



Erasmus+ Project

Media Education for Aware Adults

PR1. Adult educators/trainers

Digital Competences Framework

(Improved after validation)

Romania, Italy, Ireland, Greece, Spain, Estonia



TABLE OF CONTENT

1. Introduction	3
2. Methodology and approach	4
3. Definitions and abbreviations	4
4. Digital Competence Framework for Citizens: DigComp	6
5. European Framework for the Digital Competence of Educators: DigCompEdu	7
6. Adult education and training in Europe	9
7. Conclusion of the MEAA_PR1-1. State of the Art_Summative report	10
8. Conclusion of the MEAA_PR1-2. National Focus Group_Summative report	11
9. Conclusion of the MEAA_PR1-4 Validation of the Framework	12
10. Digital Competences Framework for Adult Educators/Trainers: DigCompEduAdu	13
11. Conclusion	23
12. References	25



1. Introduction

Today, more than any when, the digital skills are needed in all spheres of life, social or personal, in reference to work or leisure, in public and private sectors. Nobody has to feel excluded from access to formal and non-formal education and training on digital and media literacy. It is necessary that all citizens to be helped, in special that at risk of exclusion, like poorly educated adults, to improve their digital skills with the aim of including them in modern societies that face digital transformation.

According World Economic Forum 2019, the Global Competitiveness Report, the digital competences in the EU countries vary greatly from country to country, compared to the EU average of 4.79, the six partner countries in this project scoring, in descending order: Estonia - 5.4; Ireland – 5; Romania – 4.5; Spain – 4.3; Italy – 4.2; Greece – 4.1.

The Digital Scoreboard according to Digital Economy and Society Index (DESI) 2022, referring to all its main dimensions, stacked, (Human Capital, Connectivity, Integration of Digital Technology, Digital Public Services), shows the six partners countries along entire spectrum. Thus, compared to the European average, which is on 15th position, three countries are better placed, Ireland on 5th, Spain on 7th, Estonia on 9th, and three others are on lower positions, Italy on 18th, or even at the bottom of the ranking, Greece on 25th and Romania on 27th.

According with 2021 Eurydice Report - Adult education and training in Europe: Building inclusive pathways to skills and qualifications, in the EU-27 on average, 30 % of adults (aged 25-64) have low levels of digital skills and around 1 % have no digital skills. In the six partner countries in the MEAA project, the situation is slightly better in two cases and worse in the other four, with the following percentages: Greece - 28%/1%; Estonia - 29%/1%; Spain - 33%/2%; Italy - 34%/3%; Ireland - 37%/1%; Romania - 47%/.

Given that, according to official statistics, adults represent a group at major risk of exclusion due to lack or insufficiency of digital skills, it is very important that they benefit from training adapted to them and to the current times. For this, adult educators need, first of all, a professional training adapted to the digital age, not only from a pedagogical point of view but, above all, from the point of view of digital skills, digital resources and tools, and media education.

The first aim to the MEAA project is to develop a common framework of the necessary skills for adult educators and trainers to effectively integrate digital tools and media education into their localized contexts. The framework is designed to offer a standard frame of reference that can be modified to meet various purposes.

The Framework of Digital Competences will define the key components of competences needed by adult educators/trainers to effectively integrate digital tools and media education into their localized contexts, as well as to provide and validate an EU reference framework for developing and evaluating digital competences.

The development of the competency framework will provide an effective method to assess, maintain, and monitor the adults educators knowledge, skills and attributes in digital and media education for adults.

As a key part of the project, establishing media education competency framework allows:

- definition of media education knowledge and skills required to deal with adults
- development and proposal of guideline, courses and training opportunities for the target groups based on the framework.

Digital tools and media provide a new dimension of lifelong learning providing a means of developing innovative learning methods and teaching with student-centered approaches, as well as connection and collaboration between teachers, trainers, educational organisations and different other stakeholders.

2. Methodology and approach

Based on the 6 national desk research, literature reviews of documents and reports within the national context of each partner organization, was realized a summative report, "Adult educators/trainers Digital Competences Framework" - State of the Art.

Then, by using the national summative report resulted from the national reports based on six national Focus Groups, a first version of the Framework, "Development of the Adult educators/trainers Digital Competences Framework" was developed.

After a process of validation of the framework guidelines, the final version of the framework, "Adult educators/trainers Digital Competences Framework" will be translated in all national language of all partners.

In the Conclusions of the Framework is presented a list of methodological and pedagogical key skills and competences, that will be the basis for developing the next result of the project, the "Handbook - Media Education for Aware Adults". The handbook will be a valid support tool for adult educators from all over Europe who work with adults and will provide basic knowledge and practical tools to be used, from a technical and pedagogical point of view.

3. Definitions and abbreviations

Competences are defined in the European Reference Framework of Key Competences (2018) as a combination of knowledge, skills and attitudes appropriate to the context, and where:

- *knowledge* is composed of the facts and figures, concepts, ideas and theories which are already established and support the understanding of a certain area or subject
- *skills* are defined as the ability and capacity to carry out processes and use the existing knowledge to achieve results
- *attitudes* describe the disposition and mind-sets to act or react to ideas, persons or situations.

If referring at the classification of the learning domains as cognitive (knowledge), psychomotor (skills) and affective (attitude), regarding adult educators:

- knowledge — focuses on increasing what adult educators know
- skills — focuses on changing or improving the tasks the adult educator can perform
- attitude — changes how an adult educator chooses to act.

Digital competence is one of the Key Competences for Lifelong Learning, along with seven other: literacy competence; multilingual competence; mathematical competence and competence in science, technology and engineering; personal, social and learning to learn competence; civic competence; entrepreneurship competence; cultural awareness and expression competence.

