EDUCATION & TRAINING FOUNDATION

Outstanding Teaching, Learning and Assessment (OTLA) Action Research Project

Supporting learners to develop their knowledge of digital terminology

Barnsley MBC – Adult Skills and Community Learning – June 2022

Barnsley MBC – Adult Skills and Community Learning (2022)
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For further information regarding the Shaping Success Action Research programme and this project go to https://ccpathways.co.uk/practitioner-research/otla-8/.

The programme was delivered on behalf of the Education and Training Foundation by:

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Supporting learners to develop their knowledge of digital terminology

Barnsley MBC – Adult Skills and Community Learning

SUMMARY

This project developed teaching and learning strategies and resources to support Entry Level 3 digital learners to develop their knowledge and understanding of digital terminology, as this was proving to be a barrier in embedding this knowledge into their long-term memory.

RATIONALE

Learners on dedicated digital skills courses wanted to become more self-sufficient and were willing to continue to develop their skills independently. It was identified that these learners were struggling to embed digital terminology into their long-term memory and, when undertaking independent study away from their sessions, were unable to develop their skills due to not being able to remember the meaning of terminology.

The project aimed to develop strategies to support the development and understanding of digital terminology and ensure this knowledge was embedded into the learners' long-term memories. Digital tutors would undertake research to identify which teaching and learning strategies would support this development.

Other Contextual Information

Our action research was part of the Education and Training Foundation's OTLA 8 Programme and we worked with adult learners with low level digital skills. We worked with two different groups of learners, one a Level 1 Essential Digital Skills (EDS) group and the other an Entry Level 2 EDS group. We aimed to identify the most successful strategies to support learners' understanding of key terminology and ensure it is embedded into their long-term memory. In Barnsley, 24% of adults don't have all 5 basic digital skills (as outlined in the EDS Framework, gov.uk, 2019), and only 44% of adults indicate they have used all 5 of these skills recently, therefore this provision meets the needs of the local community (Barnsley Metropolitan Borough Council, 2019).

APPROACH

Our ICT and Digital Skills team wanted to explore and develop relevant and engaging assessment strategies and resources to support the development and understanding of digital terminology with adult learners who have low level digital skills.

We initially worked alongside a Level 1 Essential Digital Skills class and, for the purposes of the action research, we split the learners into two groups giving them two different tasks, but with the same expected outcome. One group was given a set of tasks with direct instructions, e.g. 'change the title text to bold'; the second group had the same task but their instructions included an explanation of why they were applying the task, e.g. 'Make the title text stand out by applying bold'.

The learners were assessed by completing an exercise which required them to explain their understanding of the terminology so that the answers could be compared. We wanted to identify if the instruction document with more information was more effective in the learner gaining a greater understanding of the terminology.

It was identified that it was not the learners' comprehension skills that were preventing them from progressing; it was their lack of understanding of the key terminology used.

Online content was created to support the learners with their development of interactive bite-sized quizzes using Wordwall. These quizzes reinforced the same terminology with the intention of encouraging learners to be able to independently apply these terms. The quizzes ranged from matching-up exercises to cloze activities and wordsearches to help with correct spellings, as well as timed exercises that ran randomly.

Mini assessments were used to check understanding of the terminology and the results were more positive with learners being able to easily articulate the meanings of digital terms.

The new bite-size online quizzes we created are now being used with an Entry Level 2 group of Essential Digital Skills learners and have been adapted for the terms required at this level. Feedback from the learners has been collected with the results of their assessments informing future practice. One learner indicated that:

> "The matching exercise helped me to focus on one definition at a time and I was not overwhelmed with lots of words all at once"

with another learner stating,

> "I preferred the matching game so I could eliminate the incorrect answers and be able to identify the correct answer".

