



Digital strategy transformation: Impact on Training and Adult Education (TAE) sector in Singapore

The COVID-19 pandemic is accelerating digital learning implementation in higher education and Training and Adult Education (TAE) sectors. The joint survey on 1553 respondents conducted by the Institute for Adult Learning (IAL) and the University of Bristol (UoB) highlighted that online delivery of teaching, assessment and training-related work are the future of higher education, adult training and lifelong learning in Singapore.

PROJECT TEAM:

Principal Investigator:



Dr Chen Zan,
Principal Researcher,
SUSS/IAL

Researchers:



Tan Bao Zhen,
RID,
SUSS/IAL



Bryan Ang,
RID,
SUSS/IAL



Sabrina binte Hardy,
RID,
SUSS/IAL

External Collaborator & Co-Principal Investigator:



Prof Richard Watermeyer,
University of Bristol,
England

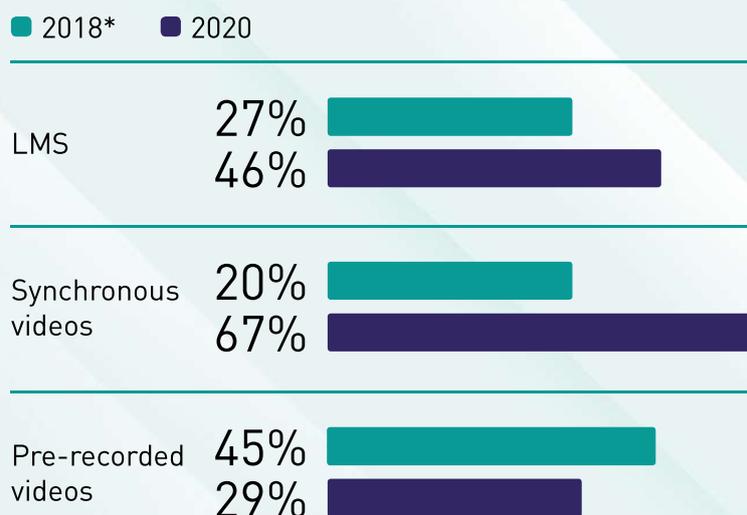
The availability of new technologies in the 21st century, enabled by improved internet accessibility and increased digital citizenry, has affirmed the praxis that learning can take place anywhere and at any time. Although there has been a growing recognition that technology-enabled education is beneficial, the recent global spread of COVID-19 pandemic has undeniably become a catalyst to effectuate the trajectory of rapid adoption of multimodal and digitalised learning innovations by higher education, adult training and lifelong learning training providers.

To capture educators' perspectives on moving all learning, teaching, assessment and training-related work online in higher education as well as training and adult education in Singapore, the Institute for Adult Learning (IAL) and the University of Bristol (UoB) jointly conducted the *COVID-19 Educator Online Survey* in Singapore in May and June 2020. 1553 respondents from higher education institutions such as autonomous universities, polytechnics, Institute of Technical Education, private educational institutions (PEIs) and training providers (TPs) participated in this survey.

A key finding showed that the proportion of respondents reported the frequent use of online platform for teaching, assessment, and training-related work increased more than four times during the present COVID-19 pandemic period compared to the pre-COVID-19 period. Particularly, *synchronous learning platforms* were highlighted to be used most frequently during the COVID-19 pandemic period, compared to the use of LMS (Learning Management Systems) and pre-recorded video platforms reported in the 2018 TAE Landscape Survey. This comparison is indicated in Figure 1:

Figure 1:

Comparison of Proportion of Respondents who Reported Frequent Use of Online Platforms in 2018 and 2020

