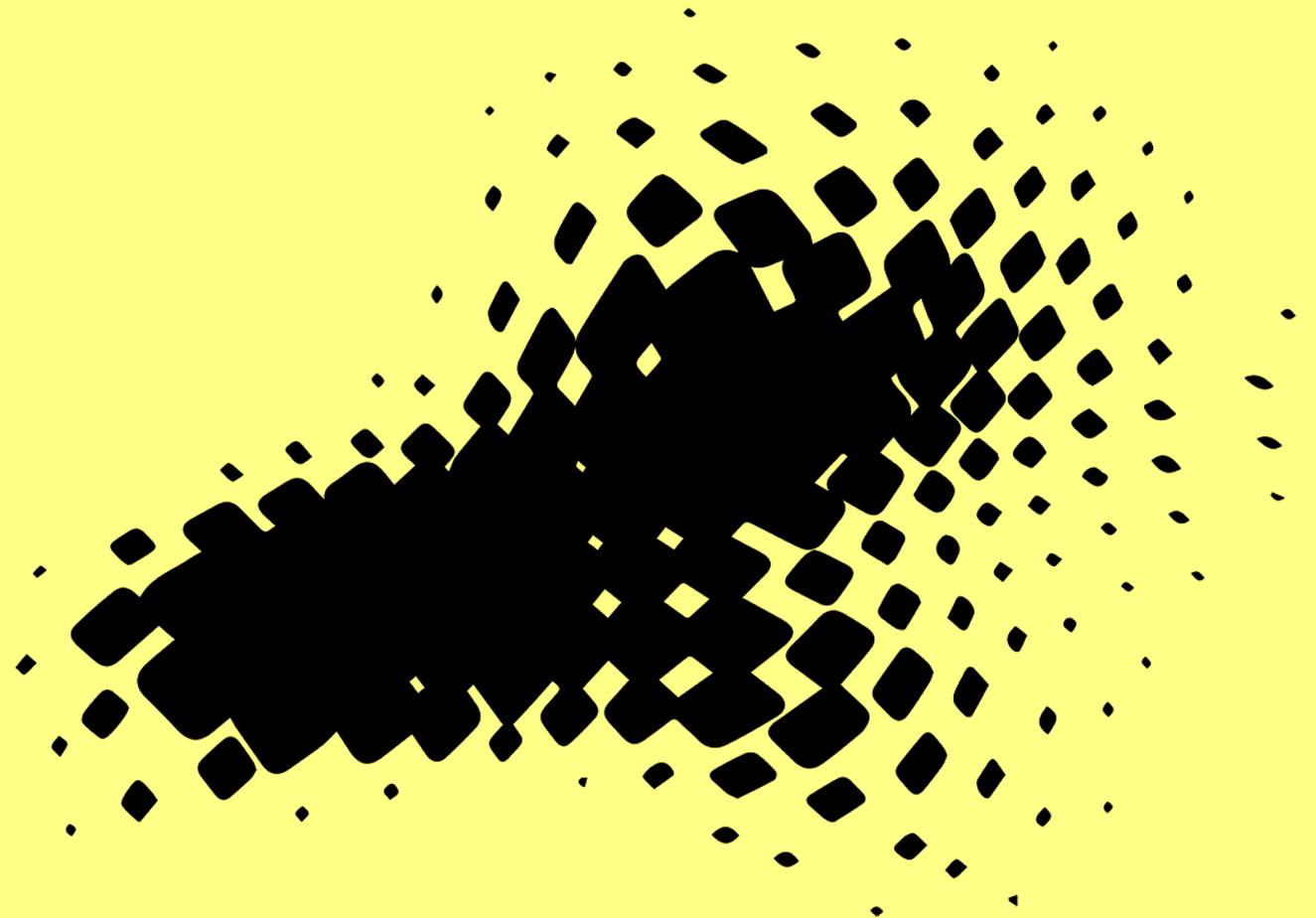


Competence development for teachers and support staff – a preliminary study

Preliminary study team:

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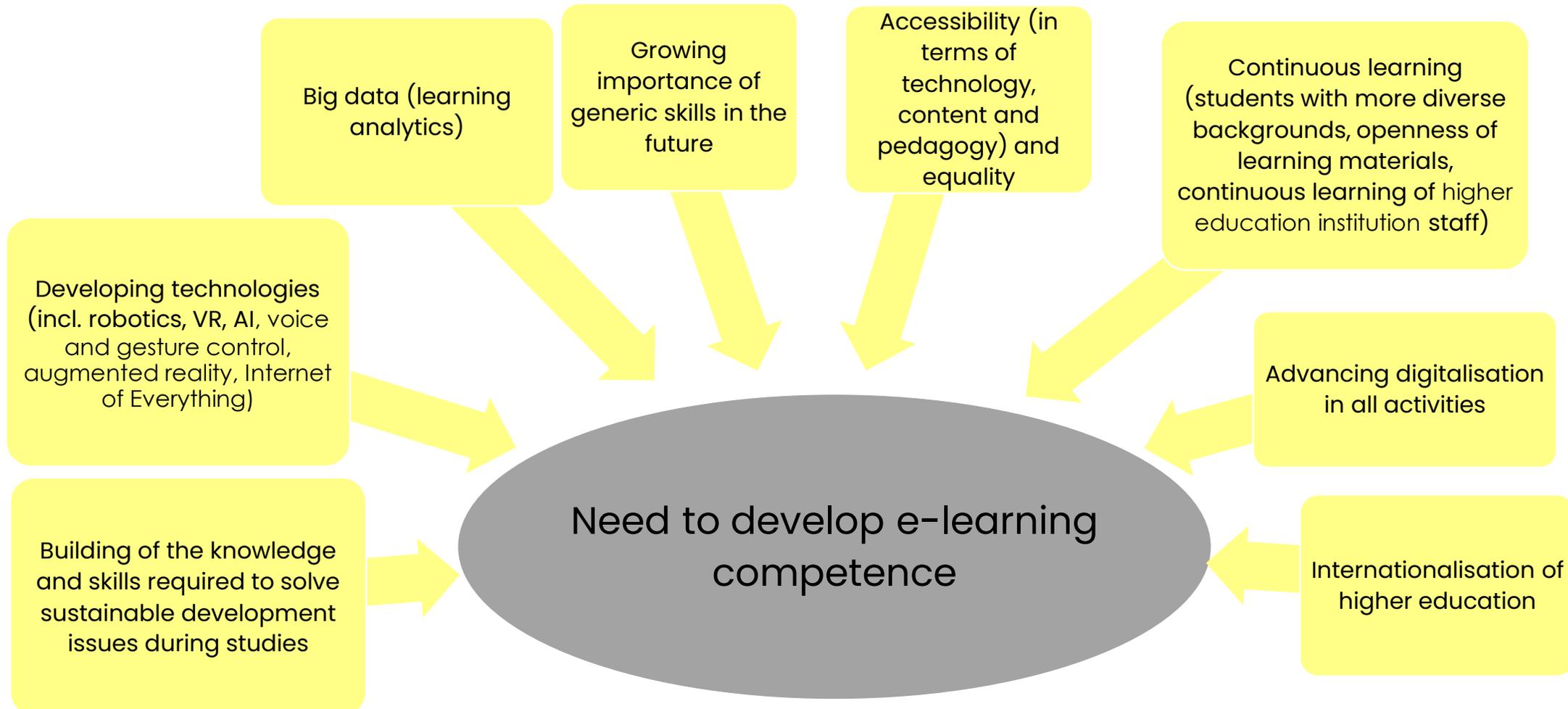


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Background



Why do we need competence development in e-learning?



Competence in e-learning is contextual

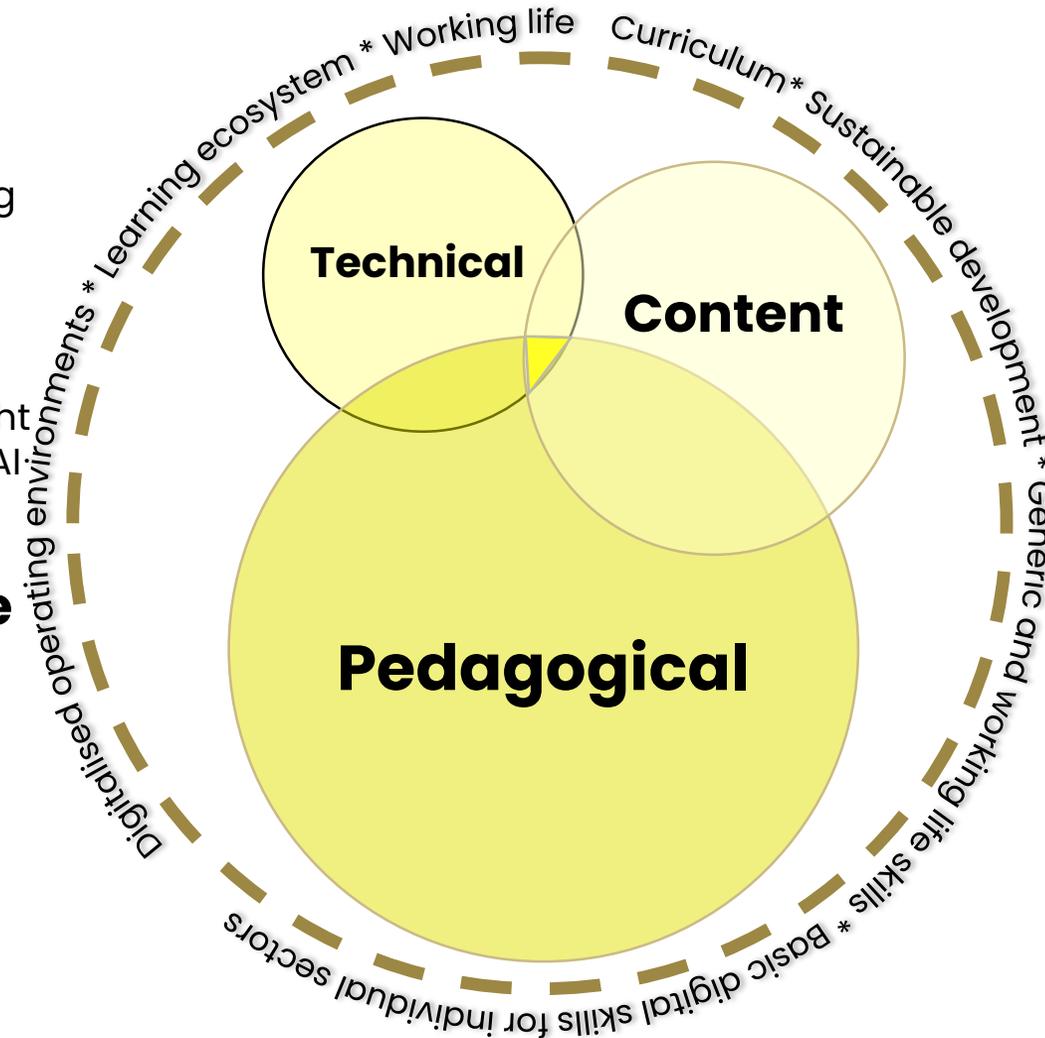
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Technical competence

