



Advances to the ITC Guidelines

Dave Bartram
Research Director
SHL Group Ltd

EFPA Congress, July 2007

> Online recruitment

- The process of finding staff via the internet did not exist 10 years ago
- Now it is central to recruitment strategy.
 - > In the UK 98% of all graduates look for jobs on the Internet
 - > Online job advertising has become an integral part of recruitment
 - > Recruiters are becoming more sophisticated in engaging candidates through their own web sites and attracting and retaining the best talent
 - > 1 in 5 of those who are not connected to the internet will use online search to find a job
 - > Going online increases the diversity of the applicant pool
- The majority of people prefer to take tests online



- Background
- Test Developers
- Technological Issues
- Quality Issues
- Control Issues**
- Security/Privacy Issues
- Test Publishers
- Test Users
- Official Translations
- Acknowledgements
- References
- Appendix
- Glossary

International Test Commission

International Guidelines on Computer-Based and Internet Delivered Testing

Provide appropriate levels of control over CBT and Internet testing

Detail the level of control over the test conditions

1. Document the hardware, software, and procedural requirements for administration of a CBT/Internet test.
2. Provide a description of the test-taking conditions required for appropriate CBT/Internet test administration.
3. Design the CBT/Internet test to be compatible with country-specific health and safety, legal, and union regulations and rules (e.g., time on task).

Detail the appropriate control over the supervision of the testing

1. Document the level of supervision required for the CBT/Internet test.
 - **Open mode** – No direct human supervision required
 - **Controlled mode** – Although direct human supervision is required, the test is made available only to known test-takers
 - **Supervised mode** – Test users are required to log on a candidate and confirm that the testing was administered and completed correctly
 - **Managed mode** – A high level of human supervision and control over test-taking conditions is required (as in a dedicated test centre)

> ITC Internet Test Administration modes

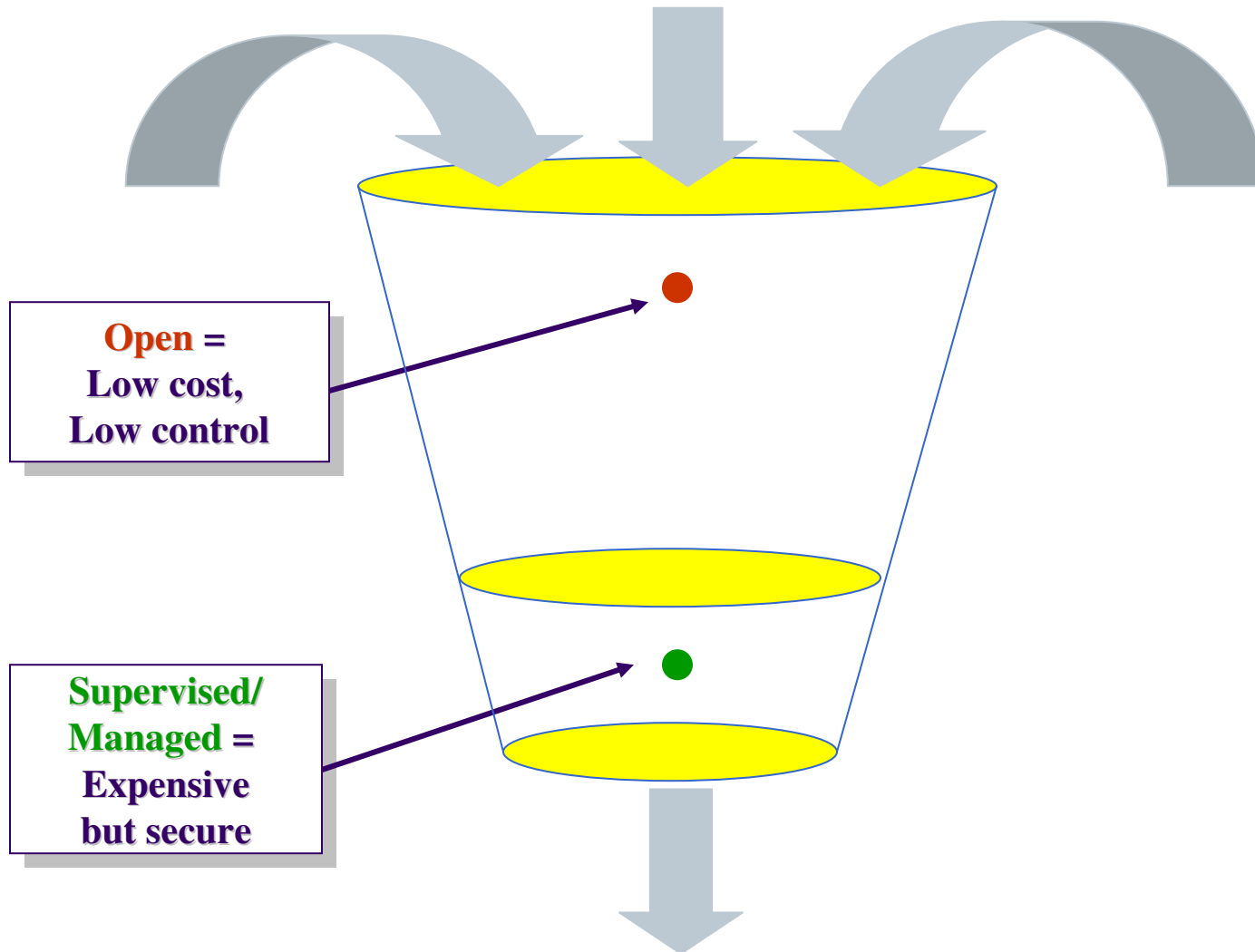
1. Open	Anyone can access and complete test	No user	No human session proctoring
2. Controlled	Access controlled by...	Moderately secure mode	
3. Proctored	Access controlled by login process, location insecure	Proctor has candidate login &...	Human session proctoring
4. Managed	Location controlled (e.g. Test Center)	Secure modes	