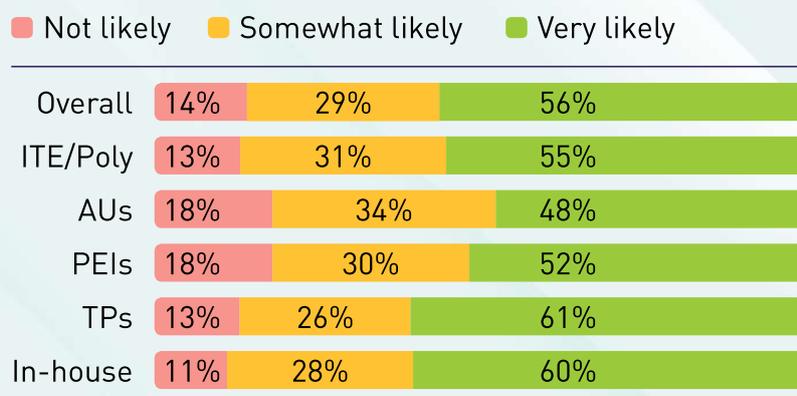


Notably, the impetus for the rapid adoption of remote digital-based learning to mitigate the effect of COVID-19 pandemic on education has received mixed reactions from Adult Educators (AEs) in Singapore. It is no mean feat for AEs to manage the challenges of online learning which comprise issues with access, connectivity and reliability of technological devices and tools, as well as insufficient digital skills.

More than half (56%) of the respondents expressed the need to significantly improve their knowledge and skills in online delivery to remain employable in higher or adult education (Figure 2):

Figure 2:

Proportion of Respondents Reporting the Likelihood of the Need to Significantly Improve Online Delivery

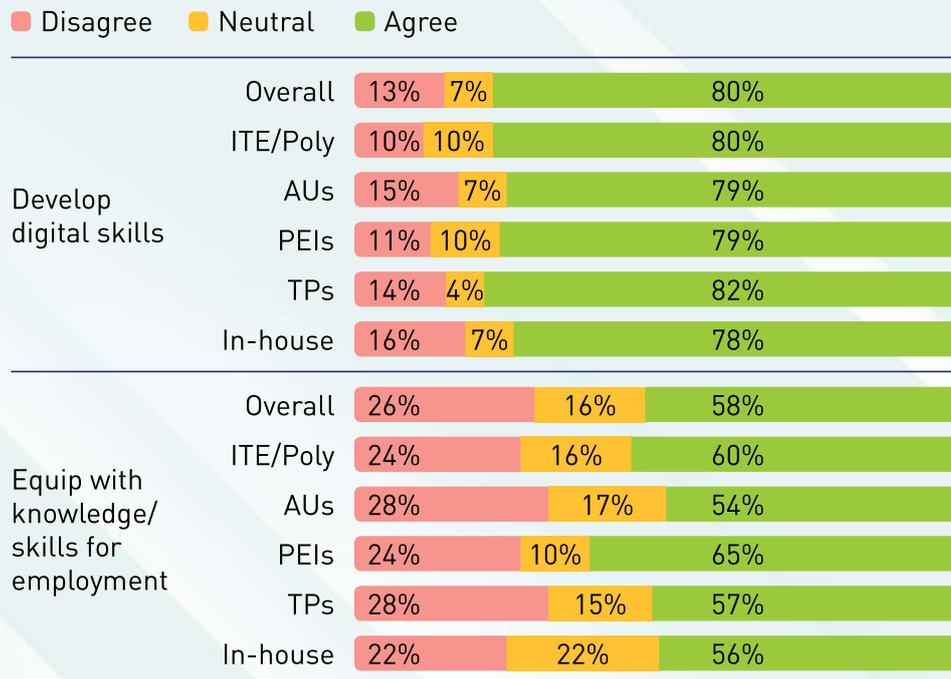


Note: Figures are rounded to the nearest whole number.

Slider scale: (0-49: Not likely; 50: Somewhat likely; 51-100: Very likely)

Respondents generally felt that learning online would help their students and learners develop digital skills, as well as the necessary knowledge and skills needed for employment (Figure 3).