The tutors contributed to a Padlet on a weekly basis to document their reflections and achievements within each of the sessions and this was the place where results from the research were stored (See Barnsley ASCL OTLA 8 Padlet).
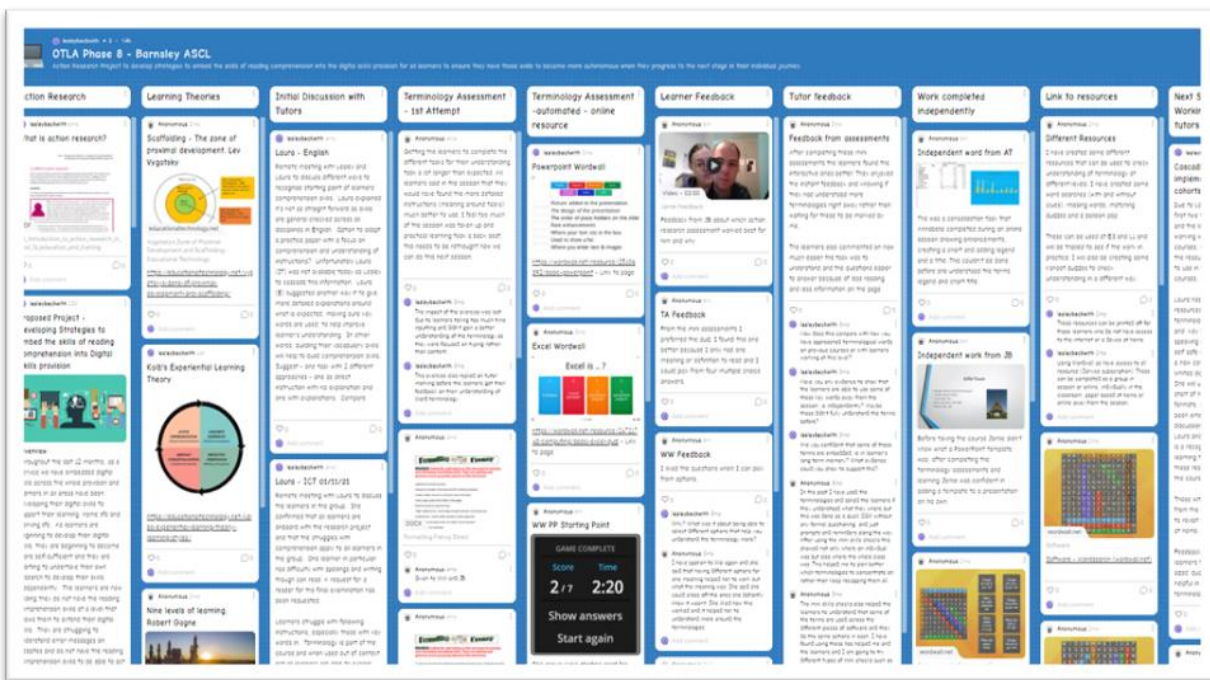

Figure 1 - Image of Padlet

The first project activity aimed to address how to improve the comprehension skills of learners to support them to interpret internet searches independently.

Initially, different sets of instructions were given to the learners with one set containing short and direct instructions and the second set containing additional text and further explanations of the word processing functions.
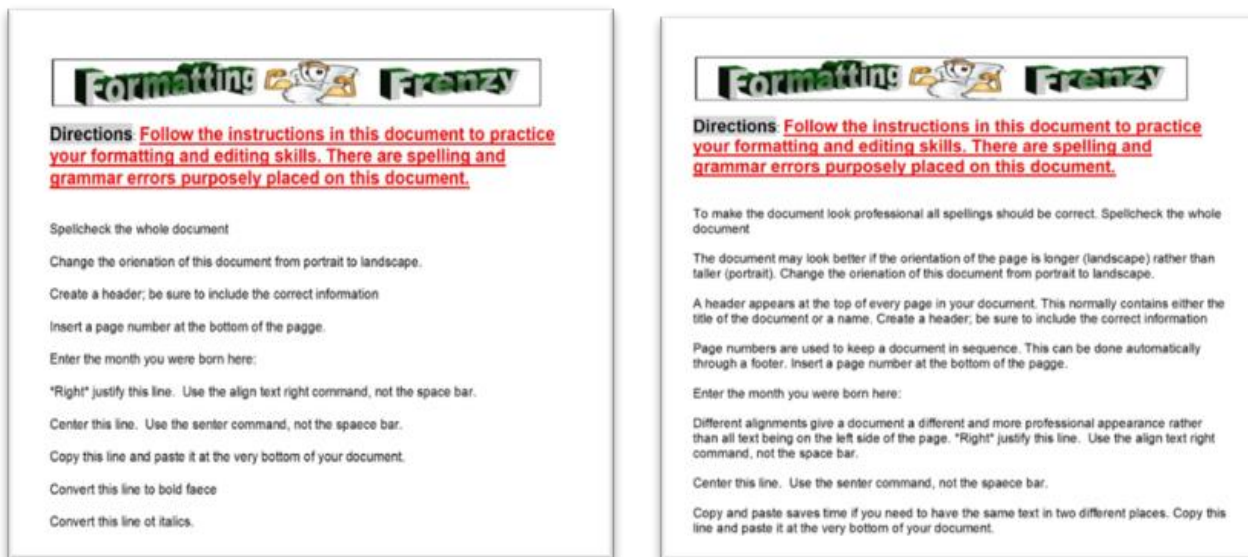

