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Handbook

How to integrate technology into
teaching practice and empower
basic skills educators

ABED*ili*

About this handbook

This handbook is part of the Erasmus+ ABEDiLi Adult Basic Education Digital Literacy project.

The goal of the ABEDiLi project was to empower adult literacy educators to identify useful digital options and concepts and to incorporate them into their teaching strategies.

The aim of the project was to enhance the digital skills of literacy educators, giving them the tools to transfer digital skills and confidence to their learners.

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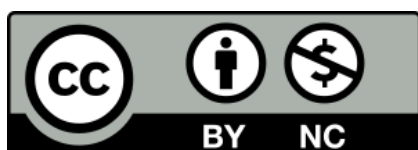
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Introduction

ABEDiLi – Adult Basic Education Digital Literacy, was a multinational Erasmus+ project, which aimed to bring digital skills to adult basic education through empowering educators and getting them acquainted with a bank of suitable digital tools. Our goal is support you to develop your digital skills further. It doesn't matter if you're taking your first steps into the digital world or if you're searching for ways to refine your existing skills.

The outputs of this project are suitable for you, whether you've just started exploring the possibilities of digital literacy, if you are trying new tools and practises or if you are searching for tools to inspire and support your colleagues in improving their practice.

In ABEDiLi we have four key outputs, which we call “Intellectual Outputs”:



e-Pool

A bank of carefully selected digital tools for adult basic education, which you may apply in your practise.



Train the Trainer Programme

Empower your own and your community's digital skills further. The program consists of six modules with ready to use storyboards, resources and strategies.



Digital Educational Escape Room (DEER)

We have developed two escape rooms: one for trainers and one for adult learners. This is an innovative training method that introduces gamification to learning. Virtual Reality will play a part in the future of education, so we're excited to share our game and thoughts with you.



Handbook

The goal of this handbook is to guide you through your first steps of your digital exploration, offer support with integrating our outputs into your practises and to inspire you in leading your fellow educators further into the digital world.

In this handbook each intellectual output is divided into three levels based on DigCompEdu (Redecker, 2017): Explorer, Integrator and Leader

- **Explorer** level is suited to those just starting their digital journey.
- **Integrator** level is for those looking to introduce new digital skills and tools into their practice.
- **Leader** level is for those creating new tools and practises and supporting your fellow educators in their development.

As you're reading through this handbook, please be aware that digital skills use a wide variety of different competencies, so it's not always possible to place yourself in just one category. Read and learn at your own pace. If some information isn't relevant for you right now, feel free to skip it and continue forward. You'll be able to come back to it, when the time feels right.

What would our leading partner like to say to our readers?

German AEWB Agentur für Erwachsenen- und Weiterbildung:

"The digital world is a place of opportunities where everything is possible. Be open to it and ABEDiLi will take care of everything else. We will accompany you from the very first steps in the digital environment, support you when you need it and show you how to become a digital Leader.

ABEDiLi offers you a safe environment where you can explore the e-Pool at your own pace. We have already curated the tools, categorised them and described how to use them in adult basic education.

If you find it challenging to commence teaching digitally, we will scaffold you during our 6 module Train the Trainer qualification: "Empowering Basic Skills Educators - Integrating Technology into Teaching Practice," in a blended-learning setting. You will have enough time to do the post-course assignments either on your own or discuss it with your fellow educators.

At the end of your digital journey, you will be able to experience immersive learning in Virtual Reality. You will have the opportunity to play our Digital Educational Escape Room "Monsterscape", and you will manage to find your way from using an analogue library to teaching in the metaverse.

Just take the first digital step!"



Frameworks of digital competency for educators

Frameworks are tools for educators to define, plan and improve their own skills, lessons and co-operation with learners. In ABEDiLi there are three types of frameworks and models used. You can learn more about the frameworks in Train the Trainer program or by websites provided in the descriptions. The frameworks used in the programs are:

- Digital competency frameworks
- Instructional design models
- Guidelines for basic skill educators

Digital competency frameworks help you to define your digital skills as an educator, support your learners to strengthen 21st century skills, and assess your digital competencies. Instructional design models help you to assess the level of your technology integration in your work environment, facilitate digital tools for learning, and determine the educational use of different apps. Guidelines for basic skill educators help you to include principles for good adult literacy work into your practice, to develop better curricula, and to support your learners to realise their own strengths.

Digital Competency frameworks

Three broad areas can be used to describe digital competencies (Broadband Commission, 2017):

- Basic digital skills: accessing and engaging with digital technologies
- Generic digital skills: using digital technologies in meaningful and beneficial ways
- ‘Higher level’ skills: using technology in empowering and transformative ways

In an educational context, a competency model is a framework for describing the skills and knowledge needs of educators. It is a set of competencies that together define successful performance as an educator (Redecker, 2017).

Four C’s

The Framework for 21st Century Learning was designed by educators and industry leaders for schools in the USA. Within this framework, four key learning and innovation skills were identified for 21st Century Learning, which are known as the 4Cs: Critical thinking, Communication, Collaboration, and Creativity. These learning and innovation skills are seen as essential to preparing students for the future. Applying 4Cs in your curriculum supports your learners to develop essential skills for 21st century.

You can learn more about 4C’s in: <http://exploresel.gse.harvard.edu/frameworks/3>

Digital Competence Framework for Educators

The DigCompEdu framework provides a frame of reference for educators' digital competencies, setting out a template from which training programs can be developed. It also allows you to understand and self-assess your strengths and weaknesses, by describing various stages and levels of digital competence development. By understanding your digital competencies you'll be able to improve your practice and make better use of your strengths. This will in turn support your learners in their growth. The stages and levels of competence range from A1 Beginner to C2 Pioneer. The model divides digital competencies into three areas: educators' professional engagement, educators' pedagogic competencies, and learner competencies.

