



Manuscript Preparation Instructions

In an effort to enhance transparency, reproducibility, and replicability, we require authors to use the following checklists in preparing submissions to the *Journal of Applied Psychology*. There are five sections below for: (1) primary quantitative studies, (2) meta-analytic research, (3) qualitative and mixed-methods studies and (4) studies using machine learning, (5) simulation and computational modeling studies. Authors should use these instructions as a guide, as this is not a comprehensive list. It is also the authors' responsibility to check text against tables for consistent and accurate statistical reporting (manually or using tools like statcheck.io). Also note that not all checklist items will apply to every manuscript. We also encourage authors to consult with the *APA Journal Article Reporting Standards* (JARS; <https://apastyle.apa.org/jars>).

Primary Quantitative Studies

Method

_____ Sampling plan clearly described, including recruitment strategy and power analysis (as appropriate), any inclusion/exclusion criteria (including outliers detected and removed or winsorized; e.g., adults working more than 40 hours a week), and number of cases excluded.

_____ For data collected via online, panel-based, or crowd-sourced platforms, provide detailed information about the data collection procedures. This includes basic information such as the name of the platform and the compensation offered per participant. This also includes the techniques used to prevent and detect non-human responses (e.g., bot-generated responses, AI-assisted responses, etc.) as well as problematic human responding (e.g., careless responding due to inattention or fatigue; fraudulent responding due to misrepresentation of identity, eligibility, or location, etc.). Specify the relevant design-level protections (i.e., features built into the survey), implementation-level checks (i.e., procedures used during data collection to detect and manage such responses), and post hoc screening/exclusion procedures. Report the number and percentage of respondents flagged and excluded at each stage and describe any sensitivity analyses conducted to evaluate how inclusion or exclusion of flagged responses/respondents affects the substantive results. For each procedure, clarify whether it is automatically implemented by the platform, manually implemented by the authors, or a combination of both.

_____ Final sample size associated with each analysis included in text and/or tables, along with response rate in text. This includes differences between final sample and excluded data, or a change in sample size as a result of data matching. Effective sample sizes might be reported as a function of missing data analyses (e.g., multiple imputation).

_____ Amount and treatment of missing data reported at the scale and the item levels (e.g., listwise deletion, pairwise deletion, multiple imputation, full information maximum likelihood [FIML] estimation).

_____ For experimental research, provide sample size per condition; for within-subjects designs, report correlations between conditions. For multi-level/cross-level research, report total sample size at each level of analysis, along with descriptive statistics at each level (e.g., means, SDs, and correlations).



_____ Report full and observed scale range, along with scale anchors, and number of items for all measures.

_____ For adapted or shortened measures, rationales and specific modifications are described. If using measures originally developed in Study A and then adapted in Study B, acknowledge both studies appropriately.

_____ For translated scales/measures, translation-back translation described (e.g., number and qualifications of translators, item modifications and/or deletions, how disagreements were resolved). Note: Simply stating that Brislin (1970, 1984, 1986) recommendations were followed is not sufficient.

_____ Experimental manipulations, research protocols, and materials fully described in the manuscript. For measures and research materials, either (1) include sample content (e.g., 2–3 sample items and response scale) along with the citation/website/repository where the full content can be obtained or (2) provide the full content if you have obtained copyright permission from the original publisher. Proprietary measures or materials should be noted as such and require citation but not sample items. Please be aware that photographs of individuals may require copyright permission from the original publisher.

_____ For longitudinal designs, time-lagged design, and experience sampling methodology, provide rationale for measurement time interval(s) and number of measurement occasions.

_____ For path analysis, factor analysis, and structural equation models, include information on the specification of the measurement model (e.g., individual items vs. parcels, linear vs. ordinal, identification constraints, any correlated error residuals) and degrees of freedom checked for accuracy (see <https://gmuropsych.shinyapps.io/degreesoffreedom/>).

Inclusive Reporting

_____ Report year and location that data were collected and describe efforts to obtain a sample representative of the broader population of interest.

_____ Ensure that race and ethnicity are not used interchangeably.

_____ If available, report the percentage of people in each unique racial and/or ethnic group rather than reporting “percent non-White”. If data on race/ethnicity was not collected, provide rationale.

_____ Use the group that is central to research question(s) as the reference group (i.e., do not default to using White participants as the referent).

_____ Provide an interpretation of race and/or ethnicity within the context/nation/country in which research was conducted.

_____ Report sociodemographic information (e.g., age, sex, race/ethnicity, education level, job tenure, relevant occupation information, organizational tenure, years of working experience) and research context information (e.g., country, industry, occupation, job, work tasks).



Analyses/Results

_____ Manipulation checks reported for experimental studies, including how failed manipulations were handled. Relevant analysis for each manipulation check presented for multiple predictor designs.

_____ If AI or Large Language Model (LLM) was used to generate analytic codes, disclose and include the prompts and codes used in appendix or supplemental materials.

_____ Means, standard deviations, correlations, and reliability coefficients (if applicable) reported for all measured variables, including sociodemographic characteristics, control variables, and transformed/non-linear variables (e.g., interactive and curvilinear terms). When appropriate, skewness and kurtosis for relevant variables are reported.

