

# Inclusion and Assistive Technology for Dyslexic Students - a UK Perspective

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# Inclusion – buzzword or reality



# Graduated Approach - Three Wave Model - England



**Wave 3**

**Additional highly personalised interventions**

**Wave 2**

**Additional interventions enabling students to work at age/skill related expectations or above**

**Wave 1**

**Inclusive quality first teaching for all**

# Talking for Writing - Primary and Secondary Schools

Oral storytelling before writing



Imitation – Creating a text map and using talk to internalise text



Modelling and Analysing – sharing and exploring any writing



Innovation – changing, adapting and editing text



Independent Application – Copying ideas and text, possibly using a different topic/title



Review and present

# Using technology...

1. Students are given or create a story framework using images (e.g. in PowerPoint) which is imported into Audio Notetaker.
  2. They then record their ideas about the pictures and the story alongside the images. They could be prompted by an adult.
  3. They re-listen to the audio and use the colour marker to identify different parts of the audio (e.g. marking out descriptions, action points, speech etc). They can edit, reorder and add to the audio until they feel they have the basis of the story.
  4. Then they can either attempt to start writing the story from the audio or send it directly to Dragon NaturallySpeaking for transcribing (in this case they may have added in the recording of punctuation in the editing stage).
- With thanks to Abi James and Sonocent Audio Notetaker Case Study - <https://www.microlinkpc.com/wp-content/uploads/ulceby-web-sp.pdf>

# Waringstown Primary School, Northern Ireland



Examples of Inclusion with Read and Write from TextHelp

# CALL Scotland ask ...

- **Can you be a...**

- **Successful learner**  
if you can't read learning materials and examination papers?
- **Confident individual**  
if you depend on others to read or write for you in exams?
- **Responsible citizen**  
if you don't have access to information?
- **An effective contributor**  
if you can't speak, write or communicate independently?

- **Digital papers can help pupils become...**

- **more successful learners**  
if you can read learning materials when they want, where they want;
- **more confident individuals**  
if you don't have to rely on a reader or scribe;
- **more responsible citizens**  
if you are learning to be independent and self-reliant;
- **more effective contributors**  
if you have learned the ways and means to contribute yourself.

<http://www.adapteddigitalexams.org.uk/common-assets/cm-files/files/digital-examinations-at-kinross.mp4>

