



# Mathematics & Mathematics Education Seminar



28 APRIL 2025 (MONDAY)  
2:30 pm to 4:30 pm



MATH JOURNAL ROOM  
NIE7-03-16



**Speaker 1:**  
**Assoc Prof Camilla Hellsten Østergaard**

## Collaborative Lesson Study in Initial Teacher Education

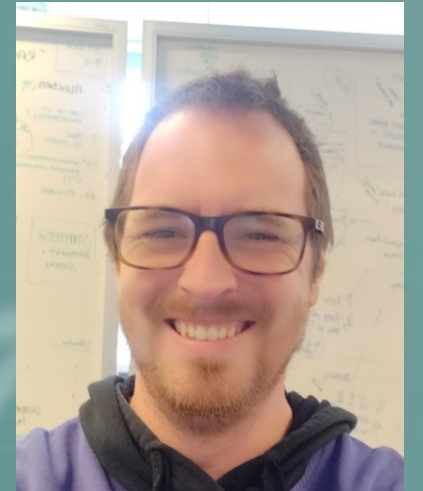
In this seminar, I present a new inquiry-based approach to initial teacher education: Collaborative Lesson Study. The seminar explores both the micro- and macro-level benefits of this approach, with a particular emphasis on how it fosters a dynamic and collaborative professional network that supports meaningful teacher engagement. Drawing on the Anthropological Theory of the Didactic (ATD), the seminar addresses two key research questions:

1. How can Collaborative Lesson Study be conceptualized as a paradidactic system, and to which didactic paradigm does it belong?
2. What mathematical and didactical praxeologies emerge in the context of Collaborative Lesson Study?

Collaborative Lesson Study aligns with what can be described as the *paradigm of questioning the world*—an orientation in which pre-service teachers and teacher educators work together to explore how mathematics is taught and how students learn. This approach offers important insights into how the divide between coursework, theoretical perspectives, and actual classroom practice can be bridged. At the same time, it exposes some persistent challenges, particularly the need to more actively involve cooperating teachers and to better integrate theoretical instruction with the practical realities of school-based teaching. These challenges point to the need for new and more integrated approaches to teacher education—approaches that support stronger partnerships between universities and (internship)schools and cultivate a shared inquiry into teaching and learning.

### Biography:

*Camilla Hellsten Østergaard is a Senior Associate Professor and Head of Mathematics Education Research at University College Copenhagen. With over 15 years of experience in developing teacher education, she has a strong interest in lesson study as a catalyst for professional development and teacher empowerment. Her research focuses on inquiry-based approaches to mathematics teaching and learning, including collaborative lesson study, the use of video in teacher supervision, and the development of statistical and computational thinking. She is actively engaged in both national and international research projects that aim to bridge the gap between theory and practice in mathematics teacher education and to address organizational challenges in initial teacher education.*



**Speaker 2:**  
**Assoc Prof Peter Stege Havsager**

## Future Classroom Teacher

The Future Classroom Teacher profile at University College Copenhagen is for pre-service teacher who want to work in a laboratory-based and experimental manner with learning spaces, games and technology in relations to their subject. The goal is to explore how new technologies can redefine pedagogical praxis and develop new teaching and learning environments. Within the experimental working space, we integrate technology in our subject to both teach mathematics or language but also educate students to become technological competent citizens focusing on their ability to think critically, be creative, communicate and collaborate.

On the Future Classroom Teacher profile, pre-service teachers learn to reflect on the interplay between material and the technology and how to use technology to make the abstract more tangible. Furthermore, they learn about different work processes and what they lead to and the ability to imagine an end goal and the path from idea to realization. Last of all, they learn to believe in their own ability to generate what they want.

### Biography:

*Peter Stege Havsager holds a Master's degree in Mathematics Education and has teaching experience in both primary and lower secondary education. He is associated professor in mathematics education at the teacher education programme at University College Copenhagen, where he specializes in the integration of technology, particularly within the technology-oriented profile Future Classroom Teacher. Peter has facilitated several workshops for in-service teachers and colleagues on integrating technological understanding into mathematics education. His expertise lies in the use of digital technologies in both instructional and assessment contexts, a topic on which he has also presented at the Mathematics Education Day at the Danish School of Education (DPU).*