

## USING TECHNOLOGY FOR UNDER-REPRESENTED ADULTS

### ADVANTAGES OF DIGITAL LEARNING WITH UNDER-REPRESENTED ADULTS

Much of the research on using technology for learning with under-represented adults/disadvantaged learners divides the impacts into those for learners and those for learning providers although there is some common ground between the two.

A project with four FE learning technologies pilot providers identified the following key benefits of blended/online learning; (Digital Learning with under-represented groups, Draft Research Report, NIACE, May 2015)

#### Benefits for providers

- Wider range of teaching and assessment methods
- Better outreach and learner support (including from peers)
- Growth of learners' transferable skills
- Easier sharing of practice and development of communities of practice
- More up to date and responsive curriculum
- More independent, self-directed learners
- Increase in learner retention and achievement
- Cost savings (contradicted in other studies)

#### Benefits for learners

Providers and learners identified many of the same benefits for learners from their online learning including;

- more flexible and accessible learning;
- access to more support, both from tutors and peers;
- impact on maintaining motivation between classes;
- stronger digital skills with wider uses and more access to interesting and useful resources.

These findings are supported by other studies capturing the perspectives of learners and providers on the opportunities offered by online/blended learning. (Campbell-Wright 2013; Easton & Downes 2016). Practitioners in NIACE's Bring Your Own Device (BYOD) project, which examined the use of learners' own devices in informal and community adult learning, felt strongly that implementing BOYD policy would encourage innovative teaching and independent learning in and out of the classroom (Easton & Lockhart-Smith, 2014).

A big motivation, and additional benefit, for some learners, is that through developing their understanding of digital technology they are better able to support their children's learning. For more vulnerable learners in particular, learning more about online safety is another important benefit. Students reported increased confidence in using digital technology to support their families and help them to find work. (Campbell-Wright 2013; Easton & Downes 2016).

Digital learning may provide particular advantages for specific groups of adult learners. An AAUW American study (date?) found that online learning was a preferred education option for women because of issues relating to flexibility and family and because it can overcome cultural barriers for example traditional barriers to learning in Muslim communities. Online learning would also improve availability of learning opportunities, particularly higher level learning in prisons (Easton, 2016).

## **CHALLENGES/BARRIERS TO DIGITAL LEARNING AND SKILLS**

A number of common themes emerge in the literature around barriers to digital learning (Easton & Campbell-Wright, 2013; NIACE 2015, NIACE 2016)

For providers, these can be grouped under;

- Staff skills, time and enthusiasm to develop resources
- Costs – insufficient funding for additional costs of infrastructure, equipment, CPD, learner support
- Access to hardware, software and technology infrastructure
- Connectivity (particularly in remote locations)
- Insufficient strategic leadership

Access to/reliability of equipment and connectivity are also highlighted as barriers for learners in addition to;

- Lack of confidence away from support
- Insufficient skills and knowledge
- Insufficient protected study time
- Access to support
- Concerns about online security

Extending the use of technology in learning to adults with little knowledge or experience of technology was also highlighted by learners as a challenge (Easton & Campbell-Wright, 2013) as this group were often unaware of its relevance to, or application in, their own lives.

Easton & Lockhart-Smith (NIACE 2014) identified a number of specific barriers to better and more consistent use of learners' digital devices in learning, including access to public WiFi; lack of support for mobile device usage, lack of policies by

learning providers, inclusive access to devices for learners; data security and learner safeguarding. However, the single biggest barrier was found to be staff reluctance.

## **HOW TO OVERCOME BARRIERS**

To address the barriers and challenges to digital learning identified requires strategic, organisational and individual action. A national vision and action plan for the use of digital technology in learning is required, together with better communication of the benefits of blended/online learning and more enabling approaches from Awarding Bodies (Easton, 2015)

Addressing issues around staff knowledge, skills and training (and enthusiasm) is essential. Suggestions in the literature include;

- Adopting team teaching models where tutors share expertise and resource development with other professionals (Easton & Downes, 2016).
- Allowing tutors 'time to play' to develop their use of digital technology and to encourage innovation and provide 'regular training, especially 'small chunk' training (Easton & Campbell-Wright, 2013)
- Digital champions and mentors (Easton & Campbell-Wright, 2013)
- Raising the awareness and understanding of policy makers, chief executives and other managers of the potential of learning (FELTAG)
- One approach highlighted in the literature was collaborative development of online learning which local providers can adapt to meet their circumstances, allowing expertise to be shared among providers (Easton, 2016).