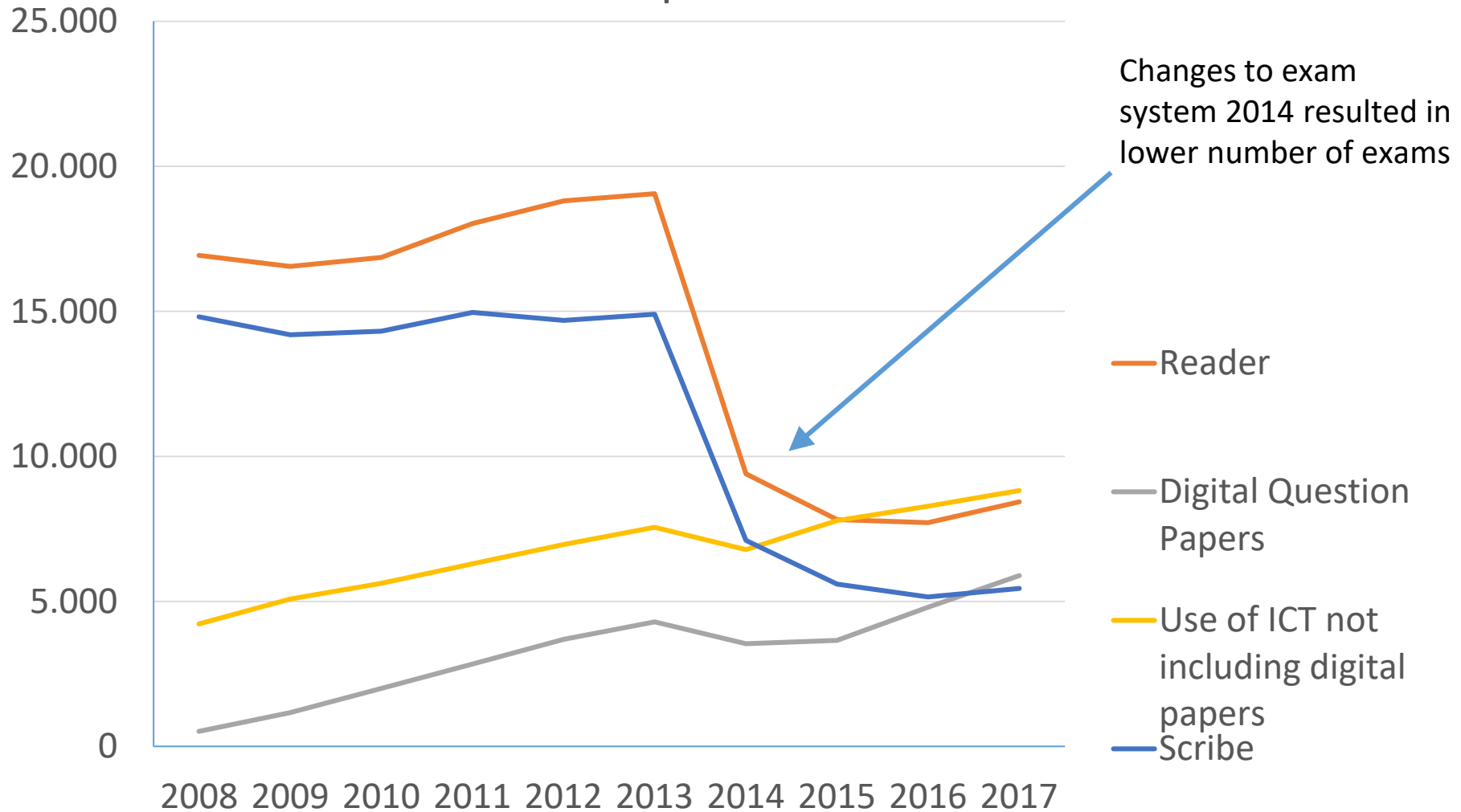
# Digital Examinations - Kinross

**Digital Examinations**



