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FUTURE VISION FOR CONTINUED USE OF EDUCATIONAL TECHNOLOGY  
IN ADULT ESOL PROVISION: A CASE STUDY

MA thesis

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**Abstract**

The study explored tutors' readiness to continue using educational technology once they return from the virtual to the face-to-face classroom. Specifically, the action research study examined tutors' attitudes towards incorporating technology into their practice and the enablers and barriers in that. The data collected through focus group interviews showed that tutors are motivated to continue integrating educational technology into their practice, following the Scottish adult learning strategy guidelines for using technology to enhance learning. Although tutors have acquired the necessary educational technology skills during the two years of online teaching, they need further structured training to adopt a more organised and purposeful approach to technology use. Also, lack of suitable technological infrastructure in education remains a significant barrier. Teaching venues should be thoroughly audited to determine how to update the learning spaces so that they allow integrating technology into teaching.

**Keywords:** *adult education, blended learning, technology use, teacher readiness, training, technological infrastructure*

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## Introduction

The onset of the COVID-19 pandemic disrupted education across the globe, with more than 1.7 billion learners estimated to have experienced some effect of lockdowns and school closures (Reimers, 2022). This has led to adopting online and distance learning at an unprecedented scale. Often, such adoption came as an emergency solution, with limited time to develop a structured approach for remote learning and insufficient digital skills for online teaching (Baker, 2020). In March 2020, Scotland entered into a 16-months lockdown, which was one of the longest in the world and caused significant disruption to learning in all stages of education. In primary and secondary education, teaching essentially stopped for the first four months, whereas universities continued teaching online. Provision of lifelong learning was the least prepared for non-traditional work outwith the classroom and across the nation, it entered a period of uncertainty as to how to move on.

In the Scottish capital, spring 2020 saw a sudden end to adult education provision. As a result of WHO urging people to socially distance and move to working and learning online where possible (WHO, 2020), all face-to-face lifelong classes at the City of Edinburgh Council (CEC) were cancelled until further notice. Among others, learners enrolled in English for Speakers of Other Languages (ESOL) classes no longer had access to teaching. This left newcomers to Edinburgh isolated as CEC did not have a viable strategy for online learning and teaching. Through the disruption, the pandemic has been a reminder of how fragile some systems we take for granted in our lives can be.

On the other hand, the pandemic has shown our resilience in rebuilding our lives to adapt to the new conditions. Educators across the globe were pushed to find solutions to educational problems they had not encountered before (Sarwar et al., 2020). They had to move from the face-to-face classroom to the virtual setting, which meant reviewing the curriculum to meet the particularities of online learning and teaching (Fawns, 2019). Varying digital literacy skills among educators and a lack of prior experience in using technology and digital platforms for teaching were exacerbated by learners' digital divide (Watts, 2020). Not all learners had suitable devices for learning or a stable internet connection to access classes online. This made switching to the online classroom a challenge.

Although children in Scotland returned to school in August 2020, adult learning started online. To continue providing language tuition in a more pandemic-friendly way, the language providers in CEC first looked to work asynchronously with their learners. Educational videos and other tailor-made resources to meet the specific language learning needs of the

newcomers to Edinburgh offered a temporary solution. As the lockdown showed no signs of ending, the lifelong learning department started preparing to change the approach and move learning to a virtual classroom. For example, an online citywide ESOL project was launched in autumn and it is currently running 40 groups at different language levels, with almost 300 learners participating weekly.

Moving from the virtual classroom back to face-to-face learning, we are faced with a new challenge: how to build on what we have learned and continue using technology to support our practice? Winston Churchill has said, *Never let a serious crisis go to waste*. The changes to how we organised education during the Covid-19 crisis have shown that although online-only is not a viable solution (Fawns, 2019), returning to traditional classroom methods would be wasting the lessons learned. The challenges of adapting to the virtual learning environment can be turned into opportunities for teachers to review their practice. To capitalise on the digital skills acquired during the remote learning period, it would be beneficial to adopt the blended learning (BL) model, where traditional teaching methods are combined with digital solutions.

As we are exiting the emergency learning stage at CEC, it is difficult to see how to combine classroom lessons with technology-enhanced learning. On the one hand, integrating technology into learning depends on the readiness of tutors (Petko et al., 2018). As a result of the forced transition from the traditional classroom to the virtual classroom, many tutors are now tired of technology (Pressley & Ha, 2022). Therefore, determining tutors' views and skills is necessary to understand their readiness to integrate technology into their classroom practice. On the other hand, technology adoption is determined by the availability of necessary infrastructure (Goktas et al., 2009). Not all educational venues across the community where lifelong learning classes are delivered have access to the Internet or technology. This may also act as a hindrance to tutors' readiness to use digital resources. Analysing focus group interviews with CEC tutors and several stakeholders involved in coordinating ESOL delivery, this paper aims to examine the enablers and barriers to embedding technology into our everyday teaching practice and subsequently create a future vision for BL in ESOL provision at CEC.

The thesis consists of four chapters. The Theoretical framework describes the enablers and barriers to using educational technology and introduces the research questions the study aimed to address. The Methods chapter describes the research design and details the data collection and analysis. The findings from the data are then presented in the Results chapter. The Discussion has been divided into four main subtopics. The first subtopic focuses on the

motivations for using BL in adult learning, while the second and third concentrate on the enabling factors and the barriers to incorporating technology in adult language learning. The final subtopic highlights issues beyond this study that further research should address to better support teachers' technology use in the classroom. The thesis ends with a conclusion that summarises the key findings.

## **Theoretical framework**

Thus far, most of the research about adopting the BL model has focused on K-12 and higher education, so there is a robust understanding of the enablers and barriers to incorporating educational technology in the learning and teaching of these groups. However, technology adoption in adult education has not yet drawn the attention it merits. This study contributes toward getting a better understanding of technology adoption in adult education through a case study at CEC. The study aims to identify whether what is known about technology use in compulsory and tertiary education, also applies in lifelong learning and adult education, more specifically.

The basis on which educational specialists come to adopt and use technology is explained by the technology acceptance model (TAM). Davis (1989) identifies perceived usefulness and perceived ease of use as the main factors determining teachers' readiness to integrate technology into their practice. Where a tool or application requires a considerable time investment to explore its functionality, teachers are less likely to continue using it. Nevertheless, even with a significant initial time investment to learn to use a piece of technology teachers are more likely to adopt it if they see how the tool can benefit their teaching practice.

However, tutors have gone beyond the stage of adopting technology, moving from emergency remote teaching (ERT) to a more structured and deliberate use of educational technology. Switching from the virtual classroom back to the traditional classroom, the question centres around whether tutors will continue using technology. Another issue to concentrate on is the motivators, both internal and external, that would drive tutors to make changes to their current teaching practice in the light of the benefits that using technology could potentially offer.

## **Enablers of technology use in education**

### *Political backdrop*

In 2018, the European Commission released the Digital Education action plan to transform education through digital technologies (European Commission, 2018). The action plan recognises that while technology is widely used in everyday life, its use in education still has a lot of room for improvement. The following year, Education Scotland released its Digital Strategy to offer suggestions on integrating technology within the nation's educational system (Education Scotland, 2019). Education Scotland is a Scottish Government executive agency responsible for supporting and improving Scottish education and delivering the best learning outcomes for all ages. The paper further stresses the recommendations given in the Government's strategy of enhancing educational provision through digital technology (Scottish Government, 2016).

