

Good Writing Practice

Methods of a journal article



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Introduction

The Methods section of a journal article is an experimental section along with the Results. It is analysed below in terms of 1. rhetorical intent, 2. thematic focus, 3. tense, 4. inclusion of materials, and 5. inclusion of data.

1. Rhetorical intent

The rhetorical intent of the Methods section is to convey an exactness and sufficient detail for evaluation and duplication of a study by another research expert. A researcher-author's attention to written detail is equated by a reviewer to the exactness with which the research was designed, performed, and interpreted. Not surprisingly, the amount of detail is often indicative of information unfamiliar to the author rather than to that of the expected reader(s). Thus, explanation is unnecessary for established methodology familiar to experts in the discipline.

The Methods section is ostensibly the easiest section to write, probably because the information is technical rather than conceptual, and the sequence is chronological (e.g., operational) rather than thematic. These characteristics may be the reasons many authors begin writing a journal article with this section. However, writing

this section could be premature if the data are inadequate to support publication.

2. Thematic focus

The sentences are not instructional (2nd person) but descriptive (3rd person, i.e., focused on "what" not "who"). Thus, sentences in a Methods section involve use of the passive voice.

Example 1

We isolated the protein...

Revision

The protein was isolated...

Example 2

Gel filtration chromatography was used to isolate the protein.

Revision

The protein was isolated by gel-filtration chromatography.

Notes

The revision to Example 1 is necessary to avoid the egotistic repetition in other sentences whose subjects could also be *we*. The revision to Example 2 is necessary to deemphasise *gel-filtration*.

3. Tense

The past tense is the least controversial tense usage for the Methods section in a journal article, which is justifiable as a retrospective in perspective. However, some information verb usage

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(and thus tense) can be avoided by using a list (see Example 4, below).

4. Inclusion of materials

Usually, non-multilevel materials are embedded (parenthesised) into the text of the Methods.

Example 3

The source of proteins A and B was serum of Sprague-Dawley rats (Jefferson Laboratories).

In contrast, multi-level information, that is, a grouping and subgrouping of many related details, contains too much information and is too distracting to be melded with descriptive methods. Consider a semi-table:

Example 4

Patients, individuals, experimental animals

- criteria for inclusion or exclusion
- characteristics

Questionnaire

- categories of questions

Data management

- statistical tests

Inclusion of data

Data may be included in the Methods section if it is intermediate data and not the focus of the journal article. Such intermediate data may include calculations. These are common in biostatistics journals where calculation functions as a prerequisite for application and subsequent statistical analysis, the purpose of which is to evidence a lack of bias in data collection. Such prerequisite data may even be expressed in tables. As an example, in survey studies involving completion of questionnaires, the number of completions and possible reasons for incompleteness may be stated as intermediate data.

Conclusion

Every section of the journal article has its unique difficulties. Attention to the above cited characteristics (1 to 5) may lessen difficulties in preparing the Methods section, thus ensuring success.