

# Collaborative learning community

## The webinar programme on ICT IN PEDAGOGY

16.12.2022

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# **School level decisions and practices for using digital technology**

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ICT IN PEDAGOGY**

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# For improving the use of digital technology for learning: focus on the school

The central principles about school development based on research

1. School leadership is the most important element for initiative of changes, improvement and support.
2. Teacher development and teachers' competence is the second essential issue.
3. Teachers to change from individual actors to a collaborative community.
4. Investigating school's working culture, which integrates classroom level and school level.
5. Differences between schools: schools need development strategies which fit in their special status, circumstances and needs.

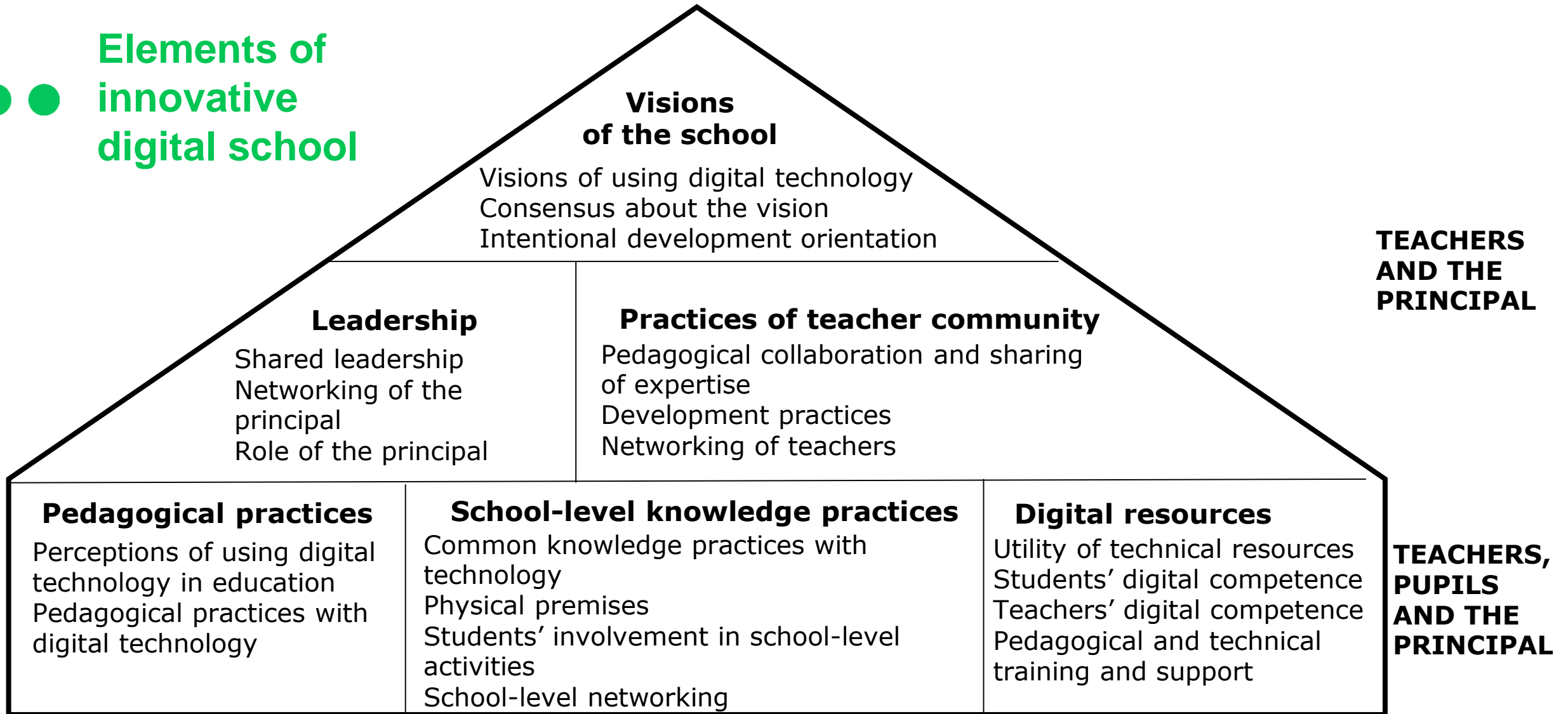
# Innovative digital school: A theory- & research-based model integrates results of four major research areas