In May 2022, The Scottish Government published its Adult Learning Strategy 2022 to 2027, which details the changes that will be implemented to improve the life chances for adult learners across Scotland (Scottish Government, 2022). The paper promotes approaches that would improve access for adults to learn throughout their lives. It also describes the changes that will be implemented to the digital infrastructure in education, focussing on improving the educational experience for learners in the adult learning sector.

### *Blended learning*

To deliver the proposals established in the Digital Strategy, one possible approach to merging technology into education is to adopt the BL model. Although BL does not necessarily have to involve technology (Clark, 2003), Graham (2012) views BL as a model of instruction that combines traditional classroom teaching with digital technologies. A variation of this definition is also used for the present study, where BL is seen as a combination of classroom learning and using digital resources both in class and outwith to make learning more dynamic and flexible for learners (Dziuban et al., 2018).

In the post-Covid context, teachers are particularly well placed to adapt to the blended model of education and rely on technology to enhance learning. Building on the skills learned and experiences gained during online learning, they can redefine their practice for good instead of returning to the traditional classroom model. Educational technologists, in particular, see BL as the future of education (Norberg et al., 2011). Using a mix of synchronous and asynchronous instruction to facilitate and organise learning, education is no longer confined to predetermined time, place and resources because BL provides more

flexibility to both teachers and learners (Graham, 2012). Such mixed media of instructions can include classroom sessions blended with online resources, such as, for example, the flipped classroom where the face-to-face time is for engaging in practical activities that stem from the concepts learned independently (Enfield, 2013). Nørgård et al maintain that “it [hybrid learning space] is a space of inclusion, not exclusion” (Nørgård et al., 2019, p. 77).

While some researchers see benefits in BL that are not present in classroom learning, others suggest that BL does not change education but only makes cosmetic changes by replacing some traditional elements with digital solutions. For example, Feenberg (2017) exemplifies this with the flipped classroom model with pre-recorded videos. He argues that although this allows teachers to dedicate more classroom time to discussions with students, such a modification is nothing but a variation of a traditional approach to teaching.

Fawns (2019) argues for a post-digital education that goes beyond traditional and BL as two distinct modalities. In his view, technology is embedded in everything without a sharp contrast between the digital and non-digital facets. For example, teachers use computers and the Internet to prepare and search for teaching materials, whereas students use them to access additional educational materials, such as online educational videos and prepare for assessments. However, learning and teaching that involves student-teacher contact is still mainly happening in the classroom environment. As such, the digitalisation of education has already happened, and technology has seamlessly become part of learning and teaching. The question is: how to improve the BL experience for both teachers and students.

#### *Covid-19 as the driver for BL*

The Covid-19 pandemic changed the learning and teaching landscape overnight. With face-to-face teaching suspended, teachers had to use the options available online. However, the situation was not comparable to a deliberate and well-prepared move from traditional classroom learning to online learning (Nørgård, 2021). Several researchers, therefore, argue that a more suitable term to describe the pandemic-induced switch is *emergency remote teaching* (e.g. Hodges et al., 2020; Milman, 2020). The term refers to teaching rather than learning because the interactions were less dialogical and more centred around teachers sharing and students receiving knowledge at the initial stages of working online. Hodges et al (2020) argue that as teachers had no comparable prior experience to rely on, establishing a more dialogical form of interaction required time and therefore, the emergency delivery of knowledge was mainly teacher-led. Also, online teaching was seen as a temporary solution (Bozkurt & Sharma, 2020). Adopting the “enforced and rushed” ERT (Nørgård, 2021, p.

1710) was assumed to be a temporary response to an unforeseen crisis with no deliberate plan and design for a new mode of instructional delivery rather than an informed choice. For many teachers, ERT was the only way to continue working with their learners.

However, two years after the first Covid-19 lockdowns, societies are learning to live with the virus (Bennett, 2021), and teaching is moving back to the classroom (Hosein & Ramdass, 2022). For many teachers, the online and digital environment has lost its hype with more experience gained in using technology in teaching; that is, they have moved beyond the challenges of adjusting to technological solutions (White, 2009). In this post-emergency context, Nørgård (2021) argues for moving beyond using apps, tools and virtual learning environments as classroom supplements and employing these to tackle more complex issues in education. Combining institutional practices, resources and learning environments across digital and non-digital solutions (Spiller, 2009) will help to create a more dynamic and engaging dialogue between the teacher and the learner. To support teachers in focussing on broader issues, such as using technology to support learning without organising education around digital tools, it is crucial to understand teachers' expectations for and difficulties in the continued use of technology.

### *Teachers and technology*

Teachers' readiness to incorporate technology into education can be understood through their online work. Over the last two years, most teachers have experienced some form of online teaching. At the outbreak of the pandemic, many teachers were not ready to swap the traditional classroom for technology (Winter et al., 2021). A large-scale international survey from only a year before the outbreak of the pandemic showed that almost half of the teachers were not adequately prepared to use technology (OECD, 2019). However, more recent studies have shown improvements in teachers' confidence in their ability to use technology (Parkin et al., 2020).

Remote teaching experience has also increased some teachers' motivation to use technology (Beardsley et al., 2021). For example, seeing that learning is not interrupted when instruction moves to virtual learning spaces can improve teachers' attitudes towards technology: when teachers see utility-value in using educational technologies, they are more likely to integrate these into their practice meaningfully (Backfisch et al., 2021). For example, teachers have moved beyond using technology for immediate instructional needs (Beardsley et al., 2021), such as using virtual online environments to deliver lessons and sourcing digital

materials available online, to creating their own digital teaching materials and combining these with available online resources.

### **Barriers to using technology in education**

#### *External barriers*

While various sectors of the economy have benefited from modern technologies, education has been lagging severely behind in technology adoption (Obana, 2020), at least pre-pandemic. Although the need to digitalise classrooms has been understood for more than a decade (Lawless & Pellegrino, 2007), progress has been limited (Antwi-Boampong, 2021). For example, many classrooms do not have enough computers available for learners and schools' Internet connectivity is often unsteady. This creates significant challenges in incorporating technology into learning and teaching (Hew & Brush, 2007). Moreover, Goktas et al (2009) argue that providing Internet access for school computers is not sufficient; extending wireless Internet connection across the campus would create a more accessible learning environment as learners often come to classes with their own devices (Clark et al., 2021). Many see the poor availability of Internet-connected devices as a major external factor hampering technology use (e.g. Goktas et al., 2009; Almanthari et al., 2020).

Johnson et al (2016) identify access to teaching resources and availability of technical support as other major external factors that determine teachers' readiness to adopt educational technology. As an additional hidden barrier, Gregory and Lodge (2015) argue that the workload in using BL differs from the time needed for preparing traditional materials. Institutional failure to recognise the extra work can discourage teachers from incorporating technology in their practice since this is seen as an increase in workload without due compensation (Cavalli et al., 2007). Adov and Mäeots (2021) argue that where teachers experience external barriers, their attitudes towards technology can be negatively affected. Mapping these external barriers and removing some of the factors hampering teachers' technology adoption can encourage them to integrate technology into education.