Figure 3:
Perceived Impact of Online Learning on Their Learners

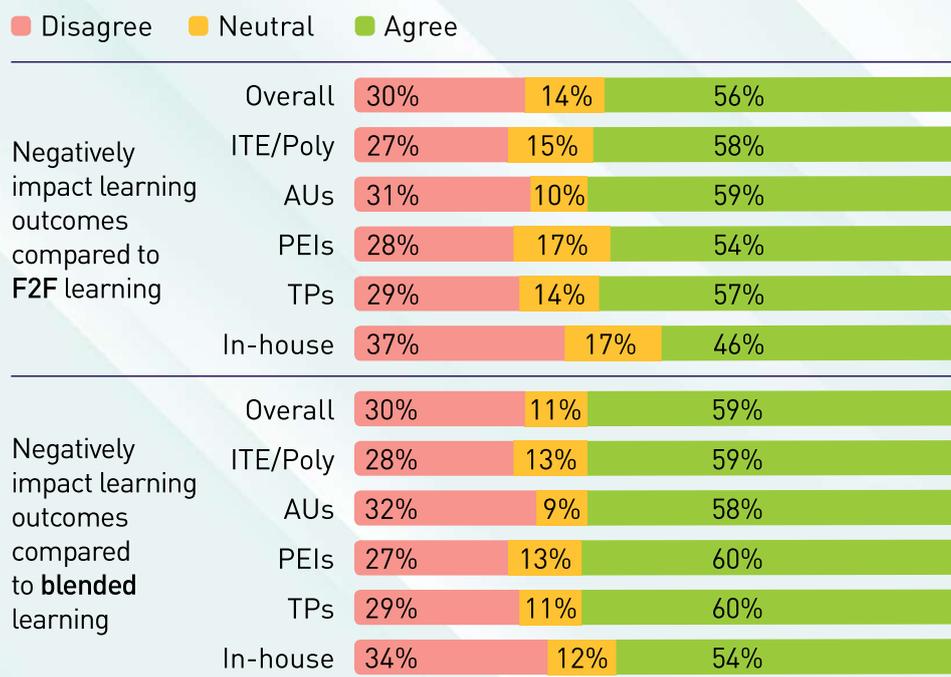


Note: Figures are rounded to the nearest whole number.

Slider scale: (0-49: Disagree; 50: Neutral; 51-100: Agree)

The study also found that generally more than half of the respondents felt that exclusive online learning would impact learning outcomes negatively (Figure 4):

Figure 4:
Perceived Impact on Learning Outcomes

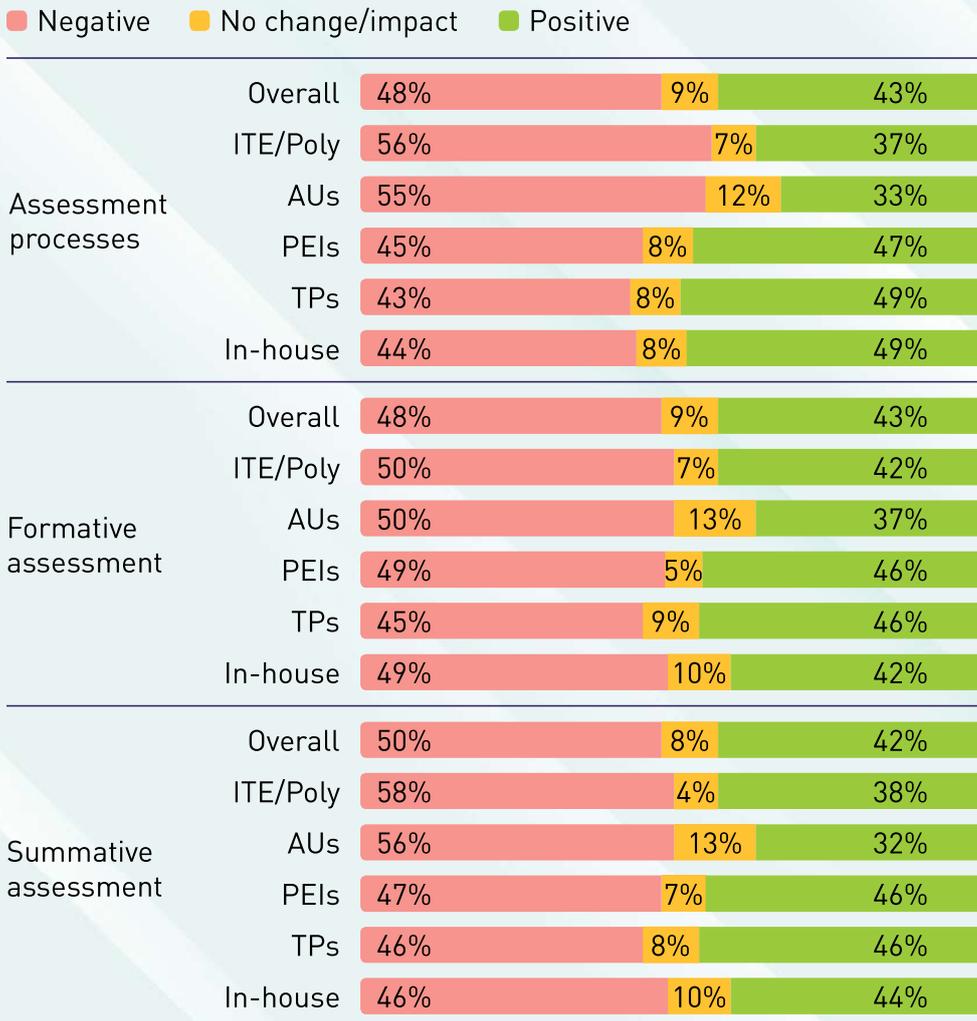


Note: Figures are rounded to the nearest whole number.

