

MODULE 1

European Frameworks: DigComp and Entrecomp

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Introduction and description of the module

EntreComp and DigComp are Frameworks created by the European Union to establish the basic entrepreneurship and digital competences.

This module describes the frameworks and the implementation of DigComp as well as some support materials for EntreComp.

Objectives:

- To understand what DigComp and EntreComp are
- To learn about the frameworks of DigComp and EntreComp
- To know how they are implemented
- To check the support materials created for EntreComp
- To be aware of one's competences in these fields

Module 1

European Frameworks: DigComp and Entrecomp

Topics



Framework of Digcomp

Basic notions on what it is and what its competences are.



Implementation of DigComp

How it has been implemented in different places in Europe.



Framework of EntreComp

Basic notions on what it is and what its competences are.



Support
material of
Materiae Complete
assess the specific competences and give notions of what is
Entrecomp



Time to practise!

Put into practice what you have learned in this module!



Topic overview

According to the EU Science Hub, DigComp is the "European Digital Competence Framework" and it "offers a tool to improve citizen's digital competence". It means that people have to master the competences defined in the framework to be digitally competent. It can work both for citizens as well as for policy makers, to check how good their skills are; to change the curricula in case it is needed, and to improve the competences that are less developed.



Topic overview

According to the EU Science Hub, the competences are grouped in 5 areas of knowledge:

- Information and data literacy
- Communication and collaboration
- Digital content creation
- Safety
- Problem solving



Educators professional competences Learners' competences Educators' pedagogic competences Teaching and Learning Transversal Digital Guidance competences competences Empowering 5 Learners' Digital 6 Digital Professional Resources Engagement Differentiation & personalisation Creating & modifying Accessibility & inclusion Content creation Actively engaging learners Responsible use Assessment Problem solving Subject Subject specific specific Assessment strategies competences competences Feedback & planning

Framework of DigComp



2 Image retrieved from http://www.e-learn.nl/2017/12/24/digital-competence-of-educators



Information and data literacy 1

To be able to find the information, to summarise and make reference to it. To evaluate if the content is relevant or not, to be able to organise it as it might be useful.



Information and data literacy 2

The specific competences comprised in this more general competence of information and data literacy are, according to the EU Science Hub:

- "Browsing, searching and filtering data, information and digital content"₃ – which entails searching, investigating and accessing the information in digital environments
- "Evaluating data, information and digital content"
 which entails being able to examine and evaluate the content created digitally
- "Managing data, information and digital content" which entails organisation and management of data in the digital context



 To be able to communicate using new technologies, bearing in mind that some generations might not feel as comfortable with them / with their use and application. To manage identities and reputation in digital environments.



- According to the EU Hub, there are 6 competences included in the main competence that is communication and collaboration:
 - "Interacting through digital technologies" which means that technologies can be used to communicate with others
 - "Sharing through digital technologies"- which means that the technology is used jointly with others



- According to the EU Hub, there are 6 competences included in the main competence that is communication and collaboration:
 - "Engaging in citizenship through digital technologies" – which entails that digital services, public and private, can be used to participate in society.
 - "Collaborating through digital technologies" which entails that technology is used to collaborate and create contents



- According to the EU Hub, there are 6 competences included in the main competence that is communication and collaboration:
 - "Netiquette" which means knowing how to behave and connect online, how to reach target groups and bear in mind the different generations in the digital world
 - "Managing digital identity" which entails knowing how to protect a reputation, create different identities and manage information in the digital world



Digital Content Creation 1

- To develop digital content and integrate it into a database that already exists, as well as to give instructions to a computer.
- There are 4 more specific competences within the more general competence of digital content creation, according to the EU Hub:
 - "Developing digital content" which entails developing texts and images or any other kind of content in digital environments



Digital Content Creation 2

There are 4 more specific competences within the more general competence of digital content creation, according to the EU Hub:

- "Integrating and re-elaborating digital content" –
 which entails developing and putting the data into
 a "body of knowledge" and develop new content
- "Copyright and licences" which means that all the licences and copyright applied to content are understood
- "Programming" which entails knowing how to program instructions into a computer to solve issues or do tasks.



Safety 1

- To protect any kind of health, and to know about these new technologies, their environmental footprint and how to use them in social inclusion.
- According to the EU Hub, the competence of safety entails 4 more specific competences, which are:
 - "Protecting devices" which means that the gadgets are protected and prevented from hazards, actions to protect them are taken and privacy is respected.



