

that were used in deciding the degree to which the original results were replicated in the new study being reported.

3.11 Standards for Analytic Approaches

Although reporting standards are generally associated with entire research designs, some quantitative procedures (e.g., structural equation modeling, Bayesian techniques) are of sufficient complexity and open to such internal variation that additional information (beyond just the name of the technique and a few parameters) must be reported for readers to be able to fully comprehend the analysis. Other researchers may need additional information to evaluate the conclusions the authors have drawn or to replicate the analysis with their own data. Standards for structural equation modeling and Bayesian techniques are on the JARS website (<https://apastyle.apa.org/jars/quantitative>).

Structural Equation Modeling. *Structural equation modeling* is a family of statistical techniques that involve the specification of a structural or measurement model. The analysis involves steps that estimate the effects represented in the model (parameters) and evaluate the extent of correspondence between the model and the data. These standards are complex and call for a comprehensive description of data preparation, specification of the initial model(s), estimation, model fit assessment, respecification of the model(s), and reporting of results.

Bayesian Techniques. *Bayesian techniques* are inferential statistical procedures in which researchers estimate parameters of an underlying distribution on the basis of the observed distribution. These standards are complex and address the needs of this analytic approach, including how to specify the model, describe and plot the distributions, describe the computation of the model, report any Bayes factors, and report Bayesian model averaging.

3.12 Quantitative Meta-Analysis Standards

Quantitative meta-analyses (see Section 1.5) have specific reporting standards that are available in full on the JARS website (<https://apastyle.apa.org/jars/quant-table-9.pdf>). These standards are specific to meta-analyses but can easily generalize to other quantitative research synthesis approaches. One feature of meta-analyses that makes them different (in reporting demands) from other study types is that the units of analysis are research reports—usually articles that have been published or archived. The primary features of the included studies are numerical estimates of the effect sizes of the phenomena of interest. The reporting standards for quantitative meta-analyses are complex and include how to describe study selection, study inclusion and exclusion criteria, and data collection, as well as how to summarize the selected studies and their characteristics (e.g., through tables and figures; see Table 7.4 in Section 7.21 for a sample summary meta-analysis table).

Reporting Standards for Qualitative Research

3.13 Basic Expectations for Qualitative Research Reporting

Whereas standards for reporting information in the abstract and introduction of a paper are common to all kinds of research (see Sections 3.3–3.4), there