

Citations must be complete. All authors must be named in the order that they appeared in the publication. The title of the publication should appear next, followed by the name of the journal or book it appeared in. Next, give the volume number, inclusive pagination and the year of publication. If necessary, have your references retyped to make sure that they conform to this format. If you know the URL for a publication that is available online it can be included in the citation, in contrast to what is allowable in the body of the Project Description (Chapter II, Section D.2.d(ii) of the *Proposal and Award Policies and Procedures Guide*). Inclusion of URLs in the References Cited section is optional.

We recommend that you arrange your references in alphabetical order by the first author's last name. This is maximally reviewer friendly when you cite references in the text using author, year. We additionally recommend that you use hanging-indent format, i.e., first line of each reference beginning at the left margin with subsequent lines indented one tab. This approach saves space by individualizing references without opening a line between each of them.

## **LEARNING MILESTONES FOR CHAPTER 12:**

### **BACKGROUND SECTION**

#### **Review of Relevant Literature Subsection:**

1. Title the subsection Review of Relevant Literature, not Background.
2. Write this subsection after you have written the Research Plan section.
3. Use this subsection to justify the need for what you are proposing, i.e., make sure that it supports the need for the contributions that you expect to make.
4. Cite primary literature in this section, not review articles or book chapters.
5. Ensure that this subsection is completely up to date, especially if you are submitting a revision of a previously reviewed proposal.
6. Be sure to cite the work of researchers whom you will recommend as potential reviewers of your application.
7. Make certain that your citations of the literature are balanced, i.e., not too many of your own or that support only your point of view.
8. At the end of the subsection, create a segue that will provide a seamless transition into the next two subsections.

#### **Results from Prior NSF Support Subsection:**

9. Determine whether either you or Co-PIs on the application with you have had NSF research support with an end date in the last five years (from the date of submission of this proposal).
10. If you have had such support, describe it within the Project Description, not as a separate part of the application.
11. The summary of each prior NSF grant must have two subsections, "Intellectual Merit" and "Broader Impacts."
12. Describe prior NSF support using the mandatory points stipulated by the *Proposal and Award Policies and Procedures Guide*, Chapter II, Section D.2.d.(iii).
13. Describe unrelated prior support as briefly as possible. Present the stipulated information sequentially, not as a bulleted list.
14. Develop the mandatory points more extensively for related prior support, especially if the

current application is a renewal of prior support.

15. Be aware that the pages used to describe prior NSF support count against the 15-page total for the Project Description of a standard grant proposal.

#### **Preliminary Studies Subsection:**

16. Organize existing preliminary data that you have.
17. Establish what is needed to support the feasibility of what you intend to propose.
18. Focus your efforts short term on producing any missing data.
19. Organize this subsection along the lines of your central hypothesis and specific objectives/aims.
20. Title each sub-subsection in such a way that the purpose of the Preliminary Studies subsection is emphasized, i.e., that it reflects establishment of feasibility in your hands.
21. Organize and present each data set to support a single point. Accompany those data with a single paragraph that discusses that point.
22. Make sure that all of the print associated with tables and figures is legible, especially if you have reduced a table/figure in size.
23. Write this subsection in such a way that the text leads reviewers through the data you present.
24. Include a fully italicized sentence at the end of each paragraph that tells reviewers how the data just presented support feasibility of some part of the project.
25. Vary the data-presentation format as a means of making the subsection maximally appealing to reviewers.

#### **REFERENCES CITED SECTION**

26. Be selective in your choice of supporting literature. Strive for something between 50 and 100 references.
27. Make sure that each reference is accurate and complete. It is optional to provide the URL for publications that are available on-line.
28. If necessary, have your references retyped to ensure that they conform to the format for presenting them that is given by the *Proposal and Award Policies and Procedures Guide*, Chapter II, Section D.2.e).
29. Do not use the References Cited section to present methodology or anything else that isn't a bibliographic citation.
30. Order your references alphabetically on the basis of the last name of each first author.
31. Use hanging-indent format to present your references without an open line after each.