-Management and Program Analyst

- 0501-Financial Management Specialist
- o **0510**-Accountant
- 0560-Budget Analyst
- o **0962**-Contact Representative
- o 1102-Contract Specialist
- 2210-Information Technology Specialist
- Assessment batteries measure General Competencies such as Interpersonal Skills, Accountability, Decision Making, Reading, etc.
- Example items can be found at:

https://www.usajobsassess.gov/assess/default/sample/Sample.action

USA HireSM



- Off-the-Shelf Pathways Internship battery
 - Pre-constructed assessment battery to measure General Competencies such as Reading, Interpersonal Skills, Self-Management, and Accountability
- Pathways Recent Graduates batteries
 - Off-the-shelf solutions currently available for 12 occupational series
 - Custom solutions available for any occupational series

Project Management Simulation:

- Off-the-Shelf solution designed to measure project management skills
- Will initially be available off-the-shelf for the following series and grades (with potential to customize use for other applicable series):
 - 0080 Security Administration (GS11 and up)
 - 0201 Human Resources (GS9 and up)
 - 0343 Management & Program Analyst (GS11 and up)
 - 0501 Financial Management (GS11 and up)

- 0510 Accounting (GS11 and up)
- 0560 Budget Analysis (GS11 and up)
- o 1102 Contracting (GS9 and up)
- 2210 Information Technology (GS11 and up)

USA HireSM

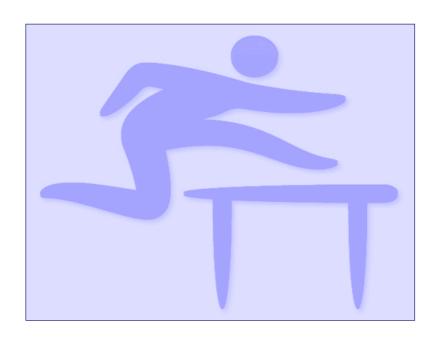


- Automate agency paper and pencil assessments
- Develop custom assessments
 - Assessments can measure General and/or Technical competencies
 - No restrictions on target series or grades
- Expand use of the USA Hire off-the-shelf assessments to other series or grades
- Provide assessments in proctored and unproctored environments

For more information, please send an email to <u>USAHire@opm.gov</u>



Multiple Hurdles Approach



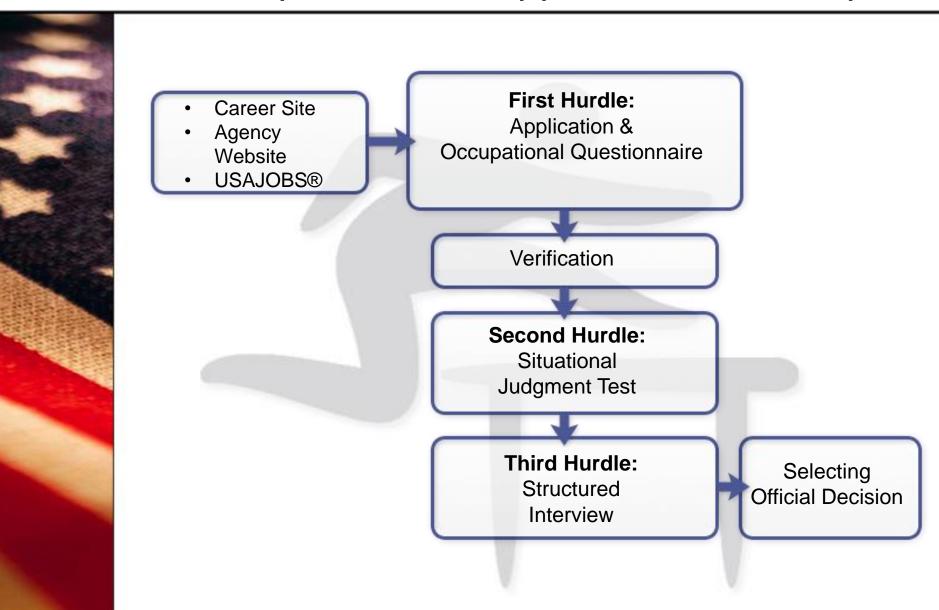
Common Assessment Strategy



Multiple Hurdles Approach

- When using multiple assessment tools, a hurdled approach helps narrow down the applicant pool
- Maximizes the efficiency of resources by utilizing the most time and cost intensive resources on the best qualified individuals

