**Writing an Abstract of Your Research Project**

An abstract is a short summary of your research. If done well, it makes the reader want to learn more about your project. Abstracts appear in paragraph form and, while they often follow a scientific model, abstracts can be created to fit any discipline. For the purpose of SCHOLAR Day, your abstract should be written for a very broad, general audience. This means that it should NOT be strictly a scientific abstract, if you are a scientist. Your abstract needs to be written in language that a lay audience can understand.

These are the basic components your abstract needs to cover:

1) What was your research project?
2) What methods or approaches did you use?
3) What did you discover?
4) And, if applicable, what are the implications of your research?

Despite the fact that this abstract needs to be quite brief (100 words), it must do almost as much work as the longer project you completed. Each question you answer should be 1-2 sentences. Past or present tense is fine, and first person (using the word “I”) is acceptable for some disciplines. The answers to the questions may be merged or spread among a set of sentences.

**Here’s an example of an effective abstract for a SCHOLAR Day audience:**

I will play sections and then analyze how Brazilian composer Hector Villa-Lobos was influenced by Brazil and by European composer Johan Sebastian Bach, as seen in the “Aria” of his *Bachinas Brasilieras No. 5*, which I examined in order to prepare for my Senior Culminating Experience as a cellist. I analyzed Brazilian music and Bach’s Preludes, as well as Villa-Lobos’ life and extensive travels in Brazil and Europe. Villa-Lobos’ nine *Bachinas Brasilieras* incorporate Bach’s baroque style; however, Villa-Lobos does not look to the past to compose a new kind of baroque music; he is committed to composing in his own Brazilian style by fusing the old, new, and the culturally diverse into his music.

**Notice that this abstract tells the reader a few things:**

1. What the person will DO in the presentation—what it is that was studied. Basically, you can write a very brief summary here of your project. There ought to be an argument here—overt or implied—that shows readers why your work was important do complete.
2. What the person DID as research—and as you can see, “research” here means investigating how a composer’s work is influenced, so this musician can interpret the composition well in her rendition of it.
3. What the person found out or discovered. Here the discovery was that Villa-Lobos had a dual influence which contributed to his very interesting brand of composing, which contributed to the presenter’s ability to play the music.
If you want a more detailed description of typical abstracts, read on. Just know that these prompts are for longer, more detailed abstracts, NOT for SCHOLAR Day abstracts.

**Motivation:**
*Why do we care* about the problem and the results? If the problem isn't obviously "interesting" it might be better to put motivation first; but if your work is incremental progress on a problem that is widely recognized as important, then it is probably better to put the problem statement first to indicate which piece of the larger problem you are breaking off to work on. This section should include the importance of your work, the difficulty of the area, and the impact it might have if successful.

**Problem statement:**
What *problem* are you trying to solve? What is the *scope* of your work (a generalized approach, or for a specific situation)? Be careful not to use too much jargon. In some cases it is appropriate to put the problem statement before the motivation, but usually this only works if most readers already understand why the problem is important.

**Approach or Methods:**
*How did you go about solving* or making progress on the problem? Did you use simulation, analytic models, prototype construction, or analysis of field data for an actual product? What was the *extent* of your work (did you look at one application program or a hundred programs in twenty different programming languages?) What important *variables* did you control, ignore, or measure?

**Results:**
*What's the answer?* Specifically, most good computer architecture papers conclude that something is so many percent faster, cheaper, smaller, or otherwise better than something else. Put the result there, in numbers. Avoid vague, hand-waving results such as "very", "small", or "significant." If you must be vague, you are only given license to do so when you can talk about orders-of-magnitude improvement. There is a tension here in that you should not provide numbers that can be easily misinterpreted, but on the other hand you don't have room for all the caveats.

**Implications:**
*What are the implications* of your answer? Is it going to change the world (unlikely), be a significant "win" in a fight over some issue, be a nice hack, or simply serve as a road sign indicating that this path is not fruitful to follow (the previous results are more useful). Are your results *general*, potentially generalizable, or specific to a particular case?

This information was taken from the University of California (UC) Day in Sacramento—Undergