DigiTrain

digital skills for adults and adult educators

Digital Competence
Framework for Adults

Futuretrend
TRAINING ACADEMY

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Action

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DIGITAL COMPETENCE FRAMEWORK FOR ADULTS

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Section 1:

Introduction

DIGITAL COMPETENCE FRAMEWORK FOR ADULTS

Introduction

This Digital Competence Framework for Adult Educators was produced as one of the intellectual of the Erasmus plus strategic partnership project DigiTrain (Enhancing transversal and Digital Skills to promote Innovative Blended Training Strategies in Adult Education), implemented from 2017-2019.

The overall aim of the project was to build capacity of training organisations to enable them to deliver high quality and relevant digital skills training by improving the digital competences of adult educators staff competence by formulating digital competency frameworks for adults and adult educators and used as the basis for developing appropriate digital training programmes, learning resources and tools.

The partnership consisted of 6 organisations from 5 countries:

Futuretrend (UK) provides training in IT; Design, Financial and Business Skills and focuses on helping clients advance their skills for either business or personal success. Training includes popular courses such as Photoshop, WordPress, Software Testing, Business Analysis, Stocks, and Shares & Investments Training.

Futuro Digitale Association (Italy) is a non-profit organisation. It caters for local community needs such as unemployment and/or basic skills, targeting disadvantaged and marginalised groups such as migrants and members of minority groups. It works to promote empowerment through development connected to e-learning, traineeship and personalised patterns of working. It is also a job agency validated by the Ministry of Labour, and helps target groups to write and boost their CVs and orienteer their careers through non-formal learning tools.

Eurosuccess Consulting (Cyprus) is a Consulting & Training organisation in the field of project management; training & consulting services; and advice and guidance. The organisation provides a comprehensive package of services addressing the needs of various target groups and organisations with regards to their lifelong learning opportunities, in Cyprus and abroad.

Action Synergy S.A. (Greece) is an education, training and knowledge-based applications organization involved in the development of education technologies, training methodologies and the development of e-learning training courses. It has a particular focus on the promotion of adult education and the acquisition of transversal skills for young people and adults. Key areas of expertise include: the development of learning methodologies, educational technologies courses and modules making use of innovative methodologies.

GO EUROPE (Spain) Intercultural Association aims to promote an international spirit aligned with the common European cultural objectives through intercultural dialogue, exchange of knowledge and European awareness through the active participation of young people, organisations and companies, in projects involving mobility, education and growth.

Global Learning & Skills Partnership (GLaSP) (UK) is a non-profit training and research organisation that promotes training and development to adults and young people, especially those that are disadvantaged or socially excluded. The organisation delivers training and workshops in employability skills, job search skills, personal finance, functional life skills, Digital Skills & ICT, the global dimension, intercultural learning & communication, health awareness and entrepreneurship.

Section 2:

Competence Framework

COMPETENCE FRAMEWORK

Context and Scope of the Competence Framework

A digital society needs digitally competent citizens, meaning that citizens should be able to use digital technologies in a confident and safe way, for various purposes such as working, getting a job, learning, shopping online, obtaining information and participating in wider societal activities such as learning and socialising. The imperative for adults to develop digital competence derives from a number of developments, trends and challenges in the use of digital technologies. These include the use of the internet as a tool for transactions in the purchases of goods, proliferation and use of social media for communication and information sharing, the increasing use of banking and online payments services and digital content, researching and accessing public information and services, online learning and the increasing availability of MOOCs (Massive Open Online Courses) and Consumer to Consumer Commerce (C2C) using online selling platforms. Adults now and in the future, will need digital competence for everyday life as it permeates all facets of economic, social, cultural, political and civil life, and is a must to participate fully in everyday life.

The Europe 2020 Strategy aims to create the conditions for smart, sustainable and inclusive growth. Some of the areas it targets are employment, education, social inclusion and poverty reduction. Each of these areas is changing fast through the digitalisation of society and the rapid rise and increasing use of social media. It is imperative therefore, that citizens have digital competence to be able to participate fully and benefit from digital opportunities - but also to mitigate possible risks. Boosting digital skills is one of the European Commission's priorities. Its most recent proposals have been put forward in the Communication "A New Skills Agenda for Europe: Working together to strengthen human capital, employability and competitiveness".

The Digital Competence Framework for Adults developed by the DigiTrain partnership is a tool that aims to improve the digital competence of adults by helping policymakers, educational institutions and adult educators develop suitable courses that enable adults to develop the required digital competences. It captures the key digital competences that adults require to navigate an increasingly digitalised world.

The framework builds upon and adapts existing digital and curriculum frameworks for adults, and borrows heavily from The European Digital Competence Framework for Citizens [1], also known as *DigiComp* and the UNESCO ICT Competency Framework for Teachers [2] as tools to improve citizens' digital competence.