“Digital competence involves the confident, critical and responsible use of, and engagement with, digital technologies for learning, at work, and for participation in society. It includes information and data literacy, communication and collaboration, media literacy, digital content creation (including programming), safety (including digital well-being and competences related to cybersecurity), intellectual property related questions, problem solving and critical thinking.” (Council Recommendation on Key Competences for Lifelong Learning, 2018)

Digital tools are not a goal but a means, and it is necessary to distinguish between learning to use digital tools and learning through the use of digital tools. In this context, the goal of adult educators should be to not just to encourage learning through digital means, but to ensure that the use of digital tools enhances learning (Mallows, 2019).

Innovative pedagogies are a mandatory requirement for teachers, which have to use an analytical approach located between practice and theory, according to OECD publication, Teaching in Focus #21, Teachers as Designers of Learning Environments, that defines six clusters of innovative pedagogies:

- *Blended learning*: rethinking the purpose of the classroom and classroom time
- *Gamification*: engagement through play and the pedagogies of games
- *Computational thinking*: problem-solving approach through logic
- *Experiential learning*: inquiry in a complex world
- *Embodied learning*: capitalising on creativity and emotions
- *Multiliteracies and discussion-based teaching*: fostering critical thinking and questioning.

Media education refers to the educational process of teaching and learning about the media to develop competences (including knowledge, skills and attitudes) related to media literacy (McDougall, 2018).

Media literacy is the ability to access the media, to understand and critically evaluate different aspects of the media and media contexts and to create communications in a variety of contexts. (European Commission, 2007)

There are identified *five essential competences to support media literacy in education* that support people’s active participation in lifelong learning through the processes of both consuming and creating messages: *access, action/agency, reflection, creation, and analysis and evaluation* (Hobbs, 2010).

DigComp: Digital Competence Framework for Citizens

DigCompEdu: European Framework for the Digital Competence of Educators

DigCompEduAdu: Digital Competences Framework for Adult Educators/Trainers

MEAA: “Media Education for Aware Adults”, Erasmus+ 2022-1-RO01-KA220-ADU-000085196.

4. Digital Competence Framework for Citizens: DigComp

The Digital Competence Framework for Citizens provides a general, a scientifically solid basis and high-level description of the set of relevant skills set for all users of digital technology. DigComp provides a common reference for digital skills in Europe. Its main aim is to assist citizens and organisations in identifying digital competence gaps and how to address them. It also helps policy-makers to formulate policies in the field of digital competences and serves as a source of inspiration for training providers in the process of improving the digital competences of different target groups.

Since the first version developed by the European Commission's Joint Research Centre (JRC) in 2013, DigComp has been completed and updated three times, with the current version in force from 2022.

DigComp proposes a set of digital competences for all citizens to achieve goals related to work, learning, leisure and participation in society. 21 individual competences proposed are grouped into 5 competence areas: Information and data literacy; Communication and collaboration; Digital content creation; Safety; and Problem solving. The learning outcomes are mapped across 4 overall progression levels (foundation, intermediate, advanced and highly specialised), that are refined across 8 granular progression levels.

If, initially, there were 3 key building blocks to understanding DigComp: areas, competences and proficiency levels, then was added the fourth dimension, use cases, and now, DigComp 2.2 introduces a new dimension, examples, with over 250 examples of the knowledge, skills and attitudes applicable to each competence.

Area 1 - Information and data literacy focuses on identify, locate, filter, retrieve, store, organise, analyse, and manage digital information and data, judging its relevance and purpose.

Area 2 - Communication and collaboration aims to communicate in digital environments, share resources through online tools, link with others and collaborate through digital tools, interact with and participate in communities and networks, cross-cultural awareness, digital citizenship.

Area 3 - Digital content creation means to create and edit digital and multimedia content; integrate and re-elaborate digital content; produce creative expressions and media outputs; program and code; deal with and apply intellectual property rights and licences.

Area 4 – Safety is about personal protection and well-being, data protection, digital identity protection, security measures, safe and sustainable use.

Area 5 - Problem solving aims to solve technical problems, identify digital needs and resources, solve conceptual problems through digital means, creatively use technologies, update one's own and others' competences.



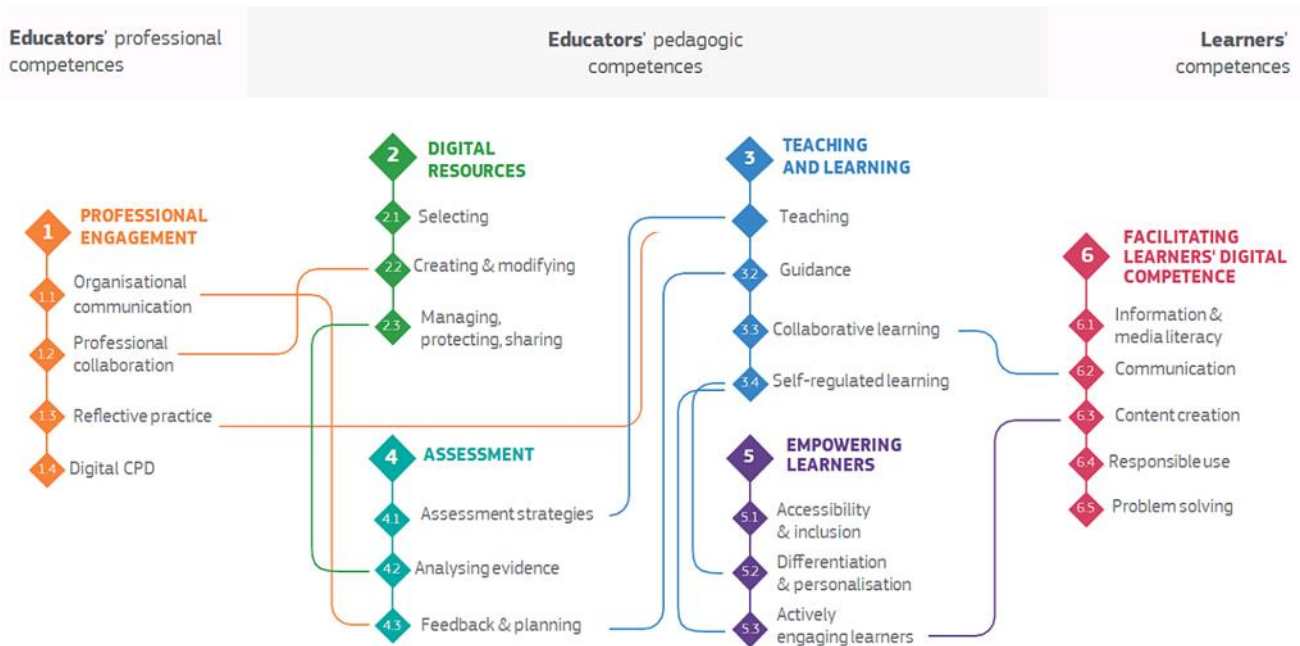
5. European Framework for the Digital Competence of Educators: DigCompEdu

