Faculty of Education
The University of Hong Kong

EDUCATIONAL AND PSYCHOLOGICAL MEASUREMENT COLLOQUIUM SERIES

A General Cognitive Diagnosis Models for Multiple Strategies

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June 26, 2018 (Tuesday)
13:00 – 14:00
Room 108, Runme Shaw Building, HKU

Abstract

Traditional standardized educational tests are usually used to assess students' overall proficiency, which is important for purposes such as determining whether they should be admitted to a program or awarded a scholarship. However, these tests are not designed to provide detailed feedback to aid teaching and learning. Cognitively diagnostic assessments, on the other hand, aim to provide diagnostic information about whether or not students have mastered a set of skills. To estimate students' skill mastery profiles, cognitive diagnosis models (CDMs) are needed. However, most CDMs assume that all students adopt the same strategy when approaching problems in an assessment, which may not be the case in practice. This talk will introduce a generalized multiple-strategy CDM for dichotomous data. The model provides a unified framework to accommodate different approaches to strategy selection and various ways that students use skills to solve problems. Theoretical implications and a real world application will be discussed as well.

About the Speaker

Dr. Wenchao Ma is an Assistant Professor in the College of Education at The University of Alabama, US. He received his Ph.D. from Rutgers University. He is a recipient of 2017 Bradley Hanson award for Contributions to Educational Measurement from National Council on Measurement in Education, and a recipient of 2018 Outstanding Dissertation Award from American Educational Research Association. His research interests lie in educational and psychological measurement, particularly, item response theory and cognitive diagnosis modeling.

Everyone is welcome to attend!

If interested, please confirm your attendance by sending an email to kpsantos@hku.hk.