



An insight into the impact of ELearning on Adult Education in UK:

*Comprehending the relevance and
sustainability of digital skills in society*

MBA Dissertation (2020)

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Abstract

This study aims to examine the impact of Elearning on Adult Education in UK, how far adult learning has benefited from Elearning and how this be sustained in society especially after the pandemic. Elearning plays an important role in the use of digital tools to engage learners who in turn engage with and transform society in a digital age influenced by globalisation. Learners, tutors and managers were either given questionnaires or interviewed. The results were analysed using tables and graphs. Findings revealed the need and benefits of adult education, some of the tools available were discussed, IT skills of the learners and tutors necessary for transformation, the case for formal and informal learning and the need for government funding to develop the sector.

1. Introduction

The purpose of this dissertation is to explore the impact of elearning and digital skills on Adult Education and Lifelong learning delivery and the changes that need to be embraced following the recent challenges during the COVID 19 pandemic. It will explain the concept of Adult education and lifelong learning differentiating it from other forms of further education. The use and impact of Elearning before the pandemic will be investigated and the impact on future delivery after the pandemic will be explored through a critical analysis of the sector from the perspective of learners, practitioners, providers and Government policies. How are digital skills used in the class and out of the classroom? What role does Elearning play in Adult Education and how can this be enhanced as the delivery of Education continues to change? The sustainability of elearning after the pandemic will be investigated through the responses received from interviews and questionnaires and .

My argument is that Adult Education plays a crucial role in society and the long term integration of digital skills or lack of it in delivery is important for both learners and practitioners as the focus will be more on distant or online learning due to the crisis at the time of writing this dissertation. What happens to those who are participating in Adult Education for wellbeing purposes and are not digitally literate? What about the challenges posed by connecting to the learning online? Who bears the cost of supplying the learners with appropriate tools like computers and at what cost?

The report will consist of six chapters. *Chapter One* will state the objectives of the research and the rationale highlighting the experience and concerns of professionals. *Chapter Two* will focus on critically reviewing literatures available on the subject especially looking at the effect of globalisation on the Education and in particular Adult Education and why digital skills need to be acquired by all Adults. *Chapter three* will identify my philosophical approach and research methods to be adopted. *Chapter four* will present my findings from questionnaires, interviews of practitioners, managers and government policies. *Chapter five* analyses and discusses the findings. *Chapter six* concludes by identifying the questions raised, identifying any limitations and suggesting areas of further study and recommending steps for the future.

The provision and accessibility of the learner to tools necessary will have to be funded by sources apart from the learner. This will be explored in my studies.

1.1 Background of the study

I have been involved with teaching part time in Adult Education for a number of years . My area of teaching has been in Accounting. Business Management and IT from Levels 2 -4. Two of the courses, Accounting Software and Payroll require the learners to use special software which is not accessible

to learners from home. In one institution, courses are certified through an external exam board, in the other institution courses are non certified.

Although some may consider certified courses relevant to work and necessary, non certified courses and hundreds of courses run by the institutions are relevant and work related though not obviously so, an example is dancing, photography or flower arranging. Some of the people taking this courses are also doing it for employment. Adult Education attracts long life learners. Some are learning for self-interest, social reasons or health reasons and some are learning for advancement in their careers. Hundreds of courses are run by these institutions and learners can enrol online or visit the college. (digital brochure in the appendix). Some of the qualifications are accredited and some are not.

Most of my courses, the certified ones are tested through Computer Based Assessments (CBA). All courses whether tested or not must have elements of Elearning. Elearning has been part of Adult Education for many years with tutor and lecturers being asked to blend learning, Teaching Observations must prove the use of elearning. While this is a good thing and practised in class, some learners are not able to access from home at their convenience. Focus has been on the tutors and not the learners. Moodle has been the most popular depository of learning materials. Moodle can be accessed on any device. Google classroom is also used by some departments. Some courses require the use of software which learners cannot access from home.

1.2 Research problem and questions

This dissertation will explore how Elearning (Electronic Learning) is used in Adult Education. I will investigate the impact of the recent crisis on Education delivery and influence of government policies. Impact on learners and the effect on society. There is much research on the impact of elearning but there is little research on the emerging issues with digital learning and the impact on Adult Education.

The main question is:

What is the impact of Elearning on Adult Education. How far has learning benefited from Elearning and how can this be sustained after the COVID pandemic. Other questions to be developed further are in this study:

Providers

- What are the Digital challenges you've experienced with delivery of Adult Education the Lockdown?
- What has been the experience of learners during this period?
- What has been the engagement of learners in your institution?
- What challenges do you foresee after the lockdown is totally removed and learning returns?
- The situation has made digital divide more obvious, how can this be rectified?
- How has your institution responded to the need of learners who do not the appropriate devices?

- If online or distance learning becomes the norm, how can needs of these learners be catered for?
- What do you propose as the way forward for Online and distance learning?

Learners Questionnaire/Interviews

- How has been your learning experience during the lockdown?
- Does your course involve having digital skills before the lockdown
- Would you consider yourself IT literate?
- Do you have access to your own Broadband and IT devices at home?
- Has it been easy logging into your learning online during the lockdown?
- What improvements would you like to see?

Policy Makers

What impact is Adult Education making in this country?

What impact does Adult Education contribute to Employment?

How has the Government policy affected Adult Education?

What do you see as the barriers to Digital skills and the effect of this during COVID pandemic

What changes would you like to see.

2 Literature review

2.1 Adult Education and Lifelong Learning

Adult education is a systemic system of self-education which enables adults gain new skills, knowledge, attitudes and values which further enhances the quality of life of the learner and could also contribute to the economy. The term is sometimes being used to mean lifelong learning although both are not the same. Adult education is sometimes used synonymously with Lifelong Learning (Jenkins 2006) although the two are different. Anyone involved in education and training once they've completed their initial education is regarded as an adult learner. (Hillage J et. al).

This report will not cover higher education which falls in the remit of Universities nor will it cover further Education which focuses on 16-19 sector sometimes referred as compulsory education. It is however important to mention that Adult Education institutions are now running more formal vocational courses like HND and Access courses. Learning is about gaining knowledge throughout

one's life formally or informally. (Livingstone et.al 2008, which offers an opportunity for Adults to reconnect with learning and rebuilding communities . Learning takes place with the learner and education is the structural setting that makes that learning happen (Jarvis 2007). *For the purpose of this report the terms Adult Education (AE) and lifelong learning (LL) will be used synonymously. AE and LL acronyms will also be used in this report.*

There are nine Institutes for Adult Learning previously referred to as Specialist Designated Institutions in UK including five in London and thirty one other Local Authority provided funded by the Skills Agency, **spending approximately 100million and size varies from £400,000 to 11million per annum**. The services' and providers' missions are predominately about employment and wellbeing and in the main, are focused on getting adults into work. Services and providers are responsive to supporting social and integration issues and they work with partners to support those most disengaged and furthest away from integrating into society. 200,000 learning aims are delivered yearly but how many of those aims will continue to be delivered. (*London Adult Community Learning Review 2017*). In addition to Specially Designated Institution, every local authority and some colleges run Adult Learning provisions and some private providers too. It is a business model that works for those who have access to government funding and fee-based only providers. Appendix (Benefits of Adult Learning)

2.1.2 How Adults Learn

Michael Shepherd Knowles (1913-1917) introduced the word Andragogy as the art and science of Adult Education. (Pappas .C). He proposed that in Andragogy man is leading as opposed to Pedagogy where child is leading. Adult Learning engages the Adult in the planning and delivery of education while in pedagogy the learning is set for the child. This affects the way Adults interact with technology as learning will be driven by the need of the learner and not by the institution. Michael Knowles proposed that learners are: (Kidd T) Online Education and Adult learning book

- Self –directed, because of this they need education to be relevant to their needs for work or life.
- They have life experiences which can impact on how they learn and interact with others in the classroom.
- Learners are problem-solving oriented. Learning is done in order to solve a work issue or life issue. Learning has to be designed with processes tackling issues for it to make sense to most Adult learners.
- Adult Learners are motivated by various internal issues and as a result have a need to be appreciated and sometimes want a recognition of their differences (Pappas. C)

Summary: This has implications for how Online learning environments are designed and how people get involved in learning. How do we incorporate group work? How do we measure proficiency, is it through completion of activities online or through additional assessments? Can through assessments be done online? Does completion mean competency? Learning needs to be designed with the individual experiences and needs in mind and multiple tools would need to be used to achieve this. The problem is the cost of implementation and the training of practitioners. Most of the Adult trainers are self employed or hourly paid staff. How do we close the gap between technology use and the need? Some learners may need to be encouraged to blog as they learn others may need to be taught how to present their work through video presentation. Others may find podcasting an asset in relating

their learning to live experiences. **More recently the art of Digital StoryTelling, which combines old storytelling techniques with digital tools has been hailed as a powerful tool for teaching and learning that engages both teachers and learners(Robin. R. B) and promotes deep learning.** this skill is also being used by businesses.

Characteristics of Adult learners	Learn by experience
	Possess a wealth of Knowledge
	Competence and mastery in workplace skills
	Practical
	Purpose driven
	Goal oriented
	Autonomy
	Emotional barriers

Fig 1 Adapted from Elearning coach.com

2.1.3 Adult Learning: job related or non job related.

- Formal Adult learning undertaken within formal Institutions and leads to qualification.
- Non formal, leads to no qualification but structured through on the job training, distance learning, community classes, seminars, private lessons or workshops will be addressed here.(OECD 2020) non formal Learning takes place on the job or through self learning through colleagues or in an institution or community centre. A non formal course could be flower arranging which some people attend for running a flower shop and others may attend for the purpose of finding new hobbies. Another non formal class could be a dance class which some have also attended for employment purpose as well as keeping fit purpose.
- Informal Adult learning is learning that takes place in the course of our day to day living. It may be a course we have done in our own time which could lead to accreditation or not. (Learning and Work Institute,2017)

I think the problem we have is seeing these courses as less relevant to certified courses but we forget that if people are able to find fulfilment in meeting individual needs, the whole society benefits. (Adult Skills Gap report 2019) AE runs a lot of shorter courses which enables participants to easily engage with work or transform their lives. On the other side of the spectrum for example is an adult who has gained Accounting qualification years ago but find that cloud accounting is the current skill they need in order to move on in their career by upskilling. This adult doesn't need to go back to University but attend a course online or in a local institution.