First published in English in 2017 by the Joint Research Centre of the European Commission, the European Framework for the Digital Competence of Educators responds to the growing awareness among the European Member States that educators need a set of digital competences specific to their profession in order to be able to seize the potential of digital technologies for enhancing and innovating education. DigCompEdu:

- is a common European framework for the digital competence of all educators
- represents a scientifically based reference framework to help define policies
- can be directly adapted for use in regional and national training tools and programmes
- provides a common terminology and approach, which will be useful for cross-border dialogue and exchange of good practice.

The DigCompEdu Framework proposes and describes a set of digital competences specific for educators, from all levels of education, from early childhood to higher and adult education, including general and vocational education and training, special needs education, and non-formal learning contexts. It comprises a number of 22 elementary competences, organised in 6 areas: Professional Engagement; Digital Resources; Teaching and Learning; Assessment; Empowering Learners; Facilitating Learners' Digital Competence.

The distribution of competencies within the six areas and the connections between them are presented in a relevant flowchart:



Area 1 - Professional Engagement focuses on using digital technologies for communication, collaboration and professional development, in the wider professional environment, addressing the use of digital technologies by teachers in their professional interactions with colleagues, learners, parents and other stakeholders, for their own professional development and for the collective good of the organisation.

Area 2: Digital Resources Sourcing addresses the skills needed for effective and responsible use, creation and sharing of digital resources for learning.

Area 3: Teaching and Learning is dedicated to managing and orchestrating the use of digital technologies in teaching and learning.

Area 4: Assessment is about using digital strategies to improve evaluation.

Area 5: Empowering Learners focuses on the potential of digital technologies for learner-centred teaching and learning strategies, using digital technologies to enhance inclusion, personalisation and learners' active engagement.

Area 6: Facilitating Learners' Digital Competence details the specific pedagogical skills needed to facilitate learners' acquisition of digital competence, enabling learners to creatively and responsibly use digital technologies for information, communication, content creation, wellbeing and problem-solving.

Digital competence is one of the transversal competences educators need to instil in learners. So, the ability to facilitate learners' digital competence is an integral part of educators' digital competence. From this reason, this ability has a dedicated area in the DigCompEdu framework, it

following the same logic and detailing the five competences aligned in content and description with DigComp, but with headlines adapted to emphasize their pedagogical dimension and focus.

6.1. Information and media literacy

To incorporate learning activities, assignments and assessments which require learners to articulate information needs; to find information and resources in digital environments; to organise, process, analyse and interpret information; and to compare and critically evaluate the credibility and reliability of information and its sources.

6.2. Digital communication and collaboration

To incorporate learning activities, assignments and assessments which require learners to effectively and responsibly use digital technologies for communication, collaboration and civic participation.

6.3. Digital content creation

To incorporate learning activities, assignments and assessments which require learners to express themselves through digital means, and to modify and create digital content in different formats. To teach learners how copyright and licenses apply to digital content, how to reference sources and attribute licenses.

6.4. Responsible use

To take measures to ensure learners' physical, psychological and social wellbeing while using digital technologies. To empower learners to manage risks and use digital technologies safely and responsibly.

6.5. Digital problem solving

To incorporate learning activities, assignments and assessments which require learners to identify and solve technical problems, or to transfer technological knowledge creatively to new situations.

6. Adult education and training in Europe

2021 Eurydice Report – “Adult education and training in Europe: Building inclusive pathways to skills and qualifications” provides, based on a large investigation of a current approaches to promoting lifelong learning, with a particular focus on policies and measures supporting adults with low levels of skills and qualifications in order to offer them access to learning opportunities, a broad perspective, considering and exploring a range of interlinked areas vital to this cause.

In terms of the structure of the adult education and training domain, there are four categories:

1. adult basic and general education - refers to second-chance and basic skills programmes, integrated in the formal education system or as part of non-formal education
2. adult higher education
3. adult vocational education - can be in the form of continuing education, vocational education and training (VET), technical education or work-based learning
4. adult liberal education - typically includes sports, hobby and various leisure-oriented programmes.

From a learning typology point of view, are presented three different types of learning, complementary, through formal, nonformal and informal education.

Regarding learning opportunities for adults, the concept of **flexibility** in the education and training is of prime importance, hand in hand with the individualisation of learning. A greater flexibility education and training offers a greater choice for adults learners in terms of time, place, pace, content and mode of learning, that permit balance their multiple commitments, including their work, family responsibilities and other engagements.

Distance learning, by using various communication media, **e-learning and blended learning** are commonly seen as the approaches that can enhance the flexibility of education and training.

Modular programmes and qualifications is, also, a way of providing greater opportunities for adult learners to achieve recognized qualifications by studying longer periods of time.

Individualisation of learning provision, that means tailoring of programmes to the needs of adult learners, has to be embedded in adult education and training provision.

7. Conclusion of the MEAA_PR1-1. State of the Art_Summative report

Even though at the European level, the adults' education and lifelong learning are important subjects and the digitization of the education and training system is considered a priority from many years, there are different ways of approaching from a country to another.

