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Digital resources inviting changes in mid-adopting teachers' practices and orchestrations.

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Summary: Digital resources offer opportunities to improve mathematics teaching and learning, but meanwhile may question teachers' practices. This process of changing teaching practices is challenging for teachers who are not familiar with digital resources. The issue, therefore, is what teaching practices such so-called 'mid-adopting' mathematics teachers develop in their teaching with digital resources, and what skills and knowledge they need for this. To address this question, a theoretical framework including notions of instrumental orchestration and the TPACK model for teachers' technological pedagogical content knowledge underpins the setting-up of a project with twelve mathematics teachers, novice in the field of integrating technology in teaching. Technology-rich teaching resources are provided, as well as support through face-to-face group meetings and virtual communication. Data include lesson observations and questionnaires. The results include a taxonomy of orchestrations, an inventory of skills and knowledge needed, and an overview of the relationships between them. During the project, teachers do change their orchestrations and acquire skills. On a theoretical level, the articulation of the instrumental orchestration model and the TPACK model seems promising.

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