A Scenario-based Examination of Factors Impacting Automated Assessment Systems

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Overview of Presentation

- Purpose
  - To provide an examination of factors impacting the development and deployment of automated assessments
- Scenarios

  - Tail Wagging the Dog
  - Selling is Not a Four Letter Word
  - Communication Breakdown
  - Control Issues

Automated Testing and…

- Psychometrics
  - Validity and reliability can vary greatly depending on type of test used
    - Ex. Knowledge test v. Training and Experience
  - Where the assessment is used in the application process will impact psychometrics
    - Ex. Initial screen or final assessment before and interview

Automated Testing and…

- Legal Issues
  - Potential for adverse impact
    - Historically disadvantaged minorities, age, disabled applicants
    - Access to computers / latest technology
  - How "applicants" are defined
    - Partially complete applications
    - Qualified applicants
  - Personally identifying information (PII)

Scenario 1
Tail Wagging the Dog

Scenario:

An assessment was developed without first considering the limitations placed on the assessment by the system used to deliver it

- Items were developed assuming the administration system could "handle" the type of items desired

The system could not handle the types of items desired and as a result, the system, not the developer, determined what sort of items could be used

Further, no system specifications could be placed on the end user – the assessment had to be useable on any system and at any connection speed

Tail Wagging the Dog

Issues that should have been considered:

- The purpose of the assessment
- The types of items needed
- The capabilities of the system needed to deliver the assessment
  - Compatibility of multiple systems – if used
- Functioning of the assessment in the field

Tail Wagging the Dog

Recommendations:

- Determine what sort of assessment is needed
- Let the test and item type drive the selection of the automated delivery system
- Pilot test the items and system(s) used to house, deliver, and score the assessment
- Ensure that the applicant will be able to view the assessment as intended
- Training for content developers on systems

Scenario # 2
Selling Is Not a Four Letter Word

Scenario:

Internal stakeholders were not advised that the organization was starting to use automated assessments (ex. T&Es).

- In the rush to get the assessments into use, stakeholders were not made aware of what would be required in terms of people, time, costs, etc.

- The end result of this lack of internal selling was that the work ground to a halt

- The work eventually began, but only after a significant delay

Selling Is Not a Four Letter Word

Issues that should have been considered:

- The impact of SME involvement on labor costs and organization functioning

- How internal stakeholders will benefit from their investment

- Justifications for the use of certain types of assessments

- How new assessments will impact current hiring practices

Selling Is Not a Four Letter Word

Recommendations

- Communicate early and often with decision makers in an organization

- Make stakeholders part of the planning and development process

- Be aware of collective bargaining agreements, include EEO representation on steering committees
  - Entry-level vs. promotional testing

Scenario #3
Communication Breakdown

Scenario:

Contractor and client did not communicate in a way that allowed the sub-contractor to provide a truly useful automated assessment to the client.

- A lack of common understanding between the client and the contractors resulted in the delivery of a product that was only partially complete

- Delivery of a completed product would have been easily attained had all parties shared a common understanding of what the client needed in a final product

Communication Breakdown

Issues that should have been considered:

- How a lack of regular communication impacts contractor performance and client satisfaction

- How assumptions about what is understood can cause problems

- It is important to make sure all parties are "speaking the same language"
  - For example:
    - Definition of job analysis – or
    - Completed product

Communication Breakdown

Recommendations:

- Regular communication should be built into projects
  - There should be no surprises at the end of a project

- Make sure all parties are "speaking the same language"

- Some degree of training may be required for all parties involved
  - If not training, then have the contractor "walk a mile in the client's shoes" if need be

Scenario # 4
Control Issues

Scenario:

Control of assessment content and applicant data was not thoroughly thought through before assessments are put into use

- The assessment developer had difficulty gaining access to data that would allow research and validation work

Control Issues

Issues that should have been considered:

- Responsibility for:
  - Assessment security
  - Housing the assessment
  - Maintaining the assessment
  - Providing technical assistance to applicants/users
- Control of access to the assessment data
- Scoring and reporting responsibilities

Control Issues

Recommendations:

- Realize that assessments have life spans
  - Build warehousing and maintenance provisions into your project plan or contract

- Think through data your data access needs
  - Build data access terms into your project plan or contract

- Consider reporting needs
  - Ex. EEO reporting

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Overall Recommendations

- Develop a test plan
- Consider how your assessment(s) will function when automated
- Determine who will be involved in the administration and management of your assessment(s) & data
- Promote assessment development
- Involve stakeholders and SMEs as much as possible in the assessment development process
- Pilot test your assessments
- Don't assume everything is understood
- Build in on-going quality control

Legal Recommendations

- Tail Wagging the Dog
    - Access, usability testing
    - Partial applications
- Selling is Not a Four Letter Word
    - Ongoing, appropriate use
- Communication Breakdown
    - Joint responsibility to evaluate marketing claims
- Control Issues
    - Expected use
    - Qualified applicants
    - Personally Identifying Information