You can learn more in: https://joint-research-centre.ec.europa.eu/digcompedu_en

The Digital Teaching Professional Framework

The Digital Teaching Professional Framework (DTPF) is designed as a competency framework for teaching and training educators in the Further Education and Training sector in the UK. It provides a set of professional standards for technology-enhanced learning (Education and Training Foundation, 2019). The framework sets out three competency levels, adapted from the European Framework for Digital Competence of Educators: exploring, adopting and leading.

DTPF is accompanied by free online training modules: <https://www.et-foundation.co.uk/professional-development/edtech-support/>

Instructional Design Models

Instructional Design Models show educators how to integrate digital media into teaching practice. These models provide guidelines to organise appropriate teaching strategies to achieve instructional goals with the help of technology. They assist in creating instructional experiences to help facilitate learning most effectively through technology.

SAMR

The SAMR Model categorises four different degrees of classroom technology integration. The acronym stands for "Substitution, Augmentation, Modification, Redefinition". It is a framework that shows how the use of digital technology can transform classroom-based teaching and learning. The SAMR Model is a powerful tool for educators to utilise, when they are considering how they can use digital technology in their teaching practice (Jisc, 2020).

You can learn more about SAMR in: <https://www.jisc.ac.uk/guides/applying-the-samr-model>

Bloom's Digital Taxonomy

Bloom's Digital Taxonomy is a revised version of Bloom's Taxonomy. In this model, knowledge is the basis of the six cognitive processes: remember, understand, apply, analyse, evaluate, and create. The revised version keeps these categories and extends them into the digital environment. It constitutes an evolution of Bloom's, where the activities and outcomes associated with the six cognitive levels now move off of paper and chalkboard to take on a digital form. The verbs associated with each level now also reflect actions taking place in the digital environment. The model helps instructors to see how technology and digital tools can be used to facilitate student learning experiences and

outcomes. The power verbs describing the levels are useful for lesson planning, assessment design, and the general planning of learning experiences that are based on thinking and complexity.

You can learn more about Bloom's digital taxonomy in:

https://www.researchgate.net/publication/228381038_Bloom%27s_Digital_Taxonomy

The Padagogy Wheel

The integration of Bloom's digital taxonomy and SAMR can be seen in action through the Padagogy Wheel. It was designed to help educators to think about how they use mobile apps in their teaching. The underlying principle of the wheel is that pedagogy should determine the educational use of apps. It is recommended for use in curriculum planning and development, for writing learning objectives, and designing learner-centred activities. There are five grids in the model which combine different frameworks into one.

You can learn more about the Padagogy Wheel and find the current one in:

<https://www.teachthought.com/technology/the-padagogy-wheel/>

Guidelines for basic skills educators

This program aims to support basic skills educators in integrating technology into their practice. The National Adult Literacy Agency (NALA) has specialised in tackling unmet literacy needs experienced by adults in Ireland for over 40 years. NALA's literacy publications and research offer professional guidelines and curriculum development models that are brought into the Train the Trainer program. There are three models that are integrated into the modules for this purpose.

NALA Guidelines for Good Adult Literacy Work

The guidelines set out five principles that emphasise a learner-centred approach to adult literacy work, encouraging collaboration and a developmental, participative approach to curriculum. Learners' knowledge, skills, and context are considered vital components for the effective organization of adult literacy, and this is underpinned by a set of values that promote inclusivity, trust, and confidentiality.

You can learn more about guidelines for good adult literacy work in:

<https://www.nala.ie/publications/nala-guidelines-for-good-adult-literacy-work/>

Curriculum Development: an evolving model for adult literacy and numeracy education

This evolving model for adult literacy and numeracy education describes a process for curriculum development. It holds the view that designing a curriculum is a participative process, carried out by learning partners such as educators, learners, managers, and education centres. The framework does not prescribe the curriculum, and views that it should be created by the educator to suit the learners. There is an emphasis on how learning partners can work together to decide 'how and when to

learn' (NALA, 2009). The model is a learner-centred approach to curriculum development, which it states is the foundation of good adult literacy and numeracy work.

You can learn more about Curriculum development: an evolving model for adult literacy and numeracy education in:

<https://www.nala.ie/publications/teaching-guidelines/>

The Wealth Model

The Wealth Model approach to education (NALA, 2018) aims to help learners realise their own knowledge and strengths. The model fosters a non-judgemental approach and emphasises that adult learners have a wealth of strengths, learning styles, experiences, and skills, and that they bring these variables with them to a learning experience. Learners are encouraged to explore opportunities for further learning through an understanding of their own life experience and the questions this raises (NALA, 2012).

You can learn more about Wealth model in:

<https://www.nala.ie/publications/the-wealth-model-in-adult-literacy-transformative-learning-in-action/>

Know your learners

Digital literacy skills mean "the skills associated with using technology to enable users to find, evaluate, organise, create, and communicate information; and developing digital citizenship and the responsible use of technology." You should be mindful that your learners might have mixed ability and knowledge of digital skills. It is possible that learners will have mixed profiles with their digital skill development. Learners, who have excellent digital skills in certain domains, may have little or no skills with some digital technologies, and in turn learners who have low general literacy skills might have good digital skills with some tools. As an educator you should not presume the level of digital skills based on the level of other skills the person has.

When you're aware of your learners' characteristics, you'll be able to make lesson plans according to their needs and learning objectives. A good lesson is planned in a way where everyone can keep up. By knowing your learners you'll also be able to set collaborative short-term goals with them that have a meaningful effect in the learners' everyday lives. It's important to understand what knowledge and skills are the priority of your learners. Finding suitable short-term goals supports motivation for learning, as learners can see the progress and advantages of acquiring new skills.

People with low basic skill level are more dependent on the help of others. By learning basic skills, digital skills included, your learners will be more able to participate in society. It is important to recognise that digital learning is significantly less accessible for those in vulnerable social and economic groups. For this reason, it is recommended that the trainer should be mindful of the level of accessibility of their lectures and homework. When you know your learners, you'll be more able to tailor learning experiences to be accessible.

