

ELICITING MATHEMATICAL KNOWLEDGE IN PRE-SERVICE PRIMARY SCHOOL TEACHERS: A CONCEPT CARTOON ON DIVISIBILITY

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Vignettes promote pre-service teachers' reflection and discussion of authentic classroom situations (Buchbinder & Kuntze, 2018; Fernández et al., 2018). Among vignettes, Concept Cartoons can be designed to elicit mathematical knowledge in pre-service primary school teachers (Samková, 2020). The aim of this study is to analyse what kind of knowledge pre-service teachers reveal when they participated in a Concept Cartoon on divisibility as an introductory task within a mathematics content course. Participants were 51 pre-service primary school teachers (PPTs). The Concept Cartoon on divisibility consists of a group of four student teachers, a divisibility activity, and four bubbles with different correct and incorrect statements. PPTs had to answer three questions (1) What thoughts could be behind the student teachers' thinking? (2) How could you help the other student teachers to correct their answers or to improve their argumentation? (3) Write your solution into the empty speech bubble. We performed an inductive analysis generating categories. The categories showed PPT's knowledge/lack of it regarding the key concepts implied in the activity, the type of arguments they provide to describe the thoughts behind the student teachers' thinking and different alternative ideas they proposed to improve their argumentation. Our results point out the potential of vignettes in teacher education programs.

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