Funding is needed to support the increased cost in resources, course development staff training, and CPD. Increased input from learners into the technology and platforms used (Campbell-Wright, 2013) and establishing partnerships between providers and technology organisations (Easton & Downes, 2016) will help to address technology issues for disadvantaged families and improve the learner experience.

Providers involved in the BYOD research pointed to the need for soft-ware compatibility with a greater range of devices and increased on-course support for learners' own technology.

From a learner perspective, practical suggestions to overcome barriers include using larger print and more visual prompts and signposts, providing headphones and more sound volume for learners with hearing difficulties, designing interactive apps for smartphone users, offering more IT support between sessions, and more use of freely available software to widen transferable skills (Easton & Campbell-Wright, 2013). Other suggestions related largely to support arrangements (see below).

- **SUPPORT REQUIRED FOR UNDER-REPRESENTED ADULTS TO ENABLE THEIR ACCESS TO DIGITAL LEARNING**

Whilst there is clear evidence of demand from non-traditional learners for on-line learning, the issue is not so much about how to attract learners, rather that once recruited they are appropriately supported to develop the skills they need to use learning technologies successfully. This is particularly important for socially and economically disadvantaged learners who often have low levels of digital literacy and limited experience of prior learning. (Easton, 2016).

Support requested by learners includes more individual pre-course discussions to clarify what the course involves and what support is needed; help with finding remote access locations; on-course assessment to ensure an effective balance between face to face and on-line delivery; peer mentors and e-safety training. Easton, NIACE 2015). Easton & Campbell-Wright (2013) found that online security was the area in which learners were most likely to highlight a support need, particularly those with less experience of digital technology.

Attempts to engage under-represented groups should take into account their lack of confidence and limited experience of using digital technology. To ensure potential learners are not put off, both learners and providers highlighted that course descriptions should avoid overly “techy” jargon and that courses should be as relevant and useful as possible to the lives of potential learners (Easton & Campbell-Wright, 2013).

Learners prefer a balance between online and classroom teaching due to concerns about lack of support when studying remotely but also because they value face to face contact with both tutors and peers in the classroom. Only a few learners in the Easton & Campbell-Wright study looked for courses online indicating that a blended approach to recruitment is also important.

- **EXAMPLES OF EFFECTIVE PRACTICE IN THE USE OF TECHNOLOGY FOR LEARNING WITH UNDER-REPRESENTED ADULTS**

Bring Your Own Device (BYOD)

This project identified successful models of BYOD use for informal, community based and workplace learning by working in collaboration with providers, trialling models of BYOD use, supported by the provision of assistive technologies to overcome barriers of access. Providers developed case studies demonstrating how BYOD was applied to the learning environment; as well as identifying barriers to use and methods of overcoming these, including approaches to ensure equality of access for all learners.

Outcomes from the trials indicate that the use of BYOD continues to improve the learner experience; with many providers unable to provide sufficient IT equipment for all learners BYOD, will have an important part to play in the future development of learning provision (NIACE 2014). These findings supported FELTAG’s

recommendation that organisations should introduce policies to enable learners to learn with their own devices, requiring a change in culture and attitudes best achieved through step-changes involving both staff and learners in the process (Easton & Campbell-Wright, 2013).