- Mastering the technical operating environment
- Students' technical environment
- Teaching technologies
- Technical accessibility, usability
- Information security and copyright
- Big data and learning analytics, AI

Pedagogical competence

- Increasing group sizes
- More diverse groups
- Increasing individuality
- Increasing flexibility
- Changing competence needs
- Emphasis on continuous assessment



Content-related competence

- Working life is changing
- Generic skills will be highlighted
- Digital skills for individual sectors
- Emphasis on timely guidance
- Changing learning environments
- Less time together
- Increase in self-directed studying

Adapted from TPACK (2006) drivers of change in higher education institutions

National Forum for Skills Anticipation FINEDU

BASIC DIGITAL SKILLS (next page in English)

Yleissivistävä opetushenkilöstö 2025

Digitaalinen aktiivinen kansalaisuus

Digitaalisen sisällön kehittämiskyky

Digitaalisen sisällön uudelleenjalostamis- ja integrointitaidot

Digitaalisen teknologian luova käyttötaito

Digitaaliset kommunikointitaidot

Digitaaliset yhteistyötaidot

Digitaalisten työkalujen soveltamiskyky

Henkilökohtaisen tiedon ja yksityisyyden suojeleusaaminen

Tiedon arviointitaidot

Tiedon digitaaliset jakamistaidot

Koulutus 2035

Digitaalinen aktiivinen kansalaisuus

Digitaalisen identiteetin hallintataidot

Digitaalisen sisällön kehittämiskyky

Digitaalisen teknologian luova käyttötaito

Digitaaliset kommunikointitaidot

Digitaaliset yhteistyötaidot

Henkilökohtaisen tiedon ja -yksityisyyden suojeleusaaminen

Tiedon arviointitaidot

Tiedon digitaaliset jakamistaidot

Tiedon hakutaidot

Tiedon hallintataidot

Fyysisen ja psyykkisen terveyden suojeleusaaminen

digitaalisten ympäristöjen ja -teknologioiden riskeiltä

Teaching staff in general education 2025

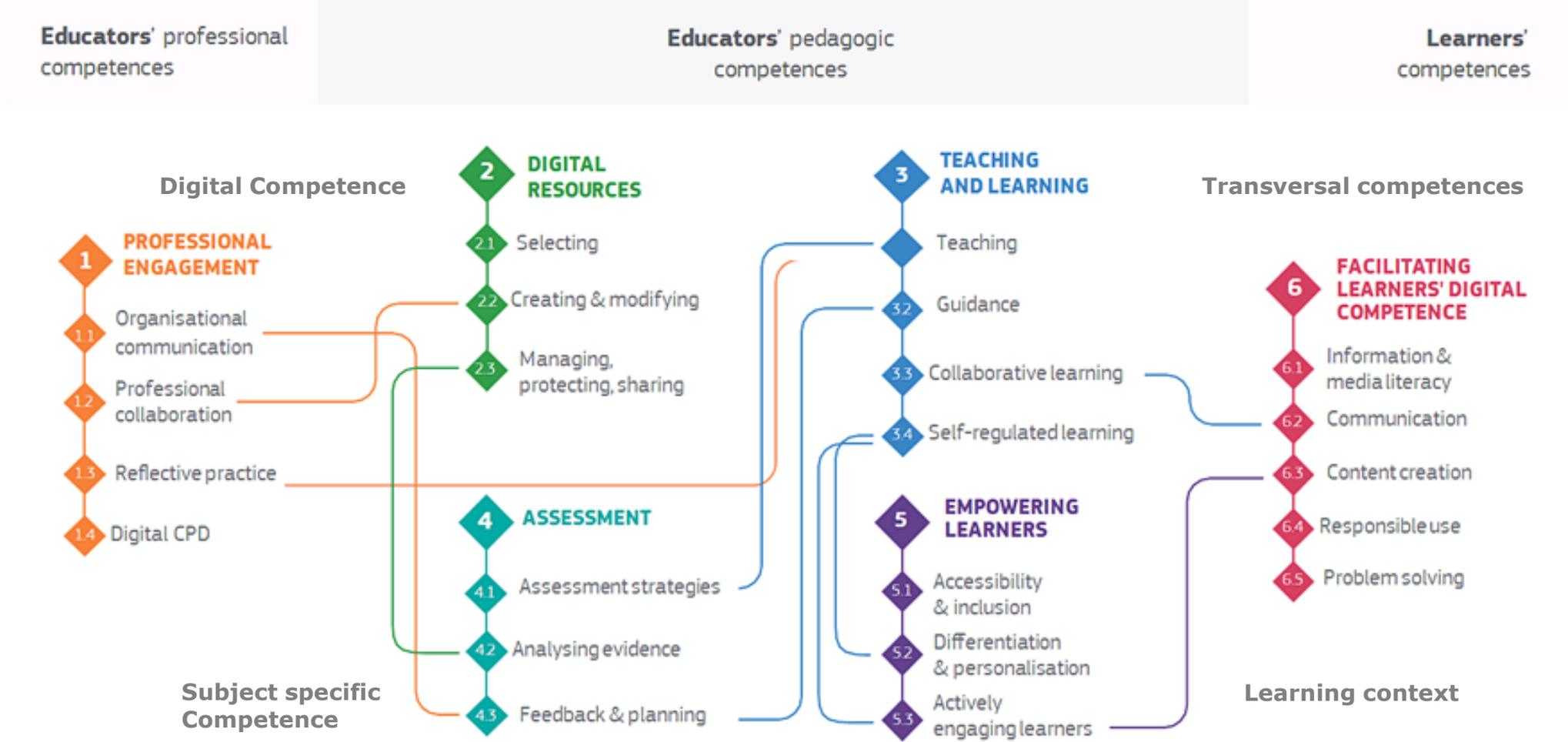
Ability to develop digital content
Skills in reprocessing and
integrating digital content
Skill in using digital technology
creatively
Digital communication skills
Digital cooperation skills
Ability to apply digital tools
Competence in protecting personal
data and privacy
Skills in evaluating information
Skill in sharing information digitally

