

## **DEVELOPMENT AND VALIDATION OF MATHEMATICSTEACHING PRACTICES SCALE**

**JULIUS S. ANTONIO, PH.D.**

Laboratory Schools, Catanduanes State University

### **ABSTRACT**

The present study describes the development and validation process of the Mathematics Teaching Practices Scale (MTPS). The MTPS is an instrument developed and validated based on Philippine context to measure the mathematics teaching practices of Filipino mathematics teachers. 786 valid responses of secondary mathematics teachers were randomly divided into two subsamples and were used separately for exploratory and confirmatory factor analysis. Test of significance of the two subsamples revealed that the subsamples are equivalent based on the participants' age and sex. An exploratory factor analysis of 393 participants suggested a 22-item scale that is subdivided into five factors. A confirmatory factor analysis of the 393 participants suggested modifying the structural model of the MTPS which resulted to the shortened number of items in the final scale. The validity and reliability tests revealed that the MTPS is valid and reliable instrument to use for its intended purpose.

**KEYWORDS:** Exploratory factor analysis, confirmatory factor analysis, Mathematics teaching practices, Scale development, Validity & Reliability