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**Prospective primary teachers' experiences as learners, designers and users of open mathematical tasks.**

Vakalis, Ignatios et al., 2nd international conference on the teaching of mathematics (at the undergraduate level). Wiley, New York, NY. 361 (2002).

This paper explores prospective primary teachers' views of open tasks. The study has been realized in the framework of developing student teachers' awareness of mathematics teaching and learning through a number of activities that aimed to relate theoretical perspectives to the mathematics teaching practice. Students experienced mathematics teaching by being exposed to research in mathematics education, and by being involved with lesson planning, the actual implementation in the classroom and discussion and reflection of their experiences. Data was collected from students' portfolios, and those parts that refer to open tasks have been analyzed. In particular, students' ways of analyzing two different kinds of open problems, their approaches in designing and their experience from using open tasks in the classroom have been explored and aspects of their views have been identified. Our preliminary analysis shows that students talk about open problems in terms of their mathematical and practical relevance, the information provided, the number of possible solutions, and their potentiality for extension. The students seem to link the importance of open problems to the mathematics learning and teaching mainly to a better understanding of concepts and or their use and application and to the process of problem solving. The tasks developed by the students cannot all be characterized as open and they can be broadly classified in terms of their wording and structure, context and the type of solutions. These dimensions concerning in the analysis of students' reflections on using those tasks in the classroom. Furthermore, the role of open tasks on pupils' mathematical development seemed to be central in students' evaluation of the classroom experience. Overall, the study contributes to our understanding of the development of students' awareness concerning open tasks as developed through their involvement in different kinds of experiences.

*Classification:* D59