

Stimulating teachers' reflections through Lesson Study video-based approach

Improving teachers' practice is the strategy believed to have the best potential to increase students' benefit from education (European Commission, 2018). To improve practice, teachers need to collaborate with colleagues. However, the actual potential in teacher collaboration is debated, and collaboration in itself does not automatically lead to learning and improvement of practice (Horn & Little, 2010). In her meta-analysis of research on professional development, Ann Webster-Wright (2009) criticizes how the concept of professional development is defined in research and practice, and argues that instead of teachers' *development*, we must focus on their *learning*. She argues that many development processes are decontextualized, that in the case of teachers they take place in a context outside the school and the classroom, creating challenges when teachers try to transfer new knowledge to their daily practice. Instead, she claims that learning must take place in authentic environments, and within a community that supports the learning processes.

The current paper focusses on the use of video to support teachers' professional learning in an authentic work environment. The context is a process where teachers and researchers cooperate to revise an existing content module in Mathematics used in a Newton room, a learning arena with state-of-the-art learning resources shared by schools in a geographical area. Three Newton-teachers with specific training to teach the module took part, together with two researchers. A Lesson Study approach (Munthe, Helgevold og Bjuland, 2015) was employed; the teachers planned the module together, one of the teachers taught the module while researchers videoed the activity, with a particular focus on students' group work with problem-based tasks, the area the teachers wanted to improve. Teachers and researchers then watched video excerpts from group work in the Newton-room, and teachers were stimulated to reflect on and analyse what happened during students' group work, and how tasks might be adapted to further stimulate students' learning. In line with Lesson Study approach, this process was repeated, so that all three teachers taught the module, followed by reflection to adapt and improve the module. Data used in the current paper is teachers' audio-recorded talk while watching the video, reflecting on what students are doing, and discussing changes to the module. Findings show that this approach resulted in in-depth reflection about central elements such as use of language and concepts, group dynamics, cooperation skills, design of tasks and learning resources, supervision etc., resulting in considerable revision of the module as well as ample opportunities for teachers' authentic professional learning.

References

European Commission (2018). European ideas for better learning: The governance of school education systems.

Horn, I. S., & Little, J. W. (2010). Attending to Problems of Practice: Routines and Resources for Professional Learning in Teachers' Workplace Interactions. *American Educational Research Journal*, 47(1), 181-217.

Munthe, E., Helgevold, N. & Bjuland (2015). *Lesson Study i utdanning og praksis*. Cappelen Damm akademisk

Webster-Wright, A. (2009). Reframing professional development through understanding authentic professional learning. *Review of educational research*, 79(2), 702-739.