Education 2035

Digital active citizenship
Digital identity management skills
Ability to develop digital content
Skill in using digital technology creatively
Digital communication skills
Digital cooperation skills
Competence in protecting personal data and
privacy
Skills in evaluating information
Skill in sharing information digitally
Skills in finding information
Skills in managing information
Skills in protecting user's physical and
psychological health from the risks of digital
environments and technologies

A teacher's digital pedagogy competence

Digital Competence Framework for Educators (DigCompEdu) (adapted)



Teachers' future digital skills identified in national and international reports and studies

EU Digital Education Action Plan 2021–2027, EU: Key competencies for lifelong learning 2018 , Roadmap for the Vision 2030 for Higher Education and Research, Sitra's Megatrends 2020, Declaration for Open Science and Research 2020–2025

- High-quality learning contents
- Digital literacy
- Understanding how digital technologies can support communication, creativity and innovations (2.1)
- Mastering new types of technology skills, including issues related to the use and exploitation of data as well as access rights, understanding how algorithms impact behaviour and decision-making, or issues related to preparedness for cybercrime
- Finding and using open research datasets, storage and further use of open data (2.2)
- Open sharing of your learning materials, protecting open materials, sharing co-produced learning materials, licensing and copyrights (2.3)
- Knowing how to manage and protect information, content and digital identities (secure and responsible use of digital technologies) (2.3.)
- Awareness of legislative and ethical principles related to using digital technologies (2.3.)
- Critical approach to the validity and reliability of digital technologies and contents (2.3.)
- Ability to identify and use effectively software, hardware, AI or robots (2.1.)

Ally 2019: Competency Profile of the Digital and Online Teacher in Future Education

- Create high quality digital learning materials.
- Use multimedia technologies to deliver learning materials in a variety of formats.
- Use appropriate collaborative online learning frameworks to encourage interaction between learners and between the teacher and the learner
- Use learning analytics to monitor individual learner progress
- Select the appropriate digital technology to match the content and the learning outcome
- Use assistive technology to provide support to learners with special needs.
- Basic knowledge of artificial Intelligence (1.4.)
- Integrate augmented reality, virtual reality, and mixed reality to give learner a real life experience.
- Use interactive strategies such as serious games and simulations to motivate learners
- Consider privacy issues and keep learner information
- Access appropriate open education resources to integrate into the curriculum

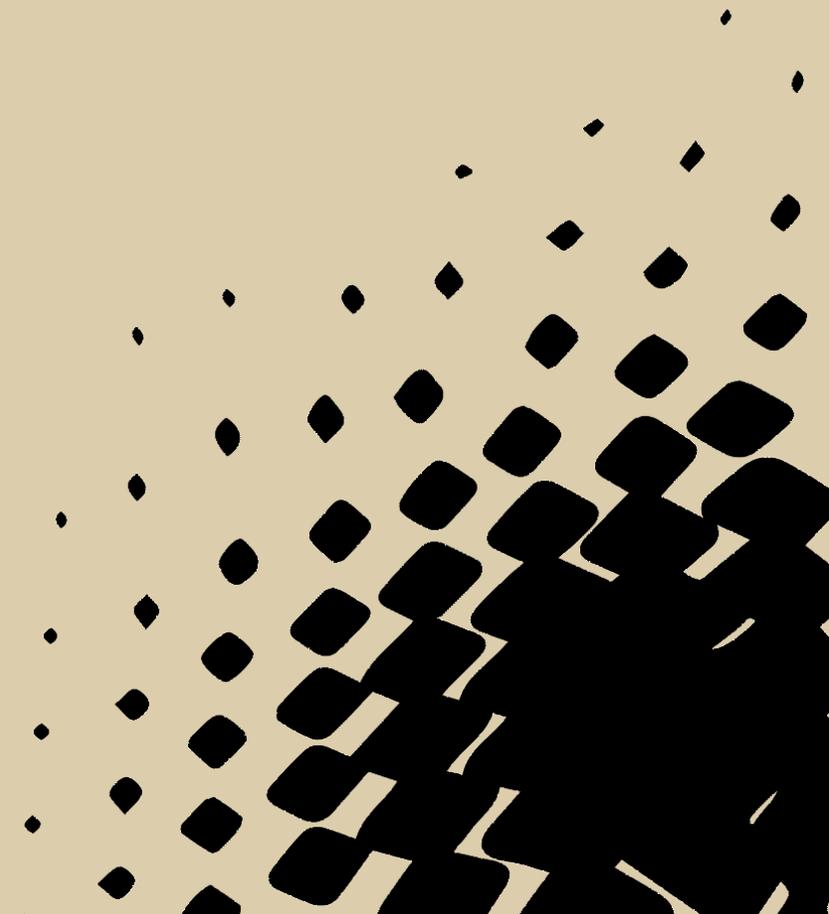
Needs for developing e-learning competencies brought up by students and teachers in surveys relating to the pandemic period

