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**Strategies of number sense in pre-service secondary mathematics teachers.**

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Summary: This paper presents some results of an investigation on the number sense of a group of pre-service secondary teachers from Spain. The objective of this research was to analyze students' use of strategies associated to number sense and compare them with those obtained in a previous study with pre-service primary teachers in Taiwan [*D.-C. Yang et al.*, Int. J. Sci. Math. Educ. 7, No. 2, 383–403 (2009; ME 2009f.00438)]. Pre-service secondary teachers showed lower success than pre-service primary teachers in a number sense test. Nevertheless, these last based their reasoning mainly on rules and algorithms, while pre-service secondary teachers used more strategies of number sense. In an attempt to delve into the low success shown by of Spanish pre-service secondary teachers, some students were interviewed. Those interviews showed that a deeper work on number sense in the training of these students is needed.

*Classification:* F49 F99 C39 C49 D59

*Keywords:* number sense; pre-service secondary teachers; pre-service primary teachers; strategies; degree in mathematics

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