

Digital competence advancement in Estonia

education
estonia

Kerli Požogina

Project Manager

Training Centre, Education and Youth Board



In Estonia, the digital competence
is a general competence
throughout all the subjects
in national curricula

Strategic documents

- + [Estonian education strategy 2021-2035](#)
- + Professional Standards for Teachers (renewed 2019-2020)
- + [The Digital Competence Framework for Citizens \(DigComp 2.1, 2017\)](#)
- + [European Framework for the Digital Competence of Educators \(DigCompEdu, 2017\)](#)
- + [Digital Education Action Plan 2021-2027](#)

Digital competence initiative in Estonia



- + What do we mean with digital competence?
- + Frameworks for teachers and students
- + Digital platform for materials, tools and experience
- + Management through digital competence task force and council

Students' digital framework



1. INFORMATION AND DATA LITERACY



2. COMMUNICATION AND COLLABORATION



3. DIGITAL CONTENT CREATION



4. DIGITAL SAFETY



5. PROBLEM SOLVING

Assessment of digital competence

- + Each competence area has its own assessment criteria
 - + Each criteria has four key stages of general education:
 - + kindergarten; grades 3; 6; 9/12
- + Criterias help teachers
 - + to assess progress
 - + to plan further learning for students

Teachers' digital framework



1. PROFESSIONAL ENGAGEMENT



2. DIGITAL RESOURCES



3. TEACHING AND LEARNING



4. ASSESSMENT



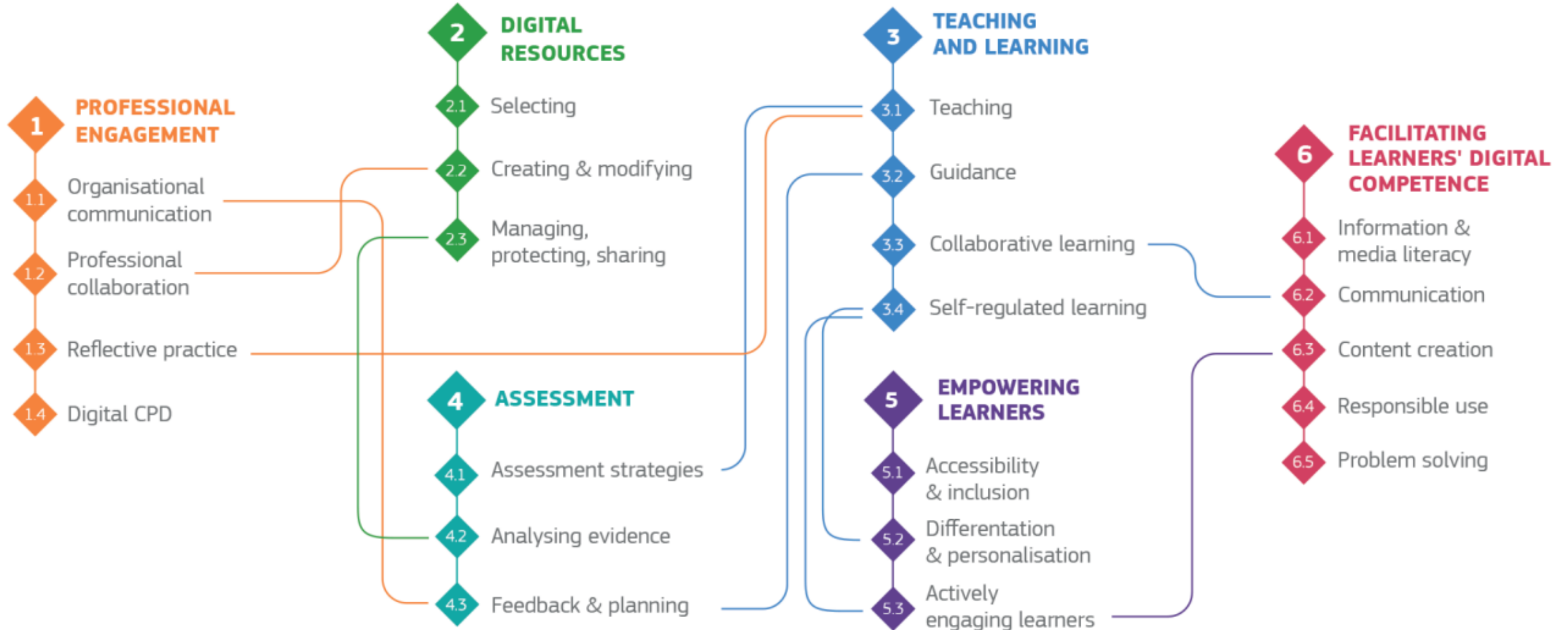
5. EMPOWERING LEARNERS



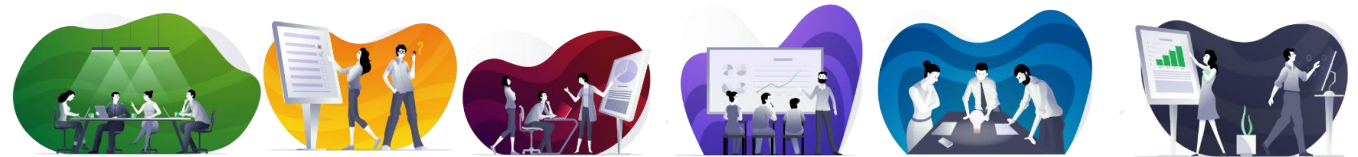
6. FACILITATING LEARNERS'
DIGITAL COMPETENCE

