

- The methods used to conduct the study were not clearly described or not described at all.

This is quite a series of pitfalls. To help you avoid the worst of them, you might want to ask the following set of questions about any research article.

Criteria for Judging a Research Study

Review of Previous Research

1. How closely is the literature reviewed in the study related to previous literature?
2. Is the review recent? Are there any outstanding references you know about that were left out?

Problem and the Purpose

3. Can you understand the statement of the problem?
4. Is the purpose of the study clearly stated?
5. Does the purpose seem to be tied to the literature that is reviewed?
6. Is the objective of the study clearly stated?
7. Is there a conceptual rationale to which the hypotheses are grounded?
8. Is there a rationale for why the study is an important one to do?

Hypotheses

9. Are the research hypotheses clearly stated?
10. Are the research hypotheses explicitly stated?
11. Do the hypotheses state a clear association between variables?
12. Are the hypotheses grounded in theory or in a review and presentation of relevant literature?
13. Are the hypotheses testable?

Method

14. Are the independent and dependent variables clearly defined?
15. Are the definition and description of the variables complete?
16. Is it clear how the study was conducted?

Sample

17. Was the sample selected in such a way that you think it is representative of the population?
18. Is it clear where the sample came from and how it was selected?
19. How similar are the subjects in the study to those that have been used in other similar studies?

Results and Discussion

20. Does the author relate the results to the review of the literature?
21. Are the results related to the hypotheses?

22. Is the discussion of the results consistent with the results?
23. Does the discussion provide closure to the initial hypotheses presented by the author?

References

24. Is the list of references current?
25. Are the references consistent in their format?
26. Are the references complete?
27. Does the list of references reflect some of the most important reference sources in the field?
28. Does each reference cited in the body of the paper appear in the reference list?

General Comments About the Report

29. Is the report clearly written and understandable?
30. Is the language unbiased (nonsexist and relatively culture free)?
31. What are the strengths and weaknesses of the research?
32. What are the primary implications of the research?
33. What would you do to improve the research?

In my class, students are required to answer all 33 of these questions for a research article that reports about an experimental study in their discipline.

Planning the Actual Research

You are well on your way to formulating good, workable hypotheses, and you now know at least how to start reviewing the literature and making sense out of the hundreds of available resources. But what you may not know, especially if you have never participated in any kind of research endeavor, is how much time it will take you to progress from your very first visit to the library to your final examination or submission of the finished research report. That is what you will learn here.

Although you still have plenty to learn about the research process, now is a good time to get a feel for the other activities you will have to undertake in order to complete your research project. It is also helpful to get a sense of how much time these activities might take.

First the activities. Table 13.1 shows an example of a checklist of activities you probably need to complete in order to complete your proposal (or research). The activities are grouped by the general headings previously discussed.

Now for computing how much time the process will take. One effective way to do this is to estimate how much time each individual activity (writing the literature review, collecting data, etc.) will require, using some standard measure, such as days, keeping in mind that sometimes things go

- Just as planned
- Not as well as planned
- Not well at all (which usually is the rule, rather than the exception).

Now take the average of these values. To be more precise, let's break workdays into four-hour chunks (for morning and evening) and call each chunk one unit of time. There are then ten units of time in one week. If you enter Table 13.1 as a spreadsheet (using a program such as Excel), you can easily sum the columns as you fiddle and tinker with the amount of necessary time.