Some of the courses are self funded or funded by the Government with limited funding rules which may exempt such adult such as, if someone works less than 16 hours a week they can claim benefit and the course could be funded by the government (Hillage J et. al, p Xiii) although some will argue that the range of courses funded by the Government has declined. Anyone that works 20 hours but lack extra disposable income is disqualified, though the acquisition of new skills is needed. This has caused some to say that learning opportunities have declined and learners have also stayed away.

AE is a powerful tool for social change as the individual takes advantage of short courses to transform their lives and situations around them.

Summary: This is the reason why this country need more AE rather than less (Tucket. A). People should be encouraged to learn formally or informally for work purposes as well as for health purposes. Quote learning and dementia and alzheimer Attending a Pilates class which is also now possible through the **use of technology** like Youtube or interactively using Zoom, it may be what the individual needs to reduce stress which contributes a lot to demand for NHS care but unfortunately this may not be affordable or accessible to someone who is not on benefit. I will be looking at reforms I believe should be introduced in order to make AE accessible and affordable for all.

2.1.4 Government Policy regarding Adult Education.

‘There is no clear Adult Education strategy which could be referenced or interrogated’ was mentioned during an interview discussed below. A Minister for Skills Education responsible for Apprenticeships, Technical Education and skills, including T-levels, post-16 funding (including support for young people and adult learners), further education colleges, sixth-form colleges, adult education, including the National Retraining Scheme and links to the review of post-18 education and funding, reducing the number of young people who are not in education, employment or training. (Gov.UK). I also believe there needs to be a clear policy addressing Adult Education specifically in view of the demographics in UK where 18% % of the population are 65 years and above. Creative ways needs to be sought in order to reach this group. How many of these age group are digitally literate beyond using the phone and using basic social media?

Adult Education funding has suffered a decline over the years, a decline in learner numbers is also blamed for the fall (Sibieta. L). ‘Since 2009-10, there has been a 50% real-terms cut in classroom-based adult education spending or a 37% cut if you include the effects of rising spending on apprenticeships’. The report further stated the three parties have promised further spending on Adult Education with the Conservative party stating that a National Skills Fund worth 600m per year will be set up by 2022. This is expected to reverse the decline in AE budgets over the years. All parties agree that lifelong learning is of utmost importance as a result of demand for digital skills which is said to required by 82% of job vacancies and roles requiring digital skills pay 29% more than roles that don’t. (Skillstoolkit) Digital skills are valuable and sought after for all kinds of jobs.(EU).

Summary: Although there is mention of Adult Education, it is not clear yet how Adult Education will benefit from non-skill oriented learning in this plan. Digital skills are important for all adults regardless of whether its for employment or not. Digital skills are needed for communicating, transacting, handling information, problem solving, without this society will become stagnant and may will be trapped in digital poverty. AE is a stepping stone to jobs for many who need a second chance at Education or to learn a new skill, it is also a stepping stone to wellbeing for many. I feel this Government needs to take a more flexible approach regarding equipping all adults with digital skills through adequate lifelong learning policies.

2.1.5 Globalisation and AE

Globalisation will increase the use of technology, this necessitates the increased use of technology in Adult Education as training and development becomes a necessity for all and not a selected few.

Globalization is a process of interaction and integration among the people, companies, and governments of different nations. Lashgarara Farhad et.al

This is unavoidable in this age and has implications for the governments of all nations as education becomes an issue and policies need to be adopted to encourage learning for retraining and upskilling at all levels regardless of the purpose of that learning and the age of the learner due to demographic reasons. The structure of the population is changing and people are living longer and birth rate has declined, older age groups dominate the national statistic, (ONS) and people living longer than the norm due to improved healthcare.

This becomes more important where the interaction and integration begins to expose the lack of skills of any particular country. Policies addressing skills shortage and technological gaps are being introduced but not implemented properly enough. As the world changes due to Digitisation, Globalisation and aging, strategies addressing all areas of learning for growth needs to be in place.

Globalisations has a number of benefits including sharing and exchange of knowledge and skills. Fostering understanding of other cultures through communication. Learning from and impacting other cultures. **Adults need to continue to improve themselves otherwise globalisation can create more inequalities and conflicts.** It is important that people are able to improve their skills in an affordable manner whether employed or unemployed. In order to maximise benefits from globalisation, good policies and institutions are necessary. (Neupane. a, Sapkota, JB). A high skilled workforce is necessary for any country to compete in a technologically advanced global market. Acquiring better skills also helps adults overcome the effects of automation and globalisation and this can be done through lifelong learning, formally or informally. Jeet Bahadur Sapkota (Japan)

What if the skills of other nationals coming into UK exceeds the skills of natives? Lots of tension will result from this since skills gaps cannot be filled by indigenes but by other nationals. This has led the Organisation for Economic Cooperation and Development (OECD) to identify seven priorities for assessing readiness for Adult Learning: *Urgency, Coverage, inclusiveness, flexibility and guidance, alignment, perceived impact and the financing* of Adult Learning systems in countries. A dashboard has been created from studies conducted which shows countries compared based on these priorities. **(OECD DASHBOARD) see Appendix) check report diagram for barriers fig2.2.**

Priorities	Priorities explained	UK rating on Dasboard %
Urgency	How pressing is the need to update AE system to cope with demand for upskilling	26 out of 35 32
Coverage	to what extent are people and employers are engaged in AE	21 out of 33 49
Inclusiveness	how inclusive are the adult learning provisions	17 out of 30 48
Flexibility & Guidance	are adult learning opportunities flexible and are guidance available	14 out of 35 49
Alignment	is adult learning aligned with the labour market	5 out of 32 70
Perceived Impact	what is the impact of adult learning	9 out of 35 59
Financing	how well is the system financed	20 out of 33 40

Table adapted from OECD Dashboard data (New Skills at Work (JP Morgan Chase & Co)

While I agree with this Dashboard's priorities, no mention is made of various aspects of AE some of which are informal and not job oriented. AE is simply seen as only relevant to market needs. What factors have been considered in the survey? UK's alignment of the Adult learning to the labour

market is high but the urgency to develop AE systems to meet demand is low signifying the reluctance to fund provisions adequately as shown by the result on funding (.40%) and provide the necessary resources needed. Developing the necessary systems needed will not only affect skills acquisition but also affect individual lives in other areas as learning is promoted as a lifelong experience. **Acquiring new skills affects the whole person.**

2.1.6 Competiting in Global Markets

The role of Education is to help countries compete in Global markets, digital skills are important for that to happen. On the job training is on the increase for the employed but off the job training are equally important for individuals to cope with society through self development.

The challenge here is getting the low-skilled engaged in learning in order to upskill or retrain and various initiatives and incentives will have to be engaged to facilitate this process. In my opinion the whole person needs lifelong learning in order to remain relevant in the new age.

Technological innovations, digitalisation and demographic changes are rapidly changing our world. People need new skills and new ways of learning. Acquiring knowledge and skills in a 'traditional' way, meaning at school or at university, is no longer sufficient to equip people with the necessary skills for their future career and a good quality life. Life-long learning becomes a necessity, and governments, stakeholders and social partners will have to find ways to help people reskill and upskills throughout their lives. (European Union 2017)

The UK has a good reputation in good quality education (HM Government) but this need not apply just to formal education as evidenced by our universities and the use of English Language throughout the world. **Reporting on the Government's International Strategy (Gov.UK), UK plans to increase the value of education export by 35 billion per year and students hosted in the UK to 600,000 per year and both by 2030.** UK's first action in the strategy is to appoint an education champion whose aim will be to open opportunities abroad and connect Higher Education Institutions. While this is very ambitious and bring a lot of money to the economy, it does present a problem for those at home who are not able to upskill themselves, making a strong case that Adult Education at home in dire need of investments.

2.1.7 Use of Elearning in Teaching Adults

Elearning is a method of delivery used in distance education using a combination of synchronous and asynchronous tools over a communication network and involving the learner and the teacher Khan B.H. *Elearning is the delivery of learning digitally, learners and the tutors both need to have digital skills.* Elearning enables student centred and independent learning (Pahl, C. 2003). **Elearning takes place through the use of technology.** This includes online learning (Benson et. al 2002) through the internet, intranet and cdroms as well learning through TVs, audio, video tapes (Moore .J L et al). The use of the internet has enabled Moodle where learning is deposited for access by students in their own time and to ensure that no one is left behind.

While Elearning through digital skills using Moodle or Google Classroom which are the most popular and others (Unesco Digital Learning Management Systems) was used in order to support classroom based activities, the norm at the time of writing of this document is for all learning to be delivered online interactively through the use of interactive medium like Zoom, Microsoft Teams, Google Meet

and same will likely happen in future due to the pandemic and the need for social distancing and safety.

The sudden introduction of these tools to replace face to face teaching as a result of the COVID crisis has brought a bit of experiment and it not been without drawbacks. The various options currently available and proposed will be explored. The argument for this dissertation is that Digital skills through elearning are necessary for Adult Education as much as to other areas of Education which attracts a lot of government. **Adults learn for various reasons which includes work, leisure, wellbeing, skills acquisition. All these areas need digital skills.** However it's been proven during the pandemic that although digital skills are needed in most of these courses, distance learning presents a new problem of digital divide which prevents some people from taking full advantage of elearning due to lack of appropriate device.(Dfee,2018, Pennacchia, J, et al)

Elearning, digital learning is this important? The world is becoming connected technologically and becoming knowledge –based, driven by technology (Rob Waugh 2019) than ever before. The mode of work of the future is changing and we are witnessing a bit of this right now with the impact of the pandemic. The jobs of the future are yet to be created and will all be driven by technology. The future of work is important to look at, as well the the development of the whole person in the digital age and this cannot be ignored. International Labour Organisation, a specialised agency of the United Nations called for 'a universal entitlement to lifelong learning and the establishment of a effective lifelong learning system' and the need for people to benefit from new technologies. (ILO, 2019) .

The report further recommended an employment insurance or social fund which also allows workers to take time off work for study and set hours designated as training rights. People who work informally should also be provided for through a training fund.(why adults learn diagram).

In my opinion, **Elearning is not just about providing Learning in a 'straight jacket, once size fits all'** manner by depositing materials online for people to access and hope that completion means proficiency. Moving forward, learning would need to be tailored for individuals as differentiation would be necessary online too as done in the classroom and other tools may need to be engaged for this to happen.

How might the Global Value Chain look like in the context of Adult Education? How is UK ensuring skills are meeting the demands of Global Value Chain as a result of globalisation? We are in an age where as a result of IT, low transport costs and globalisation different parts of units of production can be developed in different countries(OECD, skills outlook 2017) .

