

BME1450
Guidelines for Peer Review
Due: Oct 24 & Nov 7, 2016

Throughout your academic career, you will be on both sides of the peer review process and it is important to learn both how to give constructive feedback and to benefit from and respond to it. You will form a peer review committee consisting of yourself and at least 2 other students. You will work together to improve and refine each of your thesis proposals. In some cases, it can be very helpful to have your proposal reviewed by someone with little knowledge in the field as it helps to identify where improved clarity is needed. In this case, we will form peer review committees consisting of students with similar research interests (if possible). Throughout the term, you will review and discuss the following documents with 2 other members of your committee:

1. Thesis proposal outline
2. Thesis proposal 1st draft

It is appropriate and encouraged throughout the term to discuss your ideas and the challenges you are facing in your research design both with your peer review committee and with your research supervisor. These conversations will help you to organize your thoughts and come up with new ideas, and are fundamental to the progress of research.

1. Review of thesis proposal outlines (2 reviews, due Oct 24)

The 2 other members of your peer review committee will email you their thesis proposal outline on Oct 17 and you will email yours to them (If you have a group of 4, find 2 proposal outlines to review). You will fill out the attached document for each of your colleague's outlines, and discuss with your peer review committee. Given time constraints, these discussions must take place outside of class. You will submit (post on Blackboard) copies of your 2 reviews on Oct 24 (no later than 5 PM).

2. Review of thesis proposals-1st drafts (2 reviews, due Nov 7).

Using the thesis proposal evaluation guidelines (attached) as a guide, provide your peer review committee members with a mark and detailed comments on their proposal. You should agree on a format in advance – tracked changes/comments in a word document is recommended. Your evaluation of your colleagues will not count towards their final mark. Remember that a critical review at this stage will help them to improve their document. *You will however be evaluated on the quality and detail of your review of their work.* You must bring copies of these documents to class for distribution to all members of your peer review committee. You must submit (post on Blackboard) copies of your 2 reviews on Nov 7 (no later than 5 PM).

3. Response to Reviews (To be submitted as an appendix to your thesis proposal on Nov 14).

Your last task in the peer review process is to write detailed responses to the feedback provided to you by your peer review committee. This document will be included as an appendix when you submit your thesis proposal on Nov 14. In writing your response, it is not necessary to specify every typo or spelling mistake that you corrected. However, it is important to address the major concerns thoughtfully and to describe either of the following:

- A. The changes that you made in response to the comment. For example:

Reviewer comment: *Why did you choose a sample size of 12 participants?*

Response to reviewer: *In response to the reviewer's comment, I conducted a sample size calculation based on the main outcome measure. To be able to statistically detect a clinically significant change in this variable (i.e. increase of 5 points), I calculated that I would need a sample size of at least 16 participants. As such, I have increased the proposed number of participants to 16 and have included a brief description of the sample size calculation in my proposal.*

OR

- B. Further rationale or description supporting your original plan. For example:

Reviewer comment: *Why did you choose a sample size of 12 participants?*

Response to reviewer: *A sample size of 12 participants was chosen as this is a pilot project with no previous data on which to base a rigorous sample size calculation. The sample size was therefore selected based on the resources (time, funds) available. One of the goals of this study is to provide data needed to calculate the required sample size in the design of a larger, future randomized control trial. This expected outcome has been added to the research proposal, as has the pilot nature of this study.*

Review of Thesis Outline

Reviewer Name:

Investigator Name:

Peer Review Committee #:

Project Title:

Brief description of project (to be completed by reviewer):

Please answer the following questions and provide detailed explanations/suggestions where appropriate.

1. Are the objectives/research questions clear?
2. Is the outline of the literature review appropriate and complete?
3. Is the rationale for the study coherent and complete?
4. Is the research innovative?
5. Are the methods (design, measurement, analysis) appropriate to achieve the objectives?
6. Are the expected study outcomes compelling and complete?
7. Is the study feasible?
8. Is the organization of ideas clear and easy to follow?
9. Was the document easy to read and understand?
10. What is your overall assessment of the project?
11. Please identify major issues and specific recommendations.

Review of Thesis Proposal – 1st draft

Reviewer Name:

Investigator Name:

Peer Review Committee #:

Project Title:

Brief description of project (to be completed by reviewer):

In addition to your detailed comments and corrections within the document, please answer the following questions and provide explanations/suggestions where appropriate.

1. Are the objectives/research questions clear?
2. Is the literature review appropriate and complete?
3. Is the rationale for the study coherent and complete?
4. Is the research innovative?
5. Are the methods (design, measurement, analysis) appropriate to achieve the objectives?
6. Are the expected study outcomes compelling and complete? Is there a dissemination plan and timeline?
7. Is the study feasible?
8. Is the organization of ideas clear and easy to follow?
9. Was the document easy to read and understand?
10. What is your overall assessment of the project?
11. Please identify major issues and specific recommendations.

Lastly, based on your review, please complete the evaluation form on the following page and identify areas where improvements are needed.

Components	Description	Mark	Areas for Improvement
Abstract	Short (<400 words); Presents a concise summary of what's to come including: background/rationale, objectives/questions, methods, expected results/significance	/10	
Rationale/Motivating Problem	Describes the clinical or practical problem; Convincing rationale noting the social implications and/or need	/10	
Background/Literature Review	Provides the reader with the knowledge needed to understand the proposed research; synthesizes previous research and knowledge in the field	/10	
Objectives/Research question & hypotheses	Specific and focused; Quantitative and precise	/10	
Methods	Sufficient detail to convey what and how you plan to address your objectives/questions; descriptions of special equipment, design, & protocols; description of planned data analyses	/15	
Expected Results/Outcomes	Preliminary results (if applicable); Expected results; Timeline; Dissemination plan	/10	
Significance/Conclusions	Description of the contributions your proposed research will make; What are the implications of your research?	/10	
Citations/References	Appropriate formatting; key papers referenced; appropriate number to support proposal; mixture of types (e.g. journals and conference papers)	/5	
Itemized response to peer reviews	Provides complete and thoughtful responses to peer review feedback; justifies choices and/or makes revisions as appropriate	/5	
Overall			
Organization	Use of sub-headings; logical flow	/5	
Presentation	Use of graphs, charts and figures; formatting	/5	
Readability/grammar	Language, spelling, grammar	/5	
	Total	/100	/100