It is also important to note that many learners have strong motivation to learn, inner curiosity and a joy of learning. For them, learning is a way of life, and they want to keep up with new digital knowledge and be more proficient in the area of basic digital skills.

When you place emphasis on opening class discussion and getting to know your learners, you should be prepared for additional questions on the topics covered.

- **Get to know your learners: Communicate with them. Listen and ask questions. Assess their skill level. Don't make assumptions.**
- **Set learning goals collaboratively with your learners. Find out what is important and motivating for them. Set short term goals.**
- **Tailor your curriculum and resources. Make sure that your information and tools are accessible for your learners.**
- **Share the joy of learning with your learners.**

You can do it

The digital world is a place of opportunity and possibility. However, sometimes technology can be challenging. The ABEDiLi project is designed to support you with taking the first steps in integrating digital literacy into your practice.

Improving our digital skills is often a lifelong process, particularly in the context of our ever-evolving digital world. Be aware of the benefits of new technologies both for your practice and as well as for your learners' lives.

Seeking Support

You can receive support from within your own community. It can be helpful to link with someone you know who is knowledgeable in the area of digital literacy and can spend time showing you how to implement new techniques. If you have friends or colleagues that already know how to use technology, we advise you seek support from them. It's often easier to speak with someone familiar. Many people are more than happy to share their knowledge and skills.

Digital platforms can also be used to find support. You can seek out online forums and access basic tutorials online.

Ask questions and search for solutions. Many people are more than happy to share their knowledge and skills with you if you only ask. We recommend you to search for support from within your own community or from digital platforms. Try to look for benefits of new technologies. How can they affect directly your or your learners' lives?

Don't be afraid to make mistakes! We often learn something by doing it; don't be afraid to try new things just because there is a chance you could fail.

When planning your lessons, always come up with a plan B in case technology fails. A plan B can boost your feeling of security while implementing digital tools. Sometimes digital tools and resources don't work for reasons that aren't related to your actions or skills. Be prepared for setbacks, take a deep breath and try again. If it doesn't work, you have your plan B ready.

Always remember that you're enough. We all have our strengths and things we want to develop. As our learners are striving to improve themselves and their lives, so are we. Nobody asked for a perfect educator. Trust yourself and your existing skills. You'll learn and grow as you go. To help you improve your learning process, we have gathered several tools in this project.

The e-Pool is a versatile digital library, where we have carefully selected a large variety of digital tools for you to use. Train the Trainer is series of six online training sessions and self-directed learning activities, that aim to empower your digital skills as educator. DEER is Digital Educational Escape Room, which can help you and your learners to improve your digital skills in a fun and interactive way. When you start your journey in to the digital world, embrace new experiences, ask a lot of questions, make mistakes, try new tools from e-Pool, participate in Train the Trainer program and experience our escape rooms in 2D and Virtual Reality. Most importantly: trust your ability to learn and to adapt to new situations.

What would you like to say do the digital new comer?

Swedish partner ABF Vuxenutbildning:

“The best tip is not to get overwhelmed. Get to know new tools step by step. It’s good to include one new tool at the time – don’t think that you have to transform your practices completely.



To learn new tools takes some effort, like all learning, and it might feel hard to change habits. In the end it’s worth trying and remember that the point of using new digital resources is to make things easier, smoother and more interactive, not to make things stressful.”

How improving digital skills will benefit educators and learners?

Serbian partner Škola za osnovno obrazovanje odraslih Sombor:



“Digital innovation sometimes can seem to be developing at a pace which is exhaustingly fast. However, every moment invested in development of personal skills guarantees tremendous benefits in the slightly longer run. Digital innovation in education is inevitable, but is nothing to be afraid of: it can only improve the communication between participants, make content more accessible and visually appealing, and prepare them for the same process of change in the world outside school – tools and lessons learned in classrooms, skills acquired can immediately be applied in everyday life – as the entire planet is undergoing rapid digitalisation. With very little invested effort and time, most newcomers can quickly see that it actually saves effort and time in everyday activities such as shopping, banking, communication and entertainment.”

Your go-to digital library: The e-Pool

This chapter introduces a versatile and easy-to-use digital library. e-Pool offers educators the option to dive into a collection of carefully selected, yet diverse digital applications, resources and tools that can be incorporated into their daily practice. Making the most of these resources will support learning, make adult basic education more versatile and will engage learners.

The e-Pool is an OER (Open Educational Resource) that contains a collection of digital resources and tools that educators can use in their daily educational practice. Each resource is described and categorised in a relevant manner, so that the educator can easily find resources useful to their own practice.

Using e-Pool you will save energy and time as you can browse through the library and select the most convenient tools for your personal needs.

You may access the e-Pool here: <https://sites.google.com/view/e-pool/home>



e-Pool homepage

Start of your journey

E-pool is especially useful for newcomers – they can easily find the tools that will be beneficial to them, so that they can start discovering and utilising tools immediately. The e-Pool website is also very easy to navigate. E-Pool covers the necessary digital basics that open the doors for digital newcomers to improve their teaching or learning process, and their own basic digital skills.

To get started you can start by browsing the three main categories:

- **Recommended tools**
- **Resources for educators**
- **Resources for learners**

**Take a look at the Recommended Tools Section and start from there!
This category includes 10-15 selected tools to get you going.**

The educator's tools are further divided into more specific categories:

Create digital content

Assessment

Reading and writing

Translation tools

Meeting and conference tools

Organize your courses

Share your ideas

Virtual Reality Platforms

All the materials and tools in e-Pool are quality checked. Every tool has a brief and clear description, so that the most important functions can be grasped at first glance. The website is available in different languages, although the majority of tools are in English. Some of the digital tools are even specific for the project partner's countries.