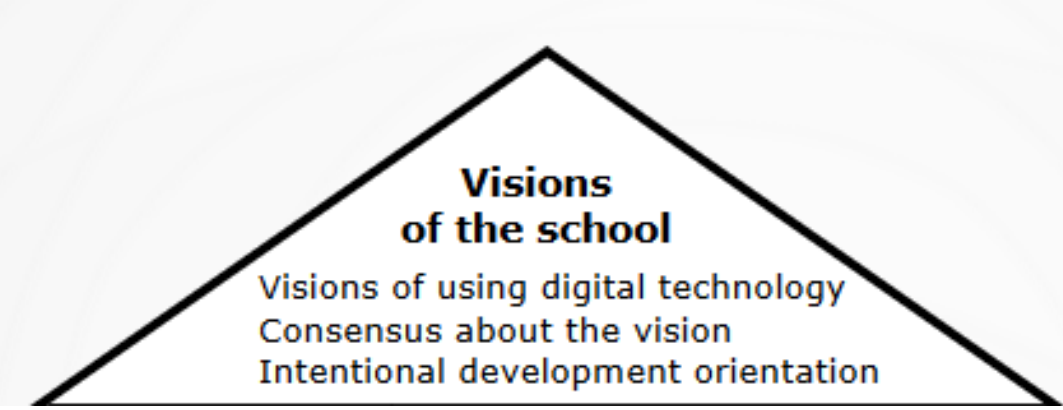

1. Research about school development
2. Research about innovations and their distribution
3. Research about pedagogical practices, especially knowledge creation tradition
4. Studies about the use of digital technologies in schools & during leisure time
5. Studies in various schools with mixed methods: interviews, observations, questionnaires



**A model of innovative digital school**

● ● **Elements of innovative digital school**





## Visions of the school

Visions of using digital technology  
Consensus about the vision  
Intentional development orientation

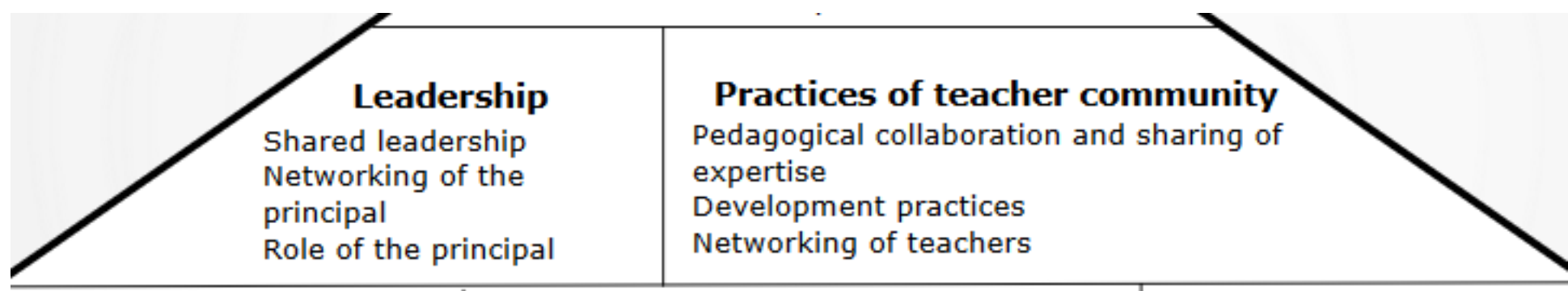
## Visions of the school

**Visions of using digital technology:** *such as teachers' competence in online teaching, online practices with digital technology, technical resources, technical and pedagogical support during online teaching and learning*

**Consensus about the vision:** *collaborative discussions and acceptance, all members of the teaching staff*

**Intentional development orientation:** *e.g., a shared motivation for improving digital competence for online learning*





