HOW TO WRITE THE ABSTRACT

1. Key Questions We Must Answer

- **What** is your study about, in miniature and without specific details?
- **What** did you investigate? Why? State your main objectives.
- **What** did you do? Describe methods.
- **What** did you discover? Summarize the most important results.
- **What** do your results mean? Why are they important? State major conclusions and significance.

2. The Importance of the Abstract

A well written abstract will be widely published since many computerized databases and printed indexes reprint abstracts so scholars can reference them. Associations and corporations often publish abstracts and mail them to researchers. Thus, if you want to your research to have impact, you should work as hard to make it interesting.

3. Be Clear and Simple

Remove generalizations, extra words and little known technical words. Use strong and specific language. Ask a friend or editor to read your abstract. If your reader cannot understand a sentence immediately, rewrite it. Conference organizers read hundreds of abstracts. Do not make them work hard to understand yours.

4. Word Limit

Your abstract should be single spaced in an easy to read 12pt font, like Times New Roman. Come as close as possible to the word limit, but don't go over. Stay within the word count. If your abstract is too long, either it will be rejected or someone else will shorten it. Your paper will be better if you shorten it yourself. A typical abstract word limit is 150 to 200 words.

5. Technical Terms

Do not use company names, acronyms, abbreviations or symbols in your abstract. You will have to explain these names which would use valuable space.

6. Tense

When writing the abstract, do not use the future tense, if you use the future tense some reviewers may think you haven't completed the research. Don't confuse verb tenses: use present tense to describe results with continuing applicability or conclusions drawn; use the past tense for tests completed; and future tense to predict findings.

7. Style

Be precise and detailed in your argument and analysis. Never simply say "Results of the study will be discussed." Write what the results are and why they are important. Use your own words. Avoid long sentences which use room and give no real information. For example, "Policy implications are discussed" or "It is concluded that."

Emphasize your own ideas, not the ideas of others. Don't quote or paraphrase others in the abstract. Any major limitations in the results should be stated by using conditional words such as "might", "could", "may", and "seem".

8. Don't Use "I" or Passive Voice

Do not use the first person "*I*" or "*we*." In addition, whenever possible, choose active verbs instead of passive ones. Write "*the study tested*" instead of "*it was tested by the study*" or "*I tested in the study*". Do not include references to figures or tables in the abstract.

9. Search Phrases

Keywords in the abstract are used by search engines more than index keywords. Think of search phrases and keywords that people looking for your paper might use. Use those exact phrases in your abstract, so your abstract is listed at the top of search results. Publications request "keywords" for two reasons. They are used to allow keyword index searches, which are not as important now that online abstract text searching is used. They are also used to assign papers to reviewers or editors, which is very important. Choose keywords that make you review category clear.

10. Title

Choose a clear, informative title that contains all the important parts of your presentation. These include; the key concept, the device or group studied and your argument. Very short and very long titles are not recommended. Using a title and a subtitle separated by a colon is often a good way to maximize information in a short space. It's easiest to choose a title after writing the abstract.

HOW TO STRUCTURE THE ABSTRACT

Abstracts are consistent in structure. Each of the sections may include one or more sentences.

❶ MOTIVATION

Why do we care about the problem and the results? If the problem isn't clearly "interesting" it is better to begin with the motivation. If your research is continuing a problem that is recognized as important, then it is better to put the problem statement first to show which piece of the problem you are working on. This section should include the importance of your work, the impact it will have if successful, and the difficulties encountered in this area.

❷ PROBLEM STATEMENT

What *problem* are you trying to solve? What is the *scope* of your work? Did you use a general approach, or for a specific situation? Be careful not to use many technical terms. State your research question clearly; the shorter the abstract, the sooner you need to let your audience know your main idea.
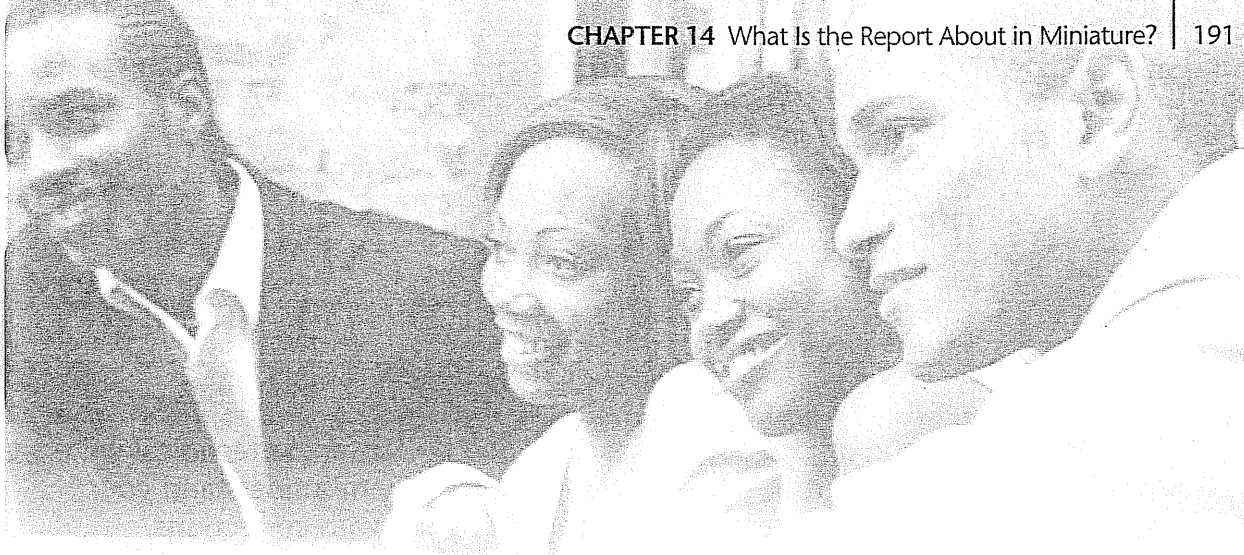
❸ APPROACH

How did you solve the problem? Did you use a simulation, analytical model, prototype, or analysis of field data? What was the extent of your work? What important *variables* did you control, ignore, or measure? This should be the center of the abstract. State here that your study offers a solution to the problem described in the problem statement. Briefly give details about the study. Where was it conducted, and with whom? Give the number and background of participants and sources of data. How long did the study last and how much data was collected?

❹ RESULTS

What's the answer? Conclude that something is faster, cheaper, smaller, or better than something else and give it as a percent. Include the result, in numbers. Avoid general, unclear words when describing your results such as "very", "small", or "significant." Then summarize your research findings.

❺ CONCLUSIONS

What are the implications of your answer? Is it going to change the world, be a significant contribution, be a nice project, or warn other researchers that this area is a waste of time? All of these are appropriate conclusions. Are your results general or specific to a particular case? You now need to return to the big picture: How do these findings answer the research question? What does this imply for the field? This discussion does not need to be long, but it should show that your research has significant implications.