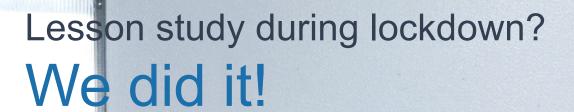


Student teacher learning in English as a foreign language, mathematics and physical education

## ONLINE LESSON STUDY





Lesson study in a virtual environment made use of various digital technologies and strategies to support student teacher learning in English as a foreign language, mathematics, and physical education.













## Ramping Up Our Tech Skills

Success in online LS depended on three main aspects: the access to digital resources (hard- and software), the ability to make use of digital learning opportunities, and the efficiency of the collaboration between parents, pupils and teachers, student teachers, lecturers and mentors — or all of these, in the case of teacher education.





# Appropriate equipment to be connected and to plan, learn, and reflect collaboratively

The three studies made use of Moodle, Mahara, E-Mail, Google Drive, OneDrive, WhatsApp, MS Teams, Zoom, and mobile phone cameras.







## Learning diaries in the context of the ICM

Inverted classrooms as well as learner diaries have been researched intensively, especially in the field of language education. During lockdown, a LS about learning diaries shifted its focus from content to student participation and their voice.

Allwright, 1983; Bailey & Ochsner, 1983; Bourke & Loveridge, 2016; Sota, 2016; Patterson, 2018; Wallin et al., 2018; Warwick et al., 2019







zoom





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zoom





students wrote more text (80%) – quantitative aspect students asked more questions (98%) – qualitative aspect students wrote more about their worries not to fulfil tasks completely or correctly

students started assignments earlier

## Learning Diaries

students asked for feedback regularly → quality of assignments improved

Blocked Zoom meetings, ICs and guided self-study were documented in learning diaries, which also served as a means of communication and feedback between students and tutors. During lockdown, learning diaries became a method of active participation in a time of social distancing.

Bailey & Ochsner, 1983; Bailey, 1991; Bailey, 1990; Bergmann & Sams, 2014; Patterson, 2018; Sota, 2016; Vinjamuri et al., 2017; Wallin et al., 2018