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(1) The European Digital Comptence Framework for Citizens, also known as DigiComp, offers a tool to improve citizens' digital competence. DigiComp was first published in 2013 and has become a reference for many digital competence initiatives at both European and Member State levels.

(2) UNESCO ICT Comptency Framework for Teachers, UNESCO, 2011

The Structure Digital Competence Framework for Adults

The Digital Competence Framework for Adult builds upon, adapts and extends DigiComp to meet the specific needs of adults, especially those in non-formal education needing to develop digital competence. The framework identifies the specific learning outcomes associated with each competence, in terms of the knowledge, skills, values and attitudes required of digitally competent adults.

The Framework consists of **Competence Areas**, which are broad categories of competences that adults are expected to develop. Each competence area is accompanied by a **Competence Statement** which is a description of the competence adults are expected to develop, followed by the **Learning Outcomes** which have been formulated and expressed in terms of the **Knowledge**, **Skills**, **Attitudes** and **Values** to demonstrate achievement of the competence**.**

How to Use the Competence Framework

The competence framework is intended for use by institutions, educational providers and educators. It can be used as a basis for developing courses and training programmes for adults, accredited and non-accredited in both formal and non-formal education settings. Adults can use it to identify their digital skills gaps, so they can seek appropriate training opportunities to fill the identified gaps.

The competence framework is not designed as a course and the competence areas are not intended to be course modules or units, and can be combined in any manner suited to the target groups for which the course is being developed. The key issue here is to provide learning opportunities that facilitate the development of the required competences. In designing a course based on the competence framework, the competence statements are not meant to be assessed, as they are not learning outcomes, but descriptions of the competences. It is the learning outcomes (knowledge, skills and attitudes and values) that are to be assessed to determine whether the relevant competences have been achieved.

Structure and Content

This section provides details of the structure and content of each competence and learning outcomes. Each competence will include:
- Competence area
- Competence element
- Competence statement
- Learning outcome (Knowledge / Skills / Attitude)
- Guided learning hours

Competence Summary

Competence 1: Information and data literacy

In this module learners will identify, locate, obtain, retrieve, store, organise and analyse digital information, evaluating its purpose and relevance.

Competence 2: Communication and collaboration

In this module learners will explore communicate in digital environments, share resources through online tools, connect with others and collaborate using digital tools, interact and participate in communities and networks, intercultural awareness.

Competence 3: Digital Content Creation

In this module learners will create and edit new digital content, integrate and rebuild prior knowledge and content, make artistic productions, multimedia content and computer programming, know how to apply intellectual property rights and licenses.

Competence 4: Safety

In this module learners will explore protection of personal information and data, digital identity protection, safety, safe and responsible use.

Competence 5: Problem solving

In this module learners will identify needs in the use of digital resources, make informed decisions about the most appropriate digital tools depending on the purpose or need, solve conceptual problems through digital media or digital tools, use technology creatively, solve technical problems, upgrade my competence and that of others.

Section 3:

Competences and Learning Outcomes

Competence Area 1:

Information and Data Literacy

General Description

To identify, locate, obtain, retrieve, store, organise and analyse digital information, evaluating its purpose and relevance.

Competences:

1.1   Browsing, searching and filtering data, information and digital content

1.2   Evaluating data, information and digital content

1.3   Managing data, information and digital content

Competence Area	1	Information and Data Literacy
Competence Element	1.1	Browsing, searching and filtering data, information and digital content
Competence Statement	Articulating information needs, searching for data, information and content in digital environments, accessing and navigating between them, and creating and update personal search strategies	

Learning Outcomes		
Knowledge	1.1.1	Recognise the existence of different search engines and which respond better for own needs to find data, information and content on different devices.
	1.1.2	Identify simple strategies on how search engines categories information.
Skills	1.1.3	Select and use appropriate search techniques to locate relevant information.
	1.1.4	Apply and adjust simple personal search strategies based on specific needs to limit number of results.
	1.1.5	Download and save different types of information from the internet.
Attitude	1.1.6	Show a proactive attitude towards finding information.

Competence Area	1	Information and Data Literacy
Competence Element	**1.2**	**Evaluating data, information and digital content**
Competence Statement	Analysing, comparing and critically evaluating the credibility and reliability of sources of data, information and digital content.	