Safety 2

According to the EU Hub, the competence of safety entails 4 more specific competences, which are:

- "Protecting personal data and privacy" which entails being able to know about the usage, share and protection of data, personal or from others.
 "Privacy policy" is understood and used.
- "Protecting health and well-being" which entails being aware of the risks that electronic devices can have in health and to know how to avoid them, but also to know what are the good things that technology can do.
- "Protecting the environment" which means knowing the effects of the electronics in the ecosystem.



Problem solving 1

- To recognize and fix any kind of needs and problems, concretely in the digital field. To be up-to-date with the latest digital developments.
- There are 4 more specific competences compiled in the larger competence of problem solving, according to the EU Science Hub:
 - "Solving technical problems" which entails learning about the problems that the devices might have and learning their solutions (simple and more complicated).



Problem solving 2

- There are 4 more specific competences compiled in the larger competence of problem solving, according to the EU Science Hub:
 - "Identifying needs and technological responses" which means that the digital tools are chosen and
 used to patch any kind of need. To adapt technology
 to any kind of need.
 - "Creatively using digital technologies" which entails creating new materials and using technology to do them. To be able to solve digital problems and immerse themselves in collective and individual processes.



Problem solving 3

- There are 4 more specific competences compiled in the larger competence of problem solving, according to the EU Science Hub:
 - "Identifying digital competence gaps" which means knowing what has to be improved in oneself and develop the digital competences and evolute digitally.
 - "Solving technical problems"- which entails knowing how to solve basic and more complicated problems in digital devices.



Topic overview

- The framework has been implemented in more than 20 countries in Europe (and outside Europe) and there are over 30 case studies in different countries, which, according to the EU Hub, have been divided in 5 categories₄:
 - "Teacher professional development"
 - "E & T content/student assessment"
 - "Assessment (for employability)"
 - "Policy support, framework implementation"
 - "European-wide examples and project implementations"





Teacher professional development 1

- In this first category, the list cites some countries that have implemented the framework in the development of teacher's knowledge. These are:
 - Croatia: Croatian Academic and Research Network created the <u>e-Schools project</u>.
 - Portugal: The Ministry of Education uses the framework for the professional development of the teachers, as summed up in this document.
 - Norway: The Norwegian Centre for ICT in Education runs the framework to develop the competences of the teachers.
 - Lithuania: The <u>Education Development Centre</u> translated the framework and wants to use it for the professional development of the teachers.



Teacher professional development 2

- In this first category, the list cites some countries that have implemented the framework in the development of teacher's knowledge. These are:
 - Spain: The Ministry of Education developed a <u>Common Framework for Teacher Digital Competence</u> and the regional and state governments agreed on applying it.
 - Extremadura, Spain: They use the <u>Teachers Digital</u> <u>Competence Portfolio.</u>
- Spain is mentioned twice because the framework was implemented by the government, but every region adapted it as they preferred. In this case, Extremadura implemented it as a part of the portfolio for teachers.





E & T content/student assessment 1

- In this second category, the list cites some countries and some concrete cities or regions that have implemented the framework in the assessment of the students and the content. These are:
 - Emilia-Romagna region, Italy: they created an initiative of e-inclusion named Pane e internet.
 - France: The Ministry of Education uses the <u>Platform Pix</u> to credit the digital competence.
 - Cyprus: ECCC provides training and certifications.
 - Slovenia: National Education Institute translated the framework and uses it to assess the ICT skills.
 - Poland: ECCC Foundation provides courses, certificates and trainings.





E & T content/student assessment 2

- In this second category, the list cites some countries and some concrete cities or regions that have implemented the framework in the assessment of the students and the content. These are:
 - Netherlands: SLO-Institute uses DigComp to assess the students in primary and secondary school.
 - India: ECCC provides trainings and certifications.
 - Flanders, Belgium: the Department of Education uses it to develop adult courses.
 - Spain: The Network of Spanish of University Libraries offers it to their students.
- In this category, India is included, as they have adapted the DigComp to their system.





Assessment (for employability)

- In the third category, the list cites some countries and some concrete cities or regions that have implemented the framework in the assessment for employability. These are:
 - Denmark: Based on DigComp, the <u>Digital Competency</u> <u>Wheel 1</u> and <u>Digital Competency Wheel 2</u> were developed.
 - Italy: The company Smartive developed <u>a tool</u> to evaluate readiness and digital competences.
 - Basque Country, Spain: The regional government developed <u>the Ikanos project</u> with an <u>online testing tool</u> based on DigComp.
 - Andalusia, Spain: "Andalucia Digital" has an <u>online</u> <u>self-assessment tool</u> based in DigComp.
- In this category, Spain is mentioned twice because the regional governments of these regions have run self-assessment tests available to everyone, as well as the other countries have.





