Tablets for visually impaired students: early findings from a UK study

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Plan

The session will

1. Introduce the project and background
2. Student and teacher views on tablets for learning
3. Conclusions
Previous research

• Very little which examines how young people of school age with impairments uses of digital technologies including for learning (Passey 2013; Söderström 2009)

• Practitioners with huge expertise in this field.
Pilot project 1

- Small-scale pilot study about how young people with visual impairments in mainstream schools use digital technologies - such as computers and the internet - for learning.

- Why is it important?
  - Access to same online opportunities as their peers for learning, leisure and work
  - Digital skills and competences; strategies to cope with online risk and safety.
Pilot project 2

- Sample
  - 7 young people (secondary); and 1 (primary school)
  - 3 qualified teachers specialising in supporting VI
  - 4 teaching assistants
  - 4 classroom teachers

- Interviews with students, teachers and the support team. Observations in the classroom.

- Report here on secondary students only (ages 11 – 18); mainly on what’s happening in schools only – not outside of school
Tablets: HP Envy, iPad, iPod Touch
## Uses of tablets for learning 1

<table>
<thead>
<tr>
<th>iPad/iPhone/iPod touch</th>
<th>HP Envy</th>
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<tbody>
<tr>
<td>Documents &amp; presentations emailed before lessons (PowerPoint, Keynote, webpages, Pages)</td>
<td>Documents installed before lessons</td>
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<tr>
<td>iBooks for textbooks or downloaded through load2learn</td>
<td>Access to the school VLE (homework, resources)</td>
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<td>Watching videos on YouTube</td>
<td>Textbooks downloaded through load2learn</td>
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<td>Apps to create short films</td>
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<td>Apps to compose music</td>
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<td>Collaborative project on dropbox sharing presentations</td>
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<tr>
<td>iPad/iPhone/iPod touch</td>
<td>HP Envy</td>
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<td>---------------------------------------------</td>
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<tr>
<td>Can zoom/bring closer to eyes</td>
<td>Like how it is set up before the lesson</td>
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<tr>
<td>Avoids carrying large textbooks</td>
<td>Like magnification window</td>
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<tr>
<td>More reliable than laptop with magnification</td>
<td>Likes to take a photo with the detachable tablet to see what’s on the board</td>
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<td>Lighter than carrying laptop</td>
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<td>Quicker to start</td>
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<td>Internet more fun than textbook-more interactive</td>
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<td>Likes touchscreen – easier to use than mouse</td>
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<tr>
<td>Can take photos/zoom in/change colours</td>
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<td>Connects home and school for some students</td>
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<td>Can see what’s written on screen through enlarging letters</td>
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HP Envy – magnification window
Benefits of tablets. Student views 2

**Independence/self-directed** – being able to access content and take notes autonomously

**Reduces stigma**

“I feel like just an ordinary person when I'm using it. I like to be a tiny bit different but I don't like to be so much different that everyone treats me differently. I like to be just like a normal girl sort of thing, in the mix, which I quite like. And having an iPad, and my friends have iPads as well, it just makes me feel like one of them basically.”
On the spot technical issues:

- Technical problems e.g. websites not loading (German lesson, flash?) The problem was overcome with help from the teaching assistant.
- HP Envy – one student said she still felt different using it (stigma)
- Issues with extended pieces of writing (iPad), better with external keyboard (detachable or HP Envy)
- Some documents too large to email, difficulty getting onto iPad
Occasional issues with teacher practices

• Some teachers prefer to continue to prepare and to enlarge worksheets
• Some teachers are not happy to email PowerPoint presentations in advance
• One teacher preferred to provide material on a memory stick rather than emailing beforehand. This means that students then need to carry both laptop and iPad to school.
Benefits of tablets for students. Teacher views 1

Laptop with magnification can do what tablets can but tablets are:

- Quicker
- Lighter
- Easier for manipulating and modifying documents
- Have “street cred” (especially iPads)
- Just as cost effective (compared with laptop plus magnification or £200 large key calculators).
School has had iPads for this class for 3 months

- Tablets useful for any students who resist traditional methods
- Readily integrated into ‘collaborative learning’ (group, teamwork etc)
- All activities designed by the teacher to be inclusive for the student with VI/ tablets support this easily
- Previous use of laptop with magnification was ‘nightmare’ (difficult to transfer files, student frustrated)
- Also mentioned the benefits of iPad recording apps for student with severe dyslexia
Uses of tablets for learning 2

- French lesson, 12-13-year-olds writing phrases in French for sock puppets
Issues with tablets for students. Teacher views 1

- Not everything is available electronically, some textbooks still an issue
- Not everything is of adequate quality
- Teachers do not always anticipate well what a student can access or have time to prepare what’s needed.
- Qualified teacher for vi said that sometimes subject teacher think it’s not part of their role
Conclusions 1

• Students and teachers very positive about use of tablets for teaching and learning particularly to
  – Enable young people with visual impairments to participate in mainstream classrooms
  – Nurture independence/self-directed learning
  – Reduce stigma

• Barriers remain: both technical and relating to teacher practices, time and skill
Thank you

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