Even if, for more than a decade, the Digital Competence Framework for Citizens (DigComp) provides a common understanding, across the EU and beyond, of what digital competences are, and therefore provides a basis for framing digital skills policy, there are countries without a currency national strategy regarding digital competencies.

Even if the European Framework for the Digital Competence of Educators (DigCompEdu) was translated, approves and regulates in all countries, there is currently no legal framework in place that specifically tackles the demands of digital competencies of the adults' educators in the context of each country.

Unfortunately, the result of this desk research shows the lack of a specific common framework for the improvement of the digital competencies of adult educators or trainers, in order to achieve a better and pragmatic education for adult learners, by using digital tools and media education.

The solutions that could reduce the gap between bottom and top-ranked countries could be digital skills certification and successful implementation of some common projects, exchanges of best practices at EU level in the fields of education and training, as well as raising awareness.

In this context, the MEAA project is therefore placed in a favorable position in the development of open educational resources to support adults' educators in the field of digital competencies, digital tools and media education.

Starting from the Ireland's approach to supporting Digital Skills of Educators, from the Spanish' Common Digital Competence Framework for Teachers and using the Estonian experience in education reforms and modernization of educational systems, and other relevant information from the appropriate courses, projects or researches, through this project could be developed an realist and efficient Adult educators and trainers Digital Competences Framework.

8. Conclusion of the MEAA_PR1-2. National Focus Group_Summative report

The survey carried out through the focus group represents an important resource for identifying the skills needed by educators to support adults in integrating digital tools into educational contexts.

To summarize the research results, we can state that ***adults are more motivated to learn if learning is placed on a practical and concrete level by providing learners with a set of skills and competences that can be immediately applicable to real life, providing added value the background knowledge they bring with them in the learning process aimed at improving their personal and working conditions.***

Indeed, the focus group survey revealed that despite the fundamental need for learning to be practical and applicable to real life, a non-negligible aspect is the characteristic of learning aimed at personal improvement which affects the whole area of vocational training.

As far as the learning characteristics are concerned, some specificities have emerged that must be taken into consideration in the development phase for Project Result 2, as the feedback collected has highlighted how ***learning must be interactive, with sessions that are not too long and flexible, to allow everyone to adapt training sessions to the different needs of personal and working life.***

The focus group survey shows that a further element to take into consideration is the figure of ***the trainer who should be adequately trained on the different learning methodologies (e.g. learning by doing, experiential learning) and techniques needed to work with adults to facilitate communication and interaction, giving the formative moment a different value from the mere transfer of contents, attributing purpose and meaning to them.***

For this purpose, the trainer should be able to consider and evaluate the reference audience by analyzing the appropriate strategies to respond to different types of intelligence and cognitive, psychological particularities, using visual and interactive supports that allow technological tools to be integrated into the learning sessions facilitating and illustrating its use; planning a training plan that strikes the right balance between face-to-face and online lessons.

To effectively integrate digital and technological tools into the learning process, the participants in this survey identified the competencies listed in thematic area 5 of this report (DigiComp) as essential. Consequently, it is recommended to consider these areas of expertise as a starting point of reference for the elaboration of the training material of the PR2 but also to expand the range of action if it is deemed necessary for the purposes of the methodology and contents that the partnership will decide to use.

Although all the competencies present in the DigiComp Framework are necessary, **the competencies mostly identified as essential** by the analysis carried out in each partner country, illustrated in order of highest votes received, are the following:

- 5.1. *Solving technical problems*
- 5.3. *Creatively using digital technologies*
 - 1.1. *Browsing, searching and filtering data, information and digital content*
 - 1.3. *Managing data, information and digital content*
 - 2.2. *Sharing information and content through digital technologies*
 - 3.1. *Developing digital content*
 - 4.3. *Protecting health and well-being.*

9. Conclusion of the MEAA_PR1-4 Validation of the Framework

After completing the first English version of the Adult educators/trainers Digital Competences Framework, the project consortium involved associated partners and key stakeholder organizations with the main objective to validate the efficiency and effectiveness of the Framework.

The validation process was performed as a combination of focus groups, in-person questionnaires and also remote feedback via online questionnaires, which contained a combination of detailed quality indicators to be used for these results (including relevance, ease of use, design).

The feedback on the framework was extremely positive everywhere, only a few **observations**, as collected in the various countries, were reported:

- Pay more attention to Area 3: Teaching and Learning.
- Add some skills concerning educational approaches.
- Provide more information related to new pedagogical trends that can be linked to the digital environment.
- Concrete practical elements and case studies could be added to illustrate how technology can be integrated into various adult educational contexts.
- It has to keep up with technology that is in continuous improvement.
- The design could be improved.
- Self-assessment tools or rubrics aligned with the framework.
- Consider providing a centralised platform or repository where educators can access additional resources, training materials, and best practices related to each competence area outlined in the framework. This would facilitate on-going professional development.

Much of the response to these suggestions for improving the framework will be found in the next project results, PR2 "Handbook - Media Education for Aware Adults" and PR3 "Online platform and training material on MEDIA EDUCATION".

The Handbook will be a valid support tool for adult educators or trainers and will provide basic knowledge and practical tools to be used, from a technical and pedagogical point of view. It will have different pedagogical approaches, including knowledge, skills, and attitudes related to the adult trainer's context from a pedagogical point of view and, also, practical activities on the topics of knowledge, skills, and attitudes related to digital problem solving and abilities to use the media

in a conscious way, and will include few success stories and good practice examples, to further motivate and inspire trainers.

The external online platform, linked to the project website, will provide adult educators with an in-depth understanding of digital media and understanding of digital literacy and key digital skills, such as content creation, online communication or the ability to ensure privacy digital. It will contain self-learning activities in the form of digital learning resources designed on the basis of the concept of micro-learning, short and coherent learning suggestions delivered in multimedia formats with the aim of promoting blended learning methodologies. The digital learning nuggets will include a variety of resources such as interactive games, podcasts, e-learning videos, interactive case studies, info graphic resources, etc. and assessment quizzes.

