
Hoekstra, Johnson, and Kiers (2012) propose using confidence intervals (CIs) instead of the singular or combined use of null hypothesis significance testing (NHST). Assessment of Ph.D. students’ statistical interpretation of NHST and CI outcomes suggest distinct differences between the assessment and interpretation of NHST versus CIs. First, with NHST, participants were more confident that the results were replicable and that a population effect was present compared to the presentation of CIs. Second, when mean CIs were used, participants made “fewer inferential mistakes, fewer references to significance, and more references to effect sizes” (Hoekstra et al., 2012, p. 1049). Overall, when considering presentation mode, it appears the CIs could improve inferential practice and conclusions.


The United States Department of Education has established policy for prioritizing funding for randomized experiments over other methods. This article provides a typology for helping researchers think about conducting a study, which aims to estimate the effects of a program in a quantitatively or qualitatively new way. This typology lists the recipients, the settings, the times, and the outcome variables on the vertical axis and the type of treatment assignment (i.e., random assignment, quantitative, and non-quantitative assignment) across the top. The pros and cons of all 12 types of comparisons (4 dimensions x 3 assignment methods) are discussed. The authors state that several of these research designs have been overlooked in the past, and encourage researchers to rethink the belief that random assignment to a treatment group is the best methodological approach.


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Did You Know? Quantitative Research Methods

National Association for Gifted Children Research and Evaluation Network 2013-2014

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