Collaborative work on an online platform in video-mediated homework support

# Details

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## Topics

## Sample

A tutor and one upper-secondary student working together on mathematical assignments in Sweden.

## Implications For Educators About

* STEM Education
* Professional development
* Other
* School innovation

# Abstract

This study concerns the interactional work involved in the accomplishment of video-mediated homework support and is based on a single case analysis of an instructional encounter between a tutor and an upper-secondary student working together on mathematical assignments. In addition to communicating through video, the participants use an online digital platform that constitutes a shared workspace and interface between the participants, who are situated in geographically disparate locations. A crucial feature of the setting is the unequal distribution of epistemically rich artefacts, such as the maths book, to which the tutee has sole access. Drawing on ethnomethodology and multimodal interaction analysis, the analyses show how the interaction is shaped by and contingent upon the affordances of the online platform and the particular circumstances of the video-mediated setting. The findings reveal how the participants work together to establish shared points of reference from which they embark on collaborative problem-solving trajectories while establishing the problem to be worked upon and its interpretation, as well as negotiating proper presentations of solutions. Additionally, the way in which the participants overcome the interactional and epistemic challenges implicated by the unequal access to crucial epistemic resources is shown.

# Outcome

"[T]he performative significance of mutual gaze and bodily gestures for upholding intersubjectivity becomes subordinate to the participants’ verbal contributions in this setting, too. In fact, although part of the screen is allocated to a video channel, the participants’ visual orientation, except when they are talking about off-task topics during the initial and concluding parts of the session (not targeted in this study), is rarely focused on each other, but predominantly towards either the virtual worksheet – or in the tutee’s case, the maths book or notepad.... Another interesting aspect of the analysed encounters is that they reveal a rather atypical teacher-student relation. Even though a more traditional epistemic asymmetry exists, in terms of the orientation towards the tutor as having not only epistemic access to a mathematical skill set but also epistemic primacy, the unequal access to materials and information concerning the assignments and mathematical problems also transfers the primary responsibility for directing the activity onto the tutee.... Overall, the studied setting, in terms of being a “fractured ecology”...in the sense of there being an unequal distribution of activity-relevant artefacts, still emerges as a smooth-functioning apparatus, free of upgraded gestural practices." (Authors, in "Discussion")