2.2.1. Types of Elearning and Elearning Systems

Various Elearning systems are available and could be grouped in Synchronous and Asynchronous mode. Some of the tools used are shown below and most of these are accessible using the Internet. Infact today, elearning cannot happen without the internet.

Elearning by some is referred to as the use of asynchronous tools and synchronous tools displayed below.(Ellis R. 2004). This gave rise to various definitions of elearning: online learning, virtual learning environment, web-based learning, blended learning, distance learning and digital learning. I do not want to differenciate between all these for the purpose of this study as I see them all as

electronic learning. What is important is that the most basic forms of elearning (Moodle) today is powered by the internet, giving access to learners inside and outside the classroom and this forms the basis of this study.

2.2.2 Asynchronous Tools

It offers flexibility, paced out and affordable, supplements in class delivery . It does have disadvantages like students feeling isolated, needing self discipline, no real time interaction.

ASYNCHRONOUS TOOLS	MOODLE
	GOOGLE CLASSROOM
	VIDEOS / DVD /CD-ROM
	RECORDED LECTURES

Fig 2 Adapted from Mindflash.com

2.2.3. Synchronous Tools

Enables learning to take place realtime where all parties can engage online. Advantages include engagement with the instructor, instant feedback, group collaboration, simulates classroom.

Disadvantages includes possibility of technical issues which could hinder transmission

SYNCHRONOUS TOOLS	GOOGLE HANGOUT MEET
	MICROSOFT TEAMS
	ZOOM
	CISCO WEBEX
	PODCAST
	DISCUSSION /MESSAGE BOARDS

Fig 3 Adapted from Mindflash

Prior to the current pandemic, asynchronous tools were mostly used in addition to classroom teaching. All institutions were suddenly forced to use Asynchronous tools during the pandemic. This presented a lot of problems for instructors and students as many had never prepared for sudden change. Some lacked proper training, lacked tools of engagement while some learners also lacked the required device to connect and data access. Some of these issues would be further addressed through analysis of my questionnaires later in this document.

2.2.4 Hybrid Learning

This is where a combination of both tools above are utilised in addition to classroom teaching but not necessarily at the same time or place as is seen with blended learning (Agarwal1. S, et.al). In this method, more online delivery is used than in-class delivery. This is the future of delivery for a high number of courses post COVID 19 for the institutions I work for and confirmed from speaking to colleagues in other institutions. Limited contact time with learners will mean that some student

rotation is implemented where the same group of students are seen say, every month and online learning happens in between the meetings. If the class is large, a two-weekly session face to face session will be adopted in class and in person with learners. In my discussion with some practioners and managers and from what I know from institutions where I work, courses would be delivered online and for some longer courses, in-class periodic engagements will be implemented.

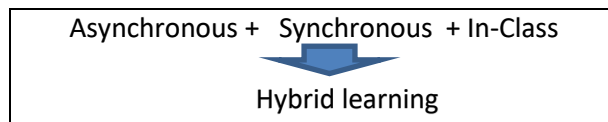


Fig. 4 Adapted from above diagrams

Some courses cannot be delivered this way. Courses that involve the use of software and where no access is possible for students individually will continue to be delivered in-class with smaller numbers to allow for social distancing. Courses like pottery and others where special equipments are supplied by the institution will also be in-class. As much as necessary technology will continue to play a huge role.

I believe this is the 'new normal' moving forward as this may also allow for practioners to be more creative and devising more learning opportunities. Space is freed up for other courses which cannot be delivered online. New courses opportunities are likely to arise. Challenging initially but I believe this will give learners and tutors opportunities for self development and upskilling. There will be some challenges for adult learners who may not have the right environment and devices to get fully involved. Social contact reduction may also pose a problem for many since many attend classes for social interaction reasons.

3.4 Benefits of Elearning

Elearning has a number of advantages and disadvantages that makes it attractive for both learners and institutions.

Elearning makes teaching interactive and for longer as learners interact with other learners and teachers through forums, social media, blogs and various discussion tools. Peer to peer Interaction can reinforce learning.

It offers flexibility as learners can access learning at own pace especially if involved in full time work and cannot attend lectures. Childcare issues may be a problem and this resolved as learning on demand is possible. Learning is more readily available.

Transport problems and mobility are not an issue. Learning can take place anywhere in the world. Learning becomes a part of our daily routine. It facilitates distance learning opportunities as learning becomes more available. Elearning is a 'prospect opener' (Agarwal1. S, et.al), creating new learning ideas and experiences.

Elearning promotes student centred learning and easy transfer of knowledge from person to person. Knowledge gained can easily be transferred through videos. Flip learning where the learner is allowed to initiate learning through structured activity is possible. Provides easy and cost effective access to learning.

Complements traditional teaching. Elearning when blended with traditional teaching become blended learning. The learner is able to benefit from both methods and this leads to better learner satisfaction.

Recycling of training materials. Easy updating of training materials makes this cost effective as well being able to use the same material for multiple groups with minimal changes.

Promotes collaboration and this also possible with people based in different countries.

(Karambelkar,2015) **Digital technology makes unlimited learning possible as learning is available all the time.** Suitable for courses where learners are located in diverse places and can't attend classes. Learning is not confined to the classroom, learning continues after the class ends as other tools are being utilised like blogs, wikis, forum, chats and other tools which turns a lesson into conversation rather than a lecture, as evidenced by Bloom's below

Digital Taxonomy below:

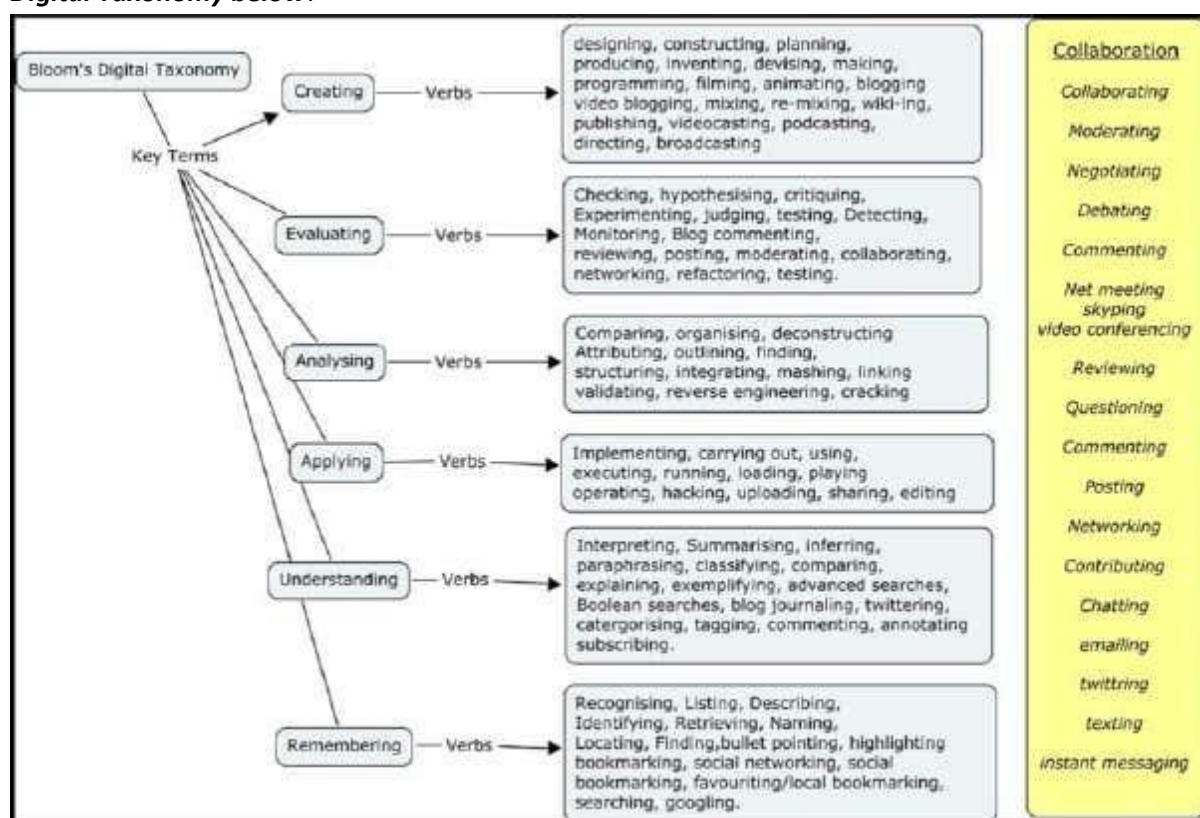


Fig. 5 Source: Adult Learning in the Digital Age: (Kidd, T.T., Keengwe, J)

Every aspect of this taxonomy (**yellow section**) involves the use of technology and could be used to enhance delivery of learning.

Disadvantages

Learner responsibility is required. More responsibility and dedication is placed on the learner leading to feeling of being overwhelmed especially where the learner lacks discipline or motivation.

Isolation is a problem. Can leading to feeling of isolation by the learner if not blended with traditional menthond.

Lack of System interoperability needs to be considered. Some systems or software designed for Windows not able to run on Mac or vice versa.

Costs of acquiring software and continuous training can be huge. It can be costly initially for both the institution and the learners as it is technology dependent. Data cost, availability and device cost may be problematic for the learner.

2.3.1 Using the Technology & TAM Model

The Technology Acceptance Model (TAM) (Davis 1986, Davis et al 1989) will be used to identify the factors affecting the acceptability of technology among adults, both teachers and learners and identify what modifications need to be made in order to make technology tools acceptable to users. The theory helps to predict people's acceptance of technology systems and to diagnose design problems before actual use of the system. (Gyamfi, Stephen Adu.). The original model proposed that the *Perceived usefulness* and *Perceived ease of use of technology* can affect the attitude of the user and the actual use.

If an adult finds a technology device, software or the internet easy to use or a waste of time, such adult will most likely adopt the device or software but if the same is introduced as difficult to use and not relevant for the adult's life, it will be declined. Tutors need training in the use of particular piece of technology so that they don't make the learners feel that technology is difficult to use.

This has implication for how technology is introduced to learners and how far the tutor feels comfortable with their use. Surveys can be carried out to assess how users will receive the technology proposed. Information sessions should follow this process. Regular training sessions will help even the worst skeptic adapt eventually.

I remember clearly my reluctance to Internet Banking even though I had the IT skills to do it. I eventually got fed up going to the bank and the staff there reminding me I could have done the transaction online. Once I started and got the security assurance from the bank, I have not visited except to pay money in. This has saved a lot of time. Below I apply the Technology Acceptance Model to the current situation discussed in this study.