Learning Outcomes		
Knowledge	1.2.1	Recognise how to analyse information obtained for credibility and reliability.
Skills	1.2.2	Compare and apply information from different sources resulting from online research.
	1.2.3	Evaluate the usefulness, accuracy and completeness of the information, data and digital content found through online research results.
	1.2.4	Distinguish reliability of information, data and content from online research results.
Attitude	1.2.5	Employ critical and rational thinking, to compare, analyse and evaluate correctly the different online sources

Competence Area	1	Information and Data Literacy
Competence Element	1.3	Managing data, information and digital content
Competence Statement	Organizing, storing and retrieving data, information and content in digital environments. To organise and process them in a structured environment

Learning Outcomes		
Knowledge	1.3.1	Identify different storage media options and select most appropriate for purpose and need.
	1.3.2	Recognise how to organise and process files in a simple structured environment.
Skills	1.3.3	Use various methods for storing and managing digital resources and information.
	1.3.4	Demonstrate backing up and restoring files and folders.
Attitude	1.3.5	Aware of the different consequences of managing content and information privately or publicly.
	1.3.6	Aware of importance of backups.

Competence Area 2
Communication and Collaboration

General Description

Communicate in digital environments, share resources through online tools, connect with others and collaborate using digital tools, interact and participate in communities and networks, intercultural awareness.

Competences:

2.1 Interacting through digital technologies

2.2 Sharing information and content

2.3 Engaging in citizenship through digital technologies

2.4 Collaborating through digital technologies

2.5 Netiquette

2.6 Managing digital identity

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Competence Area	2	Communication and Collaboration

Competence Element	2.1	Interacting through digital technologies

Competence Statement	To interact a variety of digital devices and applications, to understand how digital communication is distributed, displayed and managed, to understand appropriate ways of communicating through digital means, to refer to different communication format, to adapt communication modes and strategies to the specific audience

Learning Outcomes		
Knowledge	2.1.1	Describe the functionality of several communication software and/or applications to interact with others
	2.1.2	Identify and select appropriate means of communication for given content and recipients
Skills	2.1.3	Demonstrate commonly used chat programmes via a smartphone or mobile device
	2.1.4	Create, access, read and respond appropriately to email communication via a smartphone, mobile device or computer
Attitude	2.1.5	Is confident in using online communication
	2.1.6	Willingness to discover new technologies in communication
	2.1.7	Aware of risks linked with online communication

Competence Area	2	Communication and Collaboration
Competence Element	2.2	Sharing through digital technologies
Competence Statement	To share with others the location and content of information found, to be willing and able to share knowledge, content and resources, to know about citation practice and to integrate new information into an existing body of knowledge	

Learning Outcomes		
Knowledge	2.2.1	Identify and describe appropriate digital technology for sharing data, information & digital content
	2.2.2	Distinguish which content, knowledge or resource can be shared publicly
Skills	2.2.3	Demonstrate participation in social network sites to share knowledge, content and information
	2.2.4	Use cloud based systems for saving and sharing digital data and content
	2.2.5	Demonstrate sharing files and content of different media to digital messages (e.g. images, video, audio files)
Attitude	2.2.6	Confident applying with copyright requirements when sharing information and content

Competence Area	2	Communication and Collaboration
Competence Element	**2.3**	**Engaging in citizenship through digital technologies**
Competence Statement	To participate in society through online engagement, to seek opportunities for self-development and empowerment in using technologies and digital environments, to be aware of the potential of technologies for citizen participation	

Learning Outcomes		
Knowledge	2.3.1	Identify and recognise appropriate digital services to empower self and participate in society
	2.3.2	Can describe and compare a range of social media channels and how to use them for participating in the society
Skills	2.3.3	Able to locate relevant social media blogs, videos, groups or events that corresponds to interest or needs
	2.3.4	Can select and engage in online participation from a choice of social media channels with an intended audience
	2.3.5	Use features of online services for self-empowerment
Attitude	2.3.6	Aware and appreciate potential risks in online communication and online services

Competence Area	2	Communication and Collaboration
Competence Element	2.4	Collaborating through digital technologies
Competence Statement	To use technologies and media for teamwork, collaborative processes and co-construction and co-creation of resources, knowledge and content.	

Learning Outcomes		
Knowledge	2.4.1	Identify the purpose for using collaborative technologies and social networks for content creation and list their benefits and limitations.
	2.4.2	Identify and select most appropriate collaborative resources and web-based services for any given purpose
Skills	2.4.3	Use collaborative features of a software package and/or web-based service
	2.4.4	Select and engage in from a choice of social media channels with an intended audience for co-creation of resources and feedback
Attitude	2.4.5	Willing to share and collaborate with others through digital technology
	2.4.6	Aware of potential risks in collaborating through digital technologies

Competence Area	2	Communication and Collaboration
Competence Element	**2.5**	**Netiquette**
Competence Statement	To have knowledge and know-how of behavioural norms in online / virtual interactions, to be aware of cultural diversity aspects, to be able to protect self and others from possible online dangers (e.g. cyber bullying)	

