

Research Methods in Cognitive Psychology

A  Successful report must meet **all criteria in the  column**.

An  Excellent report must meet **all criteria in the  column AND all criteria in the  column**.

Criterion	 Revise	 Successful	 Excellent	Notes
Abstract		Includes the research question, major results, and implications or limitations of those results.	Also includes important study design details, such as stimuli, task, measurements, and number and type of participants. Writing is clear and concise, using precise, technical language as appropriate.	
Introduction		Organized into clear paragraphs.		
Introduction: Research question		Introduces the research question at the conceptual level. Makes a case that it is interesting or useful to know this answer. You may use published papers or your everyday experience as justification.		
Introduction: Approach		Explains why these Methods are a reasonable approach to answer this question. How are your concepts operationalized in your design?	Reviews and appropriately cites published papers as part of the justification for the research question, approach, and hypotheses (at least 8 between Intro and Discussion).	
Introduction: Alternative Answers, Logic, Hypotheses		Describes the possible alternative answers at the conceptual level; explains what patterns in the data would result from each. This should lead to a <i>key comparison</i> that will answer your research question. Explain which answer or answers you think is most likely, and why. You may use published papers or your everyday experience as justification.		
Methods		Organized using appropriate subheadings.		

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Methods: Participants		Describes the sample that was studied. How many people? How were they recruited? Note any exclusion criteria or special arrangements.		
Methods: Stimuli		Describes the stimuli in as much detail as a reader would need to reproduce your experiment. How did you create or select them? Why did you make those choices?		
Methods: Task		Explains the core cognitive judgment or decision that participants made. Most cognitive psychology experiments center around one or more tasks. This section should also describe how any task-derived dependent variables are measured. The Task section is often grouped with the Stimuli and/or the Procedures into a single subsection.	Stimuli, task, and/or procedures are illustrated in one or more polished, readable figure with clearly written labels and captions.	
Methods: Procedures		Gives a step-by-step narrative of what a participant experienced in your study. What other measurements or questionnaires did they complete? How many trials of your task, and how were they organized? How long did the experiment take?		
Results		Organized with one paragraph for each outcome variable and/or research question. Results match the accompanying analysis document.	For each research question, presents the key comparison that allows researchers to distinguish among possible alternative answers.	
Results: Descriptive statistics		Appropriate descriptive statistics are reported for predictor and outcome variables. When a predictor variable is categorical, descriptives over the outcome variable are reported for each relevant condition.		

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Results: Inferential statistics		Inferential statistics are appropriate to the data and the research question, computed correctly, and reported.	Inferential statistics are reported in APA style.	
Results: Figure(s)		Data are shown in one or more figures with appropriate labels and captions.	For each research question, the key comparison is illustrated in <u>one</u> polished, readable figure with clearly written labels and captions.	
Discussion		Organized into clear paragraphs.		
Discussion: Summary of work		First paragraph of the discussion reviews your question, your experimental approach, and your main finding(s).		
Discussion: Explain and interpret		Explain why you might have found this pattern of results, and what it means for your research questions. You may refer to published literature or your everyday experience for justification	References and appropriately cites published papers as part of the explanation and interpretation (at least 8 between Intro and Discussion).	
Discussion: Limitations and future directions		Acknowledge any limitations or imperfections of your design, and suggest 2-3 interesting directions for future research.		
Writing: structure, style, and flow		Organized and easy to follow, with headings and subheadings as appropriate.	Clear, accurate, and sophisticated, including nuances of validity, reliability, and interpretation. Demonstrates understanding and insight through clarity and accuracy. Uses precise and technical language as appropriate.	
Writing: Mechanics		Minimal spelling / grammar / mechanics errors (fewer than 2 per page).	Almost no spelling / grammar / mechanics errors (fewer than 1 per page)	

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Writing: APA style		Minimal APA style errors (fewer than 5) in using section and subsection headings, in-text citations, and references.	Near-perfect APA style (fewer than 5 errors), including correctly formatted title page, running head, figure labeling and captions, and numeric reporting.	
Formatting		Includes written report, R markdown, and compiled R analysis in appropriate file formats.		
Analyses and code		Uses executable code blocks in an R Markdown document to load, process, and analyze the raw data, and generate figures. Statistical procedures are correct. Code runs.	Use “plain English” commentary surrounding your analysis code to explain your overarching goal, what each code block does, and what the output means. Use highly readable code with meaningful variable names and consistent use of whitespace.	