#### *Internal barriers*

In addition to external factors, Johnson et al (2016) also found several teachers' internal barriers, such as the lack of knowledge and skills that can influence their readiness to adopt and use technology. Where technology use is seen as complex, teachers tend to reject it if sufficient support is unavailable (Bates, 2019). Thus, training teachers in using digital tools is one of the key factors for their readiness to integrate technology into their teaching practice

(Hepp et al., 2015; Johnson et al., 2016). Additionally, creating opportunities for teachers to learn from each other and explore tools together can contribute to a higher likelihood of enhancing their teaching practice with the help of technology (Sadaf et al., 2016).

However, Foutsitzi & Caridakis (2019) maintain that if the focus is on improving teachers' digital skills, technology use will not expand beyond its current and limited use as a merely supportive tool in learning and teaching. Thus, training teachers to use particular digital tools alone is not enough. In addition to digital skills, they also need to gain a more overarching understanding of how technology can be used to support and enhance learning. Fawns agrees that "instrumentalist notions of training, as if digital education is a matter of mechanics rather than skilled teaching, are unlikely to be successful" (Fawns, 2019, p. 138). Focussing on the comprehensive approach of embedding technology into teaching rather than learning to use specific tools makes for a more meaningful practice where teachers employ technology to support learning rather than fit learning around it.

### *Digital divide*

As technology adoption became a need as a response to the pandemic, some governments and community initiatives quickly provided devices for learners so that they could stay connected and continue learning but this did not happen everywhere (Berten et al., 2021). Several studies have found that switching to the online classroom was made difficult by the digital divide, characterised by the lack of devices suitable for learning, poor Internet connection or insufficient digital skills to safely use the Internet (e.g. Gupta et al., 2021; Oyedotun, 2020; Watts, 2020). As a result, the different facets of the digital divide became a significant barrier to learning and to the experiences of online learning and teaching.

The digital divide became evident not only in developing countries but some social groups were also more likely to experience digital poverty than others. The most common dividing factors in access to digital devices are socio-economic background (Eyles et al., 2020), ethnicity (Belanger & Carter, 2006), location (rural vs urban) (Li & Ranieri, 2013), and age (Abbey & Hyde, 2009). While in the case of socio-economic background and geographical location, providing devices and training could help reduce the digital divide, it is less likely to be a solution for older learners who show limited interest in using technology.

Even with access to devices and sufficient broadband, students' low digital skills can act as a barrier to incorporating digital resources into learning (Johnson, 2017). As the digital divide does not only refer to the lack of digital devices but also the skills needed to use these

(Talaee & Noroozi, 2019), providing learners with devices does not always guarantee better access to educational opportunities.

To determine some of the possible enablers of and barriers to incorporating educational technology in adult learning, the present study is going to explore the following questions:

- 1) Do teachers feel ready to transform education through digital technologies?
- 2) What are the enablers of incorporating educational technology into the teaching practice?
- 3) What are the barriers that make technology use in education difficult?

## **Methods**

This section presents the study's methods, including research design, participants, data gathering procedure and analysis.

### *Research design*

The study adopted action research to seek transformative change in organisational practice through the research. Action research as a methodology combines doing research and taking action at the same time (Creswell & Poth, 2016). Linking research and taking action together with critical analysis, the methodology aims to achieve transformative change in relevant practices (Avison et al., 1999). Transformative change refers to revising organisational policies in response to shifts in other aspects of the organisation's culture or in the event of new opportunities (Schot & Steinmueller, 2018), such as, for example, building on the experiences gained in using educational technology in language provision during Covid-19 lockdowns. To that end, using qualitative research methods while applying the grounded theory approach (Khan, 2014) was deemed the most appropriate. The aim was not to build on an existing framework but to explore the stakeholders' views around integrating educational technology into ESOL provision and construct the hypotheses through data collection and analysis.

The data was collected through focus group interviews to allow for a nuanced understanding of people's lived experiences and insights (Freeman, 2006). An essential factor of focus groups is the interaction between participants as they discuss the topic of interest (Kitzinger, 1995) that has been carefully formulated into interview questions to guide the conversation. Krueger (2014) argues that focus group interviews are best suited to gather data on a range of opinions, perceptions or feelings on a particular issue and when "opinions or

attitudes are conditional or when the area of concern relates to behaviour or motivation” (p. 21). Since the overall goal of the present research was to establish a co-vision of how to incorporate educational technology into classroom learning and teaching, gathering views and opinions from a range of mutually dependent stakeholders was crucial.

The first category of participants to be interviewed was the tutors. The data gathered from the four tutor interviews informed the topics of the following session with the Strategic Adult Learning (SAL) team. Similarly, pulling together the themes and insights from these two categories, the questions for the final interview with the localities’ Lifelong Learning Development Officers (LLDO) were drawn up. In such a way, themes and topics for subsequent sessions emerged from the data gathered in previous interviews and allowed for developing a “theory that was derived from data, systematically gathered and analysed through the research process” (Strauss & Corbin, 1998, p. 12).

### *Participants*

Altogether, twenty-five participants were invited to take part in the interviews. All the invitees were stakeholders involved in coordinating and/or delivering ESOL classes at CEC. The invitation to participate was sent to all 18 tutors who have been teaching online during the Covid-19 pandemic, four localities LLDOs and three members of the SAL team. One member of the SAL team works as the Strategic Lead Officer for Adult Learning. The other two invitees are responsible for coordinating the overall ESOL provision, one for the citywide ESOL classes and the other for the Resettlement Project that works with refugees who have been relocated to Edinburgh.

The stakeholders were grouped together for the interviews based on their roles. Nine out of the eighteen invited tutors agreed to the interviews (see Table 1). They participated in four separate sessions, with two or three participants in each. These interviews focussed on tutor experiences of online teaching, their readiness to continue using digital technologies in their practice and their development needs in the technology-enhanced teaching context. Three out of four LLDOs joined the interview intended for locality coordinators to discuss their viewpoints regarding the use of educational technology in ESOL provision. LLDOs are the organisational link between the learners and the tutors. They work towards matching the tutors’ skills with the learners’ needs in the best possible way, taking into account the facilities available in the venues used for adult learning. Thus, another aim of the LLDO interview was to understand to what extent the venues afford to use technology in learning and teaching. All three SAL team members participated in the interview that focussed on the management side

**Table 1:** Tutors' profiles

Interview no.	Pseudonym	Years of teaching	Years of teaching online (pre-ERT)	Type of tech used pre-ERT	Tech confidence post ERT
1	Pat	9	-	YouTube	slightly higher
1	Geraldine	43	1	YouTube, PowerPoint slides	higher
1	Jett	27	-	YouTube, Smartboard	slightly higher
2	Mara	6	-	YouTube,	higher
2	Lauren	15	-	YouTube	slightly higher
3	Tony	7	2	YouTube	higher
3	Yvonne	11	1	YouTube, PowerPoint slides	higher
4	Ava	8	-	YouTube	higher
4	Carrie	5	-	YouTube	slightly higher

Notes: ERT – Emergency remote teaching

of organising the ESOL provision. The interview with the SAL team had two main topics: the motivations of CEC for continued use of educational technology, on the one hand, and the material availabilities and funding available to accommodate digital transformation at the organisation, on the other. Profiles of the LLDOs and the SAL team members are shown in Table 2. Pseudonyms are used to refer to all participants.

