

**ZMATH 2016d.00672**

**Stahl, Gerry**

**Constructing dynamic triangles together. The development of mathematical group cognition.**

Learning in Doing: Social, Cognitive and Computational Perspectives. Cambridge: Cambridge University Press (ISBN 978-1-107-12791-3/hbk; 978-1-316-42275-5/ebook). xix, 270 p. (2016).

Publisher's description: Rational thinking as exemplified in mathematical cognition is immensely important in the modern world. This book documents how a group of three eighth-grade girls developed specific group practices typical of such thinking in an online educational experience. A longitudinal case study tracks the team through eight hour-long sessions, following the students' meaning-making processes through their mutual chat responses preserved in computer logs coordinated with their geometric actions. The examination of data focuses on key areas of the team's development: its effective team collaboration, its productive mathematical discourse, its enacted use of dynamic-geometry tools, and its ability to identify and construct dynamic-geometry dependencies. This detailed study of group cognition serves as a paradigmatic example of computer-supported collaborative learning, incorporating a unique model of human-computer interaction analysis applied to the use of innovative educational technology. A valuable resource for researchers, instructors, and students alike, it offers concrete suggestions for improving educational practice.

*Classification:* G43 U73 C73 C63

doi:10.1017/CBO9781316422755