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**Development and application of a Chinese version of the short attitudes toward mathematics inventory.**

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Summary: Student attitudes toward mathematics play an important role in the teaching and learning processes of mathematics as positive attitudes correlate with higher student achievement. This paper aims to develop and explore the validity of a Chinese version of the short attitudes toward mathematics inventory (short ATMI) for Taiwanese undergraduates, and further to examine the measurement invariance across gender. The results suggest that, based on the Taiwanese sample, the model with some items excluded has better fit indices than the original model. The generalization of the four-factor construct was also confirmed. The Cronbach's alpha for total and subscales of the modified short ATMI were satisfactory, and moreover, convergent and discriminant validity were shown. Finally, measurement invariance of the inventory across gender was also demonstrated. This study suggests that the Chinese version of the short ATMI is a reliable, valid, and compact instrument that quickly and efficiently measures student attitudes toward mathematics.

*Classification:* C25 C65 D20

*Keywords:* attitudes toward mathematics; confirmatory factor analysis; measurement invariance; student attitudes assessment; undergraduate students

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