

Detecting Social Desirability Bias in Online Surveys: Experimental Evidence from the Cheating Detection Triangular Model

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Abstract

This study examines the effectiveness of the Cheating Detection Triangular Randomized Response Model (CDTRM) in reducing social desirability bias in online surveys on sensitive topics. Using a between-subjects experimental design, participants were randomly assigned to either a CDTRM group or a direct questioning (DQ) group, in which respondents were instructed to answer directly. DQ often leads to misreporting or nonresponse when addressing sensitive issues are involved. Drawing on data from over 5,000 respondents in a national Taiwanese web panel, the study compares estimated cheating rates and sensitive trait prevalence across conditions. The results demonstrate CDTRM's ability to detect impression management behaviors and produce more accurate prevalence estimates.

Keywords: Cheating Detection, Social Desirability Bias, Indirect Questioning, Sensitive Behavior Prevalence, Online Survey Methods