**Table 2:** LLDO and SAL team profiles

Participant category	Pseudonym	Years in current role	Tech attitudes before ERT	Tech attitudes post ERT
LLDO	Deidre	21	positive	generally positive
LLDO	Iris	21	never thought of edTech	positive
LLDO	Ruth	10	positive	positive
SAL	Bonnie	5	tentative	very positive
SAL	Flora	5	never thought of edTech	positive
SAL	Sally	0.5	never thought of edTech	generally positive

Notes: ERT – Emergency remote teaching

### *Data gathering procedure*

The interviews were conducted online via Microsoft Teams, the only online conferencing platform available at CEC. Each lasting 60 to 75 minutes, the interviews were recorded for later transcription and data analysis. Although the suggested participant number for focus group interviews is five to ten and the interview duration is two hours (Krueger, 2014), smaller groups and shorter interviews were deemed more viable for the presumably more

intense online format. This setup allowed everyone to have sufficient time to express their views without experiencing digital exhaustion during the interview.

### *Data analysis*

The research data were collected in six interviews: four with tutors, one with LLDOs and one with the SAL team. All the interviews were transcribed and then coded. The coding method was a mix of predetermined or *a priori* codes (Crabtree & Miller, 1999) and emergent codes (Creswell & Poth, 2016). The predetermined codes derived from the interview questions and focussed on themes including tutors' readiness to continue using educational technology in class, enablers and inhibitors of adopting technology, attitudes towards BL, and continued professional development (CPD) needs. Emergent codes were derived from the data and could not have been determined beforehand because they reflected views that came to light only during the discussions. For example, some emergent codes focused on budgetary constrictions or stakeholders' opinions about the technological availabilities of the teaching venues.

## **Results**

The study aimed to explore tutors' readiness to continue using technology in learning and teaching once they move from the virtual classroom to the face-to-face classroom. In particular, the focus was on tutors' attitudes towards educational technology and on factors that could enable and hamper their readiness to integrate technology into their classroom teaching practice.

### **Tutors' technology use and skills**

#### *Change in attitudes towards and application of technology*

Over the 18-month online teaching period, tutors' attitudes towards incorporating digital elements into their learning and teaching practice had gone through a significant shift, moving from fear and scepticism to seeing its benefits. Similarly, their use of educational technology in delivering lessons had changed. At the beginning of online teaching, many tutors felt compelled to use a range of available apps and tools, which made teaching very technology-heavy, and tutors "felt like a sort of air traffic controller", switching between apps and sharing their screens. Over time, there was a shift in how tutors felt about working in the virtual classroom. Geraldine described the shift as follows: "I was doing very teacher-led materials.

[...] But then gradually I began to relax a little bit and try and teach it more like a normal lesson with listening, with writing and little reading.”

#### *Towards a more deliberate use of technology*

After a year and a half of teaching online, tutors felt having moved from ERT towards a more structured approach to organising their technology-mediated learning. The sentiment shared by many was expressed by Tony, who remarked: “We're still sort of finding our way, aren't we? And we'll continue to do so but I think we're heading in the right direction.” Tutors’ confidence levels in their ability to use technology in their teaching practice had increased and they felt that both themselves and the learners were benefiting from technology use.

Tutors’ ability to navigate technology and use digital resources to support learning and teaching translated into their readiness to continue using these once back in the classroom. While some tutors were still figuring out whether to incorporate technology into their teaching practice outside the virtual learning environment, others were certain that they would transfer most tools they had used in online classes over to face-to-face teaching. In some cases, however, tutors felt that they – the instructors – were the best resource in their classroom and were planning to “go back to it and not [use] so much technology, certainly for the foreseeable time.” For more extracts on tutors’ feelings about using technology in teaching, see Table 3.

**Table 3:** Tutors’ feelings about technology-enhanced learning

ERT	<p><i>I didn't have any experience in teaching online [...] and I felt like the teachers were just left to use their own creativity, which was great. I've learned a lot, but I didn't know whether what I was doing was the right thing. (Pat)</i></p> <p><i>There were a couple of people who were maybe just a day or two above everybody else. (Mara)</i></p>
Feelings at the start of online teaching	<p><i>I was just really worried that we were setting particularly the refugees, the lower literacy learners up for failure by forcing them [online]. (Yvonne)</i></p> <p><i>I had gone in with very negative expectations, which were confounded. (Jett)</i></p> <p><i>I thought it would be bloody awful and it wasn't. (Tony)</i></p>
Feelings after 18 months of online teaching	<p><i>There was the learning curve and the top of the learning curve took us closer to that achievement in terms of enhanced learning of a face-to-face class than I had initially expected. (Tony)</i></p> <p><i>Now there's a lot of people feeling confident about technology. I've got a lot of experience and a lot of confidence. (Mara)</i></p> <p><i>What we've learned over the past 18 months is something that I never even considered that I would do at any point, and I'm very grateful for it. (Carrie)</i></p> <p><i>Teaching online was definitely something that I was interested in, but [Covid-19] was definitely the push to make me do that. (Lauren)</i></p>

Notes: ERT – Emergency remote teaching

## **Enablers of BL**

### *BL as the future of education*

Tutors were equally divided between preferring the traditional classroom to the online instructional medium. Preference towards one or the other was less motivated by tutors' digital skills and confidence in using technology than by the benefits and barriers of online education that they had witnessed during remote teaching. However, irrespective of their preferences for the learning environment, tutors unanimously agreed on BL being the dominant model of the future of education that just happened to be brought forward by education moving to the virtual environment in response to Covid-19:

It really is going to be a big part of the future. So I think we have to just learn it and embrace it. [...] We've learned a lot about online learning perhaps a lot sooner than we might have done. (Mara)

Tutors' views were echoed and supported by the SAL team, who said they “just don't see [themselves] going back to face-to-face only.” The SAL team's attitudes reflected both the need to comply with the government guidelines and the positive feedback regarding online learning they had received from the learners. There was a shared understanding that it was time to review the language provision and support tutors in moving from ERT to a more structured way of incorporating technology into their work:

I think it's right now that we need to be going back and saying, okay, we've hobbled along for a year and we've done our best to make this work as well as we could. But now we really need to look at future and proof this for the future. (Bonnie)

An additional selection of extracts on the stakeholders' views on BL is presented in Table 4.

### *Accessibility and inclusion*

The main benefits of providing online classes and blending the virtual learning environment with the classroom setting that all stakeholders pointed out were accessibility and inclusion. Being war refugees, many of the learners have experienced a form of trauma in the past, which may contribute to their “inability to plan things, journeys and all of these things that we take for granted.” Learning online gives “a massive benefit for some people that they can just roll out of bed and click on a link and they don't have to show their faces and they can go to an English class.”

In addition to possible difficulties in organising their days, some learners have other reasons that make it difficult for them to regularly attend classes, with family responsibilities or visiting relatives in their home countries being among the most frequent. Mara expressed

the shared views: “If they've had to go back to their country or they've gone somewhere else, they can still log in. So I think it might have a positive effect actually on attendance.”