- Building a sense of togetherness
- Guidance and feedback
- Interaction
- Engagement & activation
- Supporting self-directiveness
- Accessibility & equality
- Learning skill's development (simulations, labs etc.)
- Pedagogical solutions for subject specific fields
- Pedagogical and versatile use of tools
- Use of analytics
- Assessment practices, versatility
- Uniform practices for higher education institutions
- New implementation models (HyFlex, hybrid etc.)
- Quality of implementations
- Videos and recordings

Effective forms of competence development identified by teachers in surveys relating to the pandemic period

- Training, personal and group coaching
- Concise workshops, webinars responding to practical needs
- Sharing of good practices
- Exchange of experiences
- Real-life experience and practice
- Clear user instructions
- Uniform practices

Proposal for national implementation of training in e-learning





National training – why and for whom?

- Why?
 - Doing things together is resource wise
 - Enables the sharing of common support materials and good practices
- For whom?
 - Teaching and support service staff, teacher students, guidance staff
 - All higher education institutions
 - Training courses from basics to advanced level

Competence development for teachers and support staff

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National offering (Digivision)

- Events and coaching sessions open to all
- Networking, sharing of expertise
- Topical, evidence-based information and support materials and general principles on the national e-learning portal
- Testing of competence, a list of available badges
- Micro courses to support different learning processes
- Support staff's competence development

Innovative partnership – learning
(Töytäri et al., 2016)

Individual higher education institution's offering

- Individual higher education institution's coaching sessions (existing; new themes and materials)
- Learning themes and materials obtained through Digivision
- National Digipeda portal as a source of shared support materials, general principles and networking
- Support persons as distributors of up-to-date information in higher education institutions
- Identification and recognition of competence (incl. badges)

Collegial and team learning
(Töytäri et al., 2016)

Teacher's personal development

- Teacher's own-initiative competence development
- Open materials
- Coaching provided by the teacher's HEI
- Materials obtained through national offering, events
- E-learning portal
- Field-specific materials and coaching
- Demonstrations of competence (incl. badges)

Individual learning
(Töytäri et al., 2016)

10% formal learning through workshops, e-learning, literature or courses

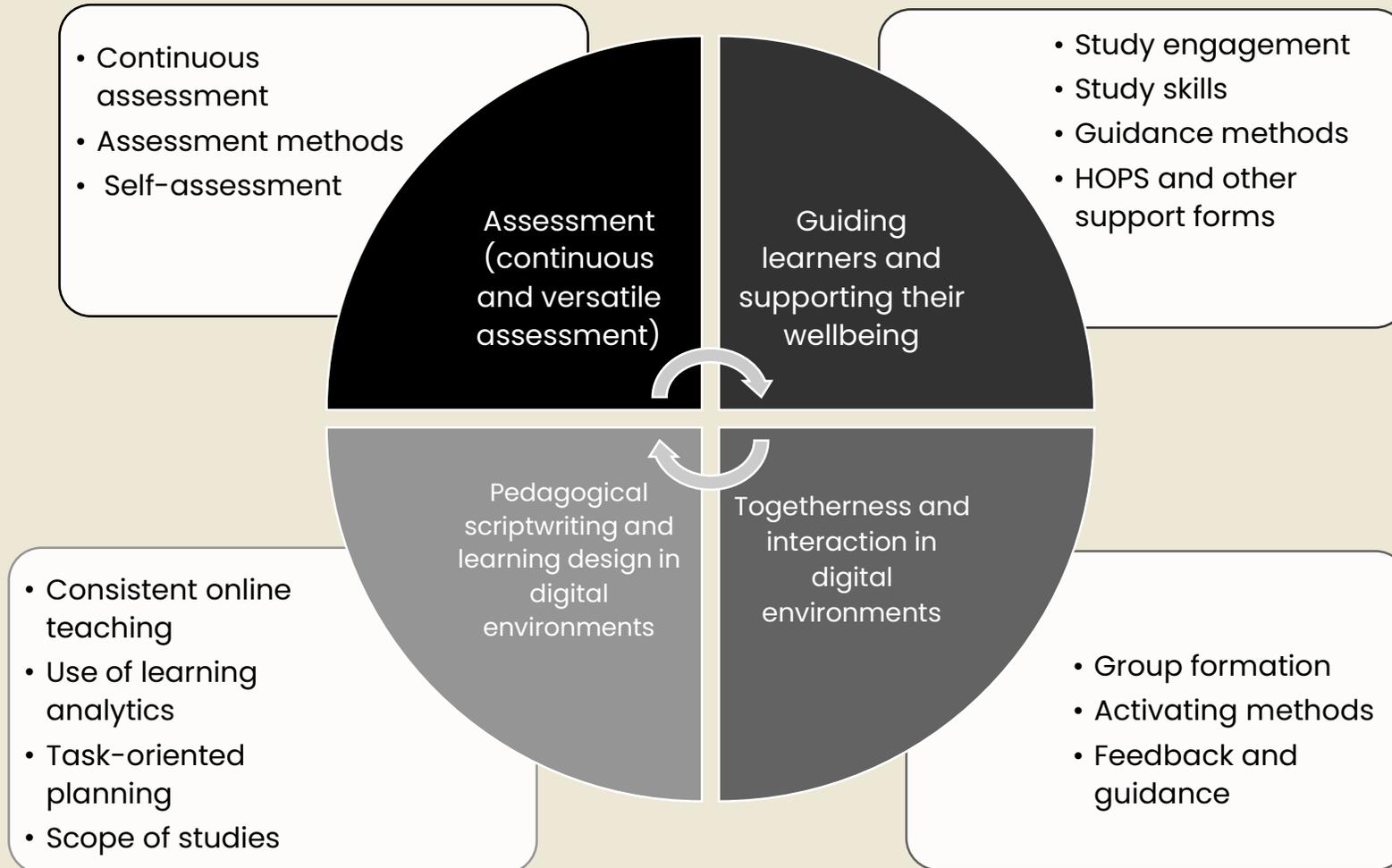
20% through peer mentoring, team work, performance reviews, job shadowing or feedback