Regarding the skills concerning educational approaches, the skill-based teaching and learning should have priority and be used in preference to the knowledge-based teaching and learning, not only, but especially in adult education, in order to ensure that education reaches its purpose and to increase learners' motivation and achievement. In this sense, in the next project results, all activities, teaching, learning or assessment, will be developed in skill-based approach, this being one of the MEAA project objectives.

Through the emerging trends in pedagogy are found open education, with open educational resources and open pedagogy, care-based pedagogy, gamification or game-based learning, mobile learning, transformational learning, adaptive learning, place-based learning, automated assessments, AI-powered learning environments, augmented reality (AR) and virtual reality (VR). In the manual and platform that will be developed, we will try to use as many of the new digital tools and resources as possible, so that educators or trainers can better understand and use them and enhance the new and emergent pedagogical competences.

10. Digital Competences Framework for Adult Educators/Trainers (DigCompEduAdu)

An innovative educational process or training has to integrate successfully digital environments and innovative pedagogies, with an experiential and connectivism, practice and project-based (learn-by-doing) approach, especially in adult education. According The Human Journey, in Education for Our Times, the combination of digital with face-to-face, both in content and activity, is an enormously successful way for student to learn, provided the teaching staff have adequate training.

Taking as a starting point the results of the research carried out, as well as those expressed during the focus groups organized, taking into account the different educational requirements that adults need in their training processes, and based on DigComp and DigCompEdu, through this framework (DigCompEduAdu), are presented and defined a set of digital competences needed by adult educators or trainers to effectively integrate digital tools and media literacy into adult-specific educational contexts.

In developing the framework, were also been considered the ***Education and Training Foundation Professional Standards (PS)***:

PROFESSIONAL **KNOWLEDGE** AND UNDERSTANDING

Develop deep and critically informed knowledge and understanding in theory and practice.

- Maintain and update knowledge of your subject and/or vocational area.
- Maintain and update your knowledge of educational research to develop evidencebased practice.
- Apply theoretical understanding of effective practice in teaching, learning and assessment drawing on research and other evidence.
- Evaluate your practice with others and assess its impact on learning.
- Manage and promote positive learner behaviour.
- Understand the teaching and professional role and your responsibilities.

PROFESSIONAL **SKILLS**

- Develop your expertise and skills to ensure the best outcomes for learners.
- Motivate and inspire learners to promote achievement and develop their skills to enable progression.
- Plan and deliver effective learning programmes for diverse groups or individuals in a safe and inclusive environment. and support learners in its use.
- Address the mathematics and English needs of learners and work creatively to overcome individual barriers to learning.
- Enable learners to share responsibility for their own learning and assessment, setting goals that stretch and challenge.
- Apply appropriate and fair methods of assessment and provide constructive and timely feedback to support progression and achievement.
- Maintain and update your teaching and training expertise and vocational skills through collaboration with employers.
- Contribute to organisational development and quality improvement through collaboration with others.

PROFESSIONAL **VALUES AND ATTRIBUTES**

Develop your own judgement of what works and does not work in your teaching and training.

- Reflect on what works best in your teaching and learning to meet the diverse needs of learners.
- Evaluate and challenge your practice, values and beliefs.
- Inspire, motivate and raise aspirations of learners through your enthusiasm and knowledge.
- Be creative and innovative in selecting and adapting strategies to help learners to learn.
- Value and promote social and cultural diversity, equality of opportunity and inclusion.
- Build positive and collaborative relationships with colleagues and learners.

It also took into consideration an example of good practice compatible with the objective of our project, an Erasmus+ project - Strategic Partnership for Adult Education, ***“Building the capacity of Adult Education Trainers to comply with the European Framework for the Digital Competence of Educators (DigCompEdu)” (DIGITA)*** that involves eight private and public entities from seven countries: Italy, Cyprus, Romania, Spain, Serbia, Denmark and Greece. The main aim of the DIGITA project is to facilitate the development of digital competences of adult education trainers and other personnel who support adult learners in diverse sectors and activities, based on the EC’s Digital Competencies Framework.

According to the DIGITA learning objectives of the Area 6 of competences of DigCompEdu, Facilitating Learner's Digital Competence, the participant will be able to:

- explain the basic of programming and computational thinking to young audiences
- recognize and illustrate how to understand the form and structure of information as the basis of computational thinking
- recognize and explain aspects of computation in the world that surrounds us
- recognize when and where learners digital competences need to be improved or updated
- understand which aspects of a problem can be solved with a tool and adapting a new use
- collaborate with learners in defining their information needs and access digital information
- apply and suggest tools and techniques from computing to understand and reason about natural, social and artificial systems and processes
- to engage in a fresh way on issue such as programming, computational thinking and problem solving
- link digitized content to learners' creativity
- demonstrate ways of adapting communication strategies to cultural and generational differences
- monitor students behaviours in digital environment to protect their wellbeing and act as to change unsafe behaviours
- assess the capacity of learners to evaluate sources of information, their reliability and credibility, and to adapt search strategies
- advocate for the importance of protecting one's reputation and dealing correctly with digital identities
- to encourage learners to express themselves through digital means
- support learners in using digital technologies in innovative ways to create knowledge.

According with the result of the first focus group organizes in MEAA project, the seven competences considered most needed are defined in DigComp as follows:

SOLVING TECHNICAL PROBLEMS

To identify technical problems when operating devices and using digital environments, and to solve them (from trouble-shooting to solving more complex problems).

CREATIVELY USING DIGITAL TECHNOLOGY

To use digital tools and technologies to create knowledge and to innovate processes and products. To engage individually and collectively in cognitive processing to understand and resolve conceptual problems and problem situations in digital environments.

BROWSING, SEARCHING AND FILTERING DATA, INFORMATION AND DIGITAL CONTENT

To articulate information needs , to search for data, information and content in digital environments, to access them and to navigate between them. To create and update personal search strategies.