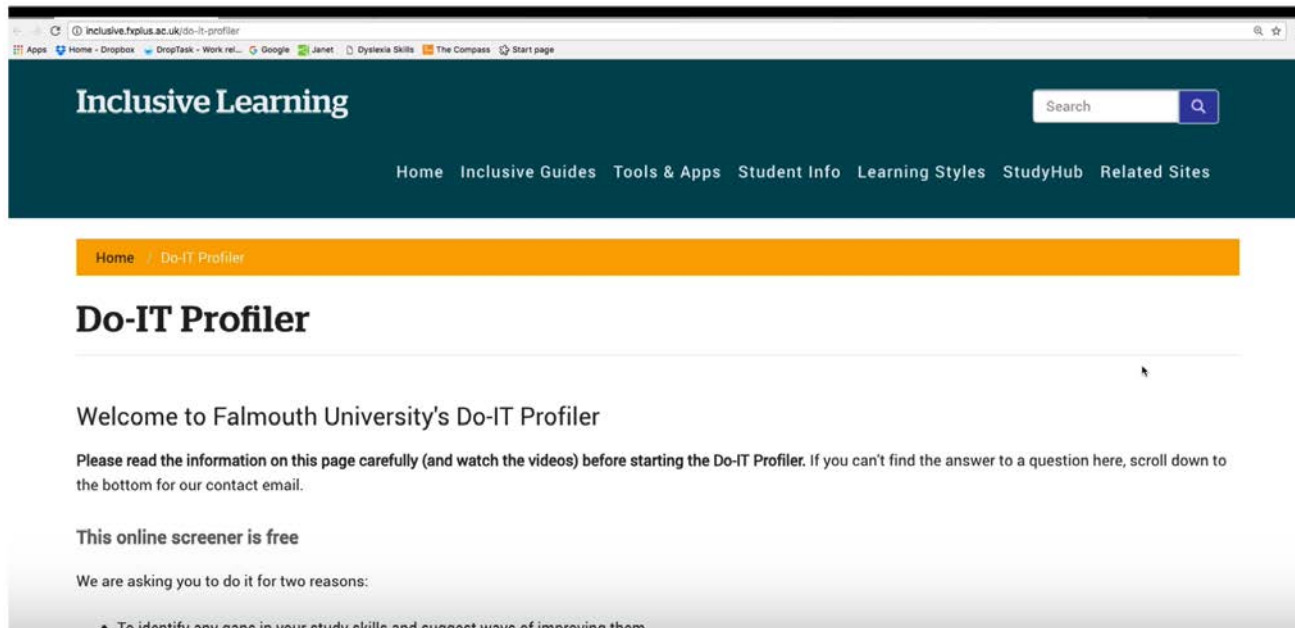
# Scottish Experience: Technology is replacing readers and scribes