Learning Outcomes		
Knowledge	2.5.1	Describe and give examples of behavioural norms and know-how when using digital technology and interacting in a digital environment
	2.5.2	Able to recognise and consider the cultural diversity and implications of communication and sharing through digital technology
	2.5.3	Distinguish inappropriate language in social media networks, the laws against Cyber Bullying and consequences of own behaviour
Skills	2.5.4	Demonstrate how to defend/protect self from online threats while using online communication and social networking
Attitude	2.5.5	Confidently adapt communication strategy appropriately as required
	2.5.6	Has a safe and sensible attitude in interacting in a digital environment

Competence Area	2	Communication and Collaboration
Competence Element	2.6	**Managing digital identity**
Competence Statement	To create, adapt and mange one or multiple digital identities, to be able to protect one's e-reputation, to deal with the data that one produces through several accounts and applications	

Learning Outcomes		
Knowledge	2.6.1	Define what components go into the creation of a 'Digital Identity'
	2.6.2	List and describe the positive and negative aspects of an online identity and the implications
Skills	2.6.3	Create, modify and manage one or multiple digital identities according to context and purpose
	2.6.4	Demonstrate protecting an e-reputation and identify own digital footprint
Attitude	2.6.5	Acknowledge the benefits and risks related to online identity

Competence Area 3

Content Creation

General Description

Create and edit new digital content, integrate and rebuild prior knowledge and content, make artistic productions, multimedia content and computer programming, know how to apply intellectual property rights and licenses.

Competences:

3.1   Developing digital content

3.2   Integrating and re-elaborating digital content

3.3   Copyright and licenses

3.4   Logical thinking

Competence Area	3	Digital Content Creation
Competence Element	3.1	Developing digital content

Competence Statement	Creating and editing digital content to communicate with other and support daily routine.

Learning Outcomes		
Knowledge	3.1.1	Describe different formats and media in which contents can be produced
	3.1.2	Identify the suitable program/application for the type of content which needs to be created
Skills	3.1.3	Use basic packages and tools to create content in different formats.
	3.1.4	Use a wide range of media/software to express oneself creatively and to support daily tasks (e.g. texts, images, Audio, Video, etc.)
	3.1.5	Modify and edit content to improve the final product.
Attitude	3.1.6	Mindful that not all the digital contents are true (fake);
	3.1.7	Willingness to explore new forms and formats.

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Competence Area	3	Digital Content Creation
Competence Element	**3.2**	**Integrating and re-elaborating digital content**
Competence Statement	Contributing through modifying, refining, improving and building on content to create and share new and relevant conten/knowledge	
Learning Outcomes		
Knowledge	3.2.1	Identify co-editing methods and spaces.
Skills	3.2.2	Produce contributions to free and accessible online content.
	3.2.3	Combine different existing content / resources from different sources to create new content.
	3.2.4	Use editing functions to modify content developed on cloud based system or locally.
	3.2.5	Demonstrate interaction on a shared communication space/channel/online chat to share knowledge and contributions.
Attitude	3.2.6	Value the contributions of other learners.

Competence Area	3	Digital Content Creation
Competence Element	**3.3**	**Copyright and licenses**
Competence Statement	Sharing and exploiting contents/knowledge: respecting the intellectual property.	

Learning Outcomes		
Knowledge	3.3.1	Identify regulation of licenses and copyright for the use and publication of information (also on social media);
	3.3.2	Define the ways to license the intellectual property.
Skills	3.3.3	Apply the right licenses for the creation and sharing of content
Attitude	3.3.4	Act and assume the responsibility for own actions and choices.
	3.3.5	Acknowledging intellectual property rights

Competence Area	3	Digital Content Creation
Competence Element	3.4	Logical thinking
Competence Statement	Understanding the workings of logical basic programming (logical thinking).	

Learning Outcomes		
Knowledge	3.4.1	Identify logical structure of simple actions/sequences;
Skills	3.4.2	Apply changes to basic settings of already developed programs.
	3.4.3	Demonstrate ability to encode and program digital devices.
Attitude	3.4.4	Acknowledge/Appreciate rational thinking and planning

Competence Area 4

Safety

General Description

Protection of personal information and data, digital identity protection, safety, safe and responsible use.

Competences:

4.1   Protecting devices

4.2   Protecting personal data and privacy

4.3   Protecting health and well-being

4.4   Protecting the environment

Competence Area	4	Safety
Competence Element	4.1	Protecting devices
Competence Statement	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	

Learning Outcomes		
Knowledge	4.1.1	Identify and differentiate risks and threats in digital environments
	4.1.2	Identify simple ways to protect devices and digital content with due regard to reliability and privacy
Skills	4.1.3	Select and install safety and security measures on all digital devices
	4.1.4	Apply appropriate precautions to maintain data security in digital environments (passwords etc.)
Attitude	4.1.5	Realistic positive attitude to benefits and risks associated with the use of online technologies

Competence Area	4	Safety
Competence Element	4.2	Protecting personal data and privacy
Competence Statement	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	

