

Facilitator Notes

# Writing the Methods Section

These notes accompany the PowerPoint presentation of the same title by Barbara Gastel.

This module normally would accompany modules on writing other parts of a journal article.

|  |  |
| --- | --- |
| Module Title | Writing the Methods Section |
| Course title (or analogous information) | This module typically would be part of a workshop or course largely on writing and publishing journal articles on research. It is part of a set of four modules, each on writing one of the four main parts of a journal article in the IMRAD structure (Introduction, Methods, Results, and Discussion).  These modules may be presented in different orders, depending on the facilitator’s preference. One option is to present the modules in the order in which the sections appear in an article (Introduction, Methods, Results, Discussion). Another option, especially if each participant will write or revise an article during the workshop or course, is to present the modules in an order that authors often write articles (for example, Methods, Results, Discussion, Introduction). |
| Unit Title | Not applicable |
| No. of Unit | Not applicable |
| Session Day/Time | Not applicable |
| Length of Session | This module typically would run about 45 to 60 minutes if participants have not brought drafts to revise. If they have brought drafts, it typically would run 60 to 90 minutes.  If the module is in a workshop or course where participants write journal articles, it can be advisable to (1) have the course participants draft their methods sections after this session and (2) have participants meet in small groups on a later date to read and provide feedback on each other’s drafts of the section. |
| Aim | This module is intended mainly to increase participants’ ability to write suitable methods sections of journal articles. |
| Learning Outcomes | By the end of this module, participants will be able to state (1) the purposes of the methods section and (2) the types of information to include in the methods section. |
| Facilitator Profile | Ideally, this workshop would be facilitated by someone who has experience with research writing (for example, as an author of journal articles or as an editor), because such an individual can enrich the content with examples from his or her experience. However, a less experienced facilitator also can present the module, as the combination of PowerPoint slides and facilitator notes provides sufficient information to do so. Also, the module can be presented jointly by a facilitator and a co-facilitator who provides additional commentary. |
| Participant Profile | This module is primarily for early-career researchers who are starting to publish their work. It also may be useful to mid-career researchers who wish to improve their writing or increase their ability to mentor others in research writing. In addition, it may be helpful to some editors and writing instructors. |
| Pre-workshop Activities | (1) If possible, each participant should bring a set of instructions to authors. Ideally, the instructions should be for a journal in which the participant hopes to publish. If at least some participants will not or might not bring instructions to authors, the facilitator should, if possible, bring some instructions to authors or links thereto.  (2) If possible, each participant should bring a journal article reporting research in his or her field. Ideally, it should report research related to the participant’s research and should be in a journal in which the participant hopes to publish. If at least some participants will not or might not bring articles, the facilitator should, if possible, bring some articles or some links to articles.  (3) If the participants have drafted journal articles, they should bring drafts of their articles. |
| Room Layout | Ideally, this module will be presented in a room layout facilitating interaction—for example, with several small tables, with tables in a U configuration, or with a conference table. However, this module also can be presented in a traditional classroom or a lecture hall. |
| Number of Participants | For optimum discussion, the number of participants should be limited to about 10–15. However, the module also can reasonably delivered to about 25 participants. |
| Files and Materials | PowerPoint file: 12\_Writing the Methods Section  Examples of Methods Sections: If possible, the facilitator should show one or more examples of methods sections. Ideally, the examples should be from journals in research fields from which some of the participants come.  [Note: Another resource to consider using with these four modules is the annotated journal article at <http://www.authoraid.info/en/resources/details/648/>. Facilitators may, for example, do one or more of the following: (1) use this resource as a source of background information, (2) show the respective sections of this resource when discussing the corresponding sections of a journal article, (3) have participants look at this resource as a review after the set of four modules on sections of an article, or (4) as a course assignment, have participants read this resource and then annotate an article from their own field.] |
| Visual Aids and Resources | Computer with PowerPoint; projector for PowerPoint presentation; Internet connection if possible |
| Potential Embellishments of the PowerPoint | To keep the file small, the presentation consists almost solely of text. Images can be added to make it more visually appealing. For example, decorative images can be inserted between sections to signal a change of subtopic and provide visual relief. Also, relevant images can be added to selected slides if desired. Such images may show, for example, laboratory equipment or people working in a laboratory.  If desired, the facilitator can divide the material on a given slide into more than one slide or can format some slides for progressive disclosure, in which items on a slide are revealed one by one.  The facilitator may add slides showing relevant excerpts from journal articles. Another option is to link to journal articles to show. |