Policy support, framework implementation

- In the fourth category, the list cites some countries that have implemented the framework and the policy support. These are:
 - Poland: A <u>catalogue of digital competence frameworks</u> has been developed by the Ministry of Digital Affairs.
 - Malta: A "<u>Digital Strategy</u>" has been developed by the Ministry of Education and Employment.
 - Italy: <u>The Italian Digital Agenda</u> has been developed and implemented.
 - Germany: A common strategy named "<u>Bildung in der</u> <u>digitalen Welt</u>" has been developed by the government.
 - United Kingdom: The <u>Basic Digital Skills framework</u> have been created following DigComp guidelines
- In this category, DigComp is mentioned to be implemented as part of a bigger strategy.



European-wide examples and project implementations

- In the fifth and last category, the list cites some examples of organisations that can help to improve one's digital skills. These are:
 - <u>Carer +</u>: intends to reach care workers and develop their digital skills.
 - <u>Skillage</u>: targets everyone to do a self-assessment of their digital skills.
 - ECDL Foundation: has certification programmes to assess DigComp.
- In this category, DigComp is assessed and improved, by giving tools and courses to develop more skills.



Topic overview

EntreComp is, according to the EU Science Hub, the "Entrepreneurship competence framework" and it comprises the entrepreneurship skills that the European citizens should have. They are included in the "Eight Key Competences for Lifelong learning" and, unlike the digital competences, they do not target the policy makers and citizens separately, they target all the levels in formal and informal education as well as all non-educational environments.



Into action Resources deas & opportunities Spotting opportunities Planning & Entrepreneurship management Competence Creativity

Framework of EntreComp



6 Image retrieved from *EntreComp: The Entrepreneurship Competence Framework* (Bacigalupo et al., 2016) https://www.researchgate.net/figure/EntreComp-The-Entrepreneurship-Competence-Framework-Bacigalupo-et-al-2016 fig4 326147506



Topic overview

According to the EU Hub, the competences are based in three main concepts, and divided into tree categories: resources, action and ideas and opportunities.

There are four stages of mastery of the competences, which are:

- "basic"
- "intermediate"
- "advanced"
- "expert"





Resources

 Within this more general competence, there are 5 more specific competences, which are according the EU Hub:

- Mobilizing resources
- Mobilizing others
- Self-awareness and self-efficacy
- Financial and economical literacy
- Motivation and perseverance
- The competences are interrelated having as the main one: "mobilizing resources".
 Moreover, they should be regarded as a unit, without separating them.





Into action

The general competence of into action compiles
 more specific competences, which are according to the EU Hub:

- Coping with ambiguity, uncertainty, and risk
- Learning through experience
- Taking the initiative
- Working with others
- Planning and management
- Although the competences are specified, they should be regarded as a unit, not as separate parts, whereby the leading one is "working with others".





Ideas and Opportunities

- According to the EU Hub, this competence entails 5 more specific competences:
 - Vision
 - Ethical and sustainable thinking
 - Spotting opportunities
 - Valuing ideas
 - Creativity
- The main competence, which all the specific ones relate to, is creativity. Moreover, all these specifications need to be regarded as a unit.



Topic overview

• When the framework was created, there was also developed a guide to help the target group on using it, as well as some resources such as:

- "The EntreComp cartoon"9
- "The Entrecomp video series"
- "EntreComp playbook"
- "EntreComp at work"
- "The Entrepreneurial Employee in the Public and Private sector. What, Why, How"
- "A workshop format for those who want to support others to become familiar with EntreComp"

Support Material of EntreComp



Time to practise!

- Watch <u>this</u>₁₀ video and answer some questions:
 - How many competences are there within the EntreComp framework?
 - 10
 - 12
 - 15
 - Why are these competences important?
 - To be able to build your own enterprise
 - To have fun
 - To decide your next steps
- Analyse yourself! Take all the competences into practise creating an enterprise in a Canva: develop an idea, decide the people that the enterprise is targeted
- Know how good your digital skills are! Do the test <u>"The Digital</u>
 <u>Competence Wheel"</u>₁₁ and find out!



- DigComp is the framework for digital competences
- There are 5 areas of knowledge:
 - Communication and collaboration
 - Safety
 - Information and data literacy
 - Problem solving
 - Digital content creation
- EntreComp is the framework for entrepreneurship competences
- The implementation of DigComp has been divided in 5 categories
 - "E & T content/student assessment"
 - "European-wide examples and project implementations"
 - "Assessment (for employability)"
 - "Policy support, framework implementation"
 - "Teacher professional development"



European Frameworks: DigComp and Entrecomp



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