Perceived usefulness is defined as being the degree to which a person believes that the use of a system will improve his performance. *Perceived ease of use* refers to the degree to which a person believes that the use of a system will be effortless. Several factors demonstrated that perceived usefulness and perceived ease of use can be considered as two different dimensions (Hauser et Shugan, 1980 ; Larcker et Lessig, 1980 ; Swanson, 1987).

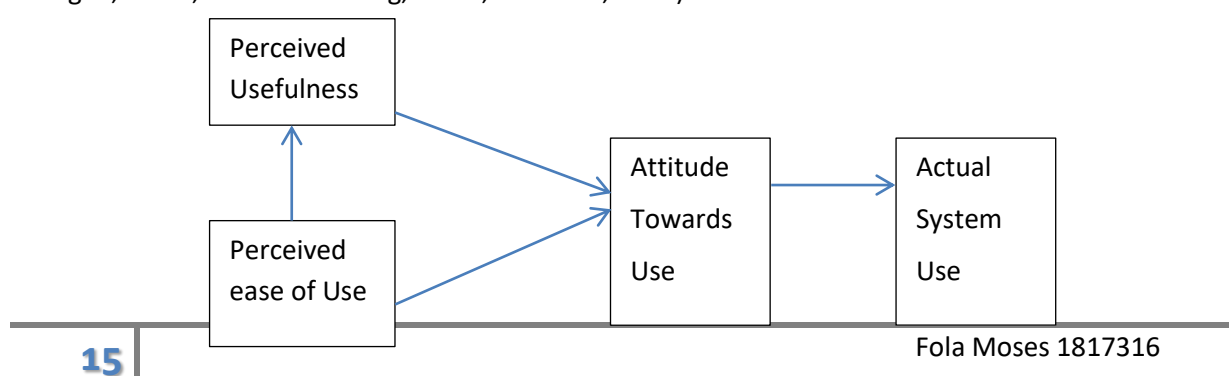


Fig. 6 First TAM

2.3.2 Perceived usefulness (PU) of technology by the teacher will encourage the teacher to use technology in preparation and delivery of teaching to Adults. This will also promote student centred teaching as materials will be placed on medium accessible by student outside the classroom, enabling them to interact and also leave comment like in the use of Moodle or Google Classroom. The relevance of this will also depend on the course taught. Putting materials on Moodle or Google Classroom and the usefulness of technology may be more relevant to some courses and not to others.

I find the use of technology useful as it prevents repetition and reduced paper use but my colleague who teaches dance or flower arranging may not find it relevant in same way. For learners, if an office user realises that learning database technology will improve performance at work, attendance at a database course will become important. Most of the interactions with councils in terms of payments and enquiries are nowadays done online, this would encourage Adults engage with ICT classes in their community. Making all aspects of learning easy for learners is of paramount importance.

Hypothesis 1 :Adults' perceived usefulness of technology will influence their attitude to technology

Hypothesis 2 : Adults' perceived usefulness of technology will affect the Adults' use of technology

2.3.4 Perceived ease of use (PEU) Perceived ease of use will have effect on the attitude towards the use of technology. ((Luan & Teo, 2009). PEU will encourage the user to adopt a piece of technology if not seen as a threat and easy to master. I do not believe that the perceived ease of use is the factor in all cases since people are always prepared to learn new things especially if it affects their livelihood. People will be prepared to learn a new skill regardless of the inconvenience if it adds value to current skills and it's needed for advancement in work.

What is not considered with this theory are other factors that could influence a learner in deciding to study on a course such as the distance, length of completion, cost of practice whilst studying and any other modifications. If a job centre has mandated an adult to learn on a course that involves the use of technology, perceived ease of use becomes irrelevant as the course has been mandated because the Adult needs to return to work and get off benefits. Similarly in deciding to use a piece of digital equipment, as proposed by Davis, other factors such as teacher's pedagogical beliefs, past experiences in use of similar tool or experience of others, alternative tools elsewhere, cost of involvement, prior experience, how relevant, other external factors may influence the user decision.

Hypothesis 1: Adults' Perceived ease of use will affect their perceived usefulness of technology

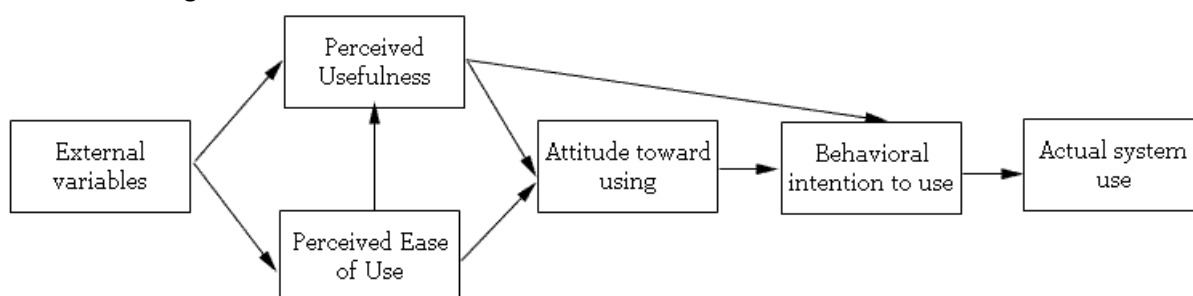
Hypothesis 2: Adults' perceived ease of use will affect their attitude towards technology use.

2.3.5 Pedagogical beliefs are beliefs teachers hold about teaching and how to teach. (Teo, Chai, Hung & Lee 2008) Teo, T. (2011). Teachers who are student-centred will readily embrace technology and get learners to engage with it more. Both teacher and learners will use technology

more in class and homework will be given involving the use of technology. The level of technology acceptance amongst teachers will determine the acceptance by learners. This has implications for teachers in how technology is introduced to Adults and the fact that it takes longer for adults to accept technology than younger adults or children.

Some adults will need training and further guidance in the use of technology, the engagement of learners with technology outside the classroom will depend on what access they have outside the classroom. The implication of this is that all adults need to be exposed to technology and factors limiting this exposure need to be investigated and eliminated to ensure wide access. For learners to access computers outside the institution may require data which some learners lacks, who pays for that? The access may be available but not stable. Design of the online environment can affect student experience negatively or positively, learning needs to designed in a way that meet adult learner's needs. (Kidd, T T., Keengwe. J)

During **COVID pandemic**, online learning from home has been used and the analysis of this model would have played out with all teachers having to teach from home regardless of their use of computers prior to the lockdown. Learners have also had to adapt regardless of skills. Some learners have not joined online classes due to various reasons, lack of appropriate device, lack of data, inability to use the appropriate device due to lack of skills, sharing device with household and not being able to gain access when needed. **Institutions need to conduct a survey moving forward after the lockdown to identify those who have not been able to connect for various reasons and take measures to reduce digital poverty.** These other factors or variables led to another development of the Model: Fig.7



Technology Acceptance Model from Davis, Bagozzi et Warshaw (1989)

http://edutechwiki.unige.ch/en/Technology_acceptance_model

2.3.6 Technological Skills and the labour market

ICT is important to the knowledge economy and its been proved by research (OECD) that having digital skills pays off in terms of higher wages and more participation in the labour force than those without. New skills are required for new jobs like data scientists, social media managers, web developer, cloud computing and many other are arising from digitisation, adult learning systems will be required to help cope with training people for these skills. **Adult Learning needs to be aligned with the labour market for there to be real changes.** The Apprenticeship scheme is one the positive things that UK has adopted and this is a good thing but this move has deviated funds from lifelong

learning which all adults need whether in work or not. Employers are working with Universities and Colleges to draft qualifications is another positive move to involve industry.(UniversitiesUK)

Research has shown that educated and highly skilled people are more likely to access training than low skilled people(OECD). What are the measures needed for this to happen? Low skilled workers need the upskilling more in order to adequately close the skills gaps.(OECD) Strategies to encourage low skilled workers will need to be investigated and implemented as research has shown that adults with low ICT skills are less likely to engage in the labour force and if they do they tend to earn less than their ICT experienced colleagues(OECD, 2015). An estimated 90% of all jobs in the next 20 years will require some form of digital knowledge, but one in five adults still lack these skills (Lloyds Bank Consumer Index)

2.3.7 Barriers to technology use

This needs to be viewed from both the tutor and learner perspective. From the tutors perspective, the following could be the reason and this was researched by Sero Consulting for Education and Training Foundation. In their report (Sero Consulting, 2018) a number of factors affecting tutor use. Lack of time for content creation, finding the time is difficult but once the resource is created it can be used repeatedly. Lack of infrastructure could be from the staff or from the institution's perspective, most tutors rely on institution equipment and sometimes this is not always available. Staff lacking confidence, will also lead to some learners lacking confidence. Lack of adequate training, could be due to funding issues. Hardware and software issues could also be issues where resources have aged and have not been replaced.

From the student perspective, lack of skills and confidence is a widespread problem. According to Lloyd Bank Uk Consumer Digital Index which measures digital capability in UK. 17.1million (52%) of the workforce lack digital skills; 9million (16%) of the population cannot use the internet themselves. 77% of the over 70's have very low digital engagement. '16.9 million (33%) of adults in the UK have the lowest level of digital engagement'. (Lloyds Bank UK Consumer Digital Index) This data was captured before COVID

With citizens of the UK staying at home to stay safe, technology has become a necessity for keeping connected, working remotely and accessing vital information. As this report illustrates, while much of the nation has pivoted their work and lives online, *for a large proportion of the UK, this is infeasible.* (Lord Blackwell, Chairman Lloyds Banking group)

Cost is a concern to many. During this pandemic, some students have not been able to get online due to the cost of buying the right device. Many have smart phones but no other device like a laptop or PC to use. Some live in households where this is available but many people have had to share a device. Disabled people may need assistive devices which are costly to buy and need special funding.

Data affordability is another issue for some. Data is available subject to contract with A provider and this is subject to credit worthiness and credit history which many may not have. There needs to be government intervention that makes access a basic right of all citizens.