MANAGING DATA, INFORMATION AND DIGITAL CONTENT

To organise, store and retrieve data, information, and content in digital environments. To organise and process them in a structured environment.

SHARING THROUGH DIGITAL TECHNOLOGIES

To share data, information and digital content with others through appropriate digital technologies. To act as an intermediary, to know about referencing and attribution practices.



DEVELOPING DIGITAL CONTENT

To create and edit digital content in different formats, to express oneself through digital means.

PROTECTING HEALTH AND WELL-BEING

To be able to avoid health risks and threats to physical and psychological well-being while using digital technologies. To be able to protect oneself and others from possible dangers in digital environments (e.g. cyber bullying). To be aware of digital technologies for social well-being and social inclusion.

The presentation of the digital competences of adult educators, defined within the MEAA project, together with those provided in DigComp and DigCompEdu, can be found in the following section:



<p style="text-align: center;">DigComp Areas and individual competences</p>	<p style="text-align: center;">DigComp Edu Area 6: Facilitating Learners' Digital Competence</p>	<p style="text-align: center;">DigCompEduAdu</p>
<p>1. Information and data literacy</p> <p>1.1 Browsing, searching and filtering data, information and digital content To articulate information needs, to search for data, information and content in digital environments, to access them and to navigate between them. To create and update personal search strategies.</p> <p>1.2 Evaluating data, information and digital content To analyse, compare and critically evaluate the credibility and reliability of sources of data, information and digital content. To analyse, interpret and critically evaluate the data, information and digital content.</p> <p>1.3 Managing data, information and digital content To organise, store and retrieve data, information, and content in digital environments. To organise and process them in a structured environment.</p>	<p>6.1. Information and media literacy To incorporate learning activities, assignments and assessments which require learners to articulate information needs; to find information and resources in digital environments; to organise, process, analyse and interpret information; and to compare and critically evaluate the credibility and reliability of information and its sources.</p> <p><i>Activities:</i> To incorporate learning activities, assignments and assessments which encourage and require learners:</p> <ul style="list-style-type: none"> - To articulate information needs, to search for data, information and content in digital environments, to access them and to navigate between them. - To create and update personal search strategies. - To adapt search strategies based on the quality of information found. - To analyse, compare and critically evaluate the credibility and reliability of sources of data, information and digital content. - To organise, store and retrieve data, information and content in digital environments. - To organise and process information in a structured environment. 	<p>1. Information and media literacy To identify information needs, to browse and search for resources, data, information and content in digital environments, to access them and to choose properly between them; to analyse, compare and interpret information, to process and organise them, according to the needs of the adult learners; to organise, store and retrieve data, information and content in digital environments; to compare and critically evaluate the credibility and reliability of information and its sources; to create and continuous update personal search strategies; to transfer all this knowledge, skills and values, attributes or attitudes to the adult learners, tailored to each individual's needs, expertise and level of knowledge.</p>



<p>2. Communication and collaboration</p> <p>2.1 Interacting through digital technologies To interact through a variety of digital technologies and to understand appropriate digital communication means for a given context.</p> <p>2.2 Sharing through digital technologies To share data, information and digital content with others through appropriate digital technologies. To act as an intermediary, to know about referencing and attribution practices.</p> <p>2.3 Engaging citizenship through digital technologies To participate in society through the use of public and private digital services. To seek opportunities for self-empowerment and for participatory citizenship through appropriate digital technologies.</p> <p>2.4 Collaborating through digital technologies To use digital tools and technologies for collaborative processes, and for co-construction and co-creation of data, resources and knowledge.</p> <p>2.5 Netiquette To be aware of behavioural norms and know-how while using digital technologies and interacting in digital environments. To adapt communication strategies to the specific audience and to be aware of cultural and generational diversity in digital environments.</p>	<p>6.2. Communication and collaboration To incorporate learning activities, assignments and assessments which require learners to effectively and responsibly use digital technologies for communication, collaboration and civic participation.</p> <p><i>Activities:</i> To incorporate learning activities, assignments and assessments which encourage and require learners:</p> <ul style="list-style-type: none">- To interact through a variety of digital technologies.- To understand appropriate digital communication means for a given context.- To share data, information and digital content with others through appropriate digital technologies.- To know about referencing and attribution practices.- To participate in society through the use of public and private digital services.- To seek opportunities for self-empowerment and for participatory citizenship through appropriate digital technologies.- To use digital technologies for collaborative processes, and for co-construction and cocreation of resources and knowledge.- To be aware of behavioural norms and knowhow while using digital technologies and interacting in digital environments.- To adapt communication strategies to the specific	<p>2. Communication and collaboration</p> <p>To interact through a variety of digital technologies and to understand appropriate digital communication means for a given context; to share data, information and digital content with others through appropriate digital technologies; to act as an intermediary, to know about referencing and attribution practices; to engage citizenship, to participate in society through the use of public and private digital services; to seek opportunities for self-empowerment and for participatory citizenship through appropriate digital technologies; to collaborate through digital technologies, to use digital tools and technologies for collaborative processes, and for co-construction and co-creation of data, resources and knowledge; to be aware of behavioural norms and know-how while using digital technologies and interacting in digital environments; to adapt communication strategies to the specific audience and to be aware of cultural and generational diversity in digital environments; to create, and manage one or multiple digital identities, to be able to protect one's own reputation, to deal with the data that one produces through several digital tools, environments and services; to transfer all this knowledge, skills and values, attributes or attitudes to the adult learners, tailored to each individual's needs, expertise and level of</p>
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<p>2.6 Managing digital identity To create, and manage one or multiple digital identities, to be able to protect one's own reputation, to deal with the data that one produces through several digital tools, environments and services.</p>	<p>audience and to be aware of cultural and generational diversity in digital environments</p> <ul style="list-style-type: none"> - To create and manage one or multiple digital identities. - To protect one's own reputation. - To deal with the data that one produces through several digital technologies, environments and services. 	<p>knowledge.</p>
<p>3. Digital content creation</p> <p>3.1 Developing digital content To create and edit digital content in different formats, to express oneself through digital means.</p> <p>3.2 Integrating and re-elaborating digital content To modify, refine and integrate new information and content into an existing body of knowledge and resources to create new, original and relevant content and knowledge.</p> <p>3.3 Copyright and licences To understand how copyright and licences apply to digital information and content.</p> <p>3.4 Programming To plan and develop a sequence of understandable instructions for a computing system to solve a given problem or to perform a specific task.</p>	<p>6.3. Digital content creation To incorporate learning activities, assignments and assessments which require learners to express themselves through digital means, and to modify and create digital content in different formats. To teach learners how copyright and licenses apply to digital content, how to reference sources and attribute licenses.</p> <p><i>Activities:</i> To incorporate learning activities, assignments and assessments which encourage and require learners:</p> <ul style="list-style-type: none"> - To create and edit digital content in different formats. - To express themselves through digital means. - To modify, refine, improve and integrate information and content into an existing body of knowledge. - To create new, original and relevant content and knowledge. - To understand how copyright and licenses apply 	<p>3. Digital resources and digital content creation</p> <p>To formulate appropriate search strategies to identify digital resources for teaching and learning; to identify, assess and select digital resources to support and enhance teaching and learning; to modify and build on existing openly-licensed resources and other resources where this is permitted; to create or co-create new digital educational resources; to assess the usefulness of digital resources, their selection, designing and using, according to the learning objective, the competence levels of the adult learners as well as the pedagogic approach chosen; to organise digital content and make it available to adult learners, colleagues and other educators; to effectively protect sensitive digital content; to respect and correctly apply privacy and copyright rules; to understand the use and creation of open licenses and open educational resources, including their proper attribution.</p>

