DIGITALLY NATIVE?

Are teachers more digitally skilled than students when it comes to education?

Digital technology is so widespread throughout society that for young people, it is 'bringing the world to their fingertips in a way no previous generation has ever experienced' – The Guardian

Do we overestimate the digital skills of today's youth in regards to learning?

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Digital technology use is very widespread - many children don't remember a time before tablets!

The world is becoming increasingly digitised. DVD, CD and even game sales are decreasing – Xbox are releasing a digital download only Xbox designed for these 'digital natives'

Teenagers are well adapted to using phones, playing games on apps, messaging friends, using social media etc. – they are digital natives in terms of social communication

But, **does this provide the skills** to format emails, work collaboratively, search for reliable sources of information online, collect data from a variety of online sources and use e-tools **to learn**?

Technology promotes learning and makes it possible for students to learn anywhere and at their own pace - but, is this idea of students being able to thrive online detrimental to their learning?

A 2013 study found that reading ability was the same on screen and paper, but that people preferred to read from paper (Kretzschmar et al., 2013)
- **But** most students say they prefer web-based computer programs over books. However, they still thought that paper-based reading was the best way to gain knowledge

An additional study found that students could recall more information and therefore learn better reading from paper than from a screen (Mangen et al., 2013). This is due to spatio-temporal markers which aid memory

This indicates that young people may need to learn how to use digital technologies for education from a young age to:
- Show them that reading is as effective on screen as on paper
- Discover how to learn better from web-based programs
- Change ideas around paper reading vs screen reading

The use of digital technology is developed from a young age recreationally but a different set of skills is needed when using digital technologies for educational and professional purposes

A 2018 study found that children are aware of many digital concepts but struggle when trying to implement the required practical skills to these concepts (Borhin and Rehder, 2018)
- A given example was that children knew what it meant to download a file but struggled to actually download a file

This implies that **young people do need to learn how to use digital technologies** as:
- It may not come as intuitively as previously thought when applied to non-recreational use
- Using digital technologies in a responsible and safe way was also something that children were aware of but unsure of how to actually implement

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From the DECODE survey, we found that teachers frequently use digital technologies in their personal time (64%) but less so professionally (45%)

- This shows that they also have digital skills but are either **unconfident or unaware of how to use them for professional purposes.**
- This may be the case with young people too – presuming that it is not may be detrimental

If schools were able to integrate digital learning better from a young age, it could make it easier for students to practically use digital technologies – such as use e-books instead of printed material - and also develop their ability to remember information gained from digital sources.

Digital literacy will be an essential skill as more tests become available only in digital formats

It is already an essential skill in the professional world as companies increasingly aim for paperless environments, so it is hugely advantageous for children to be able to effectively use digital technologies by the time they leave school
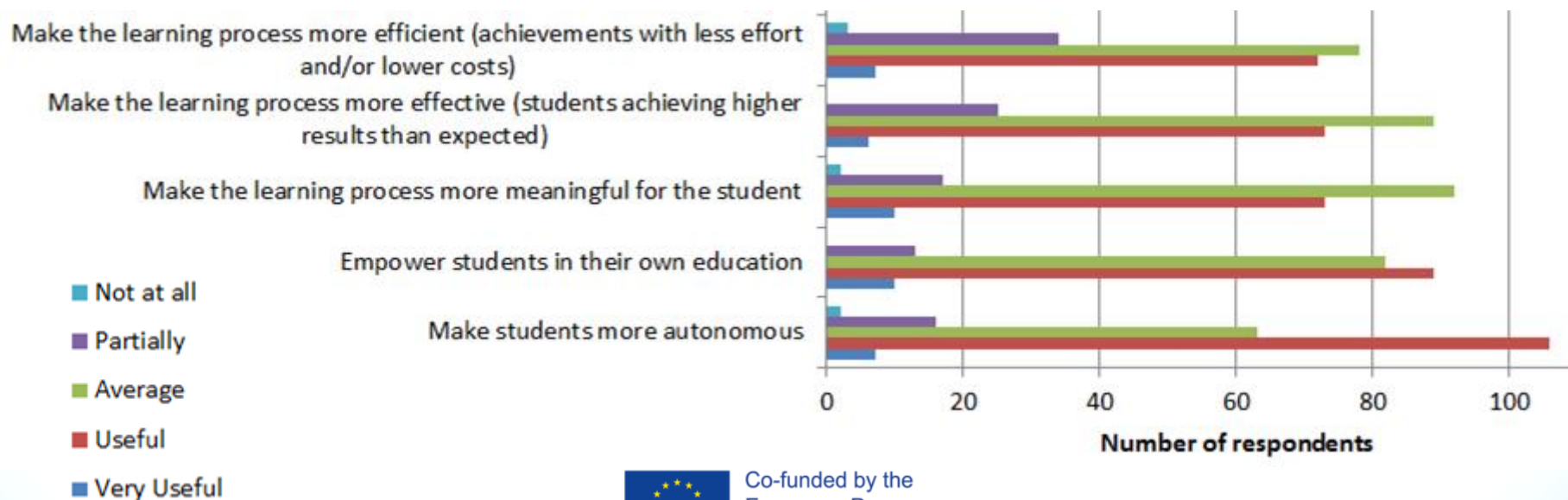
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From the DECODE survey, we discovered that teachers feel that digital technologies are **useful in helping motivate students**, making them more **autonomous** and empowering them in their own education.

Even though the majority of teachers rated digital technologies as average in making the learning process more effective and efficient, the use of digital technologies are beneficial, even if purely for the positive mentality students gain towards learning.

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This shows that digital technologies are useful in the learning process and that teachers are already using a wide variety of digital tools.

Perhaps they just need more confidence in their abilities and need to learn that in educational contexts, they may have more knowledge than students.

One widespread example of teaching digital learning to students is that many schools in the UK now issue iPads to their students – this enables students to learn how to use practical professional skills whilst online such as:

- Emails
- Downloading and uploading content
- Working collaboratively
- Finding reliable sources of information
- Learning how to safely use the Internet

Some teachers also create blogs, have subject-related Twitter accounts, record their lessons or develop podcasts allowing students to access the content again and learn how to find reliable sources of information online

Teachers are able to incorporate digital technologies into their practice and engage students

Teachers feel that digital technologies are beneficial as they motivate students to learn

Teachers are very good at using digital technologies in their leisure time, but they lack the motivation or knowledge, but not the skills, to use this to their professional advantage
- Some have started to use these skills by creating educational blogs, YouTube and Twitter accounts etc.

Students and young people are also pioneers in digital technology for social and leisure use, but are less able to put this knowledge to practical use when using digital technologies in an educational context
- They are aware of many concepts but lack the skills to implement them – this shows that digital technologies do need to be learned

Do we overestimate the digital skills of students? Are they really digitally native?

Are teachers more digitally skilled than students when it comes to education?

Kretzschmar, F, **Pleimling, D**, **Hosemann, J**, **Füssel, S**, **Bornkessel-Schlesewsky, I** and **Schlesewsky, M** (2013). Subjective Impressions Do Not Mirror Online Reading Effort: Concurrent EEG-eyetracking Evidence From the Reading of Books and Digital Media. *PLOS ONE* 8(2): e56178.

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Ní Bhroin, N. and Rehder, M. M. (2018). *Digital Natives or Naïve Experts? Exploring how Norwegian children (aged 9-15) understand the Internet.* EU Kids Online.