Many homes do not have the standard broadband/ wifi for connectivity. Some parts of UK do not have access to basic internet. (Lloyd Bank UK Consumer Digital Index)

In my opinion the government needs to make getting digital skills a priority not just for students or the working age but for all adults regardless of age. The retirement age has been extended and could possibly see more extension to 75 years due to demographic challenges. (FT.com, Aug. 19) The COVID pandemic has exposed the need for digital access as many could only reach family members through video chats, whatsapp or telephone calls, some were unable to use devices, some had no smart phone, more shopping had to be done online, shopping around for utility bill savings have to be done online, contacting the council or DWP including applications for travel cards, the list goes on. Lloyds bank have been doing a lot of work in this realm through Lloyds Bank Academy. (Lloyds Bank consumer Index)

3.1 Methodology

The concept of Research Onion (Saunders et. al 2007) will be highlighted in this chapter which includes six layers related to identifying the design of the research, approach of the research, data collection and data analysis. The Research approach is qualitative and therefore Inductive but I have also hypothesised.

Learners, practitioners and provision heads are an important source of data for exploring the lack of and improvement of digital skills in the delivery of skills necessary for equipping adults for a changing global economy. I will investigate the effect of current provision of digital skills to stakeholders and what effects it has had on the economy. I will also attempt to look for answers to the current digital illiteracy and poverty and how this can be improved. The research is conducted to find out the benefits of Elearning and its sustainability in society and will be based on Interpretivism Research Philosophy as the opinions of various participants in AE are collected through Questionnaire and Interviews for analysis

3.2 Research Philosophy

Research Philosophy is a set of beliefs and assumptions which will help the researcher in the development of knowledge on this topic. In this research study Interpretivism Research Philosophy will be used as there are no pre defined theories are to be worked on. This research will be conducted to find out the influence and benefits of digital skills in Adult Education delivery prior to lockdown and after. The objective of the research is to seek the opinions and viewpoints of learners and practitioners on the impact of elearning on AE and how this might impact the outcome of the research. The results of the research will be interpreted based on the findings of the research. I feel this approach is the best for this situation. Questionnaires and Interview will be used to gather learners, practitioner and managers' views.

The focus is to send out questionnaires to 50 students and interview some who are not able to complete the questionnaire. Lecturers will also be asked to complete Questionnaire for lecturers. Two manager will be interviewed and Two policymakers will be interviewed. The result of the questionnaires will be interpreted based on the facts and finding from the research.

3.3 Research Approaches

The next step is to test the facts and findings of the research with different suitable designs. The type of research and in which it should be carried out in order to reach a conclusion will be discussed here. Deductive approach works on the premise of an existing theory and drawing a conclusion from the theory. *Use of Elearning is a known theory but sustaining it is something I want to find out.*

Inductive approach relates to the formulation of hypotheses and finding out results. As a researcher I will formulate research questions and reach conclusions on the basis of the analysis of data. For example, by asking learners about their digital skills in their learning and to what extent they used digital skills prior to the pandemic and during the pandemic and their experiences? How were they affected during the COVID pandemic? Was their personal digital skills relevant and useful for continuing studies? This way, I am personally identifying the subject of research with the questions I will be asking. Through the research, new ideas and possibilities will be discovered for use of elearning in delivery of Adult Education and consideration by learners of the various possibilities that can exist. There is a lot of scope for increased use of digital skills for both learners and practitioners. Many current provisions will close or be revised as a result of lack of digital skills with both learners and practitioners.

3.4 Research Strategies

A combination of strategies are possible here. 1. Action research which focuses on reflective process can be used where I can reflect on my use of digital skills prior to the pandemic, the effect on the learners and the institution and looking forward to changes. This can be incorporated with a Case Study. In addition to this Survey Research Strategy will be used where various stakeholders will be surveyed using questionnaires and interviews using open ended and closed ended questions. These would be gathered and analysed for conclusion

Research findings will be analysed by Gender, age role played, course enrolled on on a pie chart or bar graph. As some responses would be measured in terms of numeric value and Excel can be used to interpret results into graphs. Questions asked will elicit opinions of individuals. These are qualitative in nature. The results will be explained.

3.5 Research Choices

My first research choice is Questionnaires and followed by analysis of the results on tables, graphs and charts using excel. Interview will also be used to managers and policymakers.

3.6 Time Horizons

Primary Data will be collected from various stakeholders (Learners, practitioners) on digital skills currently possessed or to be acquired and analysed in 2-4 weeks and collected once from each participant.

3.7 Research techniques and procedures

I will attempt to collect data from three institutions, two will be given out by me and one given to a colleague for her students. I am not sure how that is going to work out with the current situation lockdown and no possibility of full restoration of learning after the lockdown until September. The sample size is around 50. Limitations to this study was expected due to the lockdown as access was only by email, phonecall or conferencing. Meeting learners personally during college times would

have been better. Some tutors were reluctant to pass questionnaire over to learners citing GDPR issues even though no names were required.

3.8 Questionnaire/Interview questions & Reasoning

The purpose of the questionnaire is to explore the learner's aims and beliefs about the use elearning and the impact on their learning. Open and closed questions are used which were thought through from personal experience of learners' aspirations and expectations. The questionnaire is limited to one page to ensure it is short and clear and easy to answer and straightforward to understand.

The researcher has been introduced to the learner or known to the learner prior to the research to ensure learners feel comfortable. In order to further make the learner feel at ease and comply with GDPR, no name is required for completion of the questionnaire.

Question 1: Learners age is relevant in order to ascertain whether the course are being attended by a particular age group or there is a good spread of learners. The age range also helps to analyse whether older learners are more represented than other learners.

Question 2: Course enrolled on is important to see the variety of course enrolled and the motivation for the courses. Are the courses certified or not? The type of course will determine how it ends, using computer for exam or not.

Question 3: Asking whether the learner signed up online or offline helps to determine if the learner has some IT skills which is important for some courses, although this is not enough.

Questions 4: Learner has to give reason for taking the course to determine who is doing the course for employment or for leisure or other reasons.

Question 5: This gives the learner the opportunity to self assess their digital skills. It might get them to think of taking IT courses after consideration of their skills.

Question 6: It is important to find out what college based elearning they've been able to access prior to the pandemic

Question 7: Knowledge of device owned by the learner helps to determine their use IT for leisure or for more serious processing.

Question 8: How the digital skills and devices owned helped them access learning. Low skills will mean not enough online learning will be done, online face to face team using ZOOM or Teams may also be a problem, Having only a phone may mean that the student is not able to make full use of online services. I think

Questionnaire for learners : Digital Curriculum
1. AGE: Tick age range
18-25
26-44
45-64

Interview for providers : Elearning

1.What was your Elearning strategy prior to the pandemic?		
Use of Moodle	Google Classroom	
2. Was digital depository compulsory for all courses?		
Yes	No	
3. How has previous training prepared your staff for online learning		
Very well	Not adequate	
4. Have you provided any additional training during the pandemic?		
Yes	No	
5. How many additional digital skills have you employed		
Zoom	Google Meet	Microsoft Teams
6. Do you plan to continue using these?		
7. How have learners without adequate equipment been supported?		
.....		
.....		
.....		
8. What are you plans for the future?		
.....		
.....		
.....		

Questionnaire for Lecturer

All tutors are required to have some IT skills as registers are online. Courses are also supposed to be online, for Moodle or Google Classroom. Schemes of Work and other documents have to be wordprocessed and submitted by email. Staff forms are all online. These are basic requirements for

most colleges in addition to staff access for payroll and other staff forms which are only accessible online.

The questions are mainly to ascertain IT skills prior to and during the pandemic and what the colleague will like to see in future. The effect of the rapid change to completely online experience before and after needs to be explored.

I am hoping to be able to sample 10 courses in collaboration with colleagues due to the limited access to students because of the pandemic. Courses to be sampled are AAT levels 2, 3, Accounting Software, Photography and Pilates.

Questionnaire for Lecturers : Elearning

1.What was your Elearning usage prior to the pandemic?		
Use of Moodle	Google Classroom	
2.Do you actively use this for all courses?		
Yes	No	
3. How has previous training prepared you for online learning		
Very well	Not adequate	
4. Have you been provided any additional training during the pandemic?		
Yes	No	
5. How you used any of the following recently?		
Zoom	Google Meet	Microsoft Teams
6. How has your interaction with learners been affected during the pandemic		
.....		
7. How your learners without adequate equipment been supported?		
.....		
.....		
8 What changes would you like to see in future		

More training/ Equipment provided

9. What other experience would you like to share
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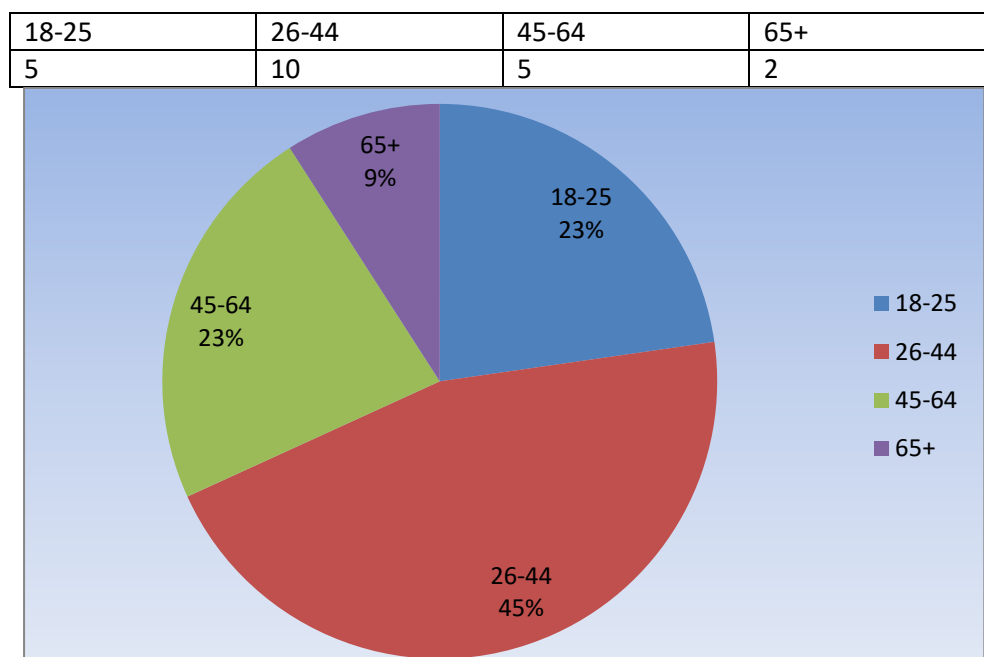
4.0 Findings & Analysis

This chapter analyses the data collected for this study. Data was collected using questionnaires and interviews. Data from questionnaires are qualitative and would be presented in tables and further using Excel. Data from Questionnaire: 22 questionnaires were received back out of 38 from 5 courses. Some of the potential students did not engage with their classes during the lockdown, the interruption of the lockdown has been problematic and has affected distribution and reception of the results. It would have been easier when classes run normally and more colleagues would have gotten involved.

