# Individual method

## Collaborative design and reflection of pedagogical practices

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**March 2023**

## 1. Aims

The aim of the method is to guide teachers to work together to create innovative pedagogical practices around learning technologies and to assess the impact of their application. Method enhances teachers' collaboration and inquiry skills to create pedagogically meaningful learning scenarios. The method is suitable to be used in the phase *6. Collaborative development actions* of the school mentoring process.

## 2. Description

This is a short-term method of supporting teachers to create student-centred and pedagogically meaningful learning designs around the learning technologies. Often technologies are used for one-sided pedagogical practices and the potential to active students' learning and engagement, is underused.

In this training, teachers learn the basics of students' learning, didactical approaches (depending on the subject participants are teaching) and the possibilities of educational technologies. Those principles are used as guidelines when teachers in groups (3-4 teachers scaffolded by the trainer and/or mentor) create new designs for the same topic taught in the same class (e.g. algebra in 6th grade). Learning designs are documented and digital learning resources created during the session. After the training, teachers validate their designs, monitor students' results, use learning analytics applications to collect students' self-reports about the engagement and fill-in a reflection form to reflect how the novel approach was applied and how it supports students' engagement. During the second session, experiences are reflected in collaboration with the mentor and materials are improved and new materials created.

This project has received funding from the European Union's Horizon 2020 research and innovation programme
Grant Agreement: 101004676

## 3. Context

This intervention is designed for individual teachers from one subject or domain (e.g. natural sciences, language), because teachers are collaboratively creating materials that should be relevant for all of them. Teachers should be teaching in the same level of school (e.g. primary school), because collaboratively created designs will be piloted in the same class.

Teachers need a basic level of digital competence, because during the training, teachers are using authoring systems to create digital learning materials and using learning technologies to monitor students' progress.

## 4. Requirements for implementing and resources needed

Participants need their own computers during the co-creation sessions. Co-creation sessions will take place face-to-face (when possible), a room needed with open space enabling collaboration, data projector and whiteboards.

Funding of trainers and mentors needed (unless it is part of the research setting for the researchers and teacher trainers) who use such training as a research context.

## 5. Structure

The method includes the following acitivity phases:

A. Introduction workshop

- Where are the gaps in your lesson at the moment, what would you like to change in students' learning (this helps to shape the direction of the training)
- Basics of students' learning and how to teach the subject (e.g. mathematics) to engage the students
- Role of digital technology to enhance learning
- Role of the teacher inquiry in the process of introducing new technologies in the classroom (action research approach)

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B. Co-creation workshop

- Based on the guidelines and design principles, the participants co-create learning materials and learning designs with web applications
- Action research preparations, individual plans created

C. Individual piloting in teacher practices

- Teachers individually pilot out the scenarios in their lessons
- Teachers conduct their action research - collect data, monitor other available data sources depending on the mentor/trainer suggestions
- Teachers write a reflection report

D. Co-creation and collaborative reflection workshop

- Action research reflections in collaboration, joint lessons learned documented
- Based on the lessons learned and design principles, the participants improve learning materials and learning designs.

## 6. Actions after implementing the method

For example, the following actions can be conducted afterwards:

- Validated pedagogical practices made available through a digital repository (e.g. Graasp); for example, pedagogical scenarios supporting meaningful learning in 6th grade mathematics.
- Collection of learning technologies and data collection tools suitable for teacher action research.
- Collaborative reflections and learning designs as a research input for the researchers to understand the changes in teachers' practice.

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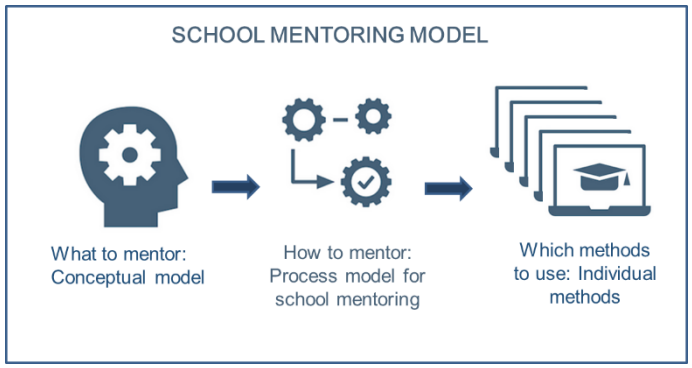
# This material is part of the School mentoring model

The aim of the model is to foster the 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).

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