Bartram, 2001

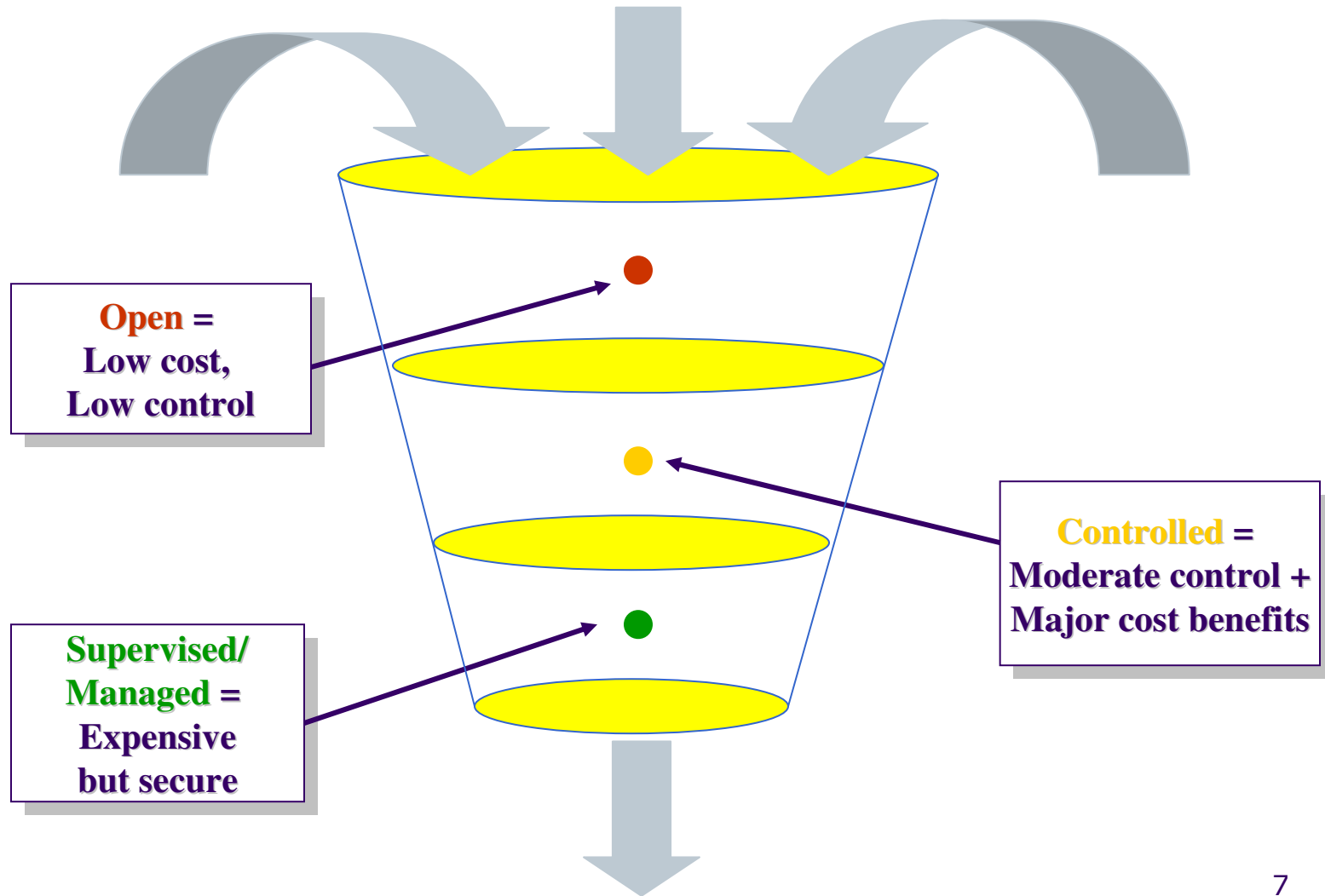
> The dilemma for hiring managers

- Recruiters need to manage costs but still win in the war to attract talent.
 - > The Internet leads to higher volumes of applicants and greater pressure on recruiters to pick the best.
 - > They need to use high validity sifts as early in the process as possible to ensure a high quality candidate short-list.
 - > The internet makes it possible to administer personality and ability tests early on
- BUT...
 - > This means using them in unproctored conditions.
 - > This could compromise the very validity that provides their value.

> Testing Zones in the Job Recruitment and Selection funnel



> Testing Zones in the Job Recruitment and Selection funnel



> ITC Guideline 45.3

- “For moderate and high stakes assessment (e.g., job recruitment and selection), where individuals are permitted to take a test in controlled mode (i.e. at their convenience in non-secure locations), those obtaining qualifying scores should be required to take a supervised test to confirm their scores.
 - > Procedures should be used to check whether the test-taker’s original responses are consistent with the responses from the confirmation test.
 - > Test-takers should be informed in advance of these procedures and asked to confirm that they will complete the tests according to instructions given (e.g. not seek assistance, not collude with others etc).
 - > This agreement may be represented in the form of an explicit honesty policy which the test-taker is required to accept.”

> Making remote administration more secure

- Online 'Controlled Mode' is becoming more secure as current technologies become embedded:
 - > Remote registration for authentication through thumb print or retinal eye pattern.
 - > Remote monitoring through CCTV/webcam.
 - > Item and test generation technologies to reduce the risk of compromising tests through item exposure.
 - > Use of data forensics to detect response pattern aberrance.
 - > Web patrols and parameter checks to detect item compromise
- These methodologies have been evolving over the past three years and are now becoming mature.

> Updating the ITC classification

<p>1. Open Unproctored</p>	<p>Anyone can access</p>	<p>No user</p>	<p>No human session</p>
<p>Insecure mode</p>			
<p>2. Controlled Unproctored</p>	<p>Access is controlled by</p>	<p>Known user is sent</p>	<p>No human session</p>
<p>Moderately secure mode</p>			
<p>3a. Remote Proctored</p>	<p>Secure Modes</p>		
<p>3b. Local Proctored</p>			