Multiple Hurdles Approach: An Example



Assessment Order



- Common first hurdles
 - Application and résumé
 - Occupational questionnaire
 - Biodata
- Common second and/or third hurdles
 - Cognitive ability test
 - Personality test
 - Situational judgment test
 - Job knowledge test

- Writing assessment
- Work sample/ simulation
- Accomplishment record
- Structured interview
- Assessment center



Case Studies



Case Study (2009): HR Assistant Shared Register



1st Hurdle: Applicants applied online, responded to minimum qualifications questions and uploaded required documentation

2nd Hurdle: Eligible applicants took an online unproctored cognitive (clerical skills) test

> HR Specialist verifies minimum qualifications for applicants meeting the established cutoff

3rd Hurdle: Top applicants were referred to the agency for consideration

Case Study (2010): OPM Personnel Psychologist



2nd Hurdle: Applicants in the top category were invited to a structured interview

3rd Hurdle: Top applicants were interviewed by the selecting official

Case Study (2010): Presidential Management Fellows (PMF)



2nd Hurdle: Eligible applicants completed computerbased proctored assessments: cognitive test, biodata test, and writing assessment

> Applicants ranked based on their combined score on the assessments

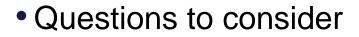
3rd Hurdle: Top applicants interviewed by interested agencies



Building an Assessment Strategy



Topics Covered



Resources available





- How many job openings and applicants are expected?
 - If the ratio of job openings to applicants is high (e.g., few job openings and few applicants), you may not need an elaborate assessment strategy
 - If the ratio of job openings to applicants is low (e.g., few job openings and many applicants), a more elaborate assessment strategy will likely prove beneficial



- What is the nature and level of jobs to be filled?
 - If the job is more general in nature and/or the job level is lower, you may not need an elaborate assessment strategy
 - If the job is specialized in nature and/or the job level is higher, a more elaborate assessment strategy may prove beneficial





- What resources are available to develop and implement assessments?
 - Time
 - Budget
 - People





- What competencies need to be assessed?
 - Determined via job analysis
 - See OPM's Delegated Examining Operations Handbook (Chapter 2, Section B and Appendix G) http://www.opm.gov/deu/Handbook 2007/DEO Handbook.pdf
 - Identified with input of job experts
 - Not all competencies can be assessed
 - Identify most important competencies that are linked to the job and are required at entry and focus on these



- Have you evaluated each assessment option?
 - Reliability and validity
 - Potential for subgroup differences (adverse impact)
 - Competencies assessed
 - How the assessments interrelate
 - Prior experience with assessments



- How will the assessments be scored?
 - Formula used to combine scores
 - Setting of passing/cut-off scores
 - Handling of veterans' preference



- In what order will the assessments be administered?
 - Is there a single hurdle or screen?
 - Is there more than one hurdle (i.e., multiple hurdles approach)?



- Are there any other factors we need to consider in filling this position?
 - Satisfaction with previous applicants and hires
 - Cost of a hiring error
 - Union involvement
 - Prior litigation
 - High turnover



Resources for Assistance



- OPM's Assessment Decision Tool (ADT):
 - An interactive system for developing customized assessment strategies
 - Presents assessment methods based on competencies targeted for assessment and situational factors relevant to the hiring situation
- OPM's Assessment & Selection Website:
 - Contains additional information on assessment options and considerations

http://opm.gov/policy-dataoversight/assessment-and-selection/

How Does the ADT Work?



- A user identifies his or her particular hiring situation, for example:
 - Projected number of applicants
 - Resources available (time, money, staff)
 - Competencies targeted for assessment
- The ADT presents the assessment methods most appropriate for the hiring situation

Sample ADT Output



Competency by Method Matrix

COMPETENCIES	Accomplishment Records	Assessment Centers	Biographical Data (Biodata) Tests	Job Knowledge Tests	Reference Checking
Human Capital Management	Preferred	Potential	Potential	Preferred	Preferred
Oral Communication	Preferred	Preferred	Potential	-	Potential
Partnering	Preferred	-	Preferred	-	Preferred
Strategic Thinking	Preferred	Preferred	Preferred	-	Preferred

Competency by Method Matrix (Cont.)