70% through taking on different new tasks, participating in projects and development groups and tackling new challenges

Four training programmes to be planned through co-design and engagement of other higher education institutions

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Co-design underpinned by service design principles

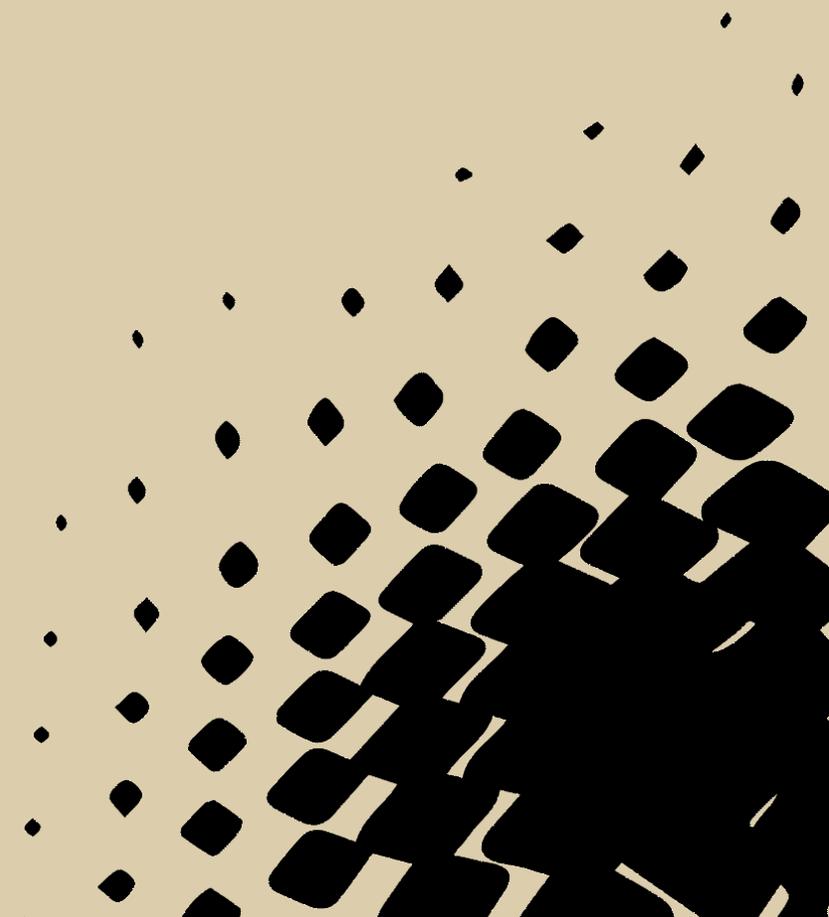


- Planning for the four themes will be launched in 2022, themes to be implemented in 2023.
- Training related to each theme will be planned by at minimum two HEIs.
- Multilingualism will be addressed in materials, recordings and interaction.
- Competence demonstrations of applied competencies will be used in assessment, and digital learning badges will be awarded.

Principles for planning pilot training

- Two to three higher education institutions will plan, produce and implement the training as they see appropriate.
- All pilots will produce self-study material packages/courses and an in-depth interactive section, in which guidance is delivered centrally or by higher education institutions.
- The pilots will also serve as an example of high-quality online implementations, modulation and micro learning.
- The competence development implementations will be in keeping with guidelines for open learning and accessibility principles.
- Multilingualism will be addressed in materials, recordings and interaction. Crowdsourcing will be used in translating the materials and emerging technology in the recordings. Interactive training will be implemented in different languages and using English-language materials.
- Planning will be based on co-design, and brainstorming will be supported through learning design, training and engagement of higher education institutions.
- All four pilots will participate in joint planning and peer evaluation while creating a uniform approach and operating methods for national competence development in the initial phase.
- The use of service design processes and a learner centred approach will serve as a backdrop for engaging higher education institutions.
- The co-development will be coordinated by the Digivisio 2030 project.