How do you implement e-Pool in your practice?

Slovenian partner organization Ljudska univerza Ormož:

“We use at least a little bit of digital media in all of our classes. We adapt the content to the level of learners’ digital knowledge. We find that digital learning is often much more interactive in comparison to lectures. We use digital technology with learners when learning new computer content, for presentations and slideshows, for sharing video and audio content, and for gathering learners’ feedback. During the times of the pandemic some learners with less digital knowledge found online learning difficult in the beginning, but with the help of our educators they quickly mastered the use of technology to the level where attending online classes didn’t present any problems to them.



Incorporating more digital tools into your teaching practice will also support the development of digital skills of the learners. When it comes to basic literacy skills, it is possible to practice these skills through digital tools. Resources such as the immersive reader or translation applications offer the learners the possibility to hear language in addition to just writing and reading. This brings another dimension to the learning.

There is also a section including resources that can be used directly with the learners. There are good examples of apps and resources about how to navigate society, how to use the web, how to use social media safely, how to use email and how to book appointments, just to mention a few. This section is useful also for the trainer because it’s a good starting point to learn about the students and understand their needs.

Take the leap, be brave and start to use the new resources.”

Expand your repertoire

Once you have browsed through the resource categories, you can think about which tools you are already familiar with and which tools are new. Take a deeper look into familiar tools and see if there are new features you have not noticed, such as the immersive reader. Have you tried recording and sharing your classes (e.g., Screencast-O-Matic) or made animations (e.g., Powtoon)?

See how your lesson preparation could change if you use some of the tools designed for this. Check out the category “Create digital content” and “Organise your courses” to see which elements you could add to the lessons and how to make the classes more interactive with these elements.

From the learners’ point of view, the digital tools, that support language learning, support the learners even when the teachers are not present (for example dictation and translation tools). Another possibility with independent study is to share recorded classes, which learners can repeat as many times as they want.

How do you implement the e-Pool into your practice?

Kroatian partner PESG:

“We implement digital media such as presentations, videos, music and video demonstrations. All classes are streamed to learners that cannot attend physically.



Here are some examples of the strategies and ideas to help you get the most out of your classroom technology:

- We have regular training sessions on how to use technology and answer any questions to benefit the learners and educators.
- For us, it is important to listen to what the learners already know about technology and ask them for tips. Sometimes they teach us something new!
- We use digital resources, like apps, texts, or social media groups, to keep learners informed about class activities and upcoming assignments.
- We prioritise active digital activities, like online learning games or interactive lessons, over passive activities like watching a video.”

Inspire others and create something new

With the number of useful tools gathered in the e-Pool, there is something new for everyone - even if you are already a digital leader. There are many tools that are more advanced and you may also find some tools that you are already familiar with but have not applied in the adult basic education context yet.

Maybe you can find tools that can be used when operating with colleagues, working together and collaborating. When you get familiar with the tools, you can decide whether you need a word cloud, collaborative whiteboard, grids or maps in order to get to most of each feature in each situation. Have a look at the category “Share your ideas” and explore the potential of the tools.

It is always beneficial to get familiar with new digital tools that can help improve the teaching and learning process. Have you included gamification in your teaching practices? Have you used Virtual Reality as a teaching and learning platform? Are you already making animations and creating interactive videos to support your learners? For these purposes useful tools can be found in the categories “Create digital content” and “Virtual Reality platforms”.

Digital leaders can hone their skills by making other people more proficient in using digital skills. By doing that, they repeat, reassess and confirm their knowledge of the topic itself. Another important factor is how using the digital resources and enhancing skills positively influences the learners’ position in wider society and support their independence and agency.

You can approach the integration of new tools in a systematic way inspired by the Swedish course plan, which states that students should:

- Use digital resources to communicate with others
- Use resources to be more active in a safe way in the internet
- Solve problems

- **Keep in mind the needs and goals of our students.**
- **Use digital media appropriate to the learners’ level of knowledge. Be patient and encouraging when working with learners who have low basic digital skills, as their skills will improve over time, and don’t overwhelm them with the use of too much digital media.**
- **On e-Pool website there is even an option to suggest a new digital tool that others could find useful. This option gives us a change to expand and offer even greater versatility of resources in the future.**

Improve your community:

Train the Trainer

Do you feel that you could brush up your digital skills with your colleagues in a structured setting? The Train the Trainer Professional Development Program is a series of six bite-sized online training sessions and self-directed learning activities that aim to empower adult basic skills educators to bring technology and digital media into their teaching practice.

The Train the Trainer program allows you to develop your professional competence in digital skills and to support your colleagues on the learning journey. As a result, you will be able to use more versatile digital resources and tools in everyday teaching practice, engage your learners and support their learning through integration of digital media.

Each of the six modules is a compact one-hour package, including both theory and practice, each having a specific theme. It is recommended that you cover one module per week; with the whole programme taking six weeks. However, you can modify it according to the needs of your organisation.

For all modules a complete package of resources is available, including storyboards, summaries, presentations and documents with useful information. The complete programme can be run by any tutor who has familiarised themselves with the material. This way it's possible to begin your learning journey with your colleagues in an easy, accessible way.

Essentials of Train the Trainer

Each module is made up of pre-course assignments sent by email ahead of the course delivery, the actual lesson run by the tutor, and off the post-course assignments given out at the end of the session. The participation in Train the Trainer is recognised through a digital certificate of participation. All the materials can be found on the ABEDiLi-website.

It is anticipated that educators on this program will have basic digital skills, which will provide a foundation for the digital frameworks that will be introduced. There are no strict limitations to the group size, but the content and timing has been piloted with 6-12 participants and has worked very well based on feedback. The program could be implemented online, live in person, or as blended delivery.

The program is guided by a set of digital frameworks and good adult literacy models designed to improve an educators' digital competencies and effectively integrate digital media into their teaching practice. These frameworks are integrated into the six modules. The 'Introduction to frameworks-ABEDiLi Train the Trainer Professional Development Program' describes each of the frameworks used in the program.

