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**Teaching Math and Science in the Mother Tongue:
Challenges, Strategies, and Perceived Effects**

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Abstract

With the establishment of the Mother Tongue-Based Multilingual Education (MTB-MLE) in 2009 and its implementation in 2011, math and science have been taught in nineteen official mother tongues in the Philippines. To investigate how the use of the mother tongue (MT) as medium of instruction (MOI) affected math and science teaching and learning in the early grades, the study posed the following questions: 1) What challenges do teachers face in teaching math and science under MTB-MLE? 2) What strategies do they use for teaching math and science in the MT? and 3) What are the perceived effects of the use of MT as MOI in math and science classes? Schools representing four different language contexts were visited for class observations, interviews with school personnel, and focus group discussion with parents. Data gathered showed that: 1) challenges related to translation of math and science terms, pupils' unfamiliarity with math and science MT vocabulary, and the perception that the use of MT for science and math is for low-achieving pupils only; 2) teaching strategies included the use of double exposure through the MT and English, use of English for number terms, use of MT-based informative television shows, standardizing MT number terms for teaching, using demonstration for teaching math concepts, and giving of assignments about number terms, 3) the perceived effects of the use of MT as MOI are faster learning, less re-teaching, and the pupils' preference for the use of MT in classes. Math teachers shared about easier teaching in the MT and pupils' better comprehension, faster learning, higher index of mastery, and better grades. The study concludes that the use of MT as MOI in math and science benefits pupils and teachers alike. However, teachers should be provided training that will particularly address the challenges cited.