

Research Rigor, Ethics and Open Science

Research Rigor, Ethics & Open Science

Standards for trustworthy, transparent, reproducible research — and the tools to meet them. Curated from the HRD and leadership methodology literatures.

The reform context

Both HRD and leadership have undergone an open-science reckoning: cross-sectional findings failing in longitudinal designs, weak measurement, and irreproducible results. These resources set the standards and give you the checklists.

Rigor — self-assessment tools

- **Reio (2021)** — *Ten Research Questions* — an analytic tool for critiquing any empirical study (use it on others' work *and* your own).
- **Reio (2023)** — the **four Rs**: rigor, relevance, replicability, refutability.
- **Park, Kim, & Han (2024)** — HRD research-method rigor; what reviewers look for.
- **Wulff et al. (2023)** — a catalog of **20+ common methodological mistakes**, organized by design, analysis, and reporting. A pre-submission checklist.

Ethics & integrity

- **Werner (2022)** — academic integrity in HRD scholarship.
- **Russ-Eft (2018)** — the **AHRD Standards on Ethics and Integrity** (2nd ed.) — the field's reference.
- **Yoon et al. (2021)** — ethics standards applied to scholarly misconduct cases.

Open science, transparency & replication

- **Antonakis (2017)** — the landmark reform editorial: the "five diseases" of the field; the pivot to registered reports and null-results publication.
- **Aguinis, Li, & Foo (2024)** — the **Research Transparency Index (RTI)** — 18 of 31 transparency criteria; a concrete reporting standard.
- **Gerpott, Briker, & Banks (2024)** — **registered-report** formats and how to use them.
- **Carsten et al. (2023)** — registered reports + replication infrastructure; three replication myths debunked.

Data quality (where rigor quietly fails)

- **Goldammer et al. (2020)** — detecting careless survey responding; removing careless responders changed substantive findings.
 - **Ingels et al. (2023)** — survey **nonresponse** caveat: agreement indices (r_{wg}/ICC) can look fine while masking *who* responded.
-

Use this page as a checklist

- **Designing?** → Reio's Ten Questions + the four Rs.
- **Writing up?** → Wulff's mistake catalog + the RTI.
- **Human subjects / authorship?** → the AHRD Standards.

Sources: HRDR "Research Methodology and Theory Building" cluster; Leadership "Causal Inference & Methodology" cluster.

References

- Aguinis, H., Li, Z. A., & Foo, M. D. (2024). The research transparency index. *The Leadership Quarterly*, 35(4), 101809. <https://doi.org/10.1016/j.leaqua.2024.101809>
- Antonakis, J. (2017). On doing better science: From thrill of discovery to policy implications. *The Leadership Quarterly*, 28(1), 5–21.
- Carsten, M. K., Clapp-Smith, R., Haslam, S. A., Bastardo, N., Gooty, J., Connelly, S., & Spain, S. M. (2023). Doing better leadership science via replications and registered reports. *The Leadership Quarterly*, 34, 101712.
- Gerpott, F. H., Briker, R., & Banks, G. C. (2024). New ways of seeing: Four ways you have not thought about registered reports yet. *The Leadership Quarterly*, 35, 101783.
- Goldammer, P., Annen, H., Stöckli, P. L., & Jonas, K. (2020). Careless responding in questionnaire measures: Detection, impact, and remedies. *The Leadership Quarterly*, 31, 101384.
- Ingels, D., Spitzmuller, C., Thomas, C. L., Kazmi, M. A., Allen, N. J., & Hysong, S. J. (2023). Team-member role characteristics as predictors of response behavior on team-related surveys. *Small Group Research*, 54(3), 335–368.
- Park, J. J., Kim, Y., & Han, S. J. (2024). The landscape of research method rigor in the field of human resource development: An analysis of empirical research from 2016 to 2023. *Human Resource Development Review*, 23(3), 345–375. <https://doi.org/10.1177/15344843241255410>
- Reio, T. G., Jr. (2021). The ten research questions: An analytic tool for critiquing empirical studies and teaching research rigor. *Human Resource Development Review*, 20(3), 374–390.
- Reio, T. G., Jr. (2023). An editor's learning journey: Lessons for moving the field forward. *Human Resource Development Review*, 22(3), 321–332.
- Russ-Eft, D. F. (2018). Second time around: AHRD standards on ethics and integrity. *Human Resource Development Review*, 17(2), 123–127.
- Werner, J. M. (2022). Academic integrity and human resource development: Being and doing. *Human Resource Development Review*, 21(2), 249–257.
- Wulff, J. N., Sajons, G. B., Pogrebna, G., Lonati, S., Bastardo, N., Banks, G. C., & Antonakis, J. (2023). Common methodological mistakes. *The Leadership Quarterly*, 34, 101677. <https://doi.org/10.1016/j.leaqua.2023.101677>

Yoon, S. W., Han, S. H., & Cho, Y. (2021). The power of ethics and standards when the scholarly system fails. *Human Resource Development Review*, 20(2), 136–142.