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**Teaching and learning algebra. A didactical situations perspective (to appear).**

Mathematics Education Library 112. Berlin: Springer (ISBN 978-3-319-03010-4/hbk; 978-3-319-03011-1/ebook). 165 p. (2017).

Publisher's description: The book is based on a longitudinal study of beginning teachers' struggles with algebra, with strong foundation in the theory of didactical situations (Brousseau, 1997). The focus is on factors that constrain students' engagement with algebraic generality in shape patterns. Participants in the study are six student teachers and two teacher educators of mathematics. The empirical material consists of videotaped classroom observations and the mathematical tasks with which the students engaged. Three analytic categories emerged from an open coding process which show that the students' algebraic generalization is constrained by: 1) a limited feedback potential in situations where the students are supposed to solve the mathematical tasks without teacher intervention; 2) obstacles the students face when they shall transform into algebraic notation formulae they have expressed informally in natural language; and, 3) challenges with justification of formulae and mathematical statements that the students have proposed. This book provides many practical and concrete examples to guide mathematics education researchers, mathematics teacher educators, and mathematics educators in teaching algebra in a variety of contexts and environments.

*Classification:* H10