## Leadership

**Shared leadership:** *e.g., responsible teams, all teachers are members of teams*

**Networking of the principal:** *not only school administration!*

**Role of the principal**

## Practices of teacher community

**Pedagogical collaboration and sharing of expertise:** *based on content and needs, not on friendship*

**Development practices:** *regularly development projects*

**Networking of teachers:** *internal but also external*

# ● ● Examples of shared practices among teachers working online

Templates for timetables (incl. breaks) and schedules

Common support for technical problems, both for teachers and students

Joint instructions and guidelines for students and parents about online learning and online teaching sessions

Common decisions about the digital environment and digital tools to be used with students

Sharing the responsibilities in planning lessons for several classes in the same grade level: e.g., one teacher prepares math lessons, another teacher prepares history lessons.



Pedagogical practices	School-level knowledge practices	Digital resources
Perceptions of using digital technology in education Pedagogical practices with digital technology	Common knowledge practices with technology Physical premises Pupils' involvement in school-level activities School-level networking	Utility of technical resources Pupils' digital competence Teachers' digital competence Pedagogical and technical training and support

## Pedagogical practices

Perceptions of using digital technology in education: *e.g., can online teaching be effective*

Pedagogical practices with digital technology: *how online teaching takes place*

## School-level knowledge practices

Common knowledge practices with technology: *e.g., how the making of references, presentations etc. is taught to all students*

Physical premises: *in online teaching, learning takes place in various places*

Students' involvement in school level activities: *not only objects, active!*

School-level networking: *also schools can learn from each other when sharing best practices.*

<b>Pedagogical practices</b>	<b>School-level knowledge practices</b>	<b>Digital resources</b>
Perceptions of using digital technology in education Pedagogical practices with digital technology	Common knowledge practices with technology Physical premises Pupils' involvement in school-level activities School-level networking	Utility of technical resources Pupils' digital competence Teachers' digital competence Pedagogical and technical training and support

## Digital resources

**Utility of technical resources:** *e.g., which tools are available for students at home*

**Pupils' digital competence:** *e.g., do students know how to use the digital tools*

**Teachers' digital competence:** *e.g., teachers have skills to use digital technology in online learning*

**Pedagogical and technical training and support:** *e.g., there is a possibility to get support and help in online practices.*

# The model used in various school development projects

The model helps to structure key elements and to evaluate their status in a school. Further, it helps to evaluate whether the different elements are in balance for securing a successful development of digital practices. It is relevant that the model is only the first step in the development activities and further steps define what to do and how to proceed.

Please evaluate the changes and needs for improvement in digital technology in relation to different areas of school practices.  
Write as practical issues as possible.

*A template to start the evaluation is simply based on the model elements, which have been explained to participants.*

VISIONS OF THE SCHOOL	Current good practices	Needs for improving the practices	Suggestions and ideas for new practices
Visions of using digital technology			
Consensus about the vision			
Intentional development orientation			

LEADERSHIP	Current good practices	Needs for improving the practices	Suggestions and ideas for new practices
Shared leadership			
Networking of the principal			
Role of the principal			

# ● ● Example: Results from an elementary school about “Suggestions and ideas for new practices” in the evaluation template 1

**Consensus about the vision:** Sharing best practices in a schools’ own workshop day.

**Shared leadership:** Training all teachers to use digital administration applications.

**Role of the principal:** The principal should have a central role in investments and implementation of new practices.

**Pedagogical collaboration:** Workshops. Platforms (in Teams) to share ideas, links, etc. This could be divided by grade and subject.

**Students’ involvement in school-level activities:** Recording homework every day by the students in the website of the class. Own webpages for the student union.



## ● ● Example: Results from an elementary school about “Suggestions and ideas for new practices” in the evaluation template 2

**Utility of technical resources:** Sufficient and functional resources. Using iPads more effectively. A functional network connection. Smoother login.

**Students’ digital competence:** Competence level definitions directly from the city. Definitions must be updated regularly.