COMPETENCIES	Situational Judgment Tests	Structured Interviews	Training and Experience (T & E) Evaluations	Work Samples and Simulations
Human Capital Management	Potential	Preferred	Potential	Preferred
Oral Communication	-	Preferred	Potential	Preferred
Partnering	Potential	Preferred	Potential	-
Strategic Thinking	Potential	Preferred	Potential	Preferred

View description of Accomplishment Records





Implementation Considerations



Topics Covered



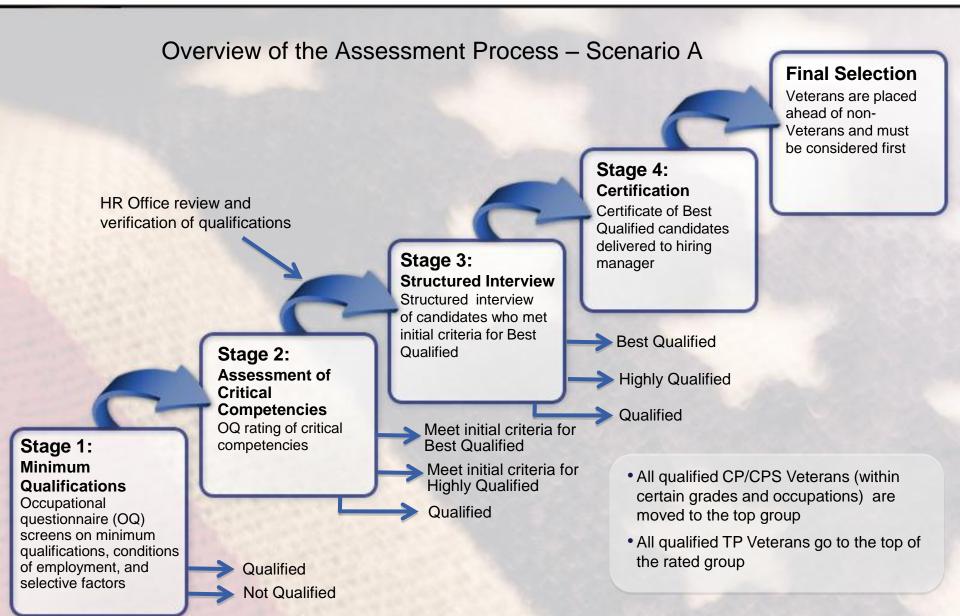
- How does a multiple hurdles strategy work with category rating?
- How is veterans' preference applied with a multiple hurdles strategy?
- What is a defensible process for establishing cutoff scores for use with a multiple hurdles strategy and/or category rating?
- What are some broad considerations when implementing a new assessment process?

Multiple Hurdles & Category Rating



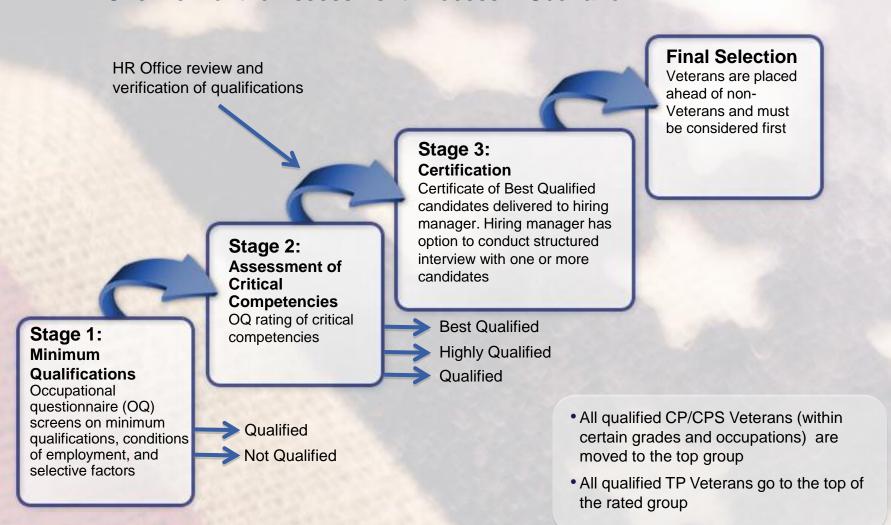
- All assessments (e.g., occupational questionnaires, cognitive tests, hiring manager interviews) that will be used to evaluate applicants must be determined and specified on the Job Opportunity Announcement (JOA)
- Some of the assessments (e.g., hiring manager interviews) can be used once applicants are assigned to quality categories; however, scores are not computed and/or used to rank applicants further
- Examples of using category rating and assessment scores will be provided later in the presentation

Multiple Hurdles & Category Rating



Multiple Hurdles & Category Rating

Overview of the Assessment Process – Scenario B



Cut-off Scores

Q: What is a cut-off score?