Figure 2 - Image of the different sets of instructions

After completion of the set task, it was identified that neither set of instructions supported the learners to achieve the expected end goal and it was a lack of understanding of key terminology that prevented the learners from achieving the expected outcome.

There was then a focus shift where strategies to embed key terminology were now the priority and a variety of mini bite-sized online interactive quizzes were created.
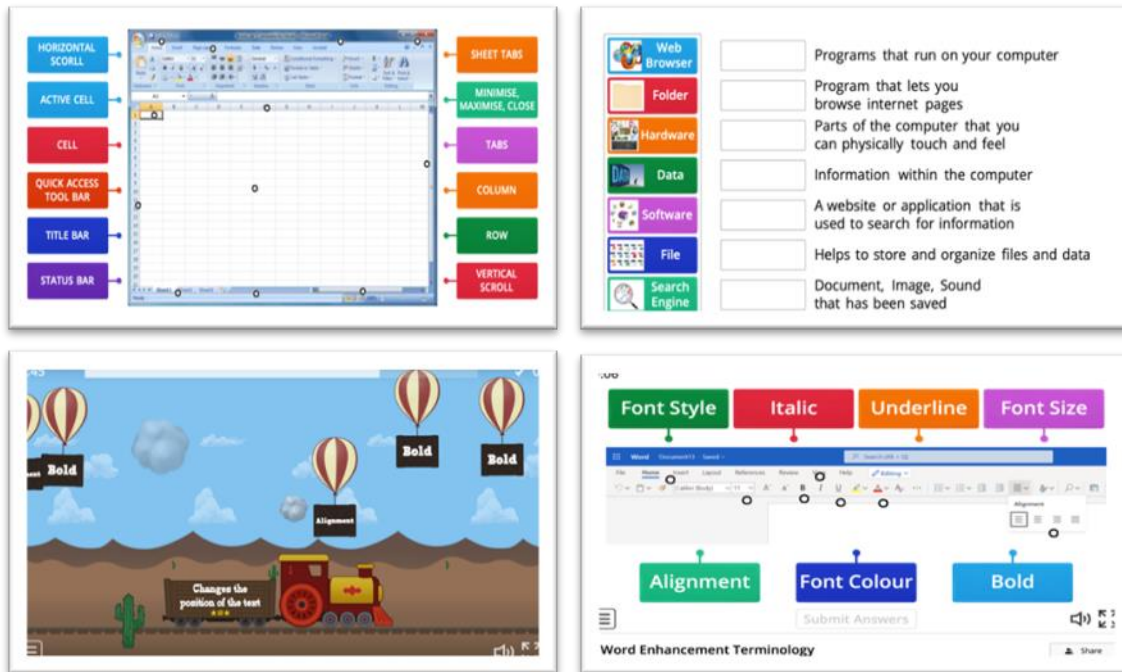

Figure 3 - Images of Interactive Quizzes

OUTCOMES AND IMPACT

Teaching, Learning and Assessment
The use of the interactive quizzes resulted in the majority of the learners increasing their working knowledge and understanding of digital key terminology. The learners fully engaged with using this style of resource which promoted their enthusiasm for wanting to do more such activities. This was especially true away from the session as the instant feedback motivated them to continue doing the tasks independently to improve their skills.