Three colleagues participated in the Lecturer questionnaire, 5 managers were meant to be interviewed but one manager responded and a policy maker from another institution I am aware of future policies from my own institution which has been incorporated in this study.

Questionnaire for students analysis

Q. 1 Age group



Most of the learners surveyed are in the 26-44 age group while the least number of students are in the 65+ age group.

Q.2 What course/s are you currently studying

Some of the students are enrolled on multiple courses

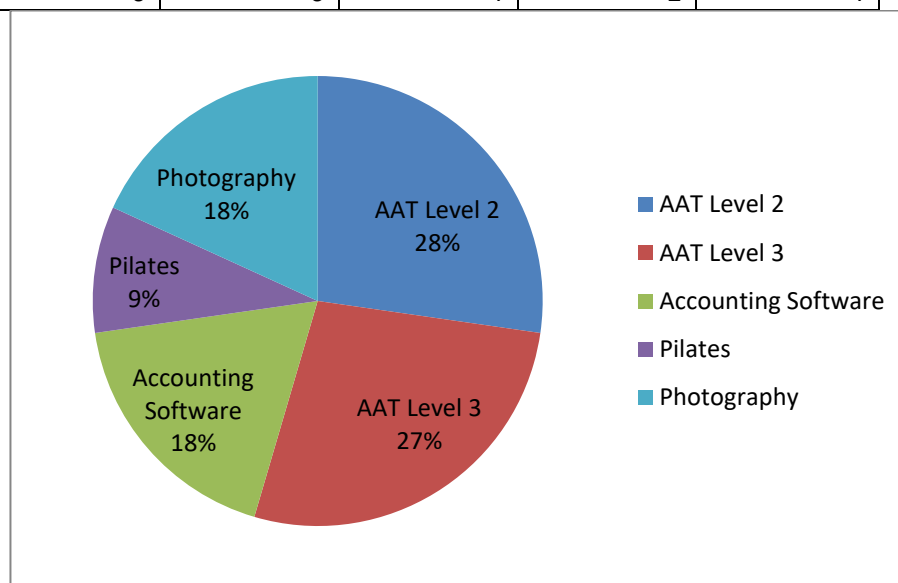
AAT Level 2, AAT Level 3, Accounting Software, Excel, Pilates, Photography

AAT & Accounting Software are certificated courses while Excel, Pilates and Photography are short courses and non certificated.

AAT, Accounting Software and Excel requires the use of computers in the class and for exams, learners need to be computer literate. Some of the students are enrolled on multiple courses.

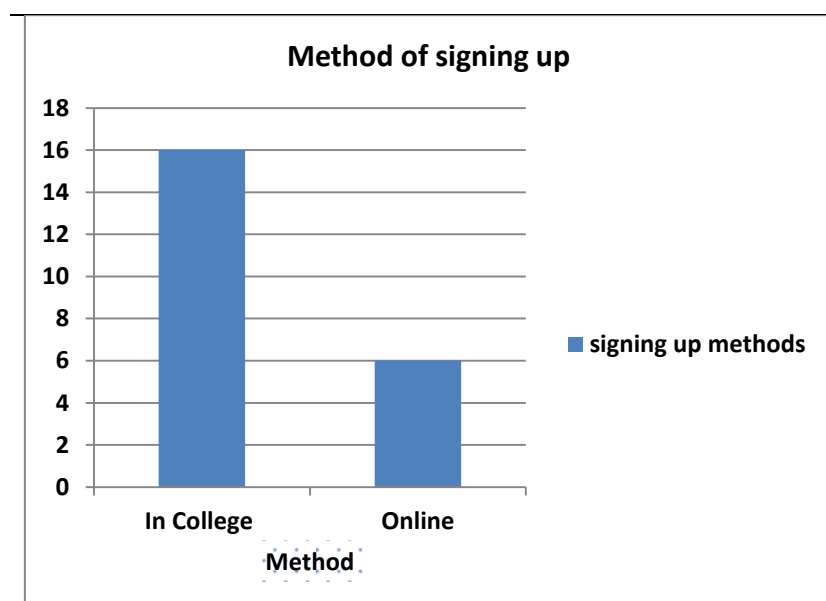
Courses attended

AAT Level 2	AAT Level 3	Accounting Software	Pilates	Photography
6	6	4	2	4



3 Method of signing up

In college	Online
16	6



Students have a choice of signing up online or by visiting the college. I can hypothesise here that computer

literate learners sign up online (6). Learners with low computer skills (16) visited the college to sign up,

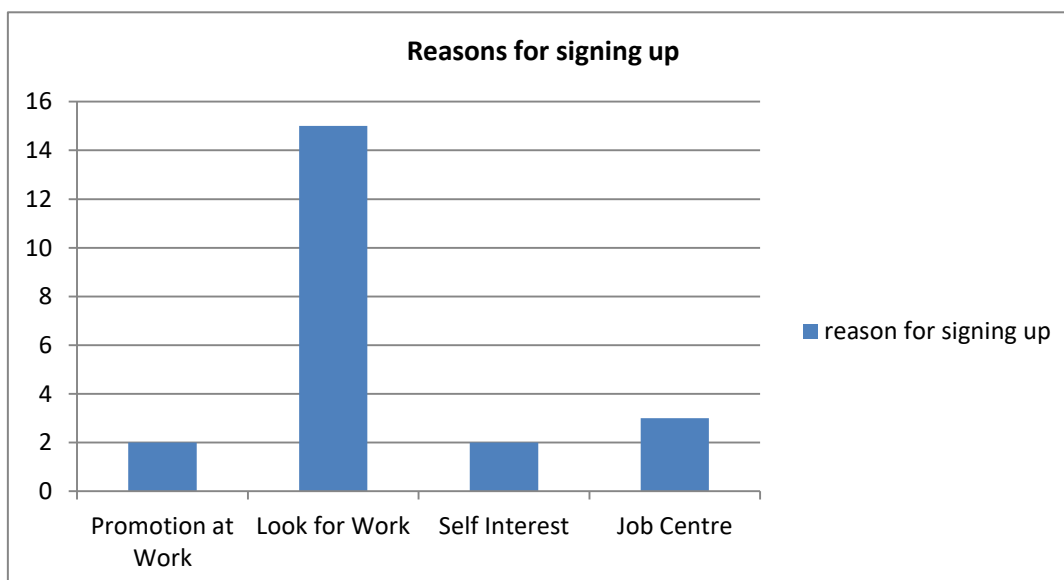
4. Reasons for signing up on course

Four top reasons were asked for

- Promotion at Work- these learners were studying on the accounting courses
- Look for Work- 14 were on the Accounting courses and one studying Photography
- Self Interest – these learners were on the pilates course
- Job centre-mandated by the job centre to do courses to boost CVs

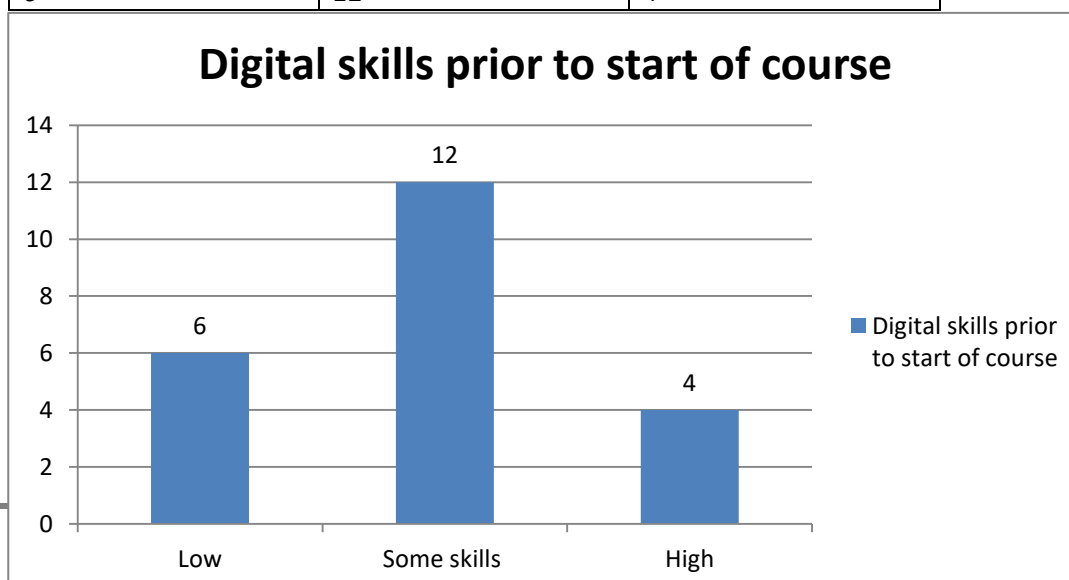
Signing up on courses

Promotion at Work	Look for Work	Self Interest	Job Centre Mandated
2	15	2	3



5. How would you rate your digital skills before starting the course?

Low	Some skills	High
6	12	4



The purpose of this is to assess the digital skills of the learners prior to lockdown and to compare later with during the lockdown. The learners have to self access themselves as no test for IT skills is done before starting any course. I don't think it's an accurate way but it is best way to find out for now. This is not a true assessment as their definition of digital skills may be limited to ability to access data on their phone including moodle . This needs to be broken down a bit more as digital skills may mean being able to use facebook and instagram and a bit more and much for others.

6. What digital skills/ software have you used on the course before the lockdown?

Access courses on Moodle	10
Access courses on Google classroom	12
Microsoft teams	Nil
Word Processing	10
Excel	6
Databases	NIL
Other software	5

All students have access to either Moodle or Google classroom and Office 365. It is a requirement by the college though it is not enforced. However once lockdown became imminent, it became compulsory for all departments. Some of the student having access to Moodle or Google classroom also have Word Processing skills as well Excel Skills and other software skills.

7. What device/s do you have?

Responses varied:

Laptop	12
Phone	22
Tablet	4
PC	10

Some of the learners reported they have both or all three or four.

Owning a laptop doesn't mean full use is made of the machine but this gives idea of possession.

Some of the learners who have the phones do not have any other device since they access computers Through the library or through at home, owned by someone else in the family.

Some learners stated that they could not have got through without multiple devices as they listened on one and applied the teaching on another using a software. This left learners with only one device at a disadvantage as they can only watch the tutor demonstration only.