Learning Outcomes		
Knowledge	4.2.1	Distinguish between protection and data security.
	4.2.2	Select simple ways to protect personal data and privacy in digital environments
	4.2.3	Recognise the terms of use and conditions of online services and therefore able to act cautiously.
	4.2.4	Identify appropriate digital content to share within online environments
Skills	4.2.5	Choose appropriate ways to protect the personal data of my own and others when sharing digital content (e.g. a picture) on social media.
	4.2.6	Choose appropriate privacy settings when sharing digital content
	4.2.7	Able to manage my identity and digital footprint and modify information.
Attitude	4.2.8	Feel safe and confident on interacting online either for communication or online services

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Competence Area	4	Safety
Competence Element	4.3	Protecting health and well-being
Competence Statement	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	

Learning Outcomes		
Knowledge	4.3.1	Select and differentiate simple ways to avoid health -risks and threats to physical and psychological well-being while using digital technologies.
	4.3.2	Recognise Health & Safety consequences of prolonged use of digital technology.
	4.3.3	Identify the forms and features of cyberbullying.
Skills	4.3.4	Apply preventive actions to avoid health -risks and threats to physical and psychological well-being while using digital technologies.
Attitude	4.3.5	Feeling confident of avoiding possible risks and threats to physical and psychological well-being while using digital technologies
	4.3.6	Acknowledge the value of own behaviour leading to negative psychological impact-Internet addiction disorder-cyberbullying and social exclusion

Competence Area	4	Safety
Competence Element	**4.4**	**Protecting the environment**
Competence Statement	To be aware of the environmental impact of digital technologies and their use	

Learning Outcomes		
Knowledge	4.4.1	Recognise simple environmental impact of computers and electronic devices.
	4.4.2	Identify appropriate solutions to avoid producing "eWaste" when using digital technologies
Skills	4.4.3	Demonstrate use of digital equipment efficiently in terms of cost and time
Attitude	4.4.4	Aware of environmental impacts related to the use of digital technologies

Competence Area 5
Problem Solving

General Description

Identify needs in the use of digital resources, make informed decisions about the most appropriate digital tools depending on the purpose or need, solve conceptual problems through digital media or digital tools, use technology creatively, solve technical problems, upgrade my competence and that of others.

Competences:

5.1   Solving technical problems

5.2   Identifying needs and technological responses

5.3   Creatively using digital technologies

5.4   Identifying digital competence gaps

Competence Area	5	Problem Solving
Competence Element	**5.1**	**Solving technical problems**
Competence Statement	To identify technical problems when operating devices and using digital environments and find simple solutions (trouble-shooting)	

Learning Outcomes		
Knowledge	5.1.1	Recognise simple technical problems when operating devices and using digital environments.
	5.1.2	Recognise where to look for sources of information to solve a technical problem.
Skills	5.1.3	Use available resources to respond quickly and appropriately to common device problems.
Attitude	5.1.4	Willingness to adopt an active approach to problem solving.
	5.1.5	Persistence in finding solutions to IT problems which might arise

Competence Area	5	Problem Solving
Competence Element	**5.2**	**Identifying needs and technological responses**
Competence Statement	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)	

Learning Outcomes		
Knowledge	5.2.1	Recognise simple digital technologies available and understand their potentials and limitations.
	5.2.2	Identify available technology strengths and weaknesses and the opportunities they present to support achieving own goals.
Skills	5.2.3	Demonstrate routine ways to adjust and customise digital environments to personal needs.
	5.2.4	Make informed decisions in selecting digital tools to achieve various needs.
Attitude	5.2.5	Openness in discovering new digital tools for solving personal and other learning needs

Competence Area	5	Problem Solving
Competence Element	**5.3**	**Creatively using digital technologies**
Competence Statement	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	

Learning Outcomes		
Knowledge	5.3.1	Identify and select simple digital tools and technologies to find the relevant knowledge to resolve theoretical problems.
Skills	5.3.2	Demonstrate digital tools that can be used to explore resources when looking for solutions.
	5.3.3	Demonstrate engagement individually and collectively in resolving technical problems.
Attitude	5.3.4	Openness to review own values and attributes according to situation.

Competence Area	5	Problem Solving
Competence Element	**5.4**	**Identifying digital competence gaps**
Competence Statement	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	

Learning Outcomes		
Knowledge	5.4.1	Recognise where my own digital competence needs to be improved or updated
	5.4.2	Identify where to seek opportunities for self-development and to keep up-to-date with the digital evolution
Skills	5.4.3	Discover opportunities for self-development and keep up-to-date with the digital evolution
Attitude	5.4.4	Willingness to seek opportunities for self-development and to be informed about the latest news on digital evolution

Section 4:

Competence and Learning Outcomes
Support and Resources

LEARNING OUTCOME SUPPORT AND RESOURCES

Terminology of Competence Components

The main competence components to be discussed in the DigiTrain Framework Learning Outcomes structure are that of knowledge, skills, and attitudes.