The program was developed based on research about what most basic skills educators want from a trainer focused programme that aims to bring technology into practice. The content focuses on:

- Introducing educators to the use of technology frameworks and widely used digital tools.
- The frameworks introduced centre on using technology for content creation and lesson planning.
- The program looks to enhance the participants' use of technology for engagement, better learning outcomes, and collaboration.
- Participants are empowered to continue their learning journey beyond the program and independently develop their skills at higher digital competency levels.

The Train the Trainer Professional Development Program sets out 6 modules for educators, in bite-size chunks that are delivered online in a blended delivery model.

- Module 1 - Planning your teaching
- Module 2 - Teaching and learning digital resources
- Module 3 - Assessment and Feedback
- Module 4 - Accessibility, Inclusion, and Responsible Use
- Module 5 - Supporting basic literacy through technology (teaching and learning strategies)
- Module 6 - Self-development

Hone your skills and apply new practices

If you feel that you would benefit from improving your digital skills, you are not alone. The primary data we collected, shows that on a general level, educators are not making the most of digital tools and resources, and of the frameworks that guide the usage of these. Additionally, it may seem challenging to know where to begin, because there are so many digital resources and each resource may have various features.

It is not too difficult for you to understand! All it takes is to create a Train the Trainer group and start practising. The Train the Trainer programme is designed to be a manageable way to approach and explore the new resources. The programme is aligned to all DigCompEdu framework levels, including beginner levels.

Every module includes exercises and tips on how to implement new tools directly with learners. For example, the first module “Planning your teaching” showcases the possibilities of Padlet in planning of teaching. The fifth module “Supporting basic literacy through technology” presents digital resources that can be utilised in supporting basic literacy through technology.

As the educator acquires new skills and learns new ways to implement digital media into the classes, this impacts directly the learners too. Additionally, the educator gets a new outlook on the learner's role while practising the usage of new digital tools.

Experiment digital tools for a variety of purposes

On our Train the Trainer programme, there is something new for educators at every level of digital practice. Even if you already use digital resources in your practice, you will probably find new features in the tools you are already familiar with. Do you know how to support your learners in protecting themselves from the digital world? For this, there will be useful information in Module 4.

Are you already replacing some tasks and tools with digital ones? Are you familiar with ways of collecting feedback digitally? Do you know about the benefits of integrating digital tools in your classes? For example: Adding technology to existing lesson activities or creating new tasks which are not possible without technology? In Module 2 “Teaching and Learning Digital Resources” you will have the opportunity to explore the potential of expanding your repertoire.

Through the Train the Trainer it is possible to see your skills improve rapidly. Your learners will directly benefit from your expanded toolbox of digital resources, accompanied by strong theoretical knowledge.

**Aim to integrate the new tools into the practice as soon as possible.
Implement one new tool at first and progress from there.**

Support your community to evolve

Train the Trainer is designed to offer something new also for digital skills leaders. If you identify yourself as a digital skills leader, you may get fresh ideas and perspectives from your colleagues in the brainstorming tasks, get new suggestions for resources from the e-pool or improve your theoretical knowledge of the frameworks.

In the Module 6 “Self-development” you will have a deeper, yet easy to follow, look in to the features and possibilities of Virtual Reality as a space for learning. As a part of this module, there is a personal development plan, with which digital leaders can also plan the further enhancement of their digital skills. The digital world develops rapidly, so there is certainly room for learning more bit by bit. Maybe you want to explore the possibilities of learning in a Virtual Reality world? Perhaps you would like to become a digital mentor or peer for your colleagues and share tips. We encourage you to think what is needed for your wider organisation, in order to make the most of the possibilities of digital tools in adult basic education.

As a leader, maybe you will facilitate the Train the Trainer program to your colleagues. In this way they in turn can support their colleagues in improving their skills. With your digital knowledge being at the Leader level, you should not have many problems implementing and facilitating our Train the Trainer program. However, it is beneficial that the facilitator is able to manage a diverse group.

We recommend that you get acquainted with the materials of each module before starting. It’s a good idea to have the option to do some follow-up with the participants after each module: is there something they are struggling with and need additional support with?

What’s a better way to learn than by teaching others!

How has the Train the trainer programme benefitted your organization?

Irish partner NALA:

NALA was the lead partner for IO3 – Train the Trainer for the project. The Train the Trainer programme helps adult literacy practitioners integrate technology into their practice. NALA, with input from the other project partners, researched, designed, developed and piloted the Train the Trainer programme following the below steps:



1. Secondary research
2. Analysis of IO1
3. Primary research
4. Development
5. Pilot and test

NALA benefitted from both the process of developing the Train the Trainer programme and the outcome of it. Through the process, NALA staff developed a deeper understanding of best practice guidelines and frameworks for integrating digital into adult literacy practice and developed a greater understanding of the needs and context of adult literacy practitioners across the partner countries. Equally, NALA benefitted from the delivery of the pilot programme since adult literacy staff in NALA took part in the programme and are already using that learning to integrate technology into their practice.

Going forward, NALA, as a national agency with responsibility for professional development of adult literacy practitioners, will endeavour to adapt the programme further for delivery to adult literacy practitioners across Ireland.

The future of learning:

Digital Educational Escape Room

Virtual Reality has become a trend in education in general. Since the pandemic, virtual learning has accelerated rapidly, and thus it couldn't have been avoided in adult basic education. We have developed a ready-to-use product: The Digital Educational Escape Room is a training method which combines the best aspects of Virtual Reality and gamification.

DEER (Digital Educational Escape Room) is an innovative training method that helps both learners and trainers to strengthen their digital skills. We have developed two escape rooms: one for trainers and one for adult learners. Through DEER it is possible to develop better digital skills and to learn 21st century skills: collaboration, creativity, critical thinking, and communication. Virtual Reality also offers new environments for learning, which helps learners to apply their skills in new situations.