Assessment by the tutor identified that the interactive resources had supported learners' understanding of key terminology and the learners' engagement with the resources; due to this, they are now being used with Entry Level 2 learners to develop their terminology understanding. These resources will be used with all levels of learners to support the embedding of key terminology and they have the opportunity to be used with learners across the whole of the service.

As the action research project gathered pace, the learning was shared with the whole Digital Skills Team. Collaboratively it was decided to use the mini interactive assessments more widely within the digital skills learning programmes (Appendix 3). Tutors created a wider knowledge base of assessment to prevent learners from being able to guess the correct answer and the use of more images to support ESOL learners. This was using learning from the OTLA 7 project (ETF, 2021).

This has now been developed to be used with Wordwall where the learner identifies themselves when undertaking the assessment and the tutors is able to use the assessment results to inform their next steps with learners (Appendix 4). The action research will continue after the end of this project to identify the impact of using these newly adapted assessment resources, but early indications show that learners are eagerly engaging with the resources.

The instant feedback that learners gain from using the online assessment tools has promoted them to access them away from the sessions, supporting self-directed learning. For learners who do not have access to an internet enabled device, the activities are also available in print format to encourage further study at home (Appendix 5).

Professional Development

Professional Standard	How our project outcomes demonstrate this standard
2. Evaluate and challenge your practice, values and beliefs	Being part of the action research project gave us the time and space to be able to question our current practices and work on an area that had previously been difficult for learners. Being able to conduct our own research was beneficial as we were able to apply it directly to our own practice and cohort of learners. The improvement in the learners' understanding of the terminology was evident from their comments and the assessments that were undertaken.
3. Inspire, motivate and raise aspirations of learners through your enthusiasm and knowledge.	Our project enabled us to raise aspirations of the learners by the development of the different styles of assessment methods and giving them the satisfaction that their knowledge of terminology was engaged in their long-term memory. They also felt confident in using these key terms away from the safety of the classroom. Instant feedback from the online resources and being able to access the resources away from the session motivated the learners to develop their knowledge and skills outside taught sessions.
15. Promote the benefits of technology and support learners in its use.	The project supported learners to have the confidence to use online resources away from the session and continue to develop their independent digital skills.

Organisational Development

Use of a Collaborative Padlet

The Padlet became a working document and a shared space where the tutors reflected on the development and impact of the resources. It was also used as a discussion platform with the tutors and their line manager. It was an excellent source of reference when a new tutor joined the project.

Developing tutors' confidence in their current practice

Tutors reflected on their current practice and developed varying resources to meet the diverse needs of learners and support them to work more independently. Tutors wanted to create innovative resources and adapt their strategies to help learners to learn. The interactive resources were well received by the learners and resulted in developing their understanding of key terminology.

Tutors developing as Reflective Practitioners

The action research project created frequent opportunities for tutors to focus on aspects of their established teaching strategies and to collaboratively, with their line manager, explore opportunities to develop and try newly-designed interactive resources to improve learners' confidence in their understanding of key digital terminology. One tutor used Kolb's Experiential Learning Theory to support the development of their own learning: 'through the transformation of experience' (Kolb, 1984). This tutor is now supporting a newly qualified tutor to develop their reflective skills.

Building collaborative relationships with colleagues

Throughout the project, there have been good opportunities to share effective practice and develop the mentoring skills of one particular tutor, as she is currently working alongside the newly qualified tutor. The tutor has been encouraged to lead on the sharing of her ideas within team meetings and staff development sessions. The sessions she has led on have been opened up for all staff to attend and this has supported the tutor's confidence in delivering to her peers.

