Workshop for Psychology Students (via Zoom)

How Many Participants Are Needed?
An Introduction to Monte Carlo Methods of Statistical Power Analysis

6:00p.m. – 7:30p.m. | June 28, 2021 (Monday)

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Abstract
As psychology students have increasingly applied multivariate statistical methods (e.g., factor analysis, mediation and moderation analysis, structural equation modeling) in their thesis/research projects, students often encounter challenges in planning sample size to collect data for multivariate research designs. While the procedures and software to calculate statistical power (e.g., G*Power, the pwr package of R) for classical statistical techniques (e.g., ANOVA) to guide sample size planning are commonly accessible to students, the basic power-calculation resources are of limited applicability for most multivariate analyses. Meanwhile, though rules of thumb on sample size requirements (e.g., in terms of observations per variable) of multivariate statistical techniques are available from the literature, the guiding rules are often too generic with respect to the practical needs of specific projects. To address the aforementioned gaps, this workshop aims to introduce to psychology students the Monte Carlo approach of power analysis that is appropriate and reasonably straightforward for students to apply for multivariate data analyses.

Apart from delineating the Monte Carlo methods, this workshop will provide participants with hands-on experiences of applying the methods using R packages for a number of case examples. The participants of this workshop are assumed to be users of R with basic knowledge on multivariate statistics.

Participants please ensure that R, RStudio, and the lavaan and simsem packages of R have been installed in their computers for participating in the workshop.

Please register for this workshop on/before 23 June 2021: https://hku.zoom.us/meeting/register/tJYvf-mqrTsiGtYpIda_80eNVM_pC8tthsT

The workshop’s materials will be made accessible to registered participants in due course. Please email Dr Yeung (jncy@hku.hk) if you have any questions related to this workshop.

Join Workshop via Zoom:
Meeting ID: 922 8023 0802

~All are Welcome~