

## KEY NOTE: Careless Responding in Survey Research: Is There Hope?

*Thursday 24 July 2025 12:30 (1 hour)*

In survey research, especially under unsupervised online conditions, careless responding—also referred to as insufficient effort responding—remains a significant threat to data quality. When respondents fail to engage meaningfully with questionnaire content, the resulting bias can weaken psychometric properties, distort correlations, and lead to erroneous conclusions. Recent estimates place the prevalence of careless responding between 10% and 40%, depending on survey design, context, and detection methods (Kam & Meyer, 2015; Oppenheimer et al., 2009; Ward et al., 2017). This keynote will synthesize current evidence on best practices for preventing, detecting, and managing careless responding.

Prevention strategies should reflect the dual nature of careless responding. Empirical evidence, including recent longitudinal studies from our own team, indicates that response attentiveness can vary across time and context, and may be influenced by both individual traits and situational demands (e.g., Tomas et al., 2024; Hasselhorn et al., 2023). Some individuals are consistently attentive or inattentive (trait-like), while others shift depending on situational context—such as fatigue, time pressure, or lack of interest. To address both patterns, researchers should combine context-sensitive strategies (e.g., optimizing survey length or timing) with broader, person-focused approaches like motivational instructions or commitment pledges, which can reduce carelessness even among those predisposed to inattention.

Detection strategies should be multifaceted. While attention check items offer a direct, in-survey method to flag inattentiveness, their effectiveness may decline over time as participants become familiar with them (Kam & Chan, 2018). Post-hoc statistical indices such as longstring response patterns, psychometric synonyms/antonyms, and Mahalanobis distance can be useful (Yentes, 2023), although researchers are encouraged to adopt model-based techniques, such as constrained factor and IRT mixture models (e.g. Kam & Cheung, 2023; Ulitzsch et al., 2022) and multilevel latent class analyses (Hasselhorn et al., 2023), which allow for the classification of random, patterned, and attentive respondents—without the need for additional survey items. Managing careless responding requires more than simply discarding data. Once CR has been detected, researchers must make thoughtful decisions about how to handle it. Model-based approaches, such as constrained factor mixture models, can help disentangle trait-relevant from trait-irrelevant response patterns at the group level. However, Edwards (2019) recommends alternative strategies, such as statistically controlling for CR indices or using them as moderator variables in substantive models. These approaches acknowledge that CR can systematically influence results and should be modeled—not merely eliminated—to preserve data quality and enhance replicability.

There is hope—but only if we treat careless responding as a central concern rather than a peripheral nuisance. By integrating prevention, detection, and thoughtful data management strategies, researchers can substantially improve data quality in health and social sciences. Thus, researchers should adopt rigorous and transparent practices in dealing with careless responding in survey research.

**Primary author:** HERNÁNDEZ, Ana

**Presenter:** HERNÁNDEZ, Ana