SQA AA Requests 2008 - 2017



# Do-IT Profiler - Wales

- Personal Profilers, Education, Into Employment, Employment and Prison. [Getting started with the Do-IT Profiler](#)



The screenshot shows a web browser window with the URL [inclusive.fyplus.ac.uk/do-it-profiler](http://inclusive.fyplus.ac.uk/do-it-profiler). The page features a dark teal header with the text "Inclusive Learning" on the left and a search bar on the right. Below the header is a navigation menu with links for "Home", "Inclusive Guides", "Tools & Apps", "Student Info", "Learning Styles", "StudyHub", and "Related Sites". A breadcrumb trail below the menu shows "Home / Do-IT Profiler". The main content area has a white background with the heading "Do-IT Profiler" in bold. Below the heading, there is a welcome message: "Welcome to Falmouth University's Do-IT Profiler". A paragraph of text follows: "Please read the information on this page carefully (and watch the videos) before starting the Do-IT Profiler. If you can't find the answer to a question here, scroll down to the bottom for our contact email." Below this, it states "This online screener is free" and "We are asking you to do it for two reasons:". A bulleted list begins with "• To identify any gaps in your study skills and suggest ways of improving them".

# Digital Accessibility & Assistive Technology

Digital Accessibility



Assistive Technology

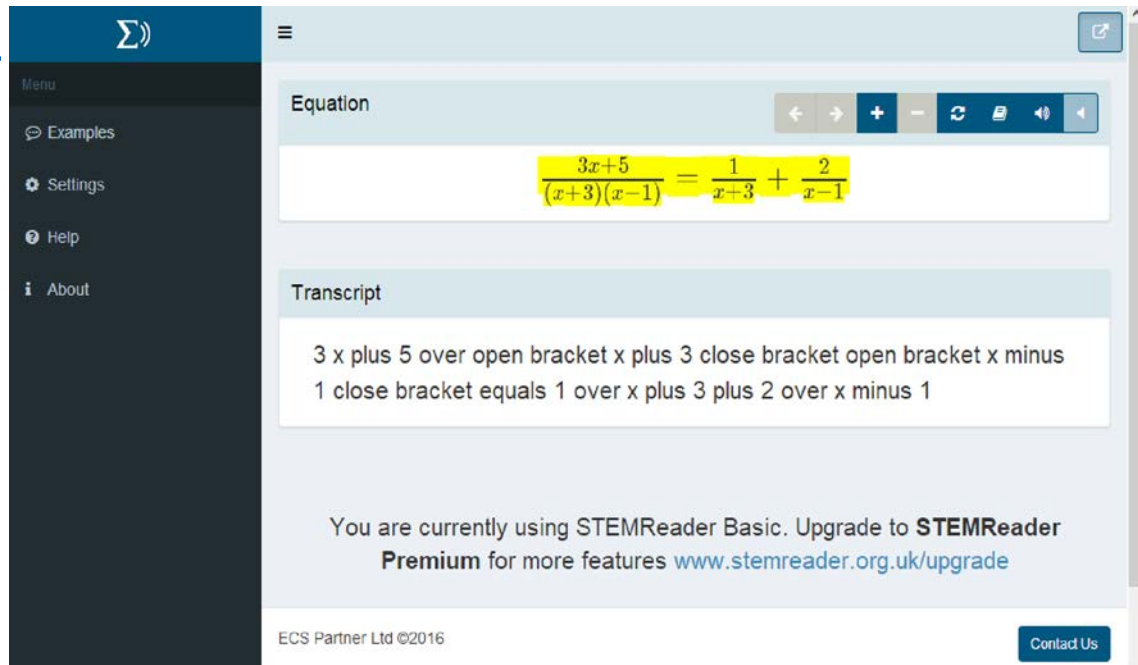


# Is Assistive Technology more inclusive now?

Every major operating system has:

- Text to speech built in
- Free or low cost speech apps available
- Ability to alter fonts and colours

[Microsoft Office Learning tools Immersive Reader Read & Write plug-in for Google Docs](#)  
[StemReader for Windows](#)  
[Select to speak on mobile phones](#)



The screenshot displays the STEMReader interface. On the left is a dark sidebar menu with options: Menu, Examples, Settings, Help, and About. The main content area is light blue and features a navigation bar at the top with a sigma symbol and a hamburger menu icon. Below the navigation bar, there is an "Equation" section with a toolbar containing navigation and editing icons. The equation  $\frac{3x+5}{(x+3)(x-1)} = \frac{1}{x+3} + \frac{2}{x-1}$  is displayed and highlighted in yellow. Below the equation is a "Transcript" section containing the text: "3 x plus 5 over open bracket x plus 3 close bracket open bracket x minus 1 close bracket equals 1 over x plus 3 plus 2 over x minus 1". At the bottom of the interface, there is a promotional message: "You are currently using STEMReader Basic. Upgrade to **STEMReader Premium** for more features [www.stemreader.org.uk/upgrade](http://www.stemreader.org.uk/upgrade)". The footer includes "ECS Partner Ltd ©2016" and a "Contact Us" button.

# But is Assistive Technology being used?

20% of candidates at GCSE/A-level qualifying for a reader are using text to speech

83% of students receiving text to speech through DSA found it useful (Draffan et al, 2013).

## **Not just a reading/dyslexia problem...**

Studies have shown between 30% and 70% of users fail to make use or “adopt” their assistive technology

# Barriers and Facilitators to Uptake of Assistive Technologies

PROVIDE TIMELY ACCESS

IMPROVE AWARENESS

IMPROVE FUNCTIONALITY  
& DESIGN

INVOLVE USERS IN  
DEVELOPMENT & USE

REDUCE STIGMA

PROVIDE TECHNICAL  
SUPPORT

IMPROVE COMPETENCY &  
CONFIDENCE



ENHANCED OUTCOMES?

SMOOTHER TRANSITION  
BETWEEN PHASES OF LIFE?

BETTER USE OF  
RESOURCES?

BETTER EXPERIENCE FOR  
USERS & PROVIDERS?

Draffan et al (2015) Barriers and Facilitators to Uptake of Assistive Technologies: Summary of a Literature Exploration.

# Can we influence technology adoption?

## Increase ease of use

### Organisation

- Can I get the software installed if it is not built in?

### Technical

- Is the interface easy to use?
- Will I need technical support all the time?

### Personal

- Can I learn to use this tool?

## Perceived benefits

### Organisation

- Is this going to be worth the money I spend on it if it is not built in?

### Technical

- Is this going to bring the benefits I need?
- Will it support the tasks I need to undertake?

### Personal

- Will I feel comfortable using this?