	<p>to data, information and digital content.</p> <ul style="list-style-type: none"> - To plan and develop a sequence of understandable instructions for a computing system to solve a given problem or perform a specific task. 	<p>To develop, to create and edit digital content in different formats, to express oneself through digital means; to modify, refine and integrate new information and content into an existing body of knowledge and resources to create new, original and relevant content and knowledge; to understand how copyright and licences apply to digital information and content; to plan and develop a sequence of understandable instructions for a computing system to solve a given problem or to perform a specific task; to transfer all this knowledge, skills and values, attributes or attitudes to the adult learners, tailored to each individual's needs, expertise and level of knowledge.</p>
<p>4. Safety</p> <p>4.1 Protecting devices To protect devices and digital content, and to understand risks and threats in digital environments. To know about safety and security measures and to have a due regard to reliability and privacy</p> <p>4.2 Protecting personal data and privacy To protect personal data and privacy in digital environments. To understand how to use and share personally identifiable information while being able to protect oneself and others from damages. To understand that digital services use a “Privacy policy” to inform how personal data is used.</p>	<p>6.4. Responsible use To take measures to ensure learners’ physical, psychological and social wellbeing while using digital technologies. To empower learners to manage risks and use digital technologies safely and responsibly.</p> <p><i>Activities:</i> To relay to learners a positive attitude towards digital technologies, encouraging their creative and critical use. To enable learners:</p> <ul style="list-style-type: none"> - To protect devices and digital content, and to understand risks and threats in digital environments. - To understand safety and security measures. 	<p>4. Safety and responsible use</p> <p>To protect devices and digital content and to understand risks and threats in digital environments; to understand safety and security measures; to protect personal data and privacy in digital environments; to understand how to use and share personal information while being able to protect oneself and others from damages; to understand that digital services use a “Privacy policy” on how personal data is used; to avoid health risks and threats to physical and psychological well-being while using digital technologies; to protect oneself and others from possible dangers in digital</p>

<p>4.3 Protecting health and well-being To be able to avoid health risks and threats to physical and psychological well-being while using digital technologies. To be able to protect oneself and others from possible dangers in digital environments (e.g. cyber bullying). To be aware of digital technologies for social well-being and social inclusion.</p> <p>4.4 Protecting the environment To be aware of the environmental impact of digital technologies and their use.</p>	<ul style="list-style-type: none"> - To protect personal data and privacy in digital environments. - To understand how to use and share personal information while being able to protect oneself and others from damages. - To understand that digital services use a “Privacy policy” on how personal data is used. - To avoid health risks and threats to physical and psychological well-being while using digital technologies. - To protect oneself and others from possible dangers in digital environments (e.g. cyberbullying). - To be aware of digital technologies for social wellbeing and social inclusion. - To be aware of the environmental impact of digital technologies and their use. <p>To monitor student behaviour in digital environments in order to safeguard their wellbeing.</p> <p>To react immediately and effectively when learners’ wellbeing is threatened in digital environments (e.g. cyberbullying).</p>	<p>environments (e.g. cyberbullying); to be aware of digital technologies for social wellbeing and social inclusion; to be aware of the environmental impact of digital technologies and their use; to transfer all this knowledge, skills and values, attributes or attitudes to the adult learners, tailored to each individual's needs, expertise and level of knowledge; to take measures to ensure adult learners’ physical, psychological and social wellbeing while using digital technologies; to empower adult learners to manage risks and use digital technologies safely and responsibly; to monitor adult learners' behaviour in digital environments in order to safeguard their wellbeing; to react immediately and effectively when adult learners’ wellbeing is threatened in digital environments (e.g. cyberbullying).</p>
<p>5. Problem solving</p> <p>5.1 Solving technical problems To identify technical problems when operating devices and using digital environments, and to solve them (from trouble-shooting to solving more complex problems).</p>	<p>6.5. Problem solving To incorporate learning activities, assignments and assessments which require learners to identify and solve technical problems, or to transfer technological knowledge creatively to new situations.</p>	<p>5. Problem solving To identify technical problems when operating devices and using digital environments, and to solve them (from trouble-shooting to solving more complex problems) or to transfer technological knowledge creatively to new</p>