A: A minimum score used to make decisions regarding an applicant's next steps

in the assessment or hiring process.



How Are Cut-Off Scores Used?



- Minimum qualifications requirements to determine eligibility only when the occupation has a written test requirement or competencybased minimum qualification standards
- Multiple hurdles to determine which applicants move to the next assessment hurdle
- Category rating to determine the quality category into which applicant is placed

Establishing Cut-Off Scores



- Legal and professional standards
 - Uniform Guidelines on Employee Selection Procedures
 http://www.uniformguidelines.com
 - The Standards for Educational and Psychological Testing http://www.apa.org/science/programs/testing/standards.aspx
 - The Principles for the Validation and Use of Personnel Selection Procedures http://www.siop.org/_Principles/principlesdefault.aspx
 - Court cases

Establishing Cut-Off Scores



- Various methodologies can be used depending on assessment goals, tools and strategies
- A systematic process and sound professional judgment is required; in some cases, assessment experts and an agency's legal office are needed
- Documentation of how cut-off scores are established is critical



Establishing Cut-Off Scores



- Potential sources of information used to develop cut-off scores include:
 - Judgments of level of proficiency required
 - Number of vacancies relative to anticipated number of applicants
 - Statistical evidence



One Possible Method for Use with Category Rating



- Identify group of subject matter experts (SMEs)
- Establish frame of reference by discussing the quality category definitions, as well as what a minimally proficient employee and candidate would look like with regard to each quality category and competency being assessed
- For each assessment item or competency, instruct SMEs to independently identify minimum rating or response needed to be placed into each quality category
- Average ratings across SMEs; discuss and come to consensus where there are differences among ratings
- Sum average ratings (across items) as appropriate to determine overall cut-off score (if needed)
- Document rationale and process used

Sample: Category Rating



Sample Scoring #1

Category	Cut-off Scores
Best Qualified	Applicant must receive a total score of 95 or higher.
Highly Qualified	Applicant must receive a total score of 88 or higher.
Qualified	Applicants whose ratings do not meet the criteria to be placed in the Best Qualified or Highly Qualified categories.

Sample: Category Rating



Sample Scoring #2

Category	Cut-off Scores
Best Qualified	Applicant must receive an average final rating of <i>at least</i> 4.0 for Statistics, Research Methods, and Written Communication AND <i>at least</i> 3.0 for each of the other competencies.
Highly Qualified	Applicant must receive an average final rating of at least 3.0 for each of the competencies.
Qualified	Applicants whose ratings do not meet the criteria to be placed in the Best Qualified or Highly Qualified categories.

Sample: Category Rating



Sample Scoring #3

Category	Cut-off Scores
Best Qualified	Applicant must receive a total score of 95 or higher on the occupational questionnaire; AND applicant must receive an average final rating of <i>at least</i> 4.0 for Statistics, Research Methods, and Written Communication AND <i>at least</i> 3.0 for each of the other competencies on the structured interview (SI).
Highly Qualified	Applicant must receive a total score of 88 or higher on the occupational questionnaire; AND applicant must receive an average final rating of <i>at least</i> 3.0 for each of the competencies on the SI.
Qualified	Applicants whose ratings do not meet the criteria to be placed in the Best Qualified or Highly Qualified categories.

Implementing New Assessments



- Ensure ongoing coordination and collaboration among key stakeholders (HR, hiring managers)
- Develop implementation plan
 - Costs, timeline, resource needs
 - Logistics
 - Training
- Develop communication plan
- Develop operation and maintenance plan

Implementing New Assessments



Develop evaluation plan

- Define success and key metrics
- Collect data on continuous basis
- Determine effectiveness of assessments
- Evaluate impact and return on investment

Make it last

- Ensure alignment of systems and infrastructure
- Build in continuous mechanisms for improvement
- Celebrate successes



Getting Technical Help



If your agency lacks assessment expertise, consider bringing in :

- Peer agencies with assessment expertise
- OPM
 - Employee Services (policy assistance and interpretation)
 - HR Solutions (fee-for-service)
 - Government consultants with assessment expertise
 - Access to vendors with assessment expertise
- Private consulting organizations specializing in assessment
- Hire your own assessment experts



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