Knowledge
'Knowledge' means the outcome of the assimilation of information through learning. Knowledge is the body of facts, principles, theories and practices that is related to a field of work or study. In the context of the European Qualifications Framework, knowledge is described as theoretical and/or factual. (European Parliament and the Council, 2008a)

Skills
'Skills' means the ability to apply knowledge and use know-how to complete tasks and solve problems. In the context of the European Qualifications Framework, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments). (European Parliament and the Council, 2008a)

In this report, practical skills are referred to as 'instrumental skills', meaning that tool and medium related knowledge and skills are instrumental for developing or applying advanced (cognitive) skills that rely on using these tools or media. The term 'advanced skills' is used in the report as referring to the application of instrumental digital skills for specific tasks or strategies.

Attitudes
'Attitudes' are conceived as the motivators of performance, the basis for continued competent performance. They include ethics, values, and priorities. They can also include responsibility and autonomy.

Competence
There are two slightly different definitions of 'competence' in the recent European policy recommendations. In the Key Competences Recommendation, 'competence' is defined as a combination of knowledge, skills and attitudes appropriate to the context (European Parliament and the Council, 2006). In the European Qualifications Framework recommendation, 'competence' is seen as the most advanced element of the framework descriptors and is defined as the proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development.

Both these definitions agree that competence is the highest level element, including knowledge, skills and the way these are applied in certain contexts.

Therefore, there is no essential difference between these two definitions. In order to maintain the compatibility with both of them, the following working definition is suggested: 'competence' is an ability to use knowledge and skills with responsibility, autonomy and other appropriate attitudes to the context of work, leisure or learning.

Learning Outcome Support and Guidance

Please find additional support and guidance on selected learning outcomes.

Competence 1: Information and Data Literacy

Module 1.1

1.1.1 Learner will identify different search engines available (google, yahoo, etc) and recognise which responds best for learners own needs when finding information and content based on different devices (PCs, Tablets, Phone, SmartTV, etc).

1.1.2 Learners will be able to identify different ways to search for resources via search engines (images/videos, wording of search), and how search engines categories information (spiders searching key words, titles, page descriptions and image tags.

1.1.3 Learners will use appropriate search options such as google search categories to only related image/video selections, shopping and/or using search settings to exact keyword search of words or phrases to locate relevant information.

1.1.4 Learners will be able to adjust their search strategies to reduce the number of results for a specific topic or criteria (example. Adding location when searching for a product or service to localise the search).

1.1.5 Learner can safely download and save different types of information (pdf documents, images, videos, etc) online to a specific folder on PC or external drive, etc.

Module 1.3

1.3.1 Learner will be able to identify different storage media options (USB Key, Hard drive, Cloud systems, CD, etc.) and select most appropriate for purpose and need (file size, portable, etc.).

1.3.2 Learner will be able to recognise different ways to organise and process files in a structured way using for example using named folders for different projects, files types, dates, etc.

1.3.3 Learner will demonstrate use of various storage methods (USB Key, Hard drive, Cloud systems, CD, etc.) based on content (file size and type, etc.) and requirements (portable, muti persona access, etc.).

Competence 2: Communication and Collaboration

Module 2.1

2.1.1 Learner will describe the different functions of several communication software's (Outlook, Skype, JoinMe, etc.) and/or applications (WhatsApp, text, etc.) that can be used to interact with others via PCs, phones and/or tablets devices.

2.1.2 Learners will identify and be able to select the best suited means of communication based on who they would be communicating with (friend, colleague, teacher, business, etc), reason for

communication (catching up, formal communication, complaint, document submission) and type of communication (i.e. email for attachments or long recoded content, WhatsApp or text messaging for quick, short, two-way communication, Skype or WhatsApp for video calling).

2.1.3 Learners will be able to access, send, receive messages using chat programmes via a smartphone or mobile device such as WhatsApp or Facebook messenger.

2.1.4 Learners will demonstrate sending an email to a contact, receive emails and reply to received emails including adding subject and carbon copy fields and attachments.

2.1.5 Learner can use other digital communication means via a tablet or computer such as writing and commenting on blogs and forum posts.

Module 2.2

2.2.1 Learner will be able to identify different appropriate digital technology resources for sharing data such as googledrive, OneDrive, Dropbox, WeTransfer etc. and describe the difference pro, cons and difference between them.

2.2.2 Learners will show an understanding of distinguishing what content, knowledge and/or resources can be shared publicly taking onto consideration copyright, data protection etc.

