



What were the observations, problems, research needs, etc. that lead to an interest in this topic?  
What is the rationale for looking at the problem?

2. Literature Review

What studies have already been done on this or related questions or similar systems?

What hypotheses, predictions, explanations, or questions derive from the scientific literature?  
What are the gaps in knowledge?

3. Hypotheses/Research Objectives

- a. State what hypotheses you are proposing to test and/or
- b. Clearly state the research objectives.

4. Significance/Relevance

- a. What is the point of doing this work in an applied, environmental or societal context

5. Methods

- a. Clearly state what methods you will use to obtain and analyze your data
- b. Associate the methods with your research hypotheses or objectives
- c. Provide an idea of how to restructure work if certain portions do not yield results

6. Preliminary Results (if available)

- a. Summarize any results already obtained
- b. Organize by hypotheses or objectives
- c. Interpret the results, don't merely show the data
- d. What data still need to

b. Cost of technical help

c. Any equipment that may be specifically required

It is important that the student demonstrate the commitment (that he or she has) clearly state the problem and the rationale and the methods to study it,