**Table 4:** Stakeholders’ views on BL

Future of BL	Tutor views	<p><i>I also think it's kind of the future because there's so many things now that are online. (Mara)</i></p> <p><i>Something that I've taken away from online teaching is that we do have this incredible resource that the learners can use a bit more. (Geraldine)</i></p> <p><i>I'd like to see us continue having, if you like, blended learning across the whole provision across all programs. (Tony)</i></p> <p><i>I think overall then my preference would be to do both, some of each [face-to-face and online tutoring]. (Yvonne)</i></p>
	SAL and LLDO views	<p><i>The Scottish government are actually advocating that we do continue to deliver the blended learning approach and from here on and certainly that's the intention from the council to do that. (Bonnie)</i></p> <p><i>From the feedback we've had from learners, some seem to really appreciate being able to do a class online. (Ruth)</i></p> <p><i>It could be the idea that you could have people in the classroom situation and you could have a couple of learners watching and listening in online, if they had suddenly a child unwell or [...] be ill with another illness, then they could actually still participate. (Deidre)</i></p>
Benefits	Tutor views	<p><i>I'm just maintaining an email correspondence with them in a way that it just didn't exist before. (Tony)</i></p> <p><i>If something happens that they can't come to class because they're not very well they might be well enough to come to class online. (Mara)</i></p> <p><i>During lockdown itself the attendance was the best it's ever been for my classes. (Lauren)</i></p> <p><i>Reaching people that we wouldn't have reached before, because they would never have come to a class. (Yvonne)</i></p>
	SAL and LLDO views	<p><i>People have said that they would like to continue learning online because practically it's a lot easier for them. Partly because of just childcare or it just fits into a busy life easily. (Flora)</i></p> <p><i>We know that we have students participating now who couldn't have and didn't participate before. [...] This is an inclusion issue and it is about making sure that people who are in the most marginalized positions can't access learning. People for whom online is the only way that they could practically participate. (Iris)</i></p>

Notes: BL – Blended Learning; SAL – Strategic Adult Learning team; LLDO – Lifelong Learning Development Officer

However, online classes do not only make learning more flexible for existing learners. Providing educational opportunities that can be accessed from home can also work as an equaliser. For example, it can enable people from more remote areas to take part in learning that would not be available for them face-to-face. Although tutors agreed that online learning and BL could improve access and attendance, they also acknowledged possible disadvantages:

[We were] reaching people that we wouldn't have reached before because they would never have come to a class. And then there are other people who need to be in the classroom who you really struggle to reach through screen. (Yvonne)

Therefore, all stakeholders put forward a case for a blend of face-to-face groups and online classes to cater to a broader range of needs and learning preferences than had been provided before the ERT period.

### *Flexibility*

Using technology was seen as adding flexibility to curricular aims as digital resources allow tutors to choose from various online resources those most suitable for their learners. This enables learners to engage with materials through different content media, such as YouTube or interactive worksheets repositories, and use the resources that best meet their learning needs. Tutors welcomed email exchange as a way of communicating with their learners between classes and sending them materials and other resources for practice. The opportunity that had not been used before online learning was seen as reducing pressure on learners because “just in case somebody has missed something in the class, you can just receive everything by email and catch up.”

Also, using digital devices in the classroom was regarded as enriching the learning experience while helping learners acquire skills needed in the technological era. This benefit was summarised by Mara as follows: “I suppose by having students access technology, then it's also part of learning. We're providing the ESOL environment, a safe environment for them to get used to the technology as well.”

## **Barriers to BL**

### *Internal barriers*

#### *Tutors' digital skills*

Lack of digital skills was the most frequently mentioned internal barrier to incorporating technology in teaching and learning. Although tutors reported that their confidence in using technology had considerably increased over the online-teaching period, they still considered their skills insufficient to comfortably incorporate technology into their practice. Tutors had to stop using some pieces of technology or apps because, for example, they “just couldn't figure out how to make [sharing audio] work” or because they “had no idea how to play a YouTube video whilst sharing screen.”

*Continued professional development*

Tutors felt a need for additional training to overcome technological challenges because “in the beginning [they] were all learning at the same time as teaching” in the unfamiliar digital environment without much time to explore the tools. Some thought it was time to take a step back and evaluate their practice after ERT. There had not been an opportunity to do it because, as Yvonne put it: “we’ve got it all up and running and then there’s so much firefighting that goes on that you don’t ever get a chance to go and revisit stuff.” To satisfy the training needs, some tutors found “it would be beneficial to do a little bit of both” – professional training as well as peer-to-peer learning as part of their CPD – but most tutors agreed that “practice sharing and peer-to-peer is often a lot more helpful than being shown how to use something”, especially if that mutual learning was accompanied by some “follow-up as well, so kind of like an open forum.” Some expressed the need for more time to explore different technology, noting that they “learn more by [themselves], by real experience rather than the formal training.”

In addition to continued training for existing tutors, all stakeholders agreed on the importance of training new staff members with the best practices for working with the target group. As Tony stated when talking about the new-hire induction training:

[It would be] really good to think about what training we give to new tutors in the future and make sure that they know what they need to know and have the opportunity to learn more if they want to.

*External barriers**Students’ digital skills*

Tutors unanimously agreed that students also needed some digital skills training to make the best use of technology. Learners’ digital skills vary, partly depending on their age and background. For example, some learners “have no idea how to use a mobile phone” to log onto an English class or “how to access YouTube” to watch online learning videos. Some tutors, therefore, believed that “it would take some kind of digital skills training for some students to actually be able to do more.” All stakeholders, therefore, agreed that students needed “a computer skills course so that they feel confident before they log on for the first time.” There has been no such training for learners, partly precisely because the need for it has not been clearly articulated. The lack of funds allocated to digital skills classes has been another significant reason for low digital literacy levels among some learners. This, however, is changing in response to Covid-19 as “the Scottish government is going to put some funding

into supporting adults' numeracy skills [...]. But within that, there is a bit of improving people's digital skills to enable them to deal with everyday life.”

#### *Added time commitment*

Some tutors felt that using digital resources added to class preparation time. Although accessing online materials was regarded as beneficial, some tutors were not satisfied with “not having an awful lot of time going online, looking for materials.” The same applied to communicating with learners outside class time. While tutors agreed that “it's so much easier to get in touch with people” via email to send them class materials and clarify issues that learners may not have understood in class, they also pointed out that “it is extra time though. Perhaps we shouldn't diminish the commitment of time that it involves.” As Mara said: “If we're just paid for the two hours, I wouldn't want to do too much extra admin on top of all the preparation that we already do.” While there is no obvious way of cutting the time going into admin work and email correspondence with learners, streamlining curriculum development and lesson-planning across the ESOL provision could help reduce the time that is currently going into preparing teaching materials individually.

#### *Learning spaces*

Learners' digital skills can be improved and the time it takes to incorporate digital materials into the classroom practice can be reduced through a more collective approach to preparing materials. On the other hand, problems with the existing teaching venues were considered among the most challenging barriers to overcome. The spaces used for community learning are often not equipped with technology. As Ava, who had returned to teaching face-to-face, pointed out, going back to classroom teaching was like “going back to the nineties.” LLDOS agreed that the learning venues do not support using technology, describing the learning spaces as follows:

Only one of the classes that I organize it's set up in a computer suite. [...] Other rooms are fairly basic. They might have access to the buildings' Wi-Fi but apart from that, there isn't any other kind of technology in the rooms. (Iris)

Tutors could bring portable technology to classrooms but this poses two issues. Firstly, “at the moment [the community learning staff] don't have enough teaching laptops”, although “there used to be a set of very old laptops that were used by an adult literacy class, but they were so old and they were so unpredictable.” And secondly, even if devices were available, getting online could be problematic because although “every community centre is supposed to have a

public access to the Internet through the council [...] the public access is very patchy.” The SAL team and LLDOs agreed that an exacerbating factor is that “there’s not a fantastic budget for improving technology and buildings.”

