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**Number sense strategies used by pre-service teachers in Taiwan.**

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Summary: This study examined number sense strategies and misconceptions of 280 Taiwanese pre-service elementary teachers who responded to a series of real-life problems. About one-fifth of the pre-service teachers applied number sense-based strategies (such as using benchmarks appropriately or recognizing the number magnitude) while a majority of pre-service teachers relied on rule-based methods. This finding is consistent with earlier studies in Taiwan that fifth, sixth, and eighth grade students tended to rely heavily on written methods rather than using number sense-based strategies. This study documents that the performance of pre-service elementary teachers on number sense is low. If we want to improve elementary students' knowledge and use of number sense, then action should be taken to improve the level of their future teachers' number sense.

*Classification:* F99 F19 B52 D65 D69 D75 D79

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