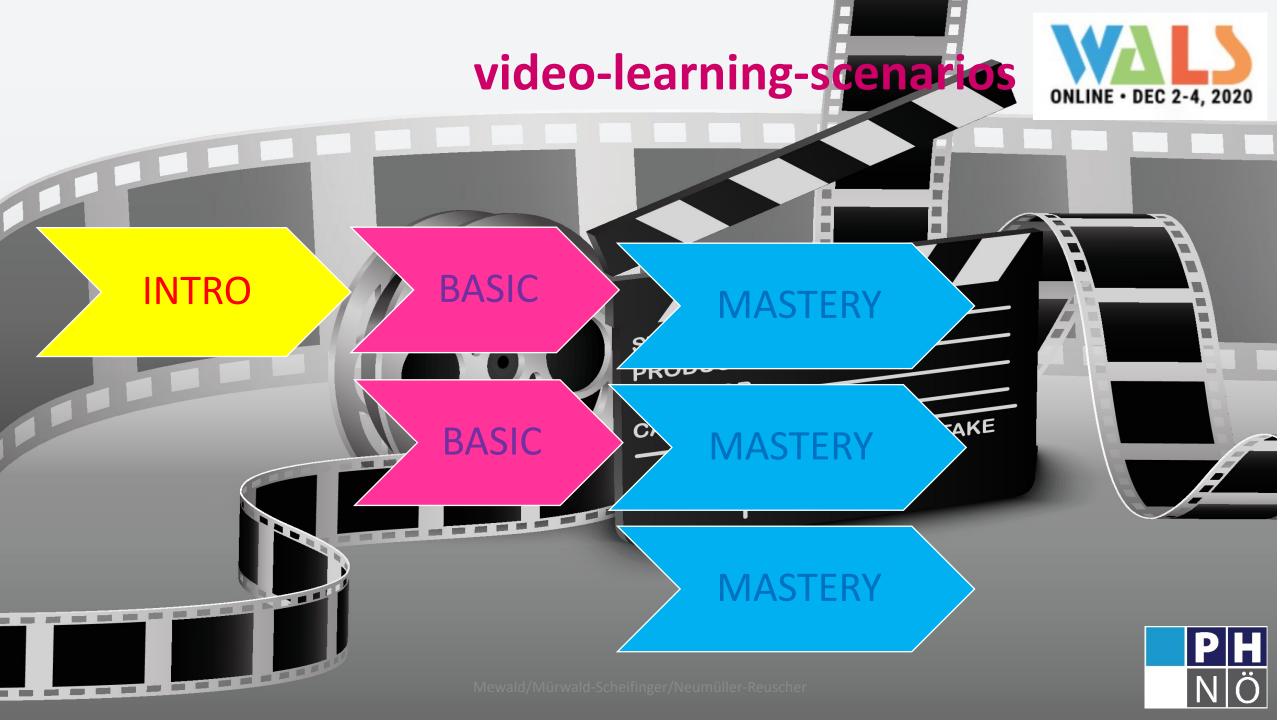




On the on-line development of video-learning-scenarios

Implementation of Lesson Study with student teachers in mathematic didactics to offer video-learning-scenarios to support distance learning







#### storyboard = lesson plan mathematic secondary school for video-learning-scenario

#### theme of the video-learning-scenario:

the objective is particularly important for clarifying what is addressed in this scenario. According to the video Mastery, the pupil should have achieved the stated goals.



#### previous knowledge and experience:

What previous knowledge is required, what is necessary? What previous experience should pupils have had?

#### professional competencies Pupils can... the learning goals to be achieved are formulated

knowledge goals:

call the Pythagorean theorem

understanding goals:

explain the connection between the right-angled triangle and the Pythagorean theorem in his own words skills:

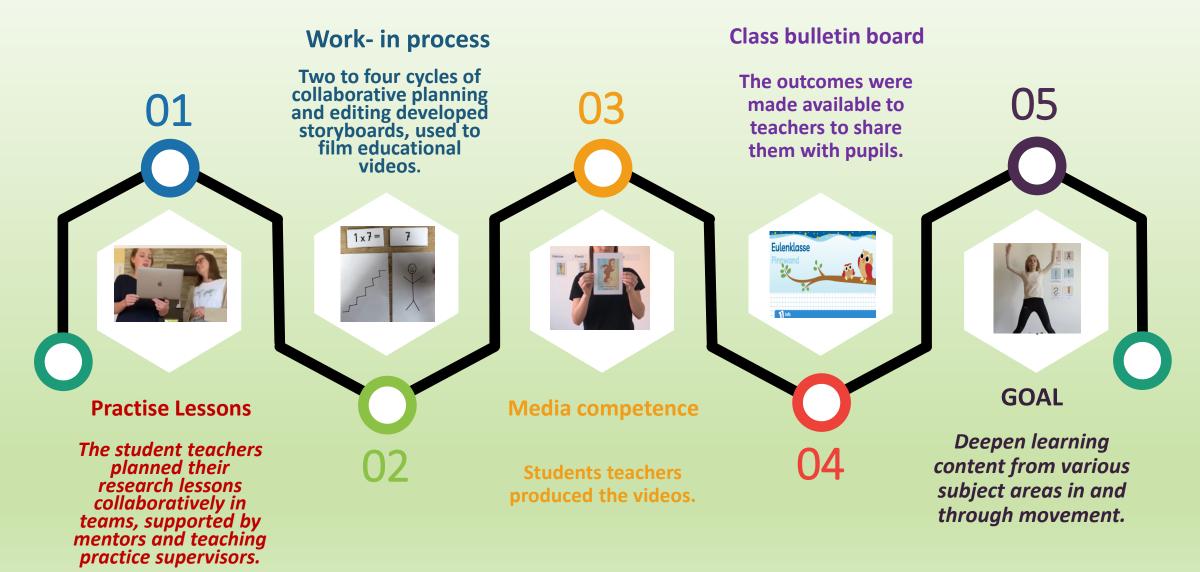
create a problem that is solved with the Pythagorean theorem

#### storyboard

time	goals to be achieved	planned learning steps with formulated text	materials
	The goals or competences to be	The planned path to the defined goals is explained in a comprehensible way	The necessary material or
	achieved are defined.	with appropriate text and sketches or the use of materials.	software and skills are
			described.
		Mürwald-Scheifinger	NÖ







### Conclusions



Digital media provide an appropriate space to carry out lesson study — it was observed, that online lesson study worked even better than analog formats. However, organising online lesson study requires a lot of discipline to reach the establish the required structure.

Lesson study online is not different from analog models of lesson study in terms of planning, reflection, revision, or variation. Research lessons are different if the teaching and learning are also carried out in distance study and if teachers and learners do not work face-to-face. Distance learning is an additional variation to the situation.

Online lesson study provides more opportunities for students to renounce their voice and to participate actively in lesson study. It seems, writing about learning experiences — and especially about challenges — Is easer in writing (e.g. learning diaries) than in face-to-face meetings.





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