Competences

(DigCompEDU 2017)



Digital training for Estonian schools

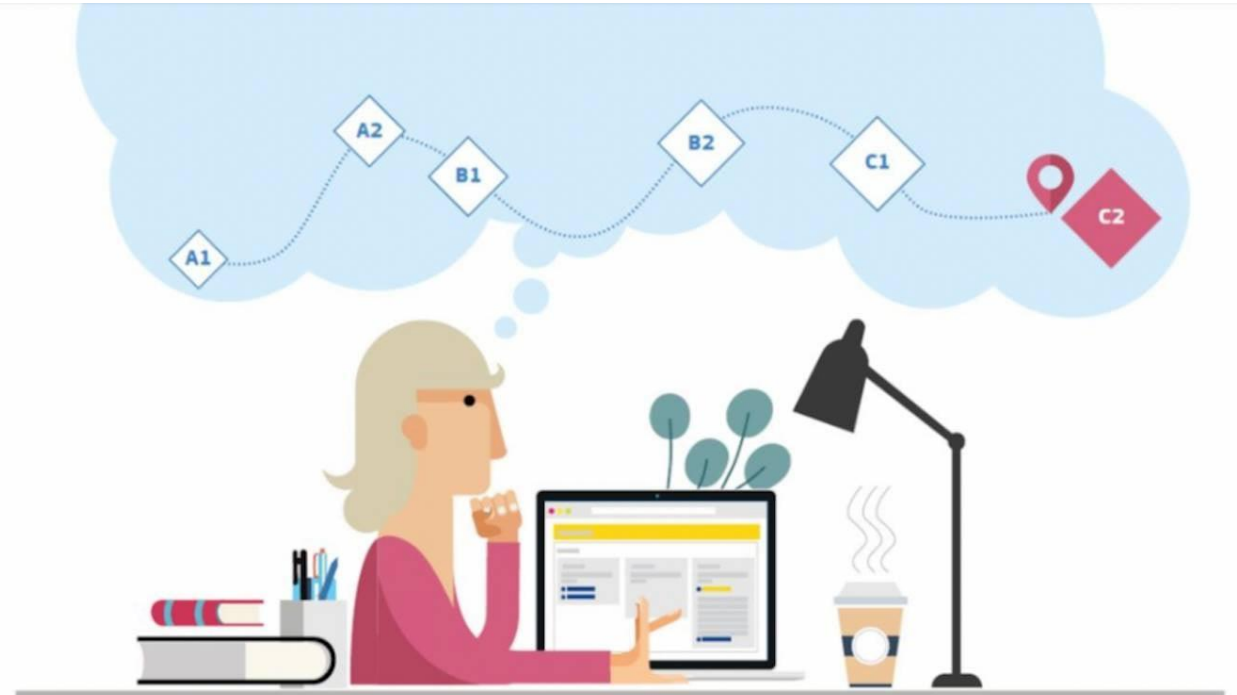


- 0. non-user
- 1. beginner (knows basic terminology, needs support in implementation)
- 2. coper (copes with typical, simple tasks)
- 3. independent (handles variety of tasks without support)
- 4. expert (reflects, analyses and shares the advanced practices)
- 5. pioneer (leader, innovator, coach, mentor)

Digital competence areas and subtopics (DigCompEDU)	1. Professional engagement				2. Digital resources			3. Teaching and learning				4. Assessment			5. Empowering learners			6. Facilitating learners' digital competence				
Digital trainings	1.1	1.2	1.3	1.4	2.1	2.2	2.3	3.1	3.2	3.3	3.4	4.1	4.2	4.3	5.1	5.2	5.3	6.1	6.2	6.3	6.4	6.5
beginners (school leaders)	3	3	3																			
beginners (school teams)	2-3	2-3	2-3	3	2-3	2-3	2-3	2-3	2-3	2-3	2	2-3	2	2-3	2-3	2-4	2-3	2	2-3	2-3	2-3	2
beginners (teachers)	2-3	2-3	2-3	2-3	2-3	3	2-3	2-3	2-3	2-3	3	3		3	3	3	2-3	2-3	3	2-3	2-3	
advanced (subject teachers)	3	3	3	3	3	3	3	3	3	3		3						3	3	3	3	3
advanced (school teams)		3	3	2-3	3		3	3					3					3			2-3	3
advanced (vocational teachers, school teams)	4	4			4-5	4-5	4-5	4	4	4-5	5	4-5	4	4-5	4	4	4	5	5	5	5	5
advanced (teachers)		2-3	3-4	2/4	2-4	2-4	2/4		4	2-3	4	3-4	3	2-4	3	2-4	2-3	2	2-4	2-3	2-4	2-4
educators and educational technologists		5	5	3/5	3/5	4-5	5	3/5	3	5							4					

