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Implementing Successful Solutions for e-Assessment

David Vincent
Head of Sales nferNelson
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Presentation Outline

- Why Assessment?
- Cognitive Ability Tests
- Why Digital?
- Lessons to be learned from Digital Implementation
- New Testwise
- Digital Testing in Scotland



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Much current debate....

- ◆ Too much testing in schools
- ◆ Summative assessments dominate the databases of governments Education policy and the setting of standards and targets
- ◆ Teacher-led formative assessment is the way to go



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Why Assessment?

- ◆ To identify individual pupils' cognitive strengths and weaknesses to inform teaching & learning
- ◆ To identify students, or groups of students, who may be underachieving
- ◆ To inform target setting in national tests and public examinations
- ◆ Set a baseline against which to assess the value added by the school



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Yet, used judiciously and sensitively....

Assessment

- ◆ Informs
- ◆ Positions students in context of peer performance
- ◆ Enables clear and sensible target setting
- ◆ Demonstrates the value of the teaching and learning process
- ◆ Re-assures interested parents



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Cognitive Ability Tests (CAT3)

- ◆ The most widely used test of reasoning ability in the UK, around 1,000,000 students tested every year
- ◆ Eight levels (A-H) covering the age range 7 to 17 years
- ◆ New version CAT3 nationally standardised and published June 2001.

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What is CAT?

CAT comprises a battery of three tests which measure the student's ability to manipulate abstract and symbolic relationships.

VERBAL REASONING (VR)

QUANTITATIVE REASONING (QR)

NON VERBAL REASONING (NVR)

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CAT VERBAL REASONING

VERBAL CLASSIFICATION
confer debate consult
A discuss B tell C report D shout E chatter

SENTENCE COMPLETION
As the sun set, even small trees cast _____ shadows across the meadow.
A short B long C few D skinny E dense

VERBAL ANALOGIES
Blue → colour : socks →
A clothing B feet C shoes D pair E wear

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CAT QUANTITATIVE REASONING

Equation Building
9 - 3 = 12 - 4 = 27 - 4 = ?
A5 B8 C13 D19 E21

Number Series
1 6 10 13 15 ?
A16 B17 C18 D19 E20

Equation Building
4 5 8 + -
A2 B3 C4 D9 E13

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CAT3 NON VERBAL REASONING

Figure Classification

Figure Analogies

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CAT3 NON-VERBAL REASONING

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CAT Assessments

- Generally students are tested in September/October
- Papers handed out by Teacher to create a raw score, or
- Sent to NFER for automated scoring and reporting
- Reports returned within two weeks providing detailed feedback on individual and group performance and potential, thus guiding future teaching and learning



Why Digital?

- Children enjoy the online experience compared to paper tests
- They are only faced with one question at a time
- Pupil data can be imported from the MIS to ensure accuracy of the database
- Test are marked automatically
- A complete suite of reports is available to run almost immediately after completion of the tests
- Anytime anywhere access gives maximum flexibility
- Tests can be taken from any computer in the school

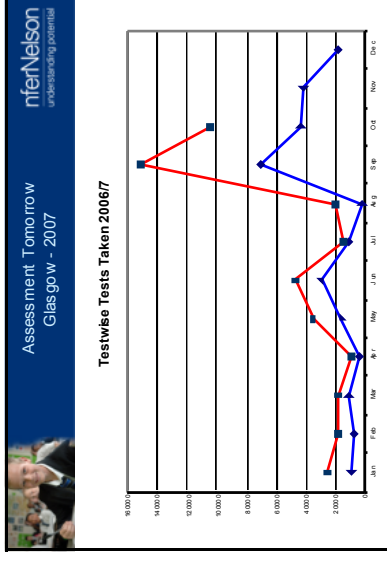


'Testwise' Platform created in 2003/4

Existing tests digitised, Scoring and Reporting functionality developed

- Trial version loaded on to servers in school
- V1 (2004) First true online delivery of tests – 80k tests taken
- V2 (2005) Improved functionality and interface
- V3 (2007) Much improved interface, reliability and function

- Capable of delivering 10000 tests simultaneously
- Currently offering high stakes tests to over 2,000 institutions across the UK
- Having run for three years we've learned a lot!





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Lesson Learned: Innovative functionality delivered online, never works well first time and takes 2x the time and 2x the cost to develop and implement correctly

Lesson Learned: However good/robust/reliable a product we have, if the school technology infrastructure isn't up to it then pain ensues

Lesson Learned: Teachers don't have time to learn our technology and generally won't read the manual!

