A Brief Guide To Reviewing Research Articles

A review of a “research article” (i.e., a published report of a research study) has two parts: a summary and a critique. In fact, this type of review is often called a “summary and critique.” The summary is generally much shorter than the critique.

Summary:
Give a concise and accurate summary of the study purpose, design, findings, and conclusions:

1. Type of study (e.g., randomized clinical trial, quasi-experimental)
2. Purpose of study (e.g., to test the hypothesis that....)
3. Materials and methods:
   • subject population (numbers, sex, ages, demographics, characteristics, etc.)
   • variables/measures/indicators, and the methods of observation
   • numbers of trials, length of time intervals, etc.
   • statistical analyses (or lack thereof) in the study design
4. Results:
   • actual results (e.g., means and variance, distribution)
   • statistics derived from the data; significance (or lack thereof) of statistics
5. Discussion/Conclusions:
   • how did the authors interpret the results or their significance and answer their research question?

Critique:
Discuss the strengths and weaknesses of the study:

1. Introduction: clarity and rationale of background and stated purpose/questions
2. Methods:
   • are they valid for studying this problem?
   • could the study be duplicated from the information given?
   • are there flaws in the methods (e.g., inadequate sample selection, inappropriate experimental design?)
3. Results: accuracy and reliability of observations
   • are the data presented in tables and illustrations organized for ready comparison and interpretation?
   • are there discrepancies between text and tables?
   • do the results reveal what the researcher[s] intended?
4. Discussion:
   • does the interpretation arise logically from the data, or is it too far-fetched?
   • is the interpretation at odds or in line with other researchers' thinking?
   • have all key studies been considered?
   • have the authors discussed the strengths and limitations of their own research?
   • do they suggest further work?
Be sure to consider the following, too:

1. Bias:
   - is the study biased in any way?
2. Disclosure:
   - do the authors share their results?
3. Logical reasoning: validity of design and conclusions
   - internal (did they answer the research question?) AND
   - external (is the study generalizable to another population or a currently held theory?)
4. Clarity of presentation:
   - does the title precisely state the subject of the paper?
   - does the abstract accurately summarize the article?
   - is all material organized under the appropriate headings?
   - are sections subdivided logically?
   - reflect on the writer's thinking and writing style: is it clear, concise, and precise?

Sources


Richards, D. PHE308 (Sports Medicine), unpublished instructional material. Faculty of Physical Education and Health, University of Toronto, Toronto, Canada.

Taylor, D. Unpublished instructional material. Health Sciences Writing Centre, University of Toronto, Toronto, Canada.

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