<p>5.2 Identifying needs and technological responses To assess needs and to identify, evaluate, select and use digital tools and possible technological responses and to solve them. To adjust and customise digital environments to personal needs (e.g. accessibility).</p> <p>5.3 Creatively using digital technology To use digital tools and technologies to create knowledge and to innovate processes and products. To engage individually and collectively in cognitive processing to understand and resolve conceptual problems and problem situations in digital environments.</p> <p>5.4 Identifying digital competence gaps To understand where one's own digital competence needs to be improved or updated. To be able to support others with their digital competence development. To seek opportunities for self-development and to keep up-to-date with the digital evolution.</p>	<p><i>Activities:</i> To incorporate learning activities, assignments and assessments which encourage and require learners:</p> <ul style="list-style-type: none"> - To identify technical problems when operating devices and using digital environments, and to solve them. - To adjust and customise digital environments to personal needs. - To identify, evaluate, select and use digital technologies and possible technological responses to solve a given task or problem. - To use digital technologies in innovative ways to create knowledge. - To understand where their digital competence needs to be improved or updated. - To support others in their digital competence development. - To seek opportunities for self-development and to keep up-to-date with the digital evolution. 	<p>situations.; to assess needs and to identify, evaluate, select and use digital tools and possible technological responses and to solve a given task or problem; to adjust and customise digital environments to personal and adult learners' needs (e.g. accessibility); to use digital technologies in innovative ways to create knowledge; to understand where their digital competence needs to be improved or updated; to seek opportunities for self-development and to keep up-to-date with the digital evolution; to support adult learners' in their digital competence development or improving; to transfer all this knowledge, skills and values, attributes or attitudes to the adult learners, tailored to each individual's needs, expertise and level of knowledge.</p>
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11. Conclusion

Digital competences are acquired and developed continuously, mainly on a foundation of fundamental knowledge. New technologies are those that are in a continuous transformation and this forces a continuous learning, this is only possible if there is willingness and openness to go out of one's comfort zone. This however, does not characterize the adult, on the contrary, it is difficult for a trainer to convince the adult learner that these digital skills will make their work, their life, easier and not more complicated, as most of them consider. Of course, developing such skills is not an easy thing to do, but by using specific and well thought-out activities, adult learners will more easily understand and be able to put into practice, either in a personal or professional context, the knowledge they have assimilated.

The final goal of the MEAA project is to improve the digital competences of adults by integrating, in any training process, the most appropriate methods, means and tools to achieve the proposed goal. The determination of the level of digital competences of adults can be done by referring to the evaluation indicators established within DigComp.

In order to reach the final goal, the digital competences of adult educators must first be improved, which, according to the research carried out and the results of the focus groups organised within the MEAA project, are still far from being at the highest level. The assessment and monitoring of digital competences of educators, at any educational level, is described and can be quantified within the DigComp Edu framework.

Taking into account the different educational requirements that adults need in their training processes, given the experience already gained and the need to adapt the content and learning approach, the need for flexibility, modularity and individualization of teaching and learning, the Digital Competences Framework for Adult Educators/Trainers (DigCompEduAdu), developed through the MEAA project, customises DigCompEdu, adapting the definitions of the key components of the competences needed by adult educators/trainers. The aim of developing DigCompEduAdu is to effectively integrate digital tools and media literacy into adult-specific educational contexts, and to provide and validate an EU reference framework for the development and assessment of digital competences. The development of the competency framework also aims to provide an effective method for assessing, maintaining and monitoring the knowledge, skills and attitudes of adult educators in adult digital and media literacy.

The ***digital competences of adult educators/trainers***, defined within the Adult educators/trainers Digital Competences Framework (DigCompEduAdu), developed through the Media Education for Aware Adults (MEAA) project, are:

- 1. *Information and media literacy***
- 2. *Communication and collaboration***
- 3. *Digital resources and digital content creation***
- 4. *Safety and responsible use***
- 5. *Problem solving.***

Some of the **key components of the pedagogical competences of adult educators** that emerge from the first activities of the MEAA project as needing to be improved and included in the training process are:

- to possess knowledge, skills and attitudes that make him/her a true professional, an expert in his/her field, in order to be able to cope with the sometimes very advanced experience of the adult learners
- to create the most effective contexts in which they have to reorganise personal cognitive schemes which will allow them to apply what they know in an original, personal way
- to choose learner-centred strategies, especially for the adult learners
- to practice a pedagogy of difference, taking into account the particularities, interests and values of each of the adult learners, usually very different in age and level of intelligence, belonging to different ethnic, cultural and religious communities, in order to succeed in motivating them to engage in learning process
- to know from the outset what the learners' learning styles are, so that the activities to be carried out with them meet the needs of all those present
- to design the learning sessions in such a way as to facilitate and build on the learners' personal experiences, through reflective, critical and constructive feedback
- to transfer the theory known directly into practice, practical applications being the essence of discovery learning
- to think and deliver in as clearly as possible teaching mode, facilitating understanding and effective learning
- to alternate different ways of teaching knowledge (auditory, visual, problem-based, debate, brainstorming, role-play, etc.)
- to alternate different types of activities (individual, pair, group)
- to be empathetic, which implies cognitive engagement, affective transposition, participative willingness, imaginative effort, understanding of others
- to show enthusiasm, commitment and expressiveness, to be passionate about their work, to care about what and how they teach, so as to stimulate and inspire learners, attracting and motivating them to learn.

This first result of the MEAA project, "Adult educators/trainers Digital Competences Framework" (DigCompEduAdu) will be the basis for developing the next result of the project, the "Handbook - Media Education for Aware Adults". The handbook will be a valid support tool for adult educators from all over Europe who work with adults and will provide basic knowledge and practical tools to be used, from a technical and pedagogical point of view.

***"Technology will never replace great teachers,
but technology in the hands of great teachers is transformational."***

George Couros

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