#### *Social aspects and community connections*

Although all stakeholders saw a wide range of benefits to online learning, they agreed that isolation and reduced community engagement call for a blend of face-to-face and online language provision, with more weight on classroom learning for those who can participate in it. This was partly due to feedback from learners who “are missing this sort of face-to-face part, to see each other and talk to real people.” As an added benefit of face-to-face lessons, as learners often attend classes in their immediate community, going to the class also has the element of engaging with the community. All stakeholders, therefore, “want to see people interact and be sociable and get to know their communities as well.”

For CEC councillors, community engagement is one of the top priorities for getting people back into the classroom, as LLDOs argued. However, they also acknowledged that while “councillors say, well, [learners] can go to the nearest community centre for a class, but there might not be the right level at the right time.” Therefore, they argued for a choice so that “when the suitable level is not near enough for them, [learners] could opt for the online class.”

#### *Digital divide*

Working online during ERT highlighted the inequality in access to digital resources among both learners and tutors. The main concern was the home Internet connection because lessons in a virtual classroom “tended to strain the Wi-Fi connection. I would lose it or the students would lose it or it was just so slow.” The broadband speed that was perhaps suitable for everyday needs was often insufficient for smooth online meetings.

For many learners, joining online classes was made difficult by the lack of suitable devices. Geraldine described the problem as follows: „I was very aware that people are on their phones and they can only see two or three words any one time.” This required tutors to consider a range of screen sizes when preparing materials and planning lessons, which added to their time commitment. The SAL team agreed that the inequality in digital devices is a serious issue. As Sally explained, refugee families in particular “don’t have access to the right technology and they might be doing a two-hour class holding up their phone, which again is not really suitable.” They also pointed to the problem that “the woman, in particular, is a person that is the least likely [in a family] to have the device that she’s able to participate in

classes.” They argued that there is funding to equip every refugee family in need with a laptop but they added that “inevitably that will go to the child or even the husband.” For more extracts on the barriers to BL by themes, see Table 5.

**Table 5: Barriers to BL**

BL disadvantages	Added time commitment for tutors	<i>Sometimes I would maybe find something that would be suitable for my class and I would tweak it, but it would still be really time-consuming all the formatting and everything. (Pat)</i> <i>Using slides is great, it's nice to be able to do these things but it's time-consuming. (Jett)</i>
	Lack of socialising for students	<i>If you're doing everything online, you're not having these incidental little conversations or are you not seeing that poster in that community centre about this event or something. (Mara)</i>
Digital skills	Tutors	<i>I'm not sure I'm progressing really well with all this technology. (Pat)</i>
	Students	<i>Digital literacy is the other thing, the ability to navigate those devices and to just get online [is another]. (Yvonne)</i> <i>I think if they can't use [a laptop], then they might as well not have it. (Tony)</i> <i>Supporting learners to increase their digital skills, but it certainly needs to be a priority that we take forward as we hope it will be a centralised adult learning service going forward. (Bonnie)</i>
Training	Technology CPD	<i>About professional development [...] I think I would need some development. I'd need some input on making sure I use it [technology] in a better way. (Jett)</i>
	Peer-to-peer	<i>I think it's lovely to be able to come and share one bit of technology. (Geraldine)</i> <i>What the tutor will teach you is also [...] tried out personal experience as well as the technical bits. (Carrie)</i>
	Induction	<i>I'm not sure if it would be a leaflet or maybe a short training session when [a new tutor] first starts using the platform. (Pat)</i>
Devices and venues' technological availability		<i>[There would be] ongoing cost for each [new] laptop because we not only have to pay for the laptop, we have to pay for the [upkeep] costs on an annual basis.[...] But I couldn't honestly say to you right now that I can see a budget for that. (Bonnie)</i> <i>It's partly to do with a lack of laptops or basically laptops for schools being prioritized over everybody else so that we just got to wait in the queue. So as soon as schools ask for more, we're dropped down the queue and that's what happens. (Bonnie)</i>
Students' devices		<i>I would say it's not a level playing field. You know, there are some people who have a laptop and a really good internet connection. There are other people who only have a phone and an unstable internet connection. (Yvonne)</i>

Notes: BL – Blended Learning; CPD – Continued Professional Development

Although, all tutors had a desktop computer or a laptop for delivering lessons at home, many lacked suitable devices to continue using technology when working in community

spaces. Jett described the situation by saying: “I don't actually have a laptop. [...] So I'm going back to the Dark Ages and the joys of using pen and paper.” As a result, tutors agreed that it was essential to make sure “everybody's got a good device and everybody's got access to everything that they need, if [technology use] is going to be a long-term project.”

## **Discussion**

### *Expectations*

The Scottish Government recently published their new Adult Learning Strategy (Scottish Government, 2022) that reiterates its previous commitments to enhance learning and teaching through digital technology (Scottish Government, 2016). At the centre of the strategy is to remove barriers to learning opportunities that adult lifelong learners face. One way to improve their access to educational opportunities is to use the blended model of learning by offering classes not only across the community venues but also in the virtual learning environment. In the digital era, it is no longer inevitable to go to the classroom to learn because learning can happen at any place and at any time (Graham, 2012). Besides delivering teaching and learning more flexibly, the Scottish government also sees BL as a way to improve learners' digital skills.

The CEC's lifelong learning department is committed to complying with the guidelines of the Scottish Government not only because it is legally compelled to but also because according to the feedback all the stakeholders have received, many learners themselves favour the BL model after having been learning in a technology-mediated environment for over a year. Although all stakeholders accepted that online learning has deterred some learners – older people, those with low digital literacy skills or people who simply lack suitable devices to access online learning – they also agreed that the virtual learning environment has made education accessible to other learners who would otherwise never have come to class for various reasons.

Similarly to earlier findings (e.g. Graham, 2012; Nørgård, 2021), the study identified family responsibilities, no suitable classes close to learners' homes and lack of confidence in joining face-to-face learning as the main barriers to accessing community learning opportunities. Cross (1981) categorised such barriers into three distinct groups: situational, institutional and dispositional. Situational barriers are dependent on adult learners' life circumstances, including a lack of time or family commitments. Institutional barriers stem from how adult education courses are organised, such as there being no suitable classes that

learners can easily access in their community. Finally, dispositional barriers are based on learners' attitudes that prevent them from participating, including a lack of confidence in one's abilities or low motivation. The guidelines from the Scottish Government aim to reduce some of these barriers by opening up lifelong learning opportunities through making access more flexible. BL and technology-mediated learning environments are thus seen as the foundation for transforming lifelong learning in Scotland. To achieve this, however, tutors' readiness is needed to make necessary changes in their teaching practice.

