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*Focusing on Justification in the Context of Computation: A First Course for Prospective Teachers.*

In this session we describe the results of a several year project to develop and research a first course for prospective elementary teachers. The course focuses on mathematical reasoning and justification in the context of computation. In particular, we will explore the ways in which we have adapted tasks from an elementary school curriculum to promote reasoning about number. These tasks are of particular interest in that they focus on whole number computation, which most adults consider unproblematic. It has been suggested that whole number computation (which plays a prominent role in the elementary mathematics curriculum) be used as a key context for problem solving (Hiebert et al., 1996), and for developing an understanding of our place-value system, as well as the meanings and properties of the four basic arithmetic operations (National Research Council, 2001). In this session we will discuss the challenges and opportunities that have arisen as we work to shape prospective teachers' justifications for computation, along with the issues of developing support materials for those teaching these courses. (Received September 11, 2007)