Assessment for Assistive Technology
DfE SEND/Assistive Technology Event

Tuesday 3rd March, 2015

Museum of Science and Industry, Manchester

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Henshaws College, Harrogate
Topics Covered (45mins)

- What is Assistive Technology?
- Assessment considerations
- Introduction to Assistive Technology hardware
- Introduction to Assistive Technology software
- The assessment journey @ Henshaws
- Case study from National Star (if time allows)
What is Assistive Technology?

• “The great equalizer”
• Can be viewed similar to a therapy service (SaLT, OT)
  – Provides functional access to education, work and leisure

Defining digital literacy: a general model

- “I am…”
- “I do…”
- “I can…”
- “I have…”

Identity development
Situated practices
Skills development
Functional access

Beetham and Sharpe (2010)
Why do an assessment?

- Previous information may not be reliable
- Establish needs / Barriers
- To be Inclusive
- To establish whether needs can be met
- Motivation
- Set appropriate goals / programme
Who to assess?

- Learners with disclosed disabilities
- Referrals where there is an area of concern
- Time to assess varies
What is an assessment?

• The aim is to implement a bespoke solution to enable the learner to access IT
• More of a process than an event
• Individual
• Multi disciplinary where appropriate
What skills and knowledge are required?

- Awareness of others therapies (OT, SaLT)
- Overview of AT Hardware and Software
- People skills
- Observation
- Record keeping / Report writing
- Dissemination (plain english)
Areas To Consider

- Visual
- Physical Access
- Cognitive Understanding
- Positioning
- Motivators

- Universal Principles of Assistive Technology
Universal Principles of Assistive Technology

- **Principle of Parsimony**
  - “Everything should be made as simple as possible, but not simpler”

- **Principle of Minimal Learning**
  - “Don’t make me think”

- **Principle of Minimal Energy**
  - “Minimum effort means maximum comfort”

- **Principle of Minimal Interference**
  - “Stop bothering me!”

- **Principle of Best Fit**
  - “Is it me?”

- **Principle of Practicality and Use**
  - “Never forget why you started”

- **Principle of Evidence Based Practice**
  - “Stand on the shoulders of giants”
Mainstream Hardware

- Accessibility ‘baked in’
- Cost effective
- Some adaptations needed
Touch

• Motivational
• Simple
• Tablets
• Touch Screens
• Cameras

• Digital Voice Recorders

• CD Players
Alternative Keyboards

- Are many and varied, here are some examples:

<table>
<thead>
<tr>
<th>Ergonomic Keyboards</th>
<th>High Visibility Keyboards</th>
<th>Keyboard Accessories</th>
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<tbody>
<tr>
<td><img src="image1" alt="Ergonomic Keyboard" /></td>
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<td><img src="image3" alt="Keyboard Accessories" /></td>
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<tr>
<td>Keyguards</td>
<td>Large Key Keyboards</td>
<td>Small Keyboards</td>
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<tr>
<td><img src="image4" alt="Keyguard" /></td>
<td><img src="image5" alt="Large Key Keyboard" /></td>
<td><img src="image6" alt="Small Keyboard" /></td>
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<tr>
<td>Specialist Keyboards</td>
<td>Washable Keyboards</td>
<td>Wireless Keyboards</td>
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<td><img src="image7" alt="Specialist Keyboard" /></td>
<td><img src="image8" alt="Washable Keyboard" /></td>
<td><img src="image9" alt="Wireless Keyboard" /></td>
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### Alternative Mice

- Also many and varied

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Switches

- Lots of options (once more)
- Quite expensive
- Specialist suppliers only:
  - Inclusive.co.uk
  - Liberator.co.uk
  - SmartboxAT.com
- Require a switch interface box
Head Mouse

- Head mouse uses a reflective dot, light emitter and a camera:
Eye Gaze

- Eye-Gaze has been very expensive, but the price is dropping
- Market leader is Tobii
- PCEye Go £1,735 / PCEye Explore £590
- myGaze £875
- Software is additional cost
• **Low tech:**
  - Stored message devices
  - Some have layers
  - Overlays with symbols
  - Cheaper
AAC Devices

- **High tech:**
  - Often computer based
  - Sophisticated
  - Multiple page sets available
  - Incredibly expensive
  - Require specialist training to implement
  - On-going support is very important
The Grid 2

- Highly Flexible
- Communication aid
- Operating System

- Supports all methods of access
- Excellent customer support
Websites

• ‘mobile’ sites (e.g. m.facebook.com)
• Bespoke sites (e.g. accessyoutube.org.uk)
• Mouseless Browsing (Firefox add-on)
Clicker 6

- See: cricksoft.com
- Literacy tool

Quick start word processor
The Quick Start activity screen allows children to start working straight away.