### *Availabilities*

The online learning period has changed tutors' attitudes towards educational technology. The study found that when tutors were pushed to move learning and teaching online due to Covid-19, many were sceptical about its success. Part of the fear was due to tutors' own insecurities about technology use. Similarly to Winter et al (2021) findings, the study discovered that tutors did not feel well prepared to move from the traditional classroom to the virtual learning environment. Nevertheless, all tutors agreed that the online teaching experience had improved their digital skills. They were all feeling more confident with technology after using a range of tools and apps in the virtual classroom. Nevertheless, some tutors still worried about adding another variable – the need to learn new technologies – into their learners' already complicated circumstances. Working with migrant learners, many of whom are refugees displaced due to war and violence and setting up their lives in a new cultural and language context, tutors were rightfully concerned that pushing them into an unfamiliar online environment would hamper their learning.

These fears, however, were unwarranted. Most learners adapted to the new learning environment and many have since expressed their interest in continuing to learn online. Although some learners were unable to access online classes due to a range of reasons and were therefore excluded from learning until classes moved back to the face-to-face format, all stakeholders agreed that being able to access language classes from home through digital platforms opened learning opportunities up to learners who had never been able to access language classes before. Seeing the benefits of online classes, but also how these could create unanticipated barriers to participation, stakeholders appeared convinced of the importance of continuing with the blend of online and in-class language teaching.

Although not all tutors were equally ready to incorporate educational technology into their practice, they all agreed that BL will become the dominant model of education. All tutors had noticed the benefits of online learning after Covid-19 closed doors to any face-to-face

teaching. Seeing that learning was not interrupted while there was no access to the classroom improved tutors' attitudes towards technology as a mediator of learning. These findings are in line with Beardsley et al (2021), who also reported teachers' increased motivation to continue using technology as a result of positive experiences with remote teaching.

To continue incorporating technology into their practice, all tutors showed interest in further training and improving their digital skills. Training plays a significant role in improving tutors' readiness to use technology (Johnson et al., 2016). It can also be a key to encouraging more hesitant tutors to integrate technology into their practice. There was considerable unanimity among tutors in preferring peer-to-peer learning over expert training, as this was considered more relevant and valuable. This coincides with Antwi-Boampong's (2021) argument that training must meet the specific needs of the tutors to be seen as beneficial. Tutors suggested that training should be carried out by someone who knows both the specificities of teaching particular learner groups and is equally skilled in using a device or a piece of software.

The SAL team and LLDOs also acknowledged the importance of training to move from ERT to a more structured approach to incorporating technology into language provision. They recognised the need for more funds to make training opportunities regular and provide digital skills courses not only to tutors but also to learners. Lack of funding for digital skills training and shared learning opportunities could prove to be a barrier to adopting technology long-term. At the beginning of ERT, tutors had no choice whether to use technology or not if they wanted to continue working with their learners. However, once returning to the classroom, technology becomes an option that tutors can either adopt or reject. Hence, finding funding for training is crucial to promote continued technology use in learning and teaching.

### *Reality*

A yet more significant barrier than the lack of training in incorporating technology into classroom practice is the extremely low technological preparedness of the classrooms used for community learning. A compounding factor is that the lifelong learning department does not have teaching laptops for tutors to take into the classroom. Hew and Brush (2007) see the lack of technological resources as one of the main hindrances to technology integration. They argue that "without adequate hardware and software, there is little opportunity for teachers to integrate technology into the curriculum" (Hew & Brush, 2007, p. 226). As the SAL team explained, the adult education sector is not seen as the priority when it comes to allocating

funds for devices, while schools and other compulsory education take precedence over lifelong learning.

Although learners who have been using their laptops and mobile phones to access language classes online could continue using these in the classroom, it would not solve the problem. Firstly, it would only deepen the unequal access, as not all learners have equal access to devices suitable for learning. Secondly, as many tutors argued, although they have desktop computers or laptops to work from home, they do not have personal laptops that could be taken to classes in community venues. And thirdly, even if everyone had a suitable device for learning and teaching, the Internet coverage in the learning venues would still be an issue.

Whereas all Council spaces should have access to the public Internet network, the access is patchy and not sufficiently reliable to build technology use into the curriculum. Tutors and learners would have to rely on their mobile data but this would shift the responsibility for having access to learning materials on learners' and tutors' shoulders. Not everyone has equally generous data packages that would allow them to use their devices in the classroom. Therefore, a more sustainable and comprehensive solution needs to be found so that tutors could realise the potentials that incorporating technology into education can have.

If integrating technology into learning and teaching becomes permanent, it is crucial to review the technological availabilities of the venues used for community learning. These should be thoroughly audited for existing technology and Internet access to better understand the extent of the required investments. Where the technological readiness of venues cannot be improved with reasonable resources, looking for alternative venues should be considered.

#### *Further research*

Beyond a more immediate vision of continued use of educational technology in adult language learning, the topic illustrates critical issues of technology use in education. Discussing technology integration into their practice, the tutors' focus tended to centre around the practical side of technology-enhanced learning: improving both tutors' and learners' digital skills to better use apps and tools, having access to devices and a reliable internet connection. However, it was only in passing that they mentioned the ideological aspects of technology use. This could show that, for the most part, technology tends to replace existing practices rather than add to them (Cuban, 1993). This leads to the question of why should tutors add technology into the teaching practice, especially if they can achieve the same

results using non-digital resources in class and adding the digital element to their practice would only complicate things (Cahapay & Anoba, 2020).

However, technology-enhanced learning should be viewed more broadly than replacing some traditional elements of learning and teaching with digital tools. Such a substitution of non-digital with digital fails to explore any additional benefits of digital education (Bates, 2019). Encouraging tutors to move beyond the platforms they use and the materials they build their teaching on and to view the Internet as a broader medium would open up options they are not aware of before they start exploring these. For example, moving beyond using a virtual platform for only synchronous learning and teaching, and instead combining it with other apps, such as social media, say, private Facebook or WhatsApp groups, would allow tutors to embed teaching other skills than simply reading and writing into their instruction. Operating online using a range of media also contributes to improving digital skills seamlessly and invisibly.

While all tutors acknowledged the benefits of BL, some were nevertheless planning to go back to the tutor being the main resource in the classroom without incorporating technology into their classroom practice. This suggests that using digital resources was seen as a temporary replacement for using traditional instructional methods. This may have been due to the ERT response to Covid-19 that left at least some tutors with no time to embed technology and digital learning resources into their practice meaningfully. According to Slaughter et al (2019), tutors' attitudes towards digital technologies are related to their prior experience using these. Thus, the rejection of technology can be seen as an adverse reaction to digital tools caused by the rapid shift to the online environment where tutors did not have enough time to explore technology and discover how digital resources could be utilised to benefit both tutors and learners. Additionally, as Nørgård (2021) argues, if tutors only have the ERT experience, they might see technology-enhanced learning inferior to classroom learning.

Therefore, tutors may need time and a safe space to explore technology. Sadaf et al (2016) argue that exploring tools and apps with colleagues can positively impact tutors' confidence in using educational technology. Some tutors also emphasised the preference for learning by doing. The effectiveness of such an approach to familiarising oneself with technology has also been stressed by Saboowala and Manghirmalani Mishra (2021). They argue that allowing tutors to explore the possibilities of technology can contribute to more positive attitudes toward integrating it into their teaching practice. For example, the virtual learning platforms used during the online learning period could continue to offer

asynchronous learning opportunities. Or portable digital devices, such as smartphones and tablets, could be used to differentiate materials to accommodate a range of learning needs within one classroom.

