

CONNECTING CLASSROOMS

How ICT can support young people with SEN access and engage in their education more effectively?

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Introduction

- Part-time Advisory Teacher for ICT/SEN and Inclusion in Tower Hamlets, London . 3 main tasks:-
 - Assessment and advice for individuals and groups
 - Training – at all levels
 - Advice on using technology across the curriculum
- Consultant to several schools, local authorities, and companies.
- Writer – 9 books, numerous articles and web pages



Tower Hamlets schools

- 70 primary schools
- 17 Secondary schools
- Eight special schools
- Highest take up of free school meals in the country (50.6% primary, 56.5% secondary)
- 70% of school age children from Black or minority ethnic backgrounds



Tower Hamlets – the context (2013)

- 260,000 population – 20% below 19 years old (average for England 18%)
- 55% of the population from black and minority ethnic communities.
- 31% white British
- 32% of population Bangladeshi origin.
- 46% of children live in poverty.

And.....



... the richest real estate in Europe.





What technology can do

- **Motivate**
- **Engage**
- **Enable**



Technology enables:-

Learning

- Through presentation of information
- Access to preferred learning styles and media
- Over-learning
- Rehearsal
- Consistency
- Differentiation

Examples – SENAssist , Wordshark, Busythings, Helpkidzlearn



Suggested resources

- SENAssist – <http://www.senassist.com> Software (soon to go online) that teaches about traditional tales and Shakespeare plays.
- Wordshark - <http://www.wordshark.co.uk> multimodal approach to spelling.
- Busythings – www.busythings.com Lovely online resource intended to teach the primary curriculum, but suitable for a wide range of SEN.
- Helpkidzlearn - www.helpkidzlearn.com Resources for learners with more complex and challenging SEN.



Technology enables:-

Access

- Assistive technology
- Touchscreens
- Audio– text to speech
- Voice – speech to text
- Eye gaze

Video – Toby





Suggested resources

- Switches – <http://inclusive.co.uk/hardware/switches-and-switch-mountings> Different switches to use to access the computer.
- Eye-gaze <http://inclusive.co.uk/hardware/eye-gaze-technology>



Technology enables:-

Communication

- Translates
- Provides a voice
- Bridging and enabling with symbols

- Video– Brandon
- Example Reading Pen and Widgit Online



Suggested resources

- Reading pen - <http://www.scanningpenshop.com> A handheld scanner that reads words learners are stuck on.
- Widgit Online - <https://widgitonline.com> Creates symbolised documents, and supports writing with symbols.
- Proloquo2go – www.Assistiveware.com iPad app that makes it a communication aid.
- Speaking devices - <http://www.talkingproducts.com> Easy to use devices that can give a learner a voice.



Technology enables:-

Recording and demonstrating learning

- Creating text – four stages (planning, composing, editing, publishing)
- Using images and voice
- Stop frame animation
- Video
- Video - Florida



Suggested resources

- Adobe voice – iPad app (free) that easily combines images and voice.
- Hue Animation – <http://www.hueanimation.com> Easy to use stop frame animation set up.
- Clicker 6 – www.Cricksoft.com Very good to support writing inclusively. Lots of support provided in different ways, including the use of switches.



Assessment and provision – Who needs what?

Principles for assessment

- Least intervention
- Learning intentions
- Holistic
- Context
- Support
- On-going engagement



Low and no cost interventions

- Every computers, tablet and smartphone has functionality to aid accessibility.
- In Windows
- Ease of Access
- Narrator
- Speech to Text
- Keyboard and mouse options
- High contrast
- Freeware downloads



Find out more

- Further information on the accessibility features of Windows can be found here. Ease of Access centre <http://windows.microsoft.com/en-in/windows/what-accessibility-features-windows-offer#1TC=windows-7>
- For iPads <http://www.apple.com/uk/accessibility/ios/>
- For Apple machines <http://www.apple.com/accessibility/osx/>
- For Linux <https://help.ubuntu.com/community/Accessibility>



Supporting access

- Giving students a voice
- Supporting reading and writing
- Using switches
- Peripheral devices and ‘add ons’
 - Example – WordqSpeakq
 - Example – Clicker 6



Suggested resources

- Clicker 6 – www.Cricksoft.com Very good to support writing inclusively. Lots of support provided in different ways, including the use of switches.
- WordQSpeakQ - www.zerocorporation.com Supports writing with prediction, speech to text, and text to speech. Simple to use.



Discussion

How does technology help you to communicate?

What would you find hard to live without?



Task

Total cost of ownership:-

The cost of resources – hardware and software – is only part of the overall cost.

In your context, what else would need to be covered?



Discussion

In your context, who would be responsible for:-

- Assessment
- Providing equipment
- Insurance
- Storage
- Training staff to use it
- Charging it
- Putting resources on it
- Getting work off it
- Keeping software up to date
- Maintenance
- Replacement
- Monitoring use



Case study

A thirteen year old girl has had a stroke. She is out of hospital and returning to school. She lost her speech but this is slowly coming back. She is right handed, but still has a loss of movement on that side of her body.

What might help?



Case study

An eleven year old boy is dyslexic. He finds it difficult to form letters properly and to put them in the correct order when spelling.

What might help?



Case study

A twelve year old pupil has a degenerative condition that is affecting his eyes. He regularly has eye checks and needs stronger lenses each time. He finds it hard to see the board when the teacher is talking at the front of the room.

Could technology help?



Futurology -

- Eye gaze <https://www.youtube.com/watch?v=NEjzB1mMPXM>
- Brain controlled arm <http://www.bbc.co.uk/news/uk-england-tyne-16746496>

What do you think technology will enable us to do in the future?



Technology enables achievement and aspiration

- <https://www.youtube.com/watch?v=cSSgndQ5mVs>



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