# Raising Awareness of Digital Accessibility and Assistive Technologies

- Embed digital accessibility as part of the continual professional development for all academic / teaching roles
- Make content available under Creative Commons licences for repurposing and provide as Open Educational Resources
- MOOCs – free online courses

Examples

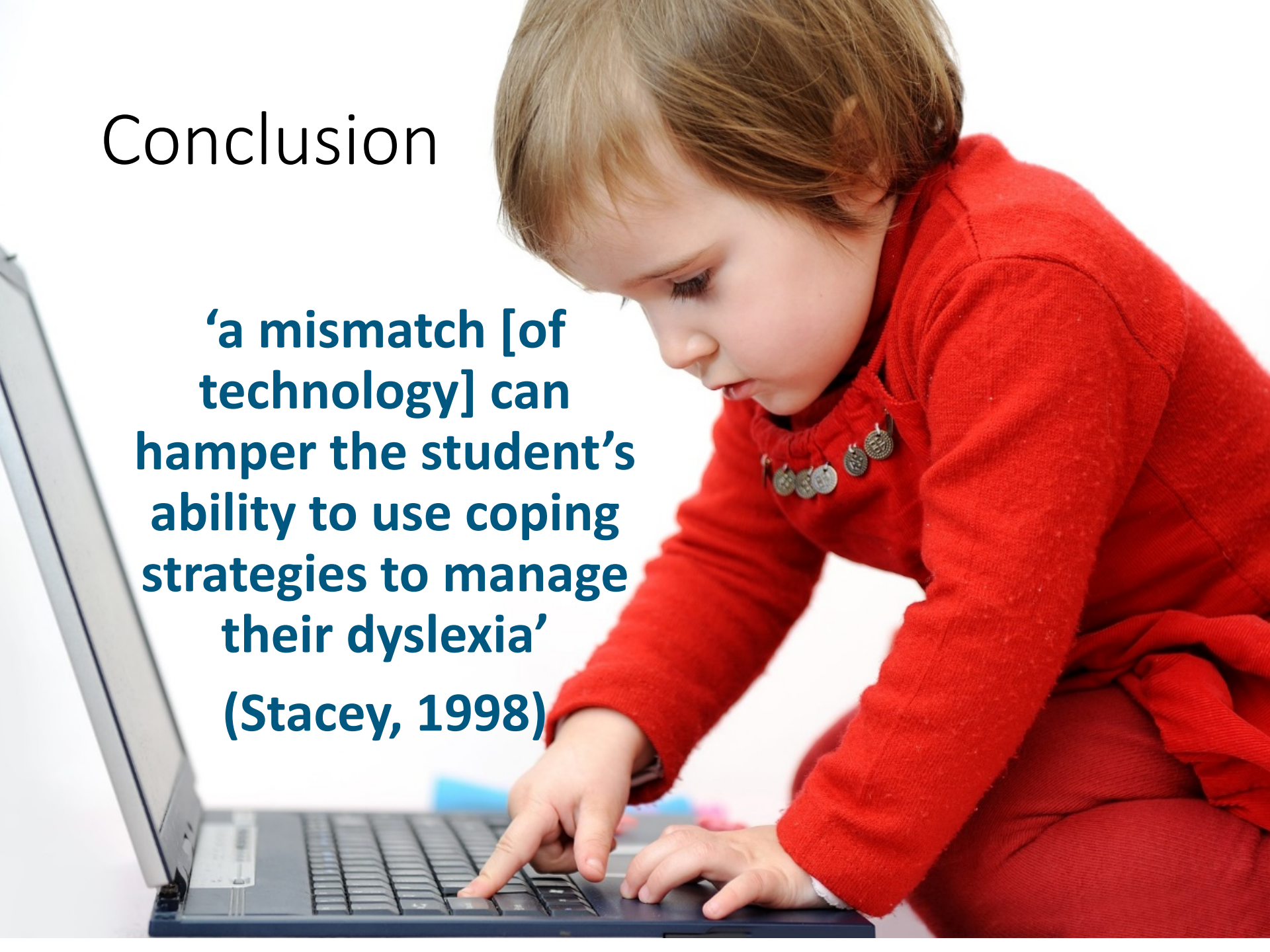
<https://www.futurelearn.com/courses/digital-accessibility>

<https://slidewiki.org/>



# Conclusion

**‘a mismatch [of technology] can hamper the student’s ability to use coping strategies to manage their dyslexia’  
(Stacey, 1998)**



# Thank You - Mange tak

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