_____ Full results from model testing reported (e.g., if testing 3-way interaction, report its ΔR^2 over the all possible 2-way interactions and the main effects entered into the model).

_____ If testing moderated mediation/mediated moderation, include all relevant path coefficients necessary for estimating the statistical model (e.g., the direct effect of the predictor on the outcome, the direct effect of the moderator on the mediator/outcome), as well as indirect and conditional indirect effects; if unstandardized regression estimates are reported, also include intercepts/constants and standard errors. If applicable, the index of moderated mediation should be reported.

_____ Appropriate effect size estimates included (e.g., r , R^2 , ΔR^2 , R , ΔR , Cohen's f^2 , Cohen's d , η^2 , odds ratio). Confidence and/or credibility intervals around effect sizes are preferred.

_____ For each hypothesis testing, when possible, include the observed power for the specific test, which can help gauge the replicability of the finding (for z-test or t-test based hypothesis testing, you can directly calculate the observed power using a ShinyApp located here: <https://japplied.shinyapps.io/observedpower/>).

_____ Information provided in tables and/or text describing how dichotomous/categorical variables (including control variables) were coded. The direction of coding should be clear (e.g., 0 = men, 1 = women).

_____ Standard errors, confidence and/or credibility intervals, and/or test statistics (e.g., t-value) with p-value reported. Alpha level and/or confidence interval specified. State whether any correction procedure is applied when testing a large number of hypotheses.

_____ For mono-level path model analysis, provide rationale for preferring this approach over structural equation modeling with latent variable specifications. If possible, report supplemental analysis using structural equation modeling to assess the robustness of the findings.

_____ When reporting SEM model statistics, include at minimum: the chi-square test (χ^2) with degrees of freedom and p-value; fit indices (e.g., CFI); misfit/error indices with confidence intervals (e.g., RMSEA); and discrepancy indices (e.g., SRMR).



_____ For multilevel data involving teams or other collective entities, aggregation models (e.g., direct consensus, referent-shift, configural), within-group agreement (e.g., $rWG(j)$), and centering decisions (e.g., uncentered, group-mean centering, grand-mean centering, latent centering) are justified and reported. If different centering approaches are applied to different variables, specify and explain the rationale for each choice.

_____ For multilevel models, model testing procedures and relevant statistics reported (e.g., ICCs, variance component estimates).

_____ For plots of moderation on a Likert-scale based continuous variable (e.g., slopes at ± 1 SD, or Johnson-Neyman intervals), results reported should use relative ("higher" vs. "lower") not absolute ("high" vs. "low") language, and raw values should be reported for the levels selected. Plots should be scaled in a manner that represents effects appropriately. The levels of the moderator used in simple slope analyses should be within the actual range of observed data.

_____ Continuous data (e.g., a moderator variable) should not be converted to binary or categorical data without sufficient rationale.

_____ Estimation procedure and methods reported for more advanced analytical approaches (e.g., dfs or df correction, bootstrapping approach, Bayesian credibility interval).

_____ For any Bayesian analysis effect sizes (e.g., credibility intervals, HDI, Bayes factors) or any Bayesian estimation of mode statistics (e.g., Bayesian SEM), report each prior distribution used, specify and explain the rationale for each choice.

_____ Statistical packages and programs (including version number) used for data analysis cited.

_____ Alternative data analysis (e.g., including a variable that was subsequently dropped through the review process or during the original analysis) and robustness tests described in footnote or appendix.

_____ Text checked against tables for consistent and accurate statistical reporting.

Meta-Analytic Research

_____ PRISMA-type search flowchart included to describe search protocols (<http://www.prisma-statement.org/>). At a minimum, the flowchart should include all keywords and Boolean operators (i.e., full search strings), the specific databases and other data sources reported, and the specific number of search results by each database/data source.

_____ Information provided about inter-coder agreement/reliability, how the agreement is calculated, coder qualifications/calibrations/training (if necessarily, anonymized for review), and methods used to resolve inter-coder discrepancies.

_____ If corrections for psychometric artifacts are applied (e.g., unreliability, range restriction), then the method used (e.g., individual correction, artifact-distribution, Case II, Case IV, Case V) should be



reported in text with rationale, as well as artifact distribution statistics (e.g., mean and SD of the relevant artifact, how missing reliability estimates were handled) and the order in which corrections were applied.

_____ Justification provided for corrections/no corrections for psychometric artifacts. Bare-bones meta-analytical results should be provided along with fully corrected effect sizes.

_____ Information on each primary study, relevant code(s), reliability and moderator information (where relevant), sample size(s), and effect size(s) included in appendix or made available online (e.g., Open Science Framework, osf.io).

_____ If the Schmidt-Hunter method is used, all relevant results are reported by referring to recommended result tables. Tables should include: number of independent samples; total sample size; sample size weighted mean observed effect size; sample size weighted standard deviation of observed effect size, mean true score effect size true score standard deviation; credibility interval; confidence interval around the mean true effect, and percentage of variance attributable to statistical artifacts.