LEARNING FROM THIS PROJECT

Learner feedback shows how the change to using the varying online interactive resources promoted their understanding of key terminology and how they were able to independently identify them. The user-friendliness of the resources motivated the learners to use them away from the session and the instant feedback from the resources encouraged the learners to continue to use them. The resources were used initially with a very small group and for the project it would have been more beneficial to have been able to use these with a wider audience of learners. The resources are now being used with more learners, working at a range of levels, but a larger range of feedback would have better supported the results of the action research.
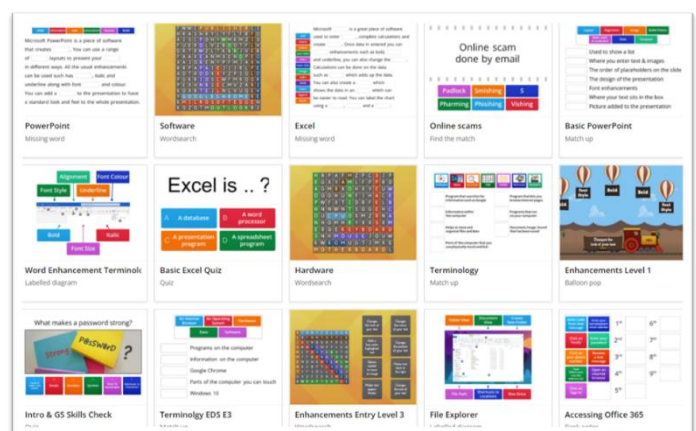
The cohort of learners that were identified for the initial research project were on a short course with the service, and as there was a shift in focus from the original brief, this left a very limited amount of time to develop the resources and gain feedback from the learners. We therefore had to utilise two cohorts of learners, with the research from the second cohort only focusing on the amended project objectives rather than the original.

The action research has allowed the lead tutor to develop as a practitioner as she has embraced the project. As a practitioner she has reflected on what was working well within her current practice and also how she could adapt the resources to become more creative and innovative to meet the diverse needs of her learners and support them in developing their independent learning skills.

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APPENDICES

Appendix 1: The Project Team

Project Role	Name	Job Role	Contact
Project Lead	Diane Cooper-Ramsden	Skills and Qualifications Manager	dianecooper-ramsden@barnsley.gov.uk
Project Deputy	Lesley Beckwith	Lead Tutor – ICT and Digital	lesleybeckwith@barnsley.gov.uk
Project Team	Laura Long	ICT Tutor	lauralong@barnsley.gov.uk
Project Team	Mary Turner	ICT Tutor	maryturner@barnsley.gov.uk
Mentor	Catherine Gray	Mentor	c.gray@eastcoast.ac.uk
Research Group Lead	Sue Lownsbrough	RGL	sue.lownsbrough@outlook.com

Appendix 2: Learner Case Studies

Two learners were followed throughout this project and identified for case studies. Both learners were part of the initial group.

Case Study 1 – AT

AT joined ASCL with a history of needing support throughout her earlier education. She required support for emotional behaviour and low literacy (since being assessed at Entry Level 2 for English and dyslexia). Her digital skill level was assessed at Entry Level 2, and she started her learning journey by completing digital skills courses at Entry Level 2 and Entry Level 3 before progressing to Level 1 Essential Digital Skills.

With AT completing 2 courses before she was aware of key terms such as 'internet browser', 'alignment' and 'word processing document', however it was evident that even though AT had heard these terms before she couldn't recall them, and this showed they hadn't transferred into her long-term memory. AT has not previously demonstrated being able to study independently away from the classroom, but she did access the interactive resources on her phone.

Feedback from AT:

> "Before I started at ASCL, I did not know what all of the terms meant in Word, PowerPoint, and Excel but by completing the little quizzes, they helped me to understand the key terms better. I could work out from the options on the matching quizzes which term went with which definition. I enjoyed the drag and drop quizzes because they helped me work out some of the terms that I didn't know before and with the results showing straight away I could see how well I had done rather than having to wait for my work to be marked. If I didn't do well they made me want to repeat them to get a better score. I did access some of the quizzes from home to check what I knew before I sat my final assessment. It really helped me with my learning, and I can remember most of the new terms now."

AT would like to use Microsoft Applications more efficiently as she would like to work in admin. Since starting with ASCL, she has signed up to volunteer at the local hospital. She recognised the need to improve her English and it was agreed that she will concentrate on this before continuing with the IT studies. It will be interesting to follow up what AT recalls around terminology, especially linked to the Microsoft Applications when she does return. She still has access to the mini quizzes to help her retain the information.

