

## **Investigating and comparing the item parameter drift in the mathematics anchor/trend items in TIMSS between Singapore and the United States**

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This paper studied the item parameter drift (IPD), uniform and non-uniform, of the trend items in the Trends in International Mathematics and Science Study (TIMSS). TIMSS has maintained and used an item pool from which items have been repeatedly administered since 1995. A problem with long-term usage of test items is that over time the items might perform differently as a result of change in measurement precision and/or difficulty level. This change is referred to item parameter drift. In this paper, the 23 trend items of grade-8 mathematics test administered across three TIMSS cycles were examined using logistic regression analysis to see whether IPD was present. In addition, the IPD results were compared between Singapore and the United States. The results showed that, for both countries, neither uniform nor non-uniform IPD had occurred.