

Below are guidelines for critiquing research articles. Critiques include an analysis of both strengths and weaknesses or limitations of an article.

Guidelines for Critiquing a Quantitative Research Study

Elements influencing the believability of the research	
Elements	Questions
Writing style	Is the article well written- concise, grammatically correct, avoids use of jargon? Is it well laid out and organized?
Title	Is the title clear, accurate and unambiguous
Abstract	Does the abstract offer a clear overview of the study including the research problem, sample, methodology, findings and recommendations?
Elements influencing the robustness of the research	
Elements	Questions
Purpose/research problem	Is the purpose of the study/research problem clearly identified?
Logical consistency	Does the research report follow the steps of the research process in a logical manner? Do these steps naturally flow and are the links clear?
Literature review	Is the review logically organized? Does it offer balanced critical analysis of the literature? Is the majority of the literature of recent origin? Is it mainly from primary sources and of an empirical nature?
Theoretical framework	Has the conceptual or theoretical framework been identified? Is the framework adequately described? Is the framework appropriate?
Aims/objectives/research question/hypotheses	Have aims, objectives, a research question or hypothesis been identified? If so are they clearly stated? Do they reflect information presented in the literature review?
Sample	Has the target population been clearly identified? How were the sample selected? Was it a probability or a non-probability sample? Is it an adequate size? Are the inclusion/exclusion criteria clearly identified?
Ethical considerations	Were the participants fully informed about the nature of the research? Was the autonomy/confidentiality of the participants guaranteed? Were the participants protected from harm? Was ethical permission granted for the study?
Operational definitions	Are all the terms, theories and concepts mentioned in the study clearly defined?
Instrumentation	Is the instrumentation used to assess subjects described? Were instrument reliability and validity discussed?
Procedures	Is there a description of the procedures used to administer the instrument? Are any of the study's administrative or procedural limitations discussed?
Variables	Are variables adequately described? Was a rationale provided for their use? Were the variables chosen appropriate for answering the research question(s)?
Data analysis/results	What type of data and statistical analysis was undertaken? Was it appropriate? How many of the sample participated? Were tables and graphs presented in clear and understandable fashion? Significance of the findings?
Discussion	Are the findings linked back to the literature review? If a hypothesis was identified was it supported? Were the strengths and limitations of the study including generalizability discussed? Was a recommendation for future research made?
References	Were all books, journals and other media alluded to in the study accurately referenced?

Adapted from: Coughlan, M., Cronin, P., & Ryan, F. (2007). Step-by-step guide to critiquing research. Part 1: quantitative research. *British Journal of Nursing*, 16, 11, 658-663.

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Theoretical framework	Has the conceptual or theoretical framework been identified? Is the framework adequately described? Is the framework appropriate?
Method and philosophical underpinnings	Has the philosophical approach been identified? Why was this approach/method chosen? Does the author describe or reflect upon their role or positionality?
Research setting	Was the setting properly and completely described? Were the circumstances under which the data was collected described?
Sample	Is the sampling method and sample size described? Is the sampling method appropriate? Were the participants properly and completely described? Were the participants suitable for informing the research purpose as described?
Ethical considerations	Were the participants fully informed about the nature of the research? Was the autonomy/confidentiality of the participants guaranteed? Were the participants protected from harm? Was ethical permission granted for the study?
Data collection/data analysis	Are the data collection strategies described? Are the strategies used to analyze the data described? Did the researcher follow the steps of the data analysis method identified? Was data saturation achieved?
Rigor	Does the researcher discuss how rigor was assured? Were credibility, dependability, and transferability described?
Findings/discussion	Are the findings presented appropriately? Was sufficient descriptive information given to allow the reader to conclude that the author's interpretations were grounded in the data? Does the researcher address internal validity through "triangulation," that is, verification of the findings via member checks/other documentation/other sources/other researchers? Does the author acknowledge the lack of generalizability of the study findings, and/or suggest a replication of the study? Has the original purpose of the study been adequately addressed?
Conclusions/implications and recommendations	Are the importance and implications of the findings identified? Are recommendations made to suggest how the research findings can be developed?
References	Were all books, journals and other media alluded to in the study accurately referenced?

Adapted from: Ryan, F., Coughlan, M., & Cronin, P.(2007). Step-by-step guide to critiquing research. Part 2: qualitative research. *British Journal of Nursing*, 16, 11, 738-744.