Guidelines from the Campaign for Learning (produced with partners SCOLA and NIACE) set out five areas to be implemented to ensure effective use of technology in teaching and learning. The guidelines were developed in response to feedback from family learning practitioners in a small Jisc funded study about barriers to the use of technology in family learning (Campaign for Learning, 2014). These are;

- Investment in Digital Equipment – practitioners need consistent access to sufficient, up to date well maintained and varied equipment including mobile devices
- Access to a reliable WiFi/Broadband connection (or offline alternatives)
- Consistent and accessible ICT support
- Training and support for practitioners including time for training and to develop skills and support systems including digital champions and opportunities to share practice
- A flexible and innovative approach to embedding the use of technology, tailored to the needs of learners

## **EXAMPLES OF EFFECTIVE PRACTICE IN DEVELOPING BASIC OR HIGHER LEVEL DIGITAL SKILLS FOR UNDER-REPRESENTED ADULTS**

Research has identified the effectiveness of family learning as a model to engage with and support excluded families to acquire basic digital skills. Examples include;

### Digital Families

In 2015/16, Learning & Work Institute developed and managed the BIS funded “Digital Families” programme. Digital Families trialed and evidenced family learning approaches which can increase the basic digital skills of adults, improving their employability and supporting their participation in society. Pilot projects from Hull, Sheffield and Manchester Family Learning embedded digital skills into family learning courses and sought to establish clear progression pathways and opportunities between their family learning provision and digital making activities. The project targeted families in areas of high social and economic deprivation and those with specific needs, including issues relating to poverty and English as an additional language.

Digital Families had a positive impact on adults’ practical digital skills (including supporting higher order digital skill development), as well as their attitudes and beliefs towards using technology in everyday life and work. Participation also resulted in increased learner confidence and the creation of social networks with other parents.

### Family Robotics

The Family Robotics Course was a small scale pilot programme provided by Brighton and Hove Community Learning and hosted by a local primary school. Half of the adults involved were either unemployed or in low-paid employment and reported a relatively low level of qualifications, broadly reflecting a disadvantaged local demographic with low paid employment, high unemployment and, in general, lower level basic skills.

The course enabled both adults and children to explore digital making in a safe environment and with access to specialist knowledge from course tutors. In contrast to many other family learning courses, parents (and wider family members) and children participated equally in all of the sessions. Participation in the course had a number of positive impacts on learners' digital skills and attitudes towards digital making technology. Both adults and children reported increased confidence in using the technology and improved their creative digital skills (e.g. creating something new from existing content). Adult's ability to support their children in digital making activities also increased (a primary motivation for most adults in signing up). Other impacts included the strengthening of positive opinions on digital technology and greater awareness of the application and importance of technology in modern life (Easton S Pennistone E, 2016).

## **EXAMPLES OF APPROACHES USED TO TRAIN PRACTITIONERS AND PROVIDERS IN THE USE OF TECHNOLOGY WITH DISADVANTAGED LEARNERS**

Professional development and training of practitioners to maintain awareness of the available technology and how to use it effectively, plays an important part in successful approaches to integrating technology into learning, and particularly for engaging and supporting disadvantaged learners.

The Erasmus+ IDEAL (Integrating Digital Education in Adult Literacy) Project focuses on improving the digital skills of adult education teachers and trainers who work with disadvantaged groups and low skilled adult learners. The project, a partnership between six countries: Belgium, Finland, Ireland, Italy, the Netherlands and Norway, aims to increase teachers and trainers understanding of digital teaching methodologies, equip teachers to use innovative ICT methods in their everyday teaching; provide access to simple "how-to" video guides on incorporating technology into teaching of literacy and numeracy and increase the knowledge, understanding and skills of participants in using technology.

The IDEAL project is working on producing practical good practice guidelines for teachers, trainers and other practitioners on integrating digital education in adult basic skills teaching by early 2017.

Another live Erasmus+ project, "Developing Adult Educators' Competencies to Promote Learners' Life Style Entrepreneurship (LSE)", aims to strengthen the

competencies and increase the understanding of adult educators in the effectiveness of incorporating technology based tools and methods into the training of disadvantaged learners. The project will supply educators with ICT tools based on the LSE approach, enhance professional development through the introduction of innovative methods – blended learning, reversed/flipped training, open education resources (OERs) and develop OERs tailored to the needs of adult educators to support digital integration in learning to reach disadvantaged learners.

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