Gamification is a great way to build a training environment that has a solid structure and allows learning experiences to be divided into simple tasks. Learning is often associated with boredom, so escape rooms and gamification can make the experience engaging and fun. Put your glasses on, and enjoy the future of learning!

Put your glasses on!

It is recommended that every trainer experiences Virtual Reality (VR). By playing the escape room “Monsterscape” designed for trainers, you get a personal experience on how it feels, and how VR works. Our DEER is also designed to help you learn new digital tools that can then be applied in your practise.

Our escape room for trainers is available in 2D and 3D. It is possible to experience the escape room first in 2D, which also can be very immersive. This is also an affordable version which does not require VR glasses. Our escape room is playable in 2D with most laptops and PCs. By playing the escape room in the 2D version, you'll learn how to navigate the game in browser, use your mouse better, navigation skills, as well as new digital tools to help your everyday practice.

When you feel ready, we recommend you play the escape room in the 3D version. With a VR headset, the Virtual Reality is even more immersive than the 2D version. The escape room for educators offers an interesting insight into some of the tools that are gathered in e-Pool, a chance to move around in Virtual Reality, explore different rooms, and to communicate with other people if someone else is playing it at the same time. It also promotes creative thinking and curiosity, as people need to solve different puzzles in order to move to the next level – there are 6 levels in total.

How would you describe the experience of playing the escape room for educators?

Finnish partner Valo-Valmennusyhdistys ry:

“Playing the game was immersive experience. It was exciting to see my co-workers' avatars in the Virtual space together with me and to interact with them. It was my first experience with a VR headset and I felt safer to play while seated. I enjoyed trying new tools and solving puzzles together with my colleagues. At some point I felt slight dizziness, but drinking water helped with that. In the reflection session I was able to gather insight from my colleagues' experiences and take notes from the digital tools introduced in the game.”



You can find our escape room for educators here:

English version: <https://hubs.mozilla.com/eAdRVmk/deer-monsterescape-english>

Play the escape room with your learners

You can play our escape room for learners “Letters Save the World” in 2D or 3D version. We highly recommend using the 3D version because it is more immersive and more intuitive to play. However, if there aren't VR-glasses available, playing in 2D is beneficial for your learners. They'll learn the same basic skills as you were learning during your game experience and will communicate and collaborate together. It is important to remember that reflection sessions are vital for learning experience. When you're ready to play the escape room with your learners, prepare a reflection session to ensure they are achieving their learning goals.

When you have experienced the 3D version yourself, you can relate to the experiences of learners and get the basic understanding about how Virtual Reality works. If VR Headsets are not accessible for you right now, check out your local non-profit and educational organizations. They might have VR Headsets available for rent or loan. VR Headsets will most likely become cheaper in the future, so remember to check the market price regularly. Many learners are excited about Virtual Reality and Escape Rooms. Through practice you'll be able to guide them in to the exciting world of VR.

The experience of Virtual Reality Escape Room is educational and playful. The learners can feel that they are in an almost-real settings, and can learn how to behave in different environments. They may be afraid in a real-life context, but can practice this in a safe environment in the VR. Our escape room for learners is much easier to navigate and explore than the escape room for trainers. It has only one level and it provides learners with new experiences related to basic digital skills. Playing the game also improves their reading and writing, as well as collaboration, communication, critical thinking and creativity skills.

There are many learners who haven't had a chance to try anything like this before. Playing Virtual Reality Escape Room can be a new experience for them in many different ways. Within Virtual Reality, players will see and interact with each other's avatars which deepens the immersivity of the game. It's good to take note that the experience can sometimes be quite emotional for some of the players, and that different players react to Virtual Reality in different ways.

You can find our escape room for learners here:

English version: <https://hubs.mozilla.com/7KR3j6d/deer-lab-learners-english>

How would you describe our premade escape room for learners?

German leading partner AEWB Agentur für Erwachsenen- und Weiterbildung:

"Our escape room for learners is about raising awareness for sustainability. In Virtual Reality you can see through a window into the dystopian world and solve several simple puzzles. The escape room gives the feeling of flow to the learning.



They learn while they play the game. In the reflection session you can talk about sustainable life and the feelings invoked in game. You can build about a 45 min lesson around our Escape Room for learners."

How to implement DEER into your practice

This is a small introduction for implementing DEER in to your practise. For more detailed instructions, please see appendix available at: <http://abedili.org/>

Before the learning session:

- Prepare your software. Update headsets and controllers. Save Escape Room under Apps.
- Prepare your venue. Avoid direct sunlight, because that can damage your VR headsets. Mark a Safe Zone (we recommend 2x2m for each) for your participants. Place enough chairs and make sure, that there is water available for the participants.
- Prepare your hardware. Make sure that you have enough power outlets. Charge your laptops, VR headsets and controllers. Place hygiene tools, e.g., sprays, wipes and masks, ready to use. Connect your headsets to the Wi-Fi.

Before the game:

- Introduce the equipment and the goal of the game. Talk through safety instructions: you can quit at any point; chairs are available and water helps with dizziness.

- Help participants to equip VR headsets and controllers. Talk through basic usage of the equipment. Guide them into the game. Log into the game as well using a laptop or a PC, so you can survey what the players are doing.
- When everyone is ready, introduce the story and task at hand for the learners.

During the game:

- Guide and give tips when necessary.
- Supervise the safety and well-being of participants. Different people react to Virtual Reality in different ways. Some people experience dizziness and some might find the experience very emotional. Be ready to support and guide them as necessary.

After the game:

- Lead the reflection session. Reflection sessions are vital for the learning and debriefing. Discuss the physical and mental experience, the game itself, 21st century skills related to the game experience and topics related to learning goals.
- Ask for feedback. Giving feedback is essential skill for your learners and helps you to improve your practise and resources used for the session.
- Clean and charge your equipment. Pack everything safely for the next exciting game experience!

