

Facilitator Notes

# Writing the Results 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. If desired, it can be combined with the module on preparing tables and figures.

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| Module Title | Writing the Results 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).As noted, the current module can be combined with the module on preparing tables and figures. |
| 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 results 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 results sections for journal articles. |
| Learning Outcomes | By the end of this module, participants will be able to state (1) features of a good results section and (2) principles of integrating tables and figures into a results 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: 13\_Writing the Results SectionExamples of Results Sections: If possible, the facilitator should show one or more examples of results sections. Ideally, the results sections should be from journals in research fields from which some of the participants come. The facilitator can decide on appropriate times to show the results sections or excerpts from them.[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. 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.)
* Slide 3 (“The Results Section”)
	+ After identifying the results section as the core of the paper, perhaps say something like “No results, no paper”.
	+ Note that although the results section is central, it need not always be long. Indeed, in research with clear, focused findings, the results section may be quite short.
	+ Note the need to summarize findings (for example, by providing summary statistics) or to present representative findings rather than presenting all the data in detail. Perhaps say that the results section should be part of the story being told about the research, rather than being only a “data dump”. Perhaps note that detailed data sometimes can be presented in online supplements to journal articles or otherwise posted online.
	+ In presenting the fourth bullet point, ask the group where in a journal article the authors should comment on the results. (Answer: the discussion section.) This point can lead into the last bulleted item on the slide.
* Slide 4 (“What are some ways to structure or organize the results section?”)
	+ Have small groups discuss this question.
	+ Then bring the full group together, and hear and discuss some of the responses.
* Slide 5 (“Organizing the Results Section”)
	+ Emphasize that although there is no one structure for all results sections, the results section should have a logical, easy-to-follow structure.
	+ Note that two common structures for results sections are from most important to least important finding and chronological (in the order in which components of the research were done). Note other structures that were mentioned in responses to the question on the previous slide. Some possibilities to consider mentioning if they have not come up include geographic and by age group.
	+ Note that if experiments or other research components were presented in a given order in the methods section, it generally works well to present the findings in the corresponding order in the results section.
* Slide 6 (“Verb Tense for the Results Section: Past Tense”)
	+ Note that in most research fields, results are presented in past tense.
	+ Show some examples of presenting results in past tense. Feel free to use the examples on this slide or to use other examples (or both).
* Slide 7 (“Results Sections of Papers with Tables or Figures”)
	+ Note again that papers reporting research commonly include tables, figures, or both. Perhaps ask participants whether papers commonly do so in their fields.
	+ Emphasize that the text in the results section should not repeat in detail the information in the figures and tables. Rather, it should present highlights of the figures and tables and the overall message of each.
* Slide 8 (“Mentioning Tables and Figures: Some Writing Advice”)
	+ Ask why the second option tends to be preferable. Perhaps have participants discuss this question.
	+ Some points to bring out: As is appropriate, the second option emphasizes the finding rather than the table. Also, the second option is more concise (briefer).
* Slide 9 (“Exercise”)
	+ Have the participants do this exercise in small groups.
	+ Then bring the full group together for discussion.
* Slide 10 (“Another Exercise”)
	+ If most or all of the participants have brought drafts of their results sections, do this exercise.
	+ Another option is to have participants draft their results 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’ results sections. (2) Have participants wishing to do so identify some helpful guidance that they received during the exercise. (3) Answer any 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.
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