_____ Confidence and/or credibility intervals used when interpreting meta-analytic estimates rather than NHST.

_____ For moderator testing, justify choice of method (e.g., subgroup, meta-regression). For the subgroup approach, describe the rationale for moderator testing. Provide justification if continuous moderators are dichotomized for subgroup analysis.

_____ For meta-regression, report and justify the type of model (e.g., mixed versus fixed effects model) and the estimator (e.g., restricted maximum likelihood estimator) used. When the number of studies is small, report the pertinent method (e.g., Knapp & Hartung, 2003) to mitigate Type I error. If more than one effect size is available for a cell in the constructed meta-analytical correlation matrix, provide justification for the chosen effect size.

_____ Publication bias check (including results) reported in text and/or tables or made available online (e.g., osf.io).

Qualitative and Mixed-Methods Research

_____ Qualitative approach (e.g., grounded theory, phenomenological, thematic analysis, consensual qualitative research) described.

_____ Data collection procedures (e.g., context of data collection, participant recruitment, interview protocol, observational methods, time in field, number of researchers involved in data collection) described.

_____ Level or unit of analysis (e.g., individual word, meaningful thought, participant) specified.

_____ If coding taxonomy was used, development of codes and coding procedures is described in detail. Total number of coders, number of coders per code, coder training/expertise, and coder agreement (e.g., percent agreement or hit rate, Cohen's or Fleiss' kappa) reported.



_____ If relevant, statistical packages and programs (including version number) used for data analysis are reported.

_____ Clearly describe how raw data were analyzed and/or interpreted. Direct quotations, observations or other examples of raw data included.

_____ Consult with the APA JARS Guidelines (<https://apastyle.apa.org/jars/qualitative> and <https://apastyle.apa.org/jars/mixed-methods>) as appropriate.

_____ For additional information, see Levitt, H. M., Bamberg, M., Creswell, J. W., Frost, D. M., Joseeliong, R., & Suarez-Orozco, C. (2018). Journal reporting standards for qualitative primary, qualitative meta-analytic, and mixed methods research in psychology: The APA Publications and Communications Board task force report. *American Psychologist*, 73, 26-46. <http://dx.doi.org/10.1037/amp0000151>

Machine Learning

_____ Describe and data preprocessing or data transformations (feature engineering) performed, both for quantitative data (e.g., converting non-numeric to numeric, encoding categorical data, data aggregation) and text data (e.g., stemming, lemmatization, *n*-grams, tokenization).

_____ Describe the process used to deal with any missing data or outliers and how those outliers were identified.

_____ Provide information regarding the distribution of all variables.

_____ In the case of classification data, if class imbalance is present, describe the methods used to address this (e.g., over- and undersampling techniques).

_____ Describe the analysis in transparent details (e.g., what is the nature of the algorithm, how was the chosen model selected, describe the underlying parameters of the model, explain the cross-validation and model-tuning process).

_____ For neural network architecture, describe the various layers (e.g., nature of the embedding layer, number of hidden layers, number of nodes per layer).

_____ Describe the process for model tuning: what parameters were tuned, what range of values were evaluated, and how those values were selected (e.g., random grid search, what criterion was optimized, etc.).

_____ Describe the process for model validation, including both internal and external model validation. Transparently report cross-validation techniques (e.g., k-fold cross-validation, nested-cross validation).

_____ When reporting validation metrics, report multiple metrics whenever appropriate



Whenever possible, report measures of effect size and confidence and/or credibility intervals along with parameter estimates.

_____ If using an LLM, detail the model (e.g., name, version number), and prompts used, the process for prompt generation (e.g., hyperparameter settings, API vs. web client), and evaluation.

_____ Cite the software, programs, and packages used and provide the code when possible.

Simulation and Computational Modeling

_____ Specify the primary purpose of the model (e.g., theory building, theory testing, integrating literatures, exploring boundary conditions, evaluating interventions, or methodological demonstration).

_____ Conduct and report sensitivity or robustness analyses (e.g., varying key parameters, initial conditions, or structural assumptions) and describe how conclusions do or do not change.

_____ Ensure that simulations and models capture and accurately reflect all hypotheses being tested.

_____ Provide a clear description of the model structure and processes (e.g., entities, state variables, environment, decision rules, update schedule) in enough detail that an informed reader could reimplement the model.

_____ Report and justify the range of parameters being simulated (both fixed and free).

_____ Compare more complex simulations and models against simpler versions, when appropriate. Ensure that 'winning' models undergo stringent tests that guard against model overfitting.

_____ Rerun simulations and models, when appropriate, reporting the random number generator seed values used, to help ensure that global optima were reached (vs. trapped in local minima).

_____ Provide useful information that extends beyond the average effects for each condition (e.g., *SDs* for each condition, *d*-values between conditions, visualizations of variability across simulation or model runs)

_____ Report the implementation platform, software, and versions (e.g., NetLogo, Mesa in Python, R with specific packages).

_____ Share all simulation or model code (and data, if they cannot be generated easily on one's own).