

Planning for a Conversion to Computer-Based Testing: Avoiding the Technology Trap

Presentation for the
Association of Test Publishers

Basic Concepts

- Types of CBT

 - Linear

 - Fixed form (page turner)

 - Random item selection

 - Computer adaptive testing (CAT)

- Testing on demand vs. fixed schedules

Delivery Systems

- Test center
 - Educational institutions
 - Franchise centers
 - Fully owned centers
- Internet
 - Home/Office
 - Other approved sites

Benefits of CBT to Customers

- Convenient scheduling
- Convenient location
- More comfortable testing environment
- Ability to retake the test sooner
- Immediate test results

Benefits to Sponsor

- Distributed workload
- Improved security
- Easier to alter test forms
- Ability to present a variety of item stimuli
- Collection of candidate comments electronically
- More precise measurement (CAT)

Challenges for the Sponsor

- Increased item exposure
- Expansion of the item bank to ensure a sufficient number of items of acceptable quality, difficulty and content
- Scheduling of administrations
- Higher program costs that may not be transferable to candidates

Factors to Consider in Planning a Conversion

- Examination development
- Program operations
- Customer service
- Marketing and education
- Financial resources
- Technical support

Examination Development

- High vs. low stakes
- Size of item pool
- Quality of item pool
- Content and statistical coverage
- Volunteer resources needed
- Linear vs. CAT

Program Operations

New policies and procedures for:

- Registration
- Examination security
- Examination exposure
- Record keeping and database management
- Quality control and management

Customer Service

- More candidate and user inquiries
- Different customer concerns
- Staff training in new system
- Loss of tight control - numerous sites and administrations
- Increase in outsourcing, but service problems reflect on the sponsor

Marketing and Education

- Redo of marketing plan
- Educational plan

Financial Resources

- Startup costs - obvious and hidden
- Maintenance costs
- How to cover costs
- Impact of conversion on volume (revenue)
- Pricing strategies
- Cash flow

Start-up Costs

- Feasibility study
- Expansion of item bank
- Conversion of item bank
- Staff planning and training
- Piloting
- Research and evaluation
- Marketing/Candidate education
- Customer service

Common Mistakes

- Trying to do too much at once
- Changing psychometricians and introducing CBT at the same time
- Parallel administrations (CBT and P&P concurrently)
- Unrealistic timetables
- Assuming volumes will increase or even stay the same
- Not networking with sponsors that have taken the leap

Planning for CBT

Initial planning and research

- Gather background information
- Conduct market research
- Perform feasibility analysis
- Create business plan
- Create marketing plan

Program Implementation

- Select CBT vendor
- Implement marketing plan
- Restructure test development
- Perform comparability studies
- Conduct pilot testing
- Develop policies and procedures
- Orient staff and volunteers
- Conduct post-launch analyses

Case Studies

Considering conversion:

- Automotive Service Excellence
- Pharmacy Technician Certification Board

Undergoing conversion:

- National Council for Therapeutic Recreation Certification
- Oncology Nursing Certification Program

Case Studies (cont'd.)

Complete Conversion:

- American Production and Inventory Control Society
- Commission on Dietetic Registration
- National Council of Architecture Registration Boards

Lessons Learned

Considering conversion:

- Use pilot test as a trial balloon
- Do not put all your eggs in one vendor's basket
- keep your options open
- Make sure your customers can afford CBT
- Inform your Board of the pro's and con's
- It's good to be the late adopter

Lessons Learned (cont'd)

Undergoing conversion:

- The first year is the hardest
- Don't believe everything your market tells you
- Make sure you have healthy reserves
- Be conservative in volume estimates

Lessons Learned (cont'd.)

Have completed conversion:

- Don't offer delivery options
- Make sure the system is tried and tested
- Don't take the vendors' word for it -perform due diligence
- Have quality control and management systems in place
- Plan four years in advance

Keys to Success

- Plan carefully, build reserves and allow sufficient time
- Understand what customers really want AND what they fear
- Evaluate whether CBT can meet customer needs cost-effectively
- Determine added value
- Educate customers and market CBT