Primary word predictor
This intelligent predictor suggests words that fit the context of the pupils’ writing, helping pupils with their spelling and grammar, and encouraging them to use more adventurous vocabulary.

Click & Edit books
Clicker's child-friendly Click & Edit activities enable pupils to independently create their very own talking books and presentations, on any topic!

Built-in painting tools
The popular painting program, Clicker Paint, is now fully integrated into Clicker - a great opportunity for pupils to creatively express their thoughts and ideas.

Webcam support
Built-in webcam support enables pupils to take photographs that instantly appear in their Clicker documents.

Favourites list
Children save favourite Clicker activities to their favourites list for easy future access.

Enhanced picture support
The enhanced Clicker 6 library contains over 2500 engaging curriculum pictures, which are not only available for use in documents, but also in Clicker Sets, the predictor and the spellchecker.

Mouse Dwell
As well as being fully switch accessible, Clicker 6 allows selection by Mouse Dwell, vastly improving access for those using joysticks, trackballs or eye-control devices.

Less teacher time!

Activity creation tools
A completely new way of creating Clicker activities. Simply add words or pictures, and the wizards instantly transform them into an activity. There are wizards for sentence building, word banks, writing books, matching, and speaking and listening activities.

New Edit Mode
Editing activities made simple - click on a cell and the toolbar instantly changes to display only the tools relevant to the item being edited, with no need to search through menu options.

Instant access to LearningGrids
No need to log in to LearningGrids – access the free resources instantly from within Clicker!
Read & Write Gold

- See: texthelp.com

- Toolbar:
  - Reading
    - Text-to-Speech
    - Screenshot ReadReaer
    - DAISY Reader
    - Screen Masking
    - PDF Aloud

- Reading Support
  - Dictionary
  - Picture Dictionary
  - Speech Maker
  - Pronunciation Tutor
  - Translator

- Writing and Self-Editing
  - Spell Checker
  - Word Prediction
  - Word Wizard
  - Sounds Like and Confusable Words
  - Verb Checker
  - Speech Input
  - Speak While Typing

- Study Skills and Research
  - Calculator
  - Fact Finder
  - Fact Folder
  - Fact Mapper
  - Study Skills Highlighters
  - Vocabulary List Builder
• Clicker Docs – iOS, £17.99 / Clicker Sentences – iOS, £14.99
• 2 apps to support learners with literacy
• Dragon Dictation – iOS, FREE
  – http://www.nuancemobilelife.com/apps/dragon-dictation
• Pictello – iOS, £13.99
  – http://www.assistiveware.com/product/pictello
• Bloom – iOS, £2.49
• MorphWiz – iOS, £6.99
  – http://www.wizdommusic.com/MorphWiz/
• **Guided Access:**
  - Guided Access is not an app, but a feature from iOS 6 onwards which enables the device to be locked in to one app by disabling the home button. Here is a useful guide about how to use it: [http://senclassroom.wordpress.com/2012/09/20/guided-access-ios-6/](http://senclassroom.wordpress.com/2012/09/20/guided-access-ios-6/)

• **Assistive Touch:**
  - AssistiveTouch lets you enter Multi-Touch gestures using one finger or a stylus


• **Switch Access:**
Android

- Big Launcher: biglauncher.com
- Synapptic: synapptic.com
- Tecla Switch Access: gettecla.com
- Switch Access In Android 5.0: youtube.com/watch?v=9xqpkNudt58
Assessment Process

- 3 stages
  - Initial (event)
  - Baseline (process)
  - Continuous (on-going reflection)
Initial Assessment

- All students
- Overnight or Day
- Separate from Parents
- Analysis of Skills
- Observation
Initial Assessment

- Curriculum Staff
- Therapists
- Including separate AT assessment
  - Access; physical and cognitive
  - ICT skills
  - Motivators

Report Generated

Sent to commissioners, parents, careers adv., social workers
Baseline Assessment

- 6 week programme
- Review initial assessment
- Setup Roaming Profiles
- Develop IT access methods inc. GridSets
- Discover motivators
- Disseminate through Support Plans / MIS
Continuing Assessment

- On-going / Continuously reviewed
- Multidisciplinary
- Prepare for transitions
  - Cost effective, transferrable solutions
  - Work with external agencies
  - Disseminate information
• Clear & outcome led for dissemination and reports
Thank You

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- @mikethrussell

- Presentation, assessment docs and principles PDFs available:

  accesstechnology.org.uk/resources