Case Study 2 – TA

This learner was assessed at working towards Level 1 for digital skills, having studied with other providers a few years ago. TA had a good understanding of some of the practical aspects but was unsure of the key terms. On the first exercise TA was looking at the terms and the ones she didn't know she used her internet searching skills to find the definition. This showed she could use the internet independently to find what she needed but whilst doing this it showed she didn't fully understand the key terms that would have been expected at the level she was working at.

Feedback from TA:

> "I did think I knew what some of the key terms meant but I couldn't remember them. I did google them, but this didn't really help me to remember them later when I was asked to

explain them myself. The quizzes helped confirm to me that I already had some familiarity with key words and this consolidated my learning and thinking. I liked the drag & drop, and matching terms quizzes best as they clarified things, better than trying to explain in my own words. I accessed quizzes mainly when I was in class rather than from home, but I knew I could I if wanted to. The quizzes had a good impact on my learning and gave me firmer understanding of concepts and I was able to see what I already had in my memory."

TA completed the Level 1 Digital Skills course and has now progressed on to studying a Level 2 qualification (ECDL). She has retained key terminology and is continuing to benefit from this better understanding while on her new course. The Level 2 course is delivered online and it has enabled her to ask for help using the correct terminology when needed.

Appendix 3: Collection of interactive resources

PowerPoint Missing word	**Software** Wordsearch	**Excel** Missing word	**Online scams** Find the match	**Basic PowerPoint** Match up
Word Enhancement Terminolo Labelled diagram	**Basic Excel Quiz** Quiz	**Hardware** Wordsearch	**Terminology** Match up	**Enhancements Level 1** Balloon pop
Intro & GS Skills Check Quiz	**Terminolgy EDS E3** Match up	**Enhancements Entry Level 3** Wordsearch	**File Explorer** Labelled diagram	**Accessing Office 365** Rank order

Appendix 4: Examples of Wordwall Result Options

An example of the Summary of Results
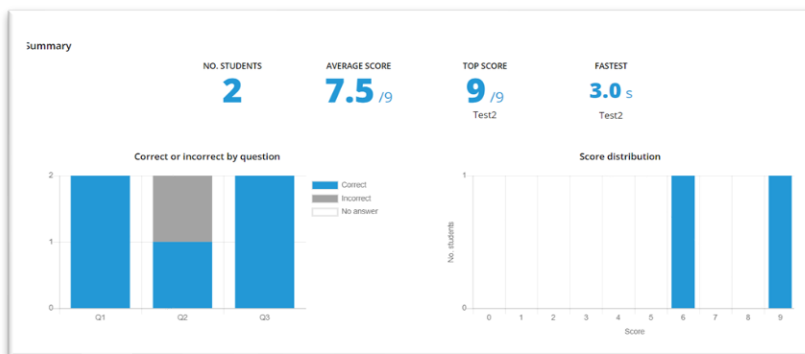
An example of Results by Question

An example of Results by Learner

Appendix 5: Interactive versus Printed Drag and Drop Quiz

Online interactive quiz

Printed Copy of the same quiz

The results as seen by the tutor

Appendix 6: Participants and Stakeholders

No of learners?	**11**	No of staff?	**9**
No of organisations?	**1**	No of employers/ stakeholders?	**1**

Appendix 7: Research/ Evaluation Approach

Participant/observer (e.g. practitioner reflective accounts, logs)	**X**	**Interview/survey** (e.g. polls, questionnaires, learner interviews)	
Observation of practice (in person, video, observation notes)	**X**	**Document analysis** (e.g. learner work, session plans, annotated resources, policies)	
Custom test/assessment (of knowledge, skill, attitude, participation) for your 'intervention'	**X**	**High-stakes learner assessment** (e.g. A Level results, End Point Assessment, BTECs	
Before/after assessment (e.g. measures of progress or change in attainment, participation)	**X**	**Comparative trial** (e.g. comparing participants' outcomes against a 'control' group	
Other (specify):	Action Research.		

Thankyou

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