Create new worlds

Playing in Virtual Reality is great way to offer your colleagues and learners a chance to learn digital skills in a fun and interactive way. Pre-made Escape Rooms are relatively easily applied to many lessons. Navigating in Virtual Reality Escape Rooms helps to strengthen the digital skills of navigating browsers and using different digital tools. Solving puzzles can teach many different skills depending on the puzzle chosen.

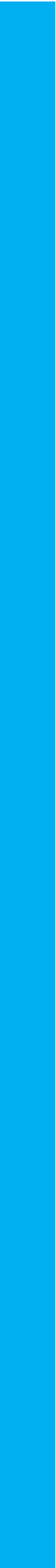
Escape rooms in Virtual Reality can make the game more accessible and immersive for the learners. In virtual reality you can implement information in a visual and auditory format which helps learners with low literacy skills. Solving puzzles and interacting with a story can also strengthen learner's 21st century skills. The skill levels needed for playing the virtual reality escape room depends on technology used, how puzzles are built, how much a room uses external material, e.g., links, and how much information is available in different formats.

Escape rooms are a relatively new method in education. Playing and building escape rooms offers many possibilities to implement different learning goals into the game. Skills and information acquired through playing depend on the story and puzzles built into the room. By building your own escape room you can offer tailored learning experiences for your learners. Digital escape rooms are also shareable with your colleagues and other educators. We recommend that you to build your own escape room after playing our premade escape rooms.

With today's technology it is possible to build your own escape room. Building an escape room in virtual reality needs high variety of advanced digital skills. However, with different tools and platforms it is possible to make one without using any computer coding. Through our experiences of creating the Digital Educational Escape Room we have gathered a short checklist for you to get started with your world building:

How to create your own Escape Room

- Get familiar with other Virtual Reality Escape Rooms. They'll act as an inspiration and guide for you. You'll find other virtual escape rooms from XR educators and virtual reality platform communities both online and in-person.
- Choose a platform you're going to use. It's recommended that the platform is free, accessible, data secure and works both in 2D and 3D versions. In the ABEDiLi project, we used Mozilla Hubs. You can ask for recommendations from other XR educators.
- Find out the functionality and interactive features of the platform. This sets limits on the kinds of puzzles it is possible to create. Check platform forums for frequently asked questions and troubleshooting guides.
- Set the learning goal for the finished product. What skills and information will players have to use to play the game? What they will learn?
- Plan the story and puzzles. It is recommended to work with these simultaneously. The puzzles available set limits on the story, and a story guides the puzzle creation. From our experience we recommend working on a story face-to-face. If you work as a team, it's recommended to divide yourselves into two teams: one for story and content creation, one for the technical tasks.
- A good story for an escape room is understandable and short. Different players enjoy different kinds of stories. Some want stories to be close to real-life-situations and some enjoy fantastical stories. Keep in mind your audience and learning goals.
- A good puzzle is intuitive, but at least a little bit challenging to solve. We recommend that you ask your colleagues or friends to trial each other's puzzles.
- Create and find resources needed for the room and puzzles. You can be creative. Trying different formats is recommended. Use available open-source resources: pictures, 3D-models, music... Remember to give credit to original creators!
- Create the room using the tools of your chosen platform. Read tutorials and search for guides to help you get started. Get familiar with the tools and platform before you start to build your escape room.
- Place the puzzles and story elements.

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- Find support through the internet! It is highly likely someone has already solved the problems you'll face while working with your chosen tool. Check online communities and other forums for educators and developers.
 - Play the game yourself, then make any necessary changes. You'll probably find something that doesn't work or needs to be changed.
 - Ask someone else to play the game. Make needed changes based on their feedback. If possible, observe their play experience. What do they do first and what last? What do they intuitively understand and what don't they? Do they find all of the information and clues needed to progress the story and solve the puzzles?
 - Rinse and repeat until you're finished.
 - Enjoy the game with your colleagues and learners!

Summary

In this handbook we have covered the essentials for you to start your journey of self-development deeper into the digital world. At the start of the handbook, we briefly introduced several frameworks for you to define, plan and improve your and your learners' skills, and to allow you to practice and collaborate better using digital tools. We have shared our best tips to get to know your learners better and how to start your digital journey.

ABEDiLi-project created four key resources (which we call intellectual outputs) to support your development. First was digital library e-Pool, which will continue to grow and update until the end of 2022. All the resources in the e-Pool are carefully selected and categorized to help you to apply them into practice as easily as possible. Second was the Train the Trainer program, which includes six premade modules for you and your community to empower your digital skills. The programme is the perfect way for you to hone your skills and to support your community to evolve. Third output is the Digital Educational Escape Room, DEER, which is an innovative and modern training method for you and your learners. DEER combines the best aspects of escape rooms and virtual reality to improve your practice. Fourth output is the handbook you're reading just now.

While we have done our best to support you to develop your skills and improve your practice; it is important to remember that learning is a continuous process. Digital tools, frameworks for educators and our knowledge of the world and human mind are ever-evolving. Some tools and practices presented in this book might not be up to date at the time you're reading this book. This is why we encourage you to initiate your own learning. Ask new questions, meet new people and try new tools from time to time. Learning as a life-long process is something to strive for.

To continue your digital journey, we recommend you to continue advancing. Get to know your learners and tailor your curriculum with them. Set new learning goals for yourself and collaborate with your community. Take small steps and enjoy all the exciting new possibilities the digital world has to offer. And most importantly remember: You're enough as you are, and with every mistake and set-back you'll learn something new.

We're glad that you gave us an opportunity to be part of your learning journey.