8. How has your digital skills and device aided your learning during the lockdown?

All students said the use of real time technology during the lockdown using Microsoft Teams, Google Hangout Meet was new. Some were reluctant to use their camera and some had no camera on their devices but could listen to the tutor. Some of the respondents had no access to proper devices and not able to join, left out of sessions and may be reluctant to carry on with courses as normal class sessions have not resumed and may not resume soon.

Summary

All learners and tutors have had to adapt in a short period of time to new technology and this has had its challenges in term of lack of skills, lack of adequate data and devices. Some learners failed to

engage even though they had devices, some said they were unwell and some said home environment made joining online class impossible.

There needs to be proper assessment of Learners IT skills prior to enrolling. Referral to IT classes could be made, which learners can attend concurrently with chosen course. Learners with IT skills but lacking awareness of asynchronous tools like Microsoft Teams or Google Meet need awareness sessions. Learners with inappropriate devices may need financial help but who pays?

Questionnaire for Tutors Analysis

Five Lecturers were interviewed using the questions All the lecturers use computers for teaching. The pilates teachers uses computers only for marking her register and possibly playing music or videos for demonstration. Some items are posted on Moodle are not used regularly.

1.What was your Elearning usage prior to the pandemic?

Use of Moodle Google Classroom

Google classroom	Moodle
2	3

2. Do you actively use this for all courses?

Google classroom	Moodle
2	3

Yes

No

3. How has previous training prepared you for online learning

Very well	Not adequate
2	3

4. Have you been provided any additional training during the pandemic?

Yes	No
5	0

5. How you used any of the following recently?

Zoom	1
------	---

Google Meet	4
Microsoft Teams	5

Microsoft Teams is used for departmental meetings.

6. How has your interaction with learners been affected during the pandemic

All tutors reported that attendance by student to the real time classes have not been by all learners. Some haven't got the right devices and some report not having enough data.

7. How your learners without adequate equipment been supported?

Some have been issued chromebooks by the college, the college hasn't got enough to go round. In some cases Chromebook is not suitable for students who have to install software, for example SAGE software needs installation.

8 What changes would you like to see in future

Provision of adequate devices to learners. Provision of data for learners who have no data.

More training/ Equipment provided

9. What other experience would you like to share

2 colleagues mentioned more technology training for tutors

All colleagues mentioned the reduction in paper use through photocopying being positive thing and some said they never thought that could be a thing of the past

Interview response from an Adult Education policy maker was as follows:

A standard government strategy on Lifelong Learning and Adult Education is needed which can be interrogated. He confirmed that no strategy has been available for many years.

Current policy is focussed on skills based provision of Adult Education, informal learning is important, needs to be funded by the government.

Adult Education participation has declined over the years and it is believed this is due to funding cuts. (This is evidenced by the 2019 Adult Learning survey commissioned by the Learning and Work Institute calling for a strategy.)

Structure of the Adult Education under the Minister for Skills needs to be clearly defined. The minister's portfolio needs to be simplified and perhaps a clear role created for Adult Education.

Funding will be required to address digital poverty as can be seen from the pandemic. (which I address in this study).

He confirmed the barriers to technology use as discussed above.

Elearning is great but not appropriate for majority of Adults. (From my experience many adults lack digital skills and some prefer learning that don't involve learning using computers).

Learning for learning sake which is informal learning learning should be funded in order to help adults with social problems. He specifically mentioned that it should be possible for doctors to prescribe courses for patients in a doctor's surgery rather than drugs in some cases.

Interview response from a manager

I specially asked about the fees for formal and non formal courses. I was told that non formal courses are not free while formal, accredited courses are free to learners receiving government assistance. This may be the reason for the decline in take up of non formal courses.

EAEA -European Association for the Education of Adults

European Association for the Education of Adult through their Change –Oriented initiatives have managed to bring together AE professionals from various countries to explore the effect of digitalisation in teaching adults, since adult education has the capacity to improve everyone's capacity and ability to change their life and develop the society. (EAEA) ,

Through their FuturelabAE initiative run courses and workshops aimed at addressing issues of digitilisation in society by equipping practitioners with the concept of change oriented adult education through the showcasing of appropriate digital tools to transform society.

I attended a workshop where digital story telling was being promoted as change-oriented approach to transform elearning.(EAEA) The session was led by a company who has been in this business for a while and uses digital story telling in industry. It would be nice for this to be explored more.

CPD –Virtual Roundtable with student where some students and tutors were asked about their experiences in the last few weeks of lockdown.

Attendance improved in certain classes, I think this is due to the reduced need for travel. Some classes experienced decline in number for various reasons. This was not discussed.

Accredited courses had more attendance than non accredited courses. Some of the reasons cited was that learners felt having been behind the computer all day at work, they wanted to attend a course where they can interact with other people. A colleague did mention to me that accredited courses do have better attendance as funding could cease for courses linked to student loan.

A virtual induction was suggested for courses in future as well as embedded virtual coffee sessions with the lecturers during the length of courses.

Training for lecturers to boost their confidence was also suggested. I support this as the more confident the lecturer, the more learners will enjoy the class.

4.1 Summary

Although only 5 tutors were questioned this is representative of many tutor experiences. The question now is who pays for the lack of adequate resources, devices and data for learners. Online teaching is the future of Adult Education and in order to recruit and maintain learners adequate

training for learners and tutors will be important. There needs to be a standard regarding the use of video or audio only classes. It is also important to let learners be aware of GDPR issues, regarding recording classes.

Policy issues for the future gleaned from work:

Hybrid learning where online teaching continues real time using one of the three synchronous tools: Microsoft Teams/ Moodle ; Google Classroom/ Moodle will be used during the class time and learners are met in class face to face once a month, is the future. Where the class is a large class, learners will be divided into 2 groups and such meeting could take place once in two weeks.

No decisions have been made so far regarding access to data or help with devices but I think some disadvantaged students may be entitled to help possibly from hardship fund.

Regular training is available to help tutors familiarise with online teaching. No particular training has been geared at learners currently but some digital induction may be possible in the new year. It was assumed that most learners are all computer literate which is now found to be not the case.

Policy Makers were not asked questions particularly focusing on Elearning although they are aware of digital skills policy in the institutions.

5.Conclusion & Recommendations

The research question underpinning this study is, What is the impact of Elearning on Adult Education. How far has Adult learning benefited from Elearning and how can this be sustained after the recent COVID pandemic. The aim of this paper is to explore the impact of elearning and digital skills on Adult Education and Lifelong learning delivery and the changes that need to be embraced following the recent challenges during the COVID 19 pandemic.

In order to analyse the fully benefits of elearning before the pandemic was evaluated as well as government policies towards AE. The technology model which helps to ascertain how people respond to technology was reviewed. In order to study this further Questionnaires were given to learners (only those who have engaged with learning during the lockdown), lecturers, providers and policy makers in order to access their view on elearning and adult education as a concept. Response rate was low and some students were further interviewed instead of returning questionnaires.

Digitising learning enables institutions to deliver quality learning to society, increase variety of courses and may open up new opportunities. Digital technology is needed to transform societies by solving social problems and giving individuals the power to engage with various providers of goods and services. However, one could also argue that policy-makers increasingly describe digitalisation as 'solutions' to various social problems, whereby adult lifelong learning is described as a central instrument for enabling these solutions (Wildemeersch, D, Wolfgang, J). Adult education investment in UK is necessary in order to meet economic development goals (OECD, 2000)

Adult Education and Lifelong learning

The relevance of Adult Education was investigated through various literature reviews on Adult Education and its importance to the economy whether courses are attended for skills acquisition or for self development and the need for lifelong learning and its effect on the whole person. The focus for AE is for skills. The questionnaire results revealed that while most were attending in order to advance their careers, others attended for other reasons. I also argue here that for demographic reasons, learning should be a lifelong affair and it does not have to all be certificated.

Adult Education & Globalisation

The interconnectivity between nations necessitates the upskilling of the adults. Globalisation has enabled the global value chain and this requires the mobilisation of different kinds of technology for this to work appropriately. If UK continues to lag behind in technological knowledge it will have to import those skills. This is one of the reasons why the government has invested millions on development of coding and further investments are being made in advancement of technology through the National Skills Fund. Using the (OECD dashboard) which measures participating countries' readiness in preparing for upskilling Adults, in terms of Urgency (*How pressing is the need to update AE system to cope with demand for upskilling*) which is one of the priorities, UK ranked low at 32%. More needs to be done to address the updating of AE systems and upskill adults.

The UK has been a global player in higher education for ages and it plans to increase this as a result of Brexit and the need to strengthen global partnerships. Developing the local adult education market is just as needed as promoting higher education industry abroad. There are policies addressing all areas of Education but no specific Adult Education Strategy exists that can be consulted, interrogated and reviewed.

Elearning and Adult Education delivery

The interview with colleges and managers gave indication of the use of elearning before and during the pandemic. The pandemic brought a sudden change but it also revealed some shortcomings like lack of appropriate equipment, accessibility issues, environment not conducive, cost of connectivity and the need for adequate training which the TAM2 model referred to as external factors which may affect perceived use of technology and perceived usefulness. Further work is needed by institutions via surveys to find out how learners can be helped with some of the issues.

Government Policy

Formal Adult Education which enables adults to gain a certified qualification seems to get more funding as this is linked to employment and seen as a good return on investment. (Learning and Work Institute survey 2017) What is not realised by policy makers in the government is that non formal courses, not leading to qualification are important to the individuals, improve mental wellbeing and this needs to be encouraged more and made affordable. A photography course may be what an adult needs in order to get a presence on youtube and finds that it's not affordable. Non formal learning also needs to be available for prescribing by doctors. For various reasons including depression. A web design course and many other courses could also have the same effect of employment or refocusing one's life. I have had learners come on my non certificated courses and it was needed because the learner is treasurer for a small community club.

Elearning benefits

Elearning promotes good pedagogy techniques as it is learner centred (Pahl, C. 2003) and enables deep exploration by the learner. Learning is possible anywhere and at any time through the use of digital tools. This is great news for learners who are not able to be present in all classes.

Students collaborate (Karambelkar, 2015) better with colleagues through the use of various tools like whatsapp, facebook, forums on Moodle, blogs to name a few before the pandemic. Synchronous tools like Meet and Microsoft teams are now being implemented by institutions which makes elearning more productive and scalable. The only drawbacks are lack of engagement by those who lack the skills, cost.