Lesson Learned: The assessment coordinator in school is rarely the IT expert so both individuals need to be on board at the start

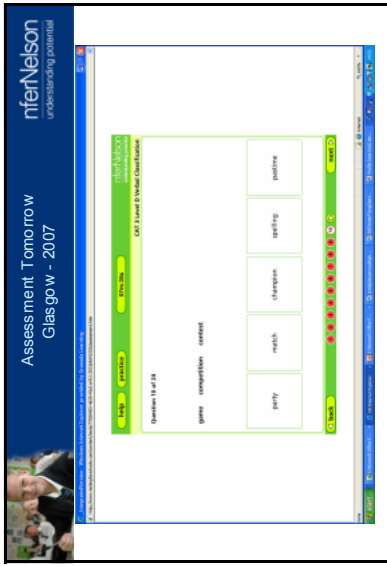
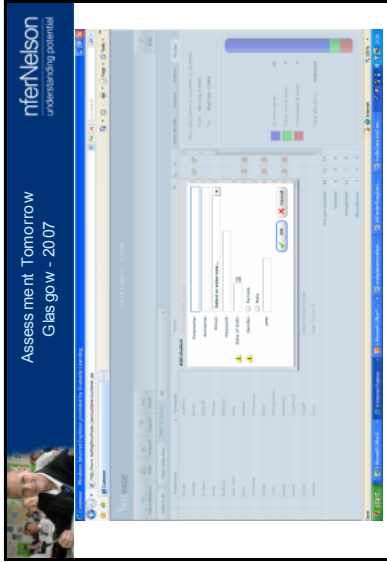
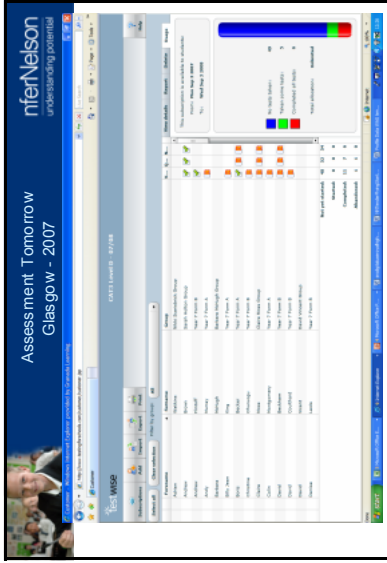
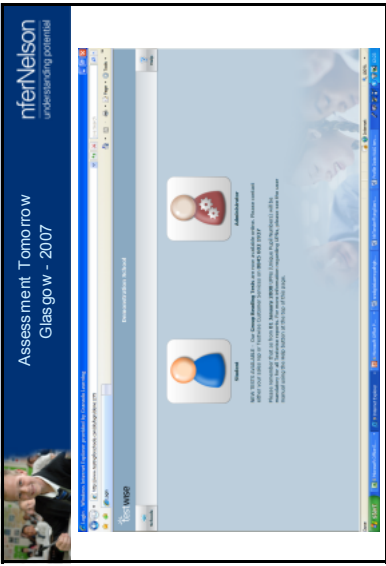
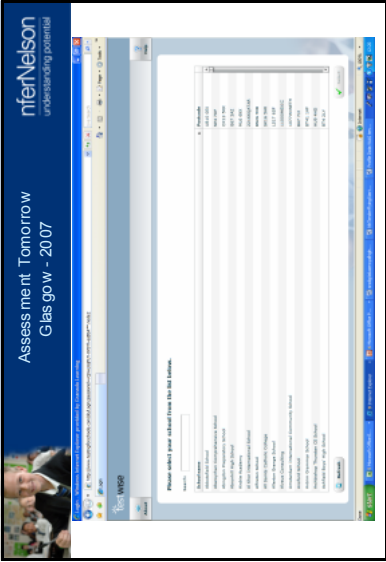
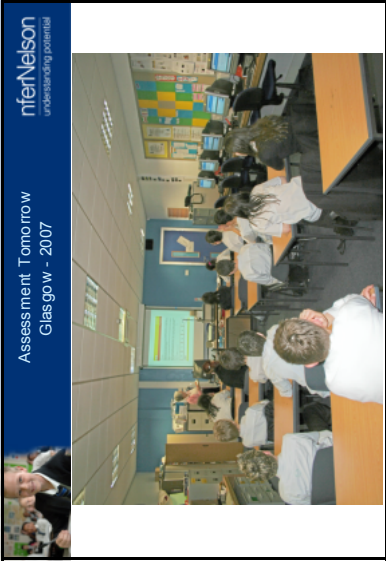


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Fundamentally: When dealing with a product or service delivered online then a partnership is developed requiring further input from both sides before we can be sure of successfully delivering what is required

- The IKEA principle works well in this context
- Whilst we have to ensure sufficient infrastructure, back-up, functionality and technical support when needed
- Schools also need to ensure their IT suites are configured to enable the tests to be taken





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Benefits ... for teachers

- ◆ Automatic marking allows for the rapid feedback of results and reduces workload
- ◆ Instant reports highlight strengths and needs of individual pupils or class groups and help set realistic targets
- ◆ The possibility of human error is minimised
- ◆ Staff have taken to the new system very easily

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Benefits ... for students

- ◆ Questions are clearly set-out in a bright, motivating format
- ◆ Some pupils find computer-based tests less intimidating than paper-based tests
- ◆ Pupils with handwriting problems often blossom when asked to use computers

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Digital Testing in Scotland

- Approximately 70% of all secondary schools in Scotland take Assessment tests from Nfer Nelson
- Around 25% of these are delivered online
- The most popular tests are CAT3, Progress in Maths (PiM) and Suffolk Reading Scale (SRS)
- Online users exist in Urban, Rural and Island LEAs
- Many more schools can easily participate in testing online following extensive 'refresh' projects
- Authorities are supportive of digital testing