Best wishes,

ABEDiLi-team

Partners

AEWB Agentur für Erwachsenen- und Weiterbildung



The Agency of Adult and Further Education (AEWB) was established in 2004/2005 by the Government of Lower Saxony and the Lower Saxonian Adult Education Association (nbeb) in order to support the work of adult education providers in this federal state. It is the only institution of its type in Germany.

The objectives of AEWB are defined in the Lower Saxonian Adult Education Act (NEBG), issued on November 23rd, 2004. According to the Act, AEWB

- is the central service organisation for all adult education providers in Lower Saxony eligible to federal public co-funding
- is the central body to provide staff training for adult education providers
- is responsible for quality management and consulting
- is responsible for networking, development and innovation in the area of adult education

More information about our multifaceted activities is to be found on: <https://www.aewb-nds.de/>

ABF VUX

ABF Vuxenutbildning is a non-profit company focusing on formal and basic adult education. The majority of our activities are in Gothenburg, but we also have activities in other cities within Sweden. ABF Vuxenutbildning offer Swedish courses for immigrants, vocational education for adults and primary and secondary education for adults who have not had completed school.



One of our main target groups is immigrants with no or little previous experience of studying. We are specialized in literacy and basic skill courses, where we have introduced a bilingual perspective and combined studies in oral Swedish with literacy skills in both Swedish and the student's mother tongue. We also provide educational programs which include courses at upper secondary level and programs that combine classroom studies with internship at a workplace. The goal is to create an environment where the students can get working experience and practice their Swedish language together with native speakers.

You can find more about us on: www.abfvux.se

Adult Education Centre Ormož

Ljudska univerza Ormož (Adult Education Centre Ormož) is an organization that was established sixty years ago and has continuously offered educational programs for adults to our citizens. We offer a lot of informal educational programs, national and international projects and different informal study groups for all ages. Through national projects, our participants can attend computer and language courses and broaden or deepen their competences in these areas. Through employment agencies, unemployed participants can attend courses for CNC operators or forklift operators. Through programs for adults, we run University of Third Age, Intergenerational Centres and study circles. Through international projects (Erasmus+, Europe for Citizens), we include local citizens into many interesting project activities. All our activities, workshops and lectures are intended for people of all generations. For the work we have done in international projects implementation we have received the award “Jabolko kakovosti” from our national agency. We are also a member of Association of Slovenian Adult Education Centres.



You can find more about us on: <https://www.lu-ormoz.si/>

National Adult Literacy Agency

The National Adult Literacy Agency (NALA) is an Irish charity committed to ensuring that people with unmet literacy, numeracy and digital literacy needs can fully take part in society.



Since we were set up by volunteers in 1980, we have been a leading campaigning and lobbying force on adult literacy issues. We have been involved in national policy, tutor training and teaching resources, research and campaigns to support people with these unmet needs.

Our current work includes:

- Adult literacy policy development to inform government policy
- Adult literacy research to inform policy and professional practice.
- Student advocacy to inform policy and service provision.
- National and international Innovation projects to further develop services, practice and policy.
- Services for tutors including resources, conferences, workshops and training.
- Services for adult literacy learners including resources, 1:1 tuition and online learning.
- A plain English service for organisations
- A Health Literacy service to the health sector
- A Family Literacy resource for parents

See www.nala.ie and www.learnwithnala.ie for more information.

PESG Sports School

PESG Sports School (formerly Pučko otvoreno učilište Andragog) is an institution for adult education based in Zagreb, founded in 2001 and focused on the development, harmonisation and implementation of programs according to European and national guidelines and identified needs of market.



At the national level, we contribute to raising the quality of life by building the individual skills needed for easier access to the labour market and easier inclusion. We implement programs for the acquisition of secondary education for children focused on sports and the development of professional sports careers.

We also develop and implement programs for people whose sports careers have ended. In addition, for many years we have been developing and implementing retraining, training and advanced training programs, foreign language learning. We also conduct a number of other non-formal trainings with the purpose of acquiring specific skills that are needed to facilitate entering the labour market.

You can learn more about us on: <https://pesg.hr/>

Škola za osnovno obrazovanje odraslih Sombor

The School for Primary Education of Adults in Sombor, Serbia is a public, non-profit adult education organization. We perform training programs, vocational trainings and other activities regarding adult education as the publicly acknowledged organiser of activities and education of adults in secondary professional education and artistic education. We act independently and in cooperation with other organizations and institutions.



Our Mission: lifelong learning as an integral part of the modern lifestyle; improvement of knowledge, skills and competences; acquisition of new competences, keeping up and pioneering the digitalisation and gamification of the curriculum with accent on personal and professional development.

Our Vision: We foster individual approach and provide equal opportunities to all; we are highly valued and popular in the local community; we are a responsible partner to the labour market and the local businesses; we welcome innovation; our school uses the latest teaching equipment and technological aids and fosters to bridge the gaps between our students and their opportunities.

You can learn more about us on: <https://sooo.edu.rs/>

Valo-Valmennusyhdistys

Valo-Valmennusyhdistys ry is a national association, improving access to learning, employment, wellbeing and participation in the society. We support and coach adults in improving their basic skills in non-formal environments, such as workshops and production school activities.



Our organization has several active development projects related to the following themes: Improving inclusion in society, validation of skills/competences in to the ECTs and further on to vocational qualification modules and full qualifications, learning paths and skills building for ex-offenders and people in recovery, improving basic (reading, writing, maths, IT) skills and wellbeing competencies in non-formal learning environments.

You can learn more about us on: <https://valo-valmennus.fi/en/>

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Partner organizations:

AEWB Agentur für Erwachsenen- und Weiterbildung: <https://www.aewb-nds.de/>

ABF Vux: www.abfvux.se

Adult Education Centre Ormož: <https://www.lu-ormoz.si/>

National Adult Literacy Agency: www.nala.ie

PESG Sports School: <https://pesg.hr/>

Škola za osnovno obrazovanje odraslih Sombor: <https://sooo.edu.rs/>

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