Self-assessment questionnaires

- + For teachers and students
- + Teachers and students can use criteria to set their own learning targets
- + In different formats
- + Selfie for Teachers



SELFIE for Teachers

Renewing digital infrastructure

2016-2022

11.8M

euros

3281

desktop computers
(all-in-one)

8889

laptops

480

multimedia
computers

4200

padlets

686

interactive
projectors

Digital training for teachers

20%

of general education
teachers and

8%

of VET teachers
take part at
Harno digital training
every year



Digital integration

31 h programme



- + Focus:
integration between subjects
- + Requirement:
cooperation of two school teams
- + Result:
examples of best practice
that can be used by all teachers



Digital Key

39 h programme

- + Focus: support for subject teachers
- + How to teach subject while developing student's digital competence



Digital Accelerator

6 month programme for school teams



+ For teachers:

- + Basic training, 32 h
- + Advanced training, 30 h
- + Leadership training, 39 h
- + Educational technology mentoring, 35-80 h
- + Digital practice assessment before and after the programme





Focus

Preparation phase to put in place the main focus of trainings and mentoring for each school team in general and for each individual teacher

.....

Conclusion phase to analyze the survey results of all participating schools to make changes for the program and additons for the compendium of best practices



Impact



Empower



Main phase for mentoring and trainings in each participating school with the special attention to the cooperation and digital safety

.....

Follow up phase for final mentoring seminar with the local government to assess the overall progress in each school



Extend



Courses on digital tools

- + Simple drawing tools, 26 h
- + How to activate students in distance learning, 26 h
- + Simple visualization tools for the teacher, 13 h
- + Learning platforms:
 - + Moodle, 31 h
 - + Google Classroom, 26 h
 - + MS Teams, 24 h



Digital ABC & Digital Safety ABC

26 h train-the-trainer programme
for schools & kindergartens

- + Skills to support colleagues
- + Focus in 2021: distance learning
- + 40 different modules



A safe school environment in the information society

39 h programme for school management

- + Digital safety, cybersecurity and hygiene, GDPR
- + Each team will put together a set of rules to ensure digital safety in school environment



Webinars

Learning from distance

- + At least 1 per week
- + 1-1,5 hours
- + Hot topics in education
- + Educational technology coaching
- + Recordings available in Youtube



2021:
53 webinars
≈ 30 000 views
Avg rating:
4.64/5

How do we do it?

- + Staff: 3 project managers on digital training
- + Educators:
up to 100 in-service teachers, educational technologists, school leaders, scientists etc
- + Focus: **methodology**
- + Open courses and custom training
- + Flexibility: online, face-to-face and combined format
- + Dissemination: newsletters, Facebook group, network



Digital tools for teachers

Digital learning stories

to support the implementation
of the digital competence

- + **Best practices** in integrating and developing digital competences in various subjects
- + Open access



Framework for supporting effective learning process

Guidelines for teachers

+ How to support

- + modern learning strategies and motivation
- + physical activity
- + mental health
- + digital competence

+ How to assure authors' rights & GDPR



E-course for schools

35 h Moodle course

+ 3 main topics:

- + information and data literacy
- + communication and collaboration
- + digital content creation

+ 2 general topics covered throughout the training:

- + digital safety
- + problem solving

+ Covers most of the 9th grade assessment criteria

+ Open access



Digital glossary

The common language needed
to discuss digital teaching and learning



How to digitally accelerate your school?

Manual for schools

- + Compendium of key topics:
 - + identifying school needs,
 - + managing digital learning in school,
 - + chances in learning and teaching,
 - + digital infrastructure and digital safety,
 - + integrating digital competence into different subjects



Networking



- + Trainers network
- + The Association of Estonian Educational Technologists
- + Experts from different fields
(digital technology, learning and competence, learning and teaching methodology, psychology etc.)
- + Council boards for programmes and specific field development
(ProgeTiger, Digital Accelerator, Digital Infrastructure programmes etc)

Useful links

- + [Digital Competence: Empowering teachers and students](#)
- + [Digital competence](#)
- + [Teachers improve their digital competence in Digital Accelerator](#)
- + [How it all began? From Tiger Leap to digital society](#)

Aitäh! Thank you!

education
estonia

Kerli.Pozogina@harno.ee



educationestonia.org

Photos used: Harno, Lauri Kadajane, Küllike Heide, Henrik Osula, Eva Toome, Triin Kaasik, HITSA, Digikiirendi