Hybrid learning which enables both tools mentioned above is the future of learning in order to maximise student experience. (World Economic Forum) Pedagogical methods and strategies to be used online are different from those used in the classroom (Esra Telli 2020), differentiating online is also a big challenge.

COVID

Sudden changes to delivery of teaching has resulted from the lockdown and things will never be the same again. The future is online teaching with limited contact which will result in Hybrid learning as mentioned already.

COVID has taken this further and learning has been real time through the use of real time ,synchronous tools like Zoom, Google Meet, Microsoft Teams, Webex to name a few. This has been challenging for both tutors and learners as the use has been suddenly introduced. Education provisions will seriously be reduced in future if digital skills of the tutors and the learners are not addressed. The provision and accessibility of necessary tools to the learner will have to be funded by sources apart from the learner.

There will continue to be challenges for a while with some resisting the new norm and others struggling to conform. The challenges with this trend is the time, device issues technically and the cost of owning one. The other problem is the availability of data. Who funds these in order to prevent digital poverty? Digital skills of all parties involved need to be enhanced.

More than 70% of learning planned for September in institutions I work for will take place online as social distancing continues to be practised and safety of learners are paramount. Online learning demands that both learners and practitioners become technology savvy and this has posed a number of challenges.

5.1 Recommendations

This report has addressed a number of issues regarding AE and lifelong learning: the use of elearning in the delivery of teaching and learning; digital skills needed by both tutors and learners in order for learning to take place; the impact of COVID; the need to tackle digital skills shortage and what changes are necessary for the future of the economy, the individual and the society.

Digital Skills training for all adults should be mandatory, free and made a basic skills need for all, similar to literacy and numeracy skills being seen as basic skills. One way to initiate this is to mandate this as learners enrol for new courses. Today, Digital skills are needed for communicating, transacting, handling information, problem solving. Institutions could collaborate with other institutions running digital skills courses online. (Digital Bloom Taxonomy) Digital skills are crucial for helping people contribute to the workforce and society, stay connected to families and friends and to manage well-being. (Caroline Dinerege, Minister for Digital, Culture, Media and Sport, Lloyds Bank Index).

Improved digital skills are needed by both tutors and learners in order for learning to take place fully in future as traditional forms of teaching and learning is disrupted and to meet the demands of globalisation. The impact of COVID on teaching and learning has exposed the need to tackle digital skills shortage necessary for the future of the economy, the individual and the society. This has driven most courses online but institutions can't just put learning online and let people get on with it.

The current COVID 19 pandemic is an opportunity for lifelong learning investment for upskilling of those now made unemployed as well the wellbeing of all adults. Government funding will need to be sought by institutions for the finance of data and devices for both learners and tutors.

Private businesses could be encouraged to get involved in financing some digital causes in the community as part of their Corporate Social Responsibility (CSR) policy and in collaboration with local colleges, AE institutions or local groups and charities, through local and national campaigns. Google Digital Garage, Microsoft and Lloyds Bank Academy are some examples of initiatives by the private sector to equip adults with digital skills.

Individual Learning Accounts as seen in Singapore (Kamei, R, 2017) needs to be introduced which tracks learning from one institution to another in order to prevent learning tourism where learners enrol in multiple courses in different institutions and in some cases the courses are same or similar. Government funding is needed to fund devices for learners. This could be college dependent and tracked through the learning account in order to prevent duplication. Every adult should have some credits deposited in their account which can be used to access courses with priority given to digital skills enabling courses. National database on Adult learning is needed. (OECD) Tax incentive for the employed who train privately

Learner contracts with phone companies should be explored and needs to be introduced which offers data at a cheaper rate for students. This could be a good marketing opportunity for any of the providers that decides to implement this.

I also believe this can be reversed if more focus is placed on free digital skills courses for adults not necessarily certified. On the otherhand, new curriculums can be designed for example using IT to solve social and community problems. (EAEA) Accredited IT courses can be taught and learnt as a subject. Which leads to learners being able to use skills learnt to tell their stories digitally. The issue is, how would such courses be financed? Financing AE Non formal qualification courses is key.

Although research has proven that funding has been diverted to solely vocational courses in Adult Education and this is necessary, digitisation will affect both high skilled and low skilled labour. Barriers to low skilled worker' upskilling need to be investigated and dealt with

The recent COVID pandemic has exposed the need for all adults to be digitally literate, many were required to suddenly home school and fell short of the skills needed to interact with technology.

In my opinion we need a reset in Adult Education. All Adult Learners need to be on a database and assigned a Unique Learner number. Adult learner should have say £5000 credit worth of learning. The number should be accessible by any provider to record what the learner has spent and to ensure a learner does use the account in multiple centres

The way adults learn will dictate how they respond to the use of technology

6. Directions for future research

The study explores the impact of elearning on Adult Education delivery and how this can enhance the digital of learners. The COVID pandemic was a catalyst for seeing the effectiveness of elearning and it provided opportunity for much change that could have taken years to. It enabled the uptake of synchronous and asynchronous tools in teaching and learning. There is space for further research on additional tools and methods of delivery that could become available. The pandemic is changing the way education is delivered (weforum).

Interview and questionnaires were limited because of the pandemic. Gathering the opinion of the users and providers is important in any research. I would like the opportunity to reach more people and be able to convince the ones I reached out and who never replied my questionnaire. Reaching a more diverse range of learners and detailed analysis of learners needs is important in order to identify the impact of the sudden move to online learning which will further widen the digital gap.

Attendance during the pandemic was high in some courses and low in some. How many had the right equipment to access such learning? How many didn't have a stable internet? The role played by libraries needed to be explored as many learners use the library for access to computers. Many libraries also partner with colleges to run ICT courses attended by the community.

The effect of globalisation and the digital skills of UK adults needs further research in order to ascertain how the low readiness of UK revealed by the OECD survey in the appendix can be rectified.

Who will bear the cost of providing the digitally poor with necessary equipment? One of the institutions I work for is Citylit. Citylit is one of the specialist adult education institutions situated in the heart of London. The library is modern and always busy. It is evident that many people visit the library probably because lack of access to technology at home and possibly for social reasons. What access will people have now, during the lockdown and after and even if institutions of learning re open, numbers will be restricted as safety becomes important. How will the libraries cope? Who will fund the demand? What digital infrastructures need to be discarded or replaced.

Assessing the skills of practitioners and training is important. A national survey of practitioners would be useful to identify how institutions are equipped. **Elearning PGCE** may also help to drive up the skills of upcoming practitioners and if one already exists it would be necessary to test the impact.

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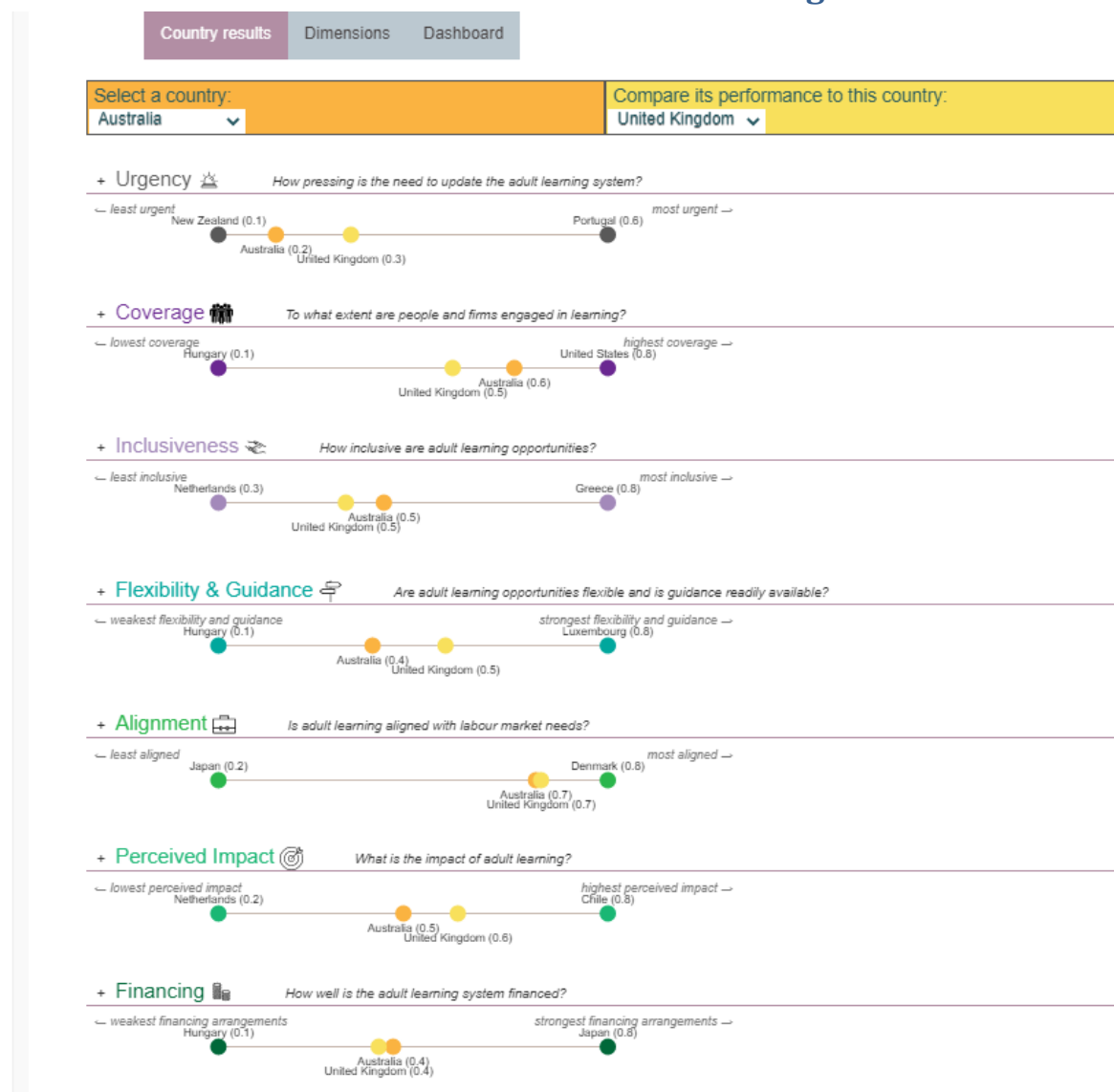
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Appendix 1

OECD DASHBOARD -- Priorities for Adult Learning



Source: OECD

Key: United Kingdom



Appendix 2

Benefits of Adult Learning

