INVESTIGATING ITEM PARAMETER DRIFT ACROSS COMPUTER- AND PAPER-BASED ASSESSMENT MODES IN PISA 2015 MATHEMATICS

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International large-scale assessments are of utmost importance to make educational comparisons among the countries. Programme for International Student Assessment (PISA) is one of the most effective international large-scale assessments. It assesses educational changes at the country level every three years since 2000. The results of PISA inform policy makers about the development of 15-year-old students’ abilities such as reading, mathematics, and science literacy within a specific country. The validity of the test scores has gained more attention in PISA 2015, because it included a transition from paper-based assessment (PBA) to computer-based assessment (CBA) as the main assessment mode for most countries. In order make valid assessment modes comparisons, the essential is to ensure measurement and test score equivalence between assessment modes in item-level perspective. This study will investigate the item parameter drift (IPD) across the two assessment modes in the PISA 2015 mathematics test. The data consist of sampled students from the four selected PISA participating countries (i.e., Austria, Latvia, Malta, and Vietnam) and their responses to the 51 items administered via both assessment modes. The analyses will be performed using both the ordinal-logistic regression (OLR) and the Mantel-Haenszel (MH) method.