Matching the Test to the Technology: A Case Study

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Overview

- A sad story
- Why did it happen?
- How to avoid it happening to you

The Story

- A public agency wanted to improve employees' technology proficiency

- Developed standards for the application of technology to the job

- Agency decided to create an assessment to identify employees' developmental needs in technology

The Story (continued)

- The agency was in the process of acquiring a learning management system (LMS)

- An LMS is software that provides an integrated online learning system including: assessment, individual competency profiles and development plans, course enrollment, ordering and distribution of educational materials, authoring and delivery of online courses, and reporting

The Story (continued)

- Agency wanted to administer the assessment online through the LMS

- Issued an RFP for development of the assessment

- Requested interactive items that require employees to manipulate information to make decisions

- Caliber was selected as the contractor

Example LMS Item

Scenario: You are the test development manager for a large public agency and you have been asked to design a test to select deputy sheriffs. There are about 12,000 people per year who will take the exam and the test will be highly politically charged. Previous examinees for this position have cost the county $20 million a piece in law suits. The sheriff's department is also very concerned that people who pass the exam will not be able to complete the training academy because historically the dropout rate from the academy has been high, which is costly to the department

Example LMS Item

Scenario: You are the test development manager for a large public agency and you have been asked to design a test to select deputy sheriffs…

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Item 1: What is the first thing you would do?
   a. Talk to stakeholders
   b. Conduct a job analysis
   c. Gather background research
   d. Organize your team

Example LMS Item

Item 1: What is the first thing you would do?

    a. Talk to stakeholders

    b. Conduct a job analysis

    c. Gather background research

    d. Organize your team

Feedback: This answer is incorrect. The correct answer is a. Talk to stakeholders because…

Tips: Guion, 2001 provides a complete description…

Example LMS Item

Scenario: You are the test development manager for a large public agency and you have been asked to design a test to select deputy sheriffs…

....

Item 2: You identify the following competencies as critical to job performance. Which assessment will best measure each competency? Match the assessment to the competency:

a. Report writing

b. Oral communication

c. Reasoning

d. Reading

☐ Multiple choice exam

☐ Written structured interview

☐ Situational judgment test

☐ Assessment center

☐ Experience questionnaire

☐ Oral interview

The Story (continued)

- We began work and requested LMS documentation to ensure the items we wrote could be administered by the LMS

- Several weeks passed during which we repeatedly informed our clients that we had to understand the LMS functionality to do our job

- Finally invited to a demo; received system access and a user manual

The Story (continued)

- After reviewing the LMS, we informed our clients that the LMS functionality did not permit the interactive items desired

- Clients insisted that the LMS did meet their needs and we just "needed training"

- We repeated our concerns about the LMS to clients several times over the next two months

- Clients dismissed our concerns meanwhile instructing us to proceed in assessment development

The Sad Story Concluded

- Four months into the project, we finally persuaded our clients to ask the LMS vendor for a demo of interactivity

- Unable to provide a demo, the vendor responded they would customize the LMS to meet client needs (for a price!)

- After much time and money wasted, client finally understood the selected LMS could not support their assessment

Big Question

- Why did the clients select an LMS that did not meet their assessment needs?

Answers

- Clients did not define their assessment needs in sufficient detail
- Clients did not match point-by-point their needs with the functionality of the software
- Clients did not ask the vendor for proof of functionality

Before you buy, be aware

- Software vendors sometimes:
  - Exaggerate the functionality of their systems
  - Say they will customize to meet your needs (but don't tell you how much it will cost to do so – and it's usually a lot)
  - Say the features you want will be available in the next few months (often this is overly optimistic)

Selecting Assessment Software

- List the functionality you need
  - Type of assessment items you want to use (e.g., multiple-choice, matching, short answer, essay)
  - Level of interactivity desired (e.g., simulations vs. more traditional objective tests)
  - Media (e.g., audio, video, text)
  - Item analysis capabilities
  - Format (e.g. how items appear on screen)
  - Administration options (e.g., can users complete the assessment in more than one session?)
  - Ease of use for test takers
  - Feedback options
  - Reporting

Selecting Assessment Software (continued)

- Research potential software vendors
  - Identify vendors (some sources are conference exhibits, ads in journals, recommendations from colleagues, resource guides published by professional associations)
  - Review vendor web sites and brochures
  - Select the most promising and request a demo

Selecting Assessment Software (continued)

- Study the top contenders in detail
  - Compare your list of needs with the software functionality, point-by-point
  - Talk to the vendors' technical person about each item on your list (best if you have a technical person in your organization accompany you)
  - Ask for another, more extended demo to fully examine the software's functionality
  - Ask for references and call them

Selecting Assessment Software (continued)

- Select the best match with your needs
  - Insist on written documentation that defines the software's functionality in detail
  - If customization will be required, be sure the cost and time is specified
  - Ask for a trial period with your money back if expectations are not met

Moral of the Story

- The hosting software has a profound impact on the success of your assessment
- An excellent assessment may be unusable if the software capabilities do not align with your assessment goals