2.2.3 Learners will demonstrate that they can participate in social networks such as posting on Facebook, or sending a tweet onTwitter to share thoughts, information, etc

2.2.4 Learners will share digital data to groups or individuals using cloud based sharing systems such as dropbox, onedrive, googledrive, WeTransfer, etc.

2.2.5 Learners will demonstrate that they can send files and content to others through simple technology means such as email attachments or via messenger programme like WhatsApp.

Module 2.3

2.3.1 Learner will identify different digital service such as Social Networks, forums etc. that are best suited for different types of participation in online discussions and activities
Learners will also recognise different online systems to empower self in a digital world for paying bills, online banking etc.

2.3.2 Learner will be able to describe how to use social media sites such as Facebook, Twitter, etc. and how they compare for different activities and users.

2.3.3 Learner will demonstrate how and where to locate relevant social media articles, blogs, groups, events and videos of their own interest.

2.3.4 Learner will be able to post, comment and patriciate on different social media channels selected for an intended audience.

2.3.5 Learner will be able to locate and use different online services to complete application forms, pay bills and/or online banking.

Module 2.4

2.4.1 Learner will identify when a project or assignment would and would not benefit from a collaborative process

2.4.2 Learner will identify and select what resources and web based services available (Access logs, shared usage, feedback and comments) would best suit certain types of projects

2.4.3 Learner will demonstrate the use of features (Access, upload/download, restrictions, feedback, etc.) of different software packages and web based services such as Wiki, googledrive, onedrive, email clients, etc. for collaborating.

2.4.4 Learner will select from a choice of social media channels to engage with an intended audience with comments and feedback in the co creation of resources.

Module 2.5

2.5.1 Learner will be able to describe with examples of how to act online through the use of language and images in all communication types and know what is inappropriate and offensive.

2.5.2 Learner will recognise best way to act based on the consideration on who they are communicating with (friends, family, colleagues, public, etc.) as well as cultural, religious and ethical implications.

2.5.3 Learner will distinguish what is inappropriate language when communication in social media networks and identify the laws against Cyber bullying and said consequences of own behaviour.

2.5.4 Learner will demonstrate how they can defend and protect self from online threats in setting up privacy settings and know how to report issues and block users.

2.5.5 Learner show confidence in adapting how they communicate with different people based on relationship with them and taking into consideration cultural, religious and ethical beliefs, etc.

Module 2.6

2.6.2 Learner will list the positive (showcase your skills, communication and contact with family and friends, etc.) and the negative (what goes online can stay online, potential employers can see what you have put up, etc.) aspects of having an online identity and describe the implications.

2.6.3 Learner will set up a social media account on one or multiple networks according to the purpose (posting, CV/profile, communication) and be able to modify and manage their accounts.

2.6.4 Learner will demonstrate how they can protect their e-reputation through personal settings on who can see what and access your data and identify own digital footprint.

Competence 3: Digital Content Creation

Module 3.1

3.1.1 Learner will describe formats and media such as word files, videos, audio, images, etc. that can be produced.

3.1.2 Learners will identify programme and/or application best suited for creating required content (image/video editors, PowerPoint Presentation software, etc.).

3.1.3 Learners will use basic packages (Microsoft) to create content in different formats (PowerPoint, etc.).

3.1.4 Learners will create material (image, audio, video, etc.) using different media software's (Photo/video editing etc.) to express them self creatively.

Module 3.2

3.2.4 Learners will use selected editing functions in a selected programme to modify content developed in a cloud system such as Googledrive.

3.2.5 Learners will demonstrate interaction through a shared communication space or online chat to share knowledge, ideas and feedback on resources.

Module 3.3

3.3.1 Learner can identify regulations and copyright for the use and publication of information and resources (books, videos, music, etc.) and sharing content via social media.

3.3.2 Learner will be able to define different ways in which they can license and protect their property created.

Module 3.4

3.4.1 Learner will be able to identify a logical structure of simple actions and sequences of basic programming.

Competence 4: Safety

Module 4.1

4.1.1 Learner will be able to identify the risks and threats in a digital environment (Virus, spam, hacking, etc) and differentiate between them in what they are and what they do,.

4.1.2 Learners will be able to identify different ways to protect devices (PCs, Tablets, Phones, etc) and digital content (files and folder) and their reliability and privacy.

4.1.3 Learners will be able to select and set up appropriate safety and security measures on different digital devices from software protection for Virus and malware to login and password protection for accessing devices.

4.1.4 Learners will apply appropriate precautions to maintain data security (passwords, security questions, mobile phone security measures such as fingerprint scanners etc.) in digital environments.

Module 4.2

4.2.2 Learners will be able to select simple ways to protect personal data (password, being selective on sharing information online, etc) and use of privacy (change of setting in social media sites) in digital environments.

4.2.3 Learners will be able to recognise the wording and content on what they are agreeing their data can be used for in online terms and conditions and know how to act cautiously in what they are agreeing to.

