

Design research on local instruction theories in mathematics education

Over the last decades, the view that teachers have to transmit knowledge, has been replaced with the view that students have to construct knowledge while being supported by teachers and textbooks. It is, however, not immediately clear how to guide and support students in such processes in the case of mathematics education. In response to this problem, design research emerged as a method for developing theories that can function as frameworks of reference for teachers. With this type of design research the question of how to guide and support students in constructing mathematical knowledge and insights is answered on a local level, that of individual course on specific topics. This specific his type of design research will be elaborated on the basis of a concrete example.