**Teachers’ digital competence:** Regular updating of own skills at the workplace.

**Pedagogical and technical training and support:** Workshops about topical issues. Internal training day about all ICT&AV tools in the school, where expertise is shared collaboratively.

# Paths for continuous professional development

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# Teacher's professional learning / teacher's professional development

Teacher's professional learning focuses on teacher's learning in and for a community, in a social context. The second term focuses on an individual's learning, not related to the school community.

Teacher's learning and community development are in interaction.

Effective methods for teacher's learning:

- content focus
- coherent with a teacher's knowledge and beliefs
- job-embedded and practical
- collegial and collaborative
- interactive and active
- intense and sustained
- peer-support

Illomäki, L., Lakkala, M., Toom, A., & Muukkonen, H. (2017). Teacher learning within a multinational project in an upper secondary school. *Education Research International*, 2017, [1614262]. DOI: 10.1155/2017/1614262

# Example: How new technologies are adopted for teaching

Pencil metaphor (Lindy McKeown Orwin)

**Point.** Searches actively, tries out, documents and shares new technologies.

**Sharps.** Notes what the Points have done, adopts good practices and shares to their students.

**Handle.** Uses technology when it is easy and installed.

**Clamp.** Sticks tightly on how teaching is managed previously and does not see any use of technology in classroom.

**Rubber.** Tries to delete in a systematic way the work by the Points for new technologies.

**Holder.** Is present in meetings etc. but ignores the issues and don't take technology into use



# Example: how new pedagogical ideas and practices distributed in an upper secondary school

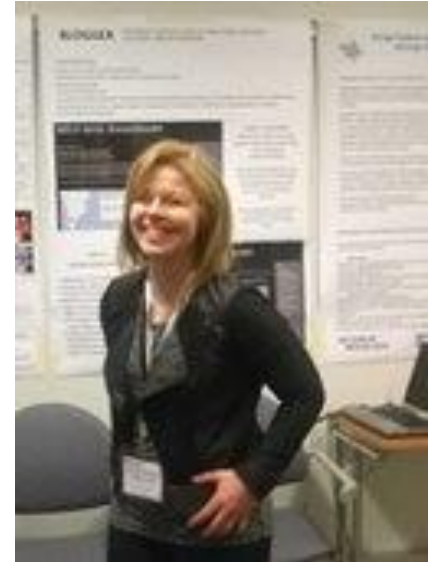


Three **pilot teachers** (chemistry, biology, physics) joint project which was supported by external consulting. These teachers adopted new practices widely in their teaching.

**Active adopters:** 5 teachers who used ideas in several courses; active collaboration with colleagues, sharing of ideas. "Out from the school".

**Adopters:** 5 teachers. Ideas for their own courses but not much collaboration with others.

Other teachers



E.g., an online session with an old lady about the joy to read books.





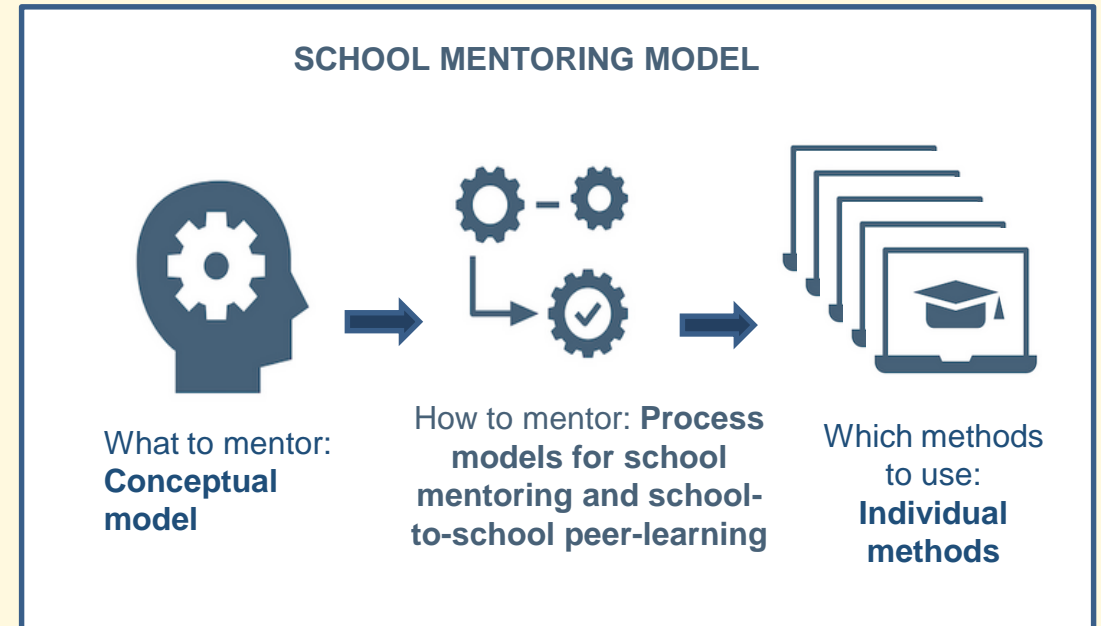
# iHub4Schools: The School Mentoring Model