Furthermore, as digital tools have become a part of our everyday lives, we can no longer deliberate the use of technology in education – it has become part of it without us noticing (Fawns, 2019). For example, tutors use technology to search for and prepare lesson materials. In class, they use apps such as Google Translate to communicate with learners and the Internet to provide visual materials to support learning. Providing tutors with the opportunity to explore technology in the educational context could also help them appropriate its use in their teaching practice and blur the divide between personal and educational use. Therefore, further research is needed to understand how to support tutors in appreciating technology use in a broader sense and encourage them to explore the different options that technology affords. This would help them transform their teaching practice to better fit the realities of the post-digital learning context.

#### *Limitations of the study*

The present study has three possible methodological limitations. Firstly, the small focus groups did not work as well as they could in a typical format of five to ten, but not more than twelve people (Krueger, 2014). The interviews were carried out on MS Teams because in-person interviews were not possible due to Covid-19 restrictions. As conversations in online meetings may not flow as naturally as face-to-face conversations and to allow each person more time to talk, it was decided to have smaller groups of up to four people. Due to interviewees' time availability, half the groups only had two participants, which could have impacted the flow of the conversation; the conversation seemed more organic in three-person groups than in the smaller ones.

Second, Krueger (2014) suggests that each category of participants should have around three or four groups. This ensures that the interviewer reaches the point of discussion saturation, meaning that every additional group reiterates what previous groups have said and there is little additional new information added to the pool of data. This rule was satisfied for the tutor category (although not necessarily for the number of participants within groups) but not for the other two categories. This was because the number of potential participants for these categories is very low at CEC. Although all individuals working in the three role categories were invited to the interviews, not everyone agreed to take part, reducing the

numbers even more. Therefore, it is likely that the gathered data did not exhaust all possible views.

Third, it was noticed that participants within a focus group sometimes came to agree with each other's opinions even when their viewpoints had initially diverged. This could indicate an intra-group bias where group members influence each other's responses. However, this phenomenon was not evident in all the groups; thus, it is unclear whether it was a sign of conformity (O.Nyumba et al., 2018) or represented natural human behaviour in a group setting.

Nonetheless, regardless of these limitations, the chosen focus group interview method proved beneficial, since there was good interaction between group members as they shared their understanding and opinions on the topic. In the end, the interviews afforded insight into the participants' views and provided valuable data to inform the paper.

## **Conclusion**

In recent years, the Scottish Government has encouraged teachers to incorporate technology into their practice to break some barriers that adult learners face when accessing lifelong learning opportunities. Enhancing education with digital resources can also help people improve their digital skills.

Most tutors are ready and willing to incorporate tech into their practice while some are still hesitant. It is, therefore, necessary to get a better understanding of how tutors can be encouraged to incorporate technology into their practice. This would give a better understanding of what support is needed to implement technology-enhanced learning. Exploring the tutors' existing skills and their possible training needs would also work toward establishing peer-to-peer learning opportunities. As most tutors consider learning from each other most valuable, learning workshops could be the most beneficial form of training that could be provided.

While training can help improve tutors' skills and confidence levels in using technology, it is also essential to have a critical look at the digital infrastructure in the venues used for learning and teaching. A thorough investigation into the technological availabilities of these spaces should be carried out. This would give a clearer picture of which spaces can be made more technology-friendly with the available funding and whether there are spaces that will not afford sufficient technology use even with a reasonable investment.

However, the future vision of using technology in education should not only focus on immediate aspects such as training and venues. Parallel to modernising the learning spaces and helping tutors to acquire digital skills, tutor training should also focus on broader issues of technology use in education. There is a need for a structured move from ERT to an educational approach that blends traditional teaching methods with technology so that digital solutions add value to the traditional practices. Therefore, teachers need to better understand the underpinnings of using technology to enhance education and how to use technology meaningfully to support learning rather than trying to fit learning around technology.

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I thank you all!

**Author's declaration**

I hereby declare that I have written this thesis independently and that all contributions of other authors and supporters have been referenced. The thesis has been written in accordance with the requirements for graduation theses of the Institute of Education of the University of Tartu and is in compliance with good academic practices.

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# Appendix 1

## Interview protocols

### Tutor interview questions

How long have you been teaching ESOL?

*Probe: What levels do you teach?*

*Probe: ESOL literacies or general ESOL?*

What kind of technology and digital learning materials are you using online?

Did you use any technology and/or digital learning materials or tools also before learning went online due to Covid-19?

*Probe: How did you use these before?*

Have there been any technology and/or digital learning materials you have tried but have stopped using?

*Probes: Why did you stop?*

*Probe: (If due to lack of digital skills) Would you start using these again with support?*

Once learning moves back to the classroom, are you planning to continue using technology and/or digital learning materials?

*Probe: Why?*

*Probe: Why not?*

In terms of the teaching medium, what do you prefer: classroom only, online only, or blended?

*Probe: Why?*

Have your attitudes towards using technology in class changed over the last year and a half?

In your opinion, what are the benefits of BL?

In your opinion, what are the disadvantages of BL?

How should BL be incorporated into classroom teaching?

Do you feel you need any support to continue using technology in class?

What are your professional development needs in terms of blended learning?

*Probe: Expert support or peer-to-peer learning?*

What kind of other professional development opportunities would you be interested in?

Is there anything else you would like to add that we haven't discussed?

### SAL team interview questions

Do you think that technology should continue to be part of ESOL provision?

*Probe: Why?*

*Probe: Why not?*

How can Adult Learning strategy be implemented in ESOL classrooms?

*Probe: Can you give any (more) examples?*

As we exit the online-only period, will ESOL provision go back to classroom only or will there be scope for online groups as well?

*Probe: Can you give any reasons for this decision?*

What would be the benefits of continuing with providing language courses also online?

*Probe: Can you give any (more) examples?*

What kind of support can we offer existing tutors to gain more confidence in using technology?

What can we offer to new tutors, who might not be confident at all to use technology in language teaching?

Could basic digital skills training for our learners be something that could be considered before or while they attend ESOL lessons?

Would there be any funds available to provide regular tutor-workshops for that?

Could tutors be provided with laptops they could use by the Council?

Would there be any possibilities of using other platforms or providing learners with learner accounts to facilitate using the platform and also allow for asynchronous work with learners?

Is there anything else you would like to add that we haven't discussed?

#### LLDO interview questions

Do you think that technology should continue to be part of ESOL provision?

*Probe: Why?*

*Probe: Why not?*

As we exit the online-only period, will ESOL provision go back to classroom only or will there be scope for online groups as well?

*Probe: Can you give any reasons for this decision?*

What would be the benefits of continuing with providing language courses also online?

*Probe: Can you give any (more) examples?*

What are the spaces like that are used for ESOL provision?

*Probe: What is your impression of the spaces – are these ready for tutors to incorporate technology in their lessons?*

*Probe: (If lack technological readiness) What could be done to improve these?*

Could technology be made available in the venues?

*Probe: Are there computers/laptops in the room?*

*Probe: Is there reliable Internet connection that tutors can use to access online resources?*

Do the schools and community learning spaces have Wi-Fi access that learners could use to access the internet?

How do you feel tutors could be best supported to use technology in classroom and keep building the digital skills of our learners?

To support tutors in using technology, is there any professional development needs that you have?

Is there anything else you would like to add that we haven't discussed?

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supervised by **Dr. Emanuele Bardone**

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