<p>4. Fully Managed</p>			

> The industrialisation of testing

- Test as a craft industry
 - > Psychologist craftsmen working as a cottage industry
 - > Seek to 'push' their products to the market
- Industrialisation of design and production
 - > Emergence of the 'test factory'
 - > Item generation technology
 - > Test generation technology
 - > Item banking and warehousing
- Industrialisation of delivery
 - > Development of technologies responsive to market 'pull'
 - > Just-in-time test production
 - > Packaged solutions with outputs designed for lay users

> Rethinking our validation paradigm

**Does test
produce valid
scores?**

Standard
validation
paradigms

Do test scores
correlate with
criterion X?

**Does system
interpret
scores
correctly?**

Comparison
with expert
judgements

Validity of
decisions

**Do recipients
interpret
reports
correctly?**

Consequential
validity

Feedback from
recipient

- **“Assess the suitability of the CBTI provided within the CBT/Internet test system.** In particular, take note of:
 - > evidence of the validity and utility of reports,
 - > the coverage of the reports,
 - > the consistency of the reports based on similar sets of data,
 - > the acceptability of the report to intended audiences,
 - > time, cost and length implications for a test user, and
 - > freedom from systematic bias.”

> Better practice in online assessment

- Manage the security of your assessments
 - > Use web-patrols
 - > Use data forensic analyses
- Use cheat-resistant assessments
 - > Used IRT-based test generation ('randomised testing')
 - > Refresh items regularly
 - > Build large item bank
 - > Track item parameters
- Build verification procedures into your assessment process
 - > Retest short-listed applicants
- Establish and communicate a clear assessment contract with the candidate
 - > Set out a clear 'contract' with applicants
 - > Explain the rules of engagement
- Ensure reports are designed to be fit for purpose
 - > Validate the report and not just the tests.

> Whither the psychologist?

- For the work and organizational field, the dominant role of the psychologist is changing from the person who is:
 - > The consummate artist; who uncovers the mysteries of each person's psyche...
 - > To the expert craftsman, who can add value to the results of using standard instruments through his or her expertise as a psychologist...
 - > To the specialist technologist who can package the expertise in such a way that lay users (e.g. line managers) can get value directly from the results of testing.



Questions?