The aim of the model is to foster a sustainable adoption of digital innovation at school level.

The focus is on teachers' understanding of digital technology and practices to implement technology in a pedagogically meaningful way.

The model promotes teachers' professional learning with peers and school management to create the culture and practices for evidence-informed implementation of digital innovation.



The model is created in the iHub4Schools project (2021-2023): Accelerating Digital innovations in Schools through Regional Innovation Hubs and a Whole School Mentoring Model.

More information of the model: <https://www.ihub4schools.eu/mentoring-model/>



# Process model of school mentoring for digital innovation



## The process of the development phases





# Individual methods: practical actions that can be used in schools to promote digital development



**Method descriptions available in English in iHub4Schools website** (<https://www.ihub4schools.eu/mentoring-model/>)

- Digipeda workshop
- Future School - evidence-informed school improvement
- Teacher Innovation Laboratory - adoption of digital innovation through go-design
- Teacher Inquiry into Student Learning method
- Collegial tutoring
- Co-creation program for educational technology innovation
- Digital Accelerator - digital training and educational technology mentoring for school teams





# Examples of Individual methods: Digipeda workshop



3 hour workshop (f2f or online) for teachers to reflect on their own pedagogical practices with digital technology and develop together suggestions for common training and development needs.

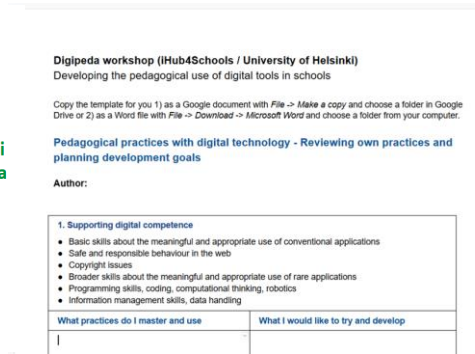
*(Suitable for Phase 4: Mapping development needs and Phase 7: Reflection)*



1. Small group discussion about good current practices



2. Introduction of the possibilities to use digital technology in teaching



3. Individual reflection of one's own digital practices with a template



4. Sharing individual reflections and listing common needs in small groups



Joint plans for further development actions



# Examples of Individual methods: Collegial tutoring



Organizing a collegial tutoring process between two teachers who are more- and less-experienced in digital pedagogies. *(Suitable for Phase 6: Development actions)*



## A. Orientation

Less-experienced teacher examines tutor's pedagogical practices with digital technology



## B. 1st meeting

Tutor helps the less-experienced teacher to start planning the teaching experiment



## C. 2nd meeting

Tutor provides help for improving the plan and preparing for implementation



## D. Supported implementation

Less-experienced teacher runs the lessons in classroom with the help of Tutor



## E. Final discussion

Evaluating together the success of the teaching experiment and lessons learned



Thank you for participation!

Thank you also to translators, interpreters and technical staff!

If you have any comments, questions etc. related to these topics, don't hesitate to contact us:

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We wish you all the best for your work with Ukrainian teachers and students!

