How to bring a technical artifact into use: A micro-developmental perspective

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Abstract In order to understand how technical artifacts are attuned to, interacted with, and shaped in various and varied classrooms, it is necessary to construct detailed accounts of the use of particular artifacts in particular classrooms. This paper presents a descriptive account of how a shared workspace was brought into use by a student pair in a face-to-face planning task. A micro-developmental perspective was adopted to describe how the pair established a purposeful connection with this unfamiliar artifact over a relatively short time frame. This appropriation was examined against the background of their regular planning practice. We describe how situational resources present in the classroom—norms, practices and artifacts—frame possible action, and how these possibilities are enacted by the pair. Analysis shows that the association of norms and practices with the technical artifact lead to a contradiction that surfaced as resistance experienced from the artifact. This resistance played an important part in the appropriation process of the pair. It signaled tension in the activity, triggered reflection on the interaction with the artifact, and had a coordinative function. The absence of resistance was equally important. It allowed the pair to transpose or depart from regular procedure without reflection.

Keywords Appropriation · Enactment · Resistance · Plan construction · Shared workspace

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