



## Introduction to the Vol.45, No.2, 2018

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Welcome to the Vol. 45, No. 2, 2018 of *Behaviormetrika*.

The first paper is “Use of weights in mixed randomized response model” by Singh and Gorey (2018). This study proposed a weighted unbiased estimator based on mixed randomized response model. The results show that the proposed estimator is superior to the previous estimators under some conditions.

The second paper is “Multilevel structural equation modeling-based quasi-experimental synthetic cohort design” by Wang et al. (2018). This paper examined the effectiveness post hoc adjustment approaches such as propensity score matching in reducing the selection bias of synthetic cohort design (SCD) for causal inference. The efficiency of SCD is ensured by the historical equivalence of groups (HEoG) assumption. According to the mathematical proof, HEoG ensures that the use of SCD results in an unbiased estimator of the schooling effect.

The third paper is “Does the delivery matter? Examining randomization at the item level” by Buchanan et al. (2018). This paper examined the differences in scale relationships for randomized and nonrandomized computer delivery for two scales measuring meaning/purpose in life. These scales have questions about suicidality, depression, and life goals that may cause item reactivity (i.e., a changed response to a second item based on the answer to the first item). Results indicated that item randomization does not alter scale psychometrics for meaning in life scales, which implies that results are comparable even if researchers implement different delivery modalities.

The fourth paper is “Propensity score methods for causal inference: an overview” by Pan and Bai (2018). This study provides a review of recent studies on propensity score methods for causal inference. This review provides beneficial information about propensity score methods from the historical point of view and helps researchers to select appropriate propensity score methods for their observational studies.

In this issue, two special features were included: “Advanced Methodologies for Bayesian Networks” (Scutari 2018; Capdevila et al. 2018; Peña 2018, Sugaya et al. 2018) which was edited by Joe Suzuki, Antti Hyttinen, and Brandon Malone, and “Advanced Technologies in Educational Assessment” (Deonovic et al. 2018, Slater

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and Baker 2018, Frey 2018, Kroehne and Goldhammer 2018, Specifically, de Klerk et al. 2018, Nguyen et al. 2018, Shi et al. 2018, Rights et al. 2018) which was edited by Ronny Scherer and Marie Wiberg. Both issues specifically addressed state-of-the-art methods of statistics, machine learning, artificial intelligence and data science.

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