4.2.4 Learners will be able to identify what digital content is appropriate to share in an online environment and what to avoid (examples, photos with identification marks of locations, etc.).

4.2.5 Learners will choose appropriate ways to protect their personal data and that of others when sharing contents (photos, videos, etc.) on social media using permission settings on who can see what they post and stopping content from being copied etc.

4.2.7 Learners will be able to manage own identity (social media accounts, etc) and digital footprint and modify settings, personal content, information and published content accordingly.

Module 4.3

4.3.1 Learner will be able to select and differentiate simple ways to avoid health risks (chair position, writs pads, etc) and threats to physical and psychological well being while using digital technologies.

4.3.2 Learner will recognise health & safety consequences of prolonged use of digital technology such as over use of looking at monitors on the eyes, muscle and body pain from wrist placement when typing and posture from seating, etc.

Module 4.4

4.4.2 Learner will be able to identify appropriate solutions to avoid producing used electronics which are destined for reuse, resale, salvage, recycling, or disposal are also considered e-waste when using digital technologies.

Competence 5: Problem Solving

Module 5.1

5.1.1 Learner will recognise simple technical problems (hardware/software, connections, etc.) found when operating different devices and using digital environments.

5.1.2 Learners will recognise where to look/search for relevant sources of information either online or through troubleshoot software on device to solve different technical problems.

Module 5.2

5.2.3 Learners will demonstrate routine ways to adjust and customise digital environments (changing of desktop setting, security levels and user permissions, hardware upgrades and software requirements) to personal needs.

Module 5.3

5.3.1 Learner will be able to identify and select simple digital tools and technologies (Windows Help, Search engines and forums) to find relevant knowledge to resolve problems.

Assessment Guidance

The following are indicators of the type of assessment evidence that can be produced in learners portfolio to demonstrate their achievement towards Learning outcome.

- Learners journals, diaries.

- Photographs, artwork, audio-visual material.

- Audio-visuals or practical assignment completion, exhibitions and displays.

- Individual or group learner testimony.

- Marked essays, written question and answer sheets, worksheets.

- Tutor observation records and checklists.

All assessment methods should be valid, reliable, fit for purpose and inclusive. To clarify what is meant by these requirements:

Valid
Assessments should measure what it claims to measure and what is important to measure to demonstrate the achievement of the learning outcome.

Reliable
The assessment result should be replicable and consistent either under different circumsnatnces of with a different tutor.

Fit for purpose
Assessment methods should be appropriate for the form of assessment (for example, diagnostic, formative, summative).

Inclusive
Assessment methods should not raise unnecessary barriers to demonstration of achievement. You can tailor evidence requirements to the needs of individuals or groups, and evidence should always be flexible, varied and appropriate. Therefore, a learner with physical difficulties may provide visual or oral evidence (photos, video) rather than notes and essay produced by others in the group.

Assessment Methods

The following lists different assessment methods (but not all), with advice on the nature of the task that could be set, how to structure them and type pf evidence to collect.

Essay
A discursive, written response to a question or statement which involves the learner in finding and presenting information and opinions in a structured way, which normally includes an introduction, the information / opinions / evaluation / analysis and a conclusion. Could be used to demonstrate recall and comprehension.

Group discussion
Discussion of a topic or situation selected by the tutor or by the learner, to enable learners to share knowledge and thoughts and to assess their learning. The discussion should be short, structured and supervised.

Oral questions and answers
Specific open or closed questions for immediate response. Can range from formal questions to more interactive forms such as a quiz. This allows for responses and questions from learners and immediate feedback from tutor.

Practical demonstration
A practical demonstration of a skill/situation selected by the tutor or by the learner, to enable learners to practise and apply skills and knowledge.

Project
A specific task involving private study and research for individuals or groups. Normally involved selection of a topic, planning, finding information and presenting results orally or in writing.

Reflective log or diary
A description, normally in writing but may be oral, by the learner reflecting on how and what they have learned. Often completed at regular intervals during the learning process thus allowing discussion on individual progress and how to further learning could be supported.

Report
A record of an activity and / or a summary of research which presents information in a structured way. Does not include opinion, but may include analysis or evaluation. May be presented in written oral form.

Role play / simulation
Use of a situation selected any the tutor or learner, to enable learners to practice and apply skills and explore attitudes. Assessed through tutor/peer observation. One to one tutorial and self-assessment.

Written question and answer / Test / exam
Specific, open and closed questions for immediate response from tutor, can range from formal exams and tests, to a quiz.

Teaching and Learning Resources

A number resources such as example lesson plans, activities, worksheets, handouts, etc. toward the Competence areas learning outcomes have been created to guide you in using this framework. You can find these for download in different languages at www.digi-train.eu