| Learning methods and activities | The following notes may help facilitators to (1) elaborate on the content of some slides and (2) elicit group participation at suitable times. In the PowerPoint presentation, similar notes appear in the notes sections below the respective slides.   * (Slide 1 is a title slide.) * Slide 2 (“Overview”)   + Note the topics that the module will address.   + Note the module’s overall aim, which is stated earlier in this facilitator’s guide. (Feel free, of course, to frame it in the way that the group is likely to find most relevant.)   + Perhaps also note that even in journals without separate methods sections, information of the type to be discussed in this module may well appear.   + Perhaps note that in some journals, some of the information about methods appears in figure captions rather than in the methods section.   + Perhaps remind participants that in some journals, the methods section comes at the end of the article rather than immediately after the introduction. * Slide 3 (“Why have a methods section?”)   + Have groups of two or three students identify purposes of the methods section.   + Then reconvene the full group and have people report back. * Slide 4 (“Purposes of the Methods Section”)   + After presenting the points on this slide, note that the methods section must contain the information needed to achieve these purposes.   + Perhaps ask participants for examples of readers who wouldn’t replicate research themselves but would want to evaluate it. Examples could include physicians, policy makers, and others interested in applying research findings. * Slide 5 (“Methods: Basic Information to Include”)   + Note that methods sections generally must state the manufacturers of equipment and products used in the research.   + Note that many journals refuse to publish research on humans or animals if the research has not been approved by a committee designed to ensure that ethical standards for research conduct are followed. * Slide 6 (“Methods (cont)”)   + Note that subheadings in methods sections can help guide readers.   + Ask participants to identify some purposes for which tables and figures can be used in methods sections. (Before addressing this item with the full group, it can be helpful to have pairs or small groups come up with some examples and report them.) Some possibilities to consider mentioning if they don’t come up are the following: A flow chart may be used to show the steps in the research. A map may be used to show the location of the research. A diagram may be used to show apparatus used in the research. A table may be used to list experimental conditions.   + After going through the points in this slide, it is advisable to show some examples of methods sections and to point out features such as those noted in this slide and the previous one—for example, presence (or absence) of subheads, presence (or absence) of tables and figures, verb tense used, and types of information included. * Slide 7 (“Methods: An Issue . . .”)   + Perhaps begin by having small groups discuss this question.   + The take-away message should be the following: If a method already is familiar to readers, just mention it by name and cite the reference for it. If a method was described in the literature but most readers aren’t familiar with it, cite the reference and briefly summarize the method so readers can get an idea of what was done without consulting the reference. And if the method was newly devised for the current research, describe it in enough detail for others to replicate the work.   + Note that if researchers modify a published method, the methods section must state the modification(s). * Slide 8 (“Exercise”)   + Have the participants do this exercise in small groups.   + Then bring the full group together for discussion. * Slide 9 (“Another Exercise”)   + If most or all of the participants have brought drafts of their methods sections, do this exercise.   + Another option is to have participants draft their methods sections after this module and then do this exercise at a later session.   + This exercise is well suited for groups of about three or four members.   + If feasible, have the full group come together for discussion at the end of this exercise. One option is to proceed as follows: (1) Have participants note some strengths that they observed in other group members’ methods sections. (2) Have participants wishing to do so identify some helpful guidance that they received during the exercise. (3) Answer questions, either along the way or at the end.   + If this session will be the first one in which participants provide feedback on each other’s drafts, perhaps precede this exercise with some discussion of giving feedback. Suggestions for giving feedback appear at <http://www.authoraid.info/en/news/details/1058/>, <http://www.authoraid.info/en/news/details/649/>, and <http://www.authoraid.info/en/news/details/302/>. Also, suggestions for receiving feedback appear at <http://www.authoraid.info/en/news/details/1059/>. Of course, some facilitators might need to adapt the advice on giving feedback to the cultural context. * Slide 12 (“In Conclusion”)   + If time permits, include a question-and-answer session before ending.   + Perhaps do one or both of the following:     - Have participants note points to remember.     - Summarize the session.   + If the workshop or course will include later modules, note the topic of the next module. Perhaps also note more generally what will follow.   + Perhaps encourage group members to share points from this session with others. |