Slider scale: (0-49: Disagree; 50: Neutral; 51-100: Agree)

Additionally, about half of the respondents (48%) felt that the move to online learning would have a negative impact on assessment as reported in Figure 5:

Figure 5:
Perceived Impact of Exclusive Online Learning on Assessment



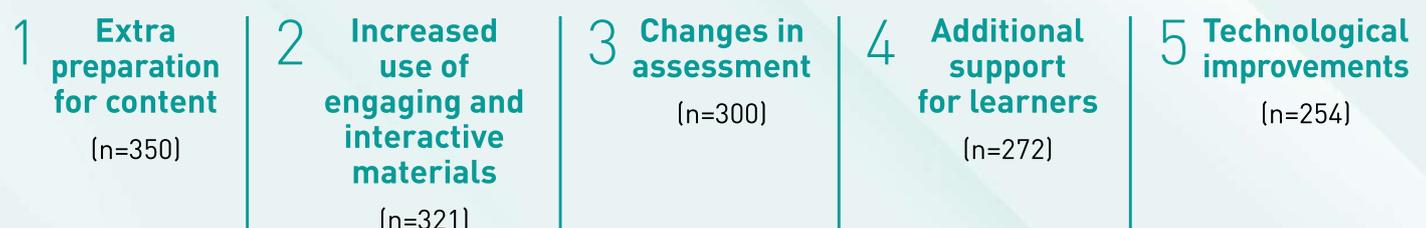
“Establishing authenticity of learners doing the learning and then assessment is the biggest challenge that unfortunately has not been resolved with today’s technology.”

Note: Figures are rounded to the nearest whole number.

Slider scale: (0-49: Negative; 50: No Change/Impact; 51-100: Positive)

The future made present by COVID-19 pandemic is seen to have catapulted educators and trainers ‘across the Rubicon’ and to the other side of digitalisation. The long-term impact of COVID-19 pandemic will be seen in terms of the permanent digitalisation of higher education and adult training. The following adjustments are made by AEs to their teaching, assessment and training-related work to achieve desirable outcomes (Figure 6):

Figure 6:
Adjustments Made to Support Learning during Pandemic



“Technology-enhanced education, if used appropriately, can impact positively on what adult learners learn, how quickly they learn, and their attitudes to learning.”

An increased investment in digital capacity building among teacher trainees is also linked to concerns that increased popularity for digital learning would necessitate increased performance-based evaluation and regulatory mechanisms to assure quality online delivery for assessment and credentialing (Figure 7):

Figure 7:
Implications of Online Delivery for Assessment and Credentialing

Assessing Performance

- 1 Far more than reproducing knowledge, effective performance involves good skills applications and adaptation of appropriate skills, attitudes and mental states
- 2 Performance is holistic in bringing together theoretical understanding that is evident in behaviours, judgements, communication processes, degree of skill mastery, etc.
- 3 Holistic performance requires practice

Incorporates

- 1 Criteria that involve evaluating the quality of solutions or application of what have been 'learnt'
- 2 Authentic assessment activities
- 3 Technology that will be leveraged as part of the assessment process, e.g. videos that capture learner's skill practice
- 4 Feedback from peers and supervisors

Finally, when asked which areas are most needed for professional development, five areas are highlighted by educators in Singapore as indicated in Figure 8:

Figure 8:
Top Areas for Professional Development



The COVID-19 pandemic has provided an unprecedented glimpse into a future andragogic world, one in which digital-mediated educational activities have become critical to enhance learning and training effectiveness. It forces organisations such as higher education institutions and TAE training providers to accelerate their digital adoption rates within a short span of time. This survey indicated that technology-enhanced education, if used appropriately, can impact positively on what adult learners learn, how quickly they learn, and their attitudes to learning. However, the pandemic also brings about implications for adult educators which need to be carefully considered to maximise digital learning effectiveness of adult learners.