National survey on e-learning



National survey on e-learning

- The following questions were posed to higher education institutions in a Howspace survey:
- We would now like to ask higher education institutions about their opinions on whether a national survey should be carried out and how it should be organised and funded.
 - Should a national survey on e-learning competencies be introduced for teaching and support staff?
 - Yes, no (justifications)
 - Should a national survey mapping students' e-learning experiences be conducted?
 - Yes, no (justifications)
 - How should the potential surveys be organised and funded?
 - How often should the potential surveys be repeated?

National surveys on e-learning for students and teachers as follow-up on the ECAR survey

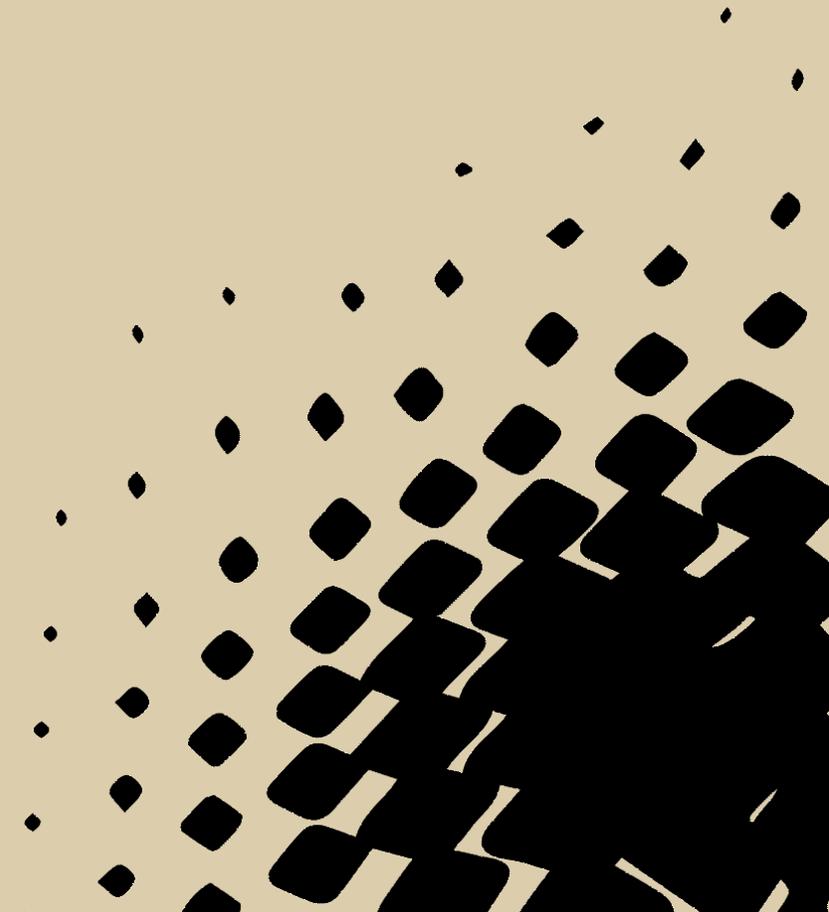
The aim is to conduct a national survey addressed to both students and to teaching and support staff mapping e-learning competence and digital learning experiences

- Twenty yes responses (as the questionnaire was sent out around Christmas and New Year, not all higher education institutions responded).
- The survey should be carried out at most every two years or, for example, every three years.

Justifications

- It was proposed that the ECAR survey be replaced by a combined national survey on information management and e-learning.
- KOOTuki delegated the preparation of the surveys addressed to teachers and students to the Digipeda network. The survey for students has been completed, while the survey for teachers is being planned.
- A joint national survey would give an overall idea of digitalisation and digital competence in the teaching delivered by Finnish higher education institutions.
- The survey will support national development work. It will also provide higher education institutions with up-to-date information that will support their development efforts.
- The survey will continuously and regularly produce information on competence and competence needs related to e-learning, supporting the Digivision 2030 project.
- Comparative information will be obtained by individual HEI and field, as well as at the national level.
- The surveys will produce a knowledge base for planning the training, and carrying them out together is resource wise
- The survey could be conducted by CSC, and the costs could initially be covered by the Digivision2030 project. Later the costs would be shared by the higher education institutions. Support from the central government in form of steering would be needed (Ministry of Education and Culture)

Use of digital learning badges



Digital learning badges part

- Competence badges could be used to describe and identify competence obtained through training organised by the Digivisio 2030 project.
 - Existing badges include:
 - Badges used in teachers' basic and continuing education (Oppiminen online, Open merkit)
 - Project badges (incl. eAMK project, DigiCampus project)
 - E-learning badges for staff at universities of applied sciences
- Questions
 - What is your opinion on competence badges?
 - Are they necessary/essential in the provision of national-level training? Why?
 - Which badges could be developed further?

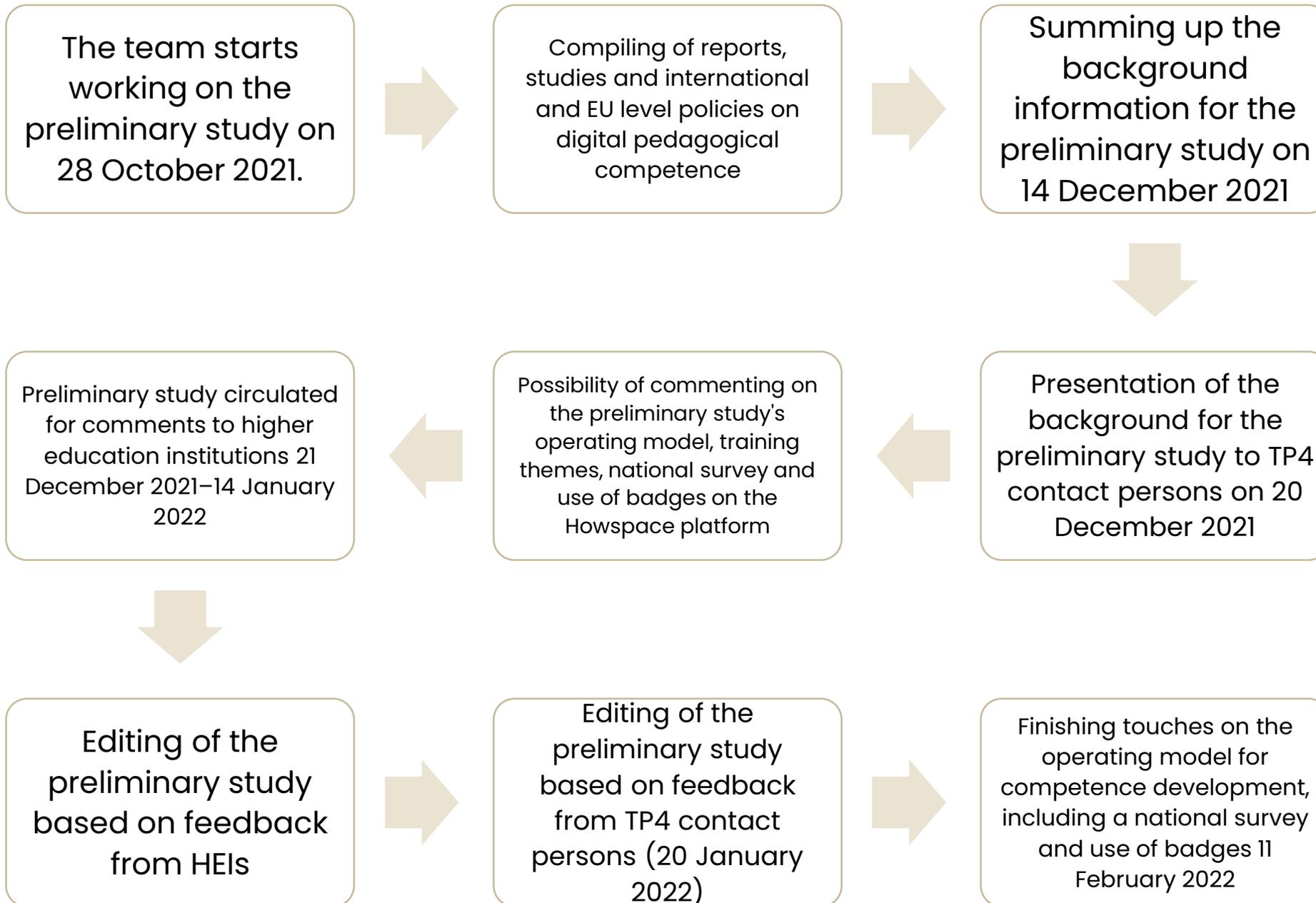


Badges could demonstrate competence in e-learning and motivate competence development

- **A framework of digital learning badges is needed, good existing badges could be used** (e.g. eAMK or Oppiminen Online, DigiCampus project, Open merkit).
- Competence badges could be used to describe and identify competence obtained through training organised by the Digivision2030 project.
- There is a need for badges for applied competence, which could be awarded for a performance or participation. Badges are not needed for everything.
 - **Frame of reference for badges and building of an operating model: request for resources, partial implementers needed (1 university + 1 UAS in autumn 2022/spring 2023)**
- **Task:**
- The concept needs to be defined. 'Digital learning badge' vs 'Certificate of competence
- Which competence badges would support the systematic development of competence in higher education pedagogy and e-learning?
- How do badges serve higher education institutions' operating methods and shared vision of high-quality learning and teaching?
- Building a model for managing the badges and launching the activities.
- Links to badges awarded to students should be identified.

Preliminary study





Howspace survey respondents

- Turku University of Applied Sciences
- Oulu University of Applied Sciences
- Lapland University of Applied Sciences
- Jyväskylä University of Applied Sciences
- Haaga-Helia University of Applied Sciences
- Vaasa University of Applied Sciences
- Centria University of Applied Sciences
- HUMAK University of Applied Sciences
- Satakunta University of Applied Sciences
- Seinäjoki University of Applied Sciences
- Häme University of Applied Sciences
- Åland University of Applied Sciences
- Tampere University of Applied Sciences
- Savonia University of Applied Sciences
- University of Turku
- University of Tampere
- Hanken School of Economics

A photograph of three people lying on their backs on a bright yellow surface. They are all smiling and looking upwards. The person on the left is a man with a goatee, wearing a dark blue sweater. The person in the middle is a woman with dark curly hair, wearing a green top. The person on the right is a man with short brown hair, wearing a white shirt and a dark suit jacket. The background is a solid, bright yellow color.

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Thank you!

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