

ICRI-HASS – June 2021

## Future hybrid education and planning professional development

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### Why should we be concerned with this topic?

- Managing educational futures continues to be uncertain
- The current Covid-19 pandemic has created different challenges and some opportunities
- There is a need for education to align with ongoing, continuous and contemporary changes – whether slow or dramatic
- It is clear that there has been and will continue to be a need to integrate uses of technology to support education
- This will not just be to address crises, but also to support wider student involvement and participation in the future
- There is a contemporary challenge for education - to develop sustained, long-term, effective teacher practices with current and future digital technologies

## A background to the current situation

- Some people, throughout their lives, adapt to technological change (Passey & Lee, 2020)
- They apply technologies not just for social or leisure purposes, but also to fulfil learning, training, or employment needs (Lee & Passey, 2019)
- Some research indicates that the overall evidence base identifying positive impacts on teaching and learning from uses of digital technologies is not always clear (Lim, Zhao, Tondeur, Chai, & Teo, 2013)
- Ways that teachers use the digital technology can have a major effect on outcomes for all concerned (Passey, 2013)

## Has the pandemic affected this concern or its focus?

- The Covid-19 pandemic has provided an impetus to adapt, yet to continue to maintain, but, what exactly should be adapted and what should be maintained? (Passey, 2021)
- UNESCO (2021) reported that in April 2020 about 150 countries fully closed educational institutions, about 100 countries had partially closed them while in another 10 they were fully open
- Published literature and related experiences showed that the teaching medium changed in many localities, largely from a face-to-face medium to an online medium
- Sometimes this was from a synchronous, face-to-face medium to an asynchronous medium, or to a mixed synchronous and asynchronous medium

## The study exploring teacher adaptation with technologies

- The study involved researchers from Salford University and Lancaster University (Passey & Lee, 2019; Lee & Passey, 2019)
- It gathered qualitative in-depth evidence from a selected sample of long-term users in different occupations: students; parents; teachers; employers; policy makers, and managers
- Structured interviews were used, to identify key factors or reasons for how these individuals established and maintained their long-term uses
- Individuals selected had been using technologies for learning, teaching, training, or employment purposes for at least 5 years, in many cases up to 20 or 30 years, and in some even more

## The methodological approach and methods

- The analysis of individual questions from the interviews adopted a grounded approach (Charmaz; Bryant & Charmaz)
- The grounded theory approach used different subsequent coding methods:
  - *open coding*, to identify specific elements of the interview texts that offered insights or details
  - *axial coding*, where relationships between the open coding elements were considered
  - *selective coding*, where core categories were identified

## Findings 1

- Hardware changes can affect sustained uses in quite profound ways, but respondents tended to recall only one or two specific forms of past hardware changes (even though they had clearly experienced more than this number across their periods of use), related to periods of their life (childhood, first job, etc.)
- When asked about software changes and when these were first used, some respondents indicated general software changes or features, while others identified specific software changes, but respondents did not relate these changes to specific years or even periods or times when they were used (Passey & Lee, 2020)

## Findings 2

- Performance with new hardware or software can be affected when change occurs but particular responses reported within four main categories (Passey & Lee, 2020):
  - increased efficiency
  - enhanced access
  - improved performance
  - enhanced ease of use

### Findings 3

- In terms of benefits experienced, responses fell into six main categories (Passey & Lee, 2020)
  - information access
  - access at a more general level
  - collaboration
  - self-empowerment
  - greater levels of understanding
  - communication

### Findings 4

- Interviewees were asked how they had managed to maintain uses and address challenges of technologies when software or hardware changed, and what they did so that they could use the new or updated software or hardware. Responses were (Passey & Lee, 2020)
  - exploring uses themselves and practicing as needed
  - using advice and guidance provided with the updates
  - going on training courses
  - using help from those around them

## Findings 5

- When asked about the people consulted who made a difference to their abilities to adapt to changes, responses fell within four main categories (Passey & Lee, 2020):
  - individuals within the area of employment
  - family members or friends
  - units supporting employment areas
  - the more general work environment

## Findings 6

- Crucially, when asked about the main personal factors or characteristics that they felt enabled them to adapt to technology changes over time, the most commonly cited factors stated by respondents were (Passey & Lee, 2020):
  - seeing its value, its use, and having a positive attitude to technology
  - being very inquisitive
  - liking to learn new things
  - being very adaptable
  - always looking for short cuts, for easier ways to do things
  - being humble and having a willingness to learn things
  - being open-minded

## Findings 7

- Respondents' focus on technologies overall was largely on impact, outcomes and uses, and not on affordances
- Statements such as it makes life easier (which was stated as being 'easy to say after spending four days without it'), and necessary to work, highlighted this point
- However, some respondents were clear that there was an important need to consider the negative potential those technologies could bring, and that it was necessary to accommodate these (Passey & Lee, 2020)

## A new model

Provide a positive work environment – encourage support – outside and inside the organisation

Focus on developing personal characteristics - being innovative about learning new things, being adaptable, and looking for shorter and easier ways to do things

Maintain contact with developing technologies

Highlight the need to explore new software and hardware from the perspective of increased ease of use rather than adding complexity

Focus on outcomes and impacts – enhance efficiency and productivity

Support a balanced view of applications of technologies – offer feedback and work with developers to address concerns and issues

Manage and budgeting time and funding

Source: Passey & Lee, 2020

## General recommendations



- Develop positive personal characteristics to drive sustained use
- Enable maintaining of contact with developing technologies – and increasingly online
- Support a balanced view of technologies
- Manage and budget for time to learn and adapt
- Encourage others around to offer support
- Focus on enhanced communication and cloud access, enhanced efficiency and productivity
- Use technologies to enable a position of advantage
- Consider software and hardware changes as offering increased ease of use rather than creating increased complexity, or obstacles (Passey & Lee, 2020)

## What next?



- Institutions that have focused on providing technical support alone should rethink their position
- Rather than a sole focus on technical support and affordances, the evidence suggests that institutions should focus on developing personal characteristics concerned with enquiry and inquisitiveness, highlighting outcome and impact support
- Fundamentally, this suggests moving away from technical support that focuses on affordances to a focus on outcome and impact support by developing units or individuals that have a different and complementary focus (Passey & Lee, 2020)



## Conclusions

- Covid-19 has shown that we are not prepared for crisis even when technology can support and maintain education (Passey, 2021)
- Past practice frames conceptions of technology and uses:
  - Teaching medium and mode
  - Learning medium, mode and environment
  - 'Home' technology access and support
  - Teacher technology access and support
  - Roles of those involved
  - Digital skills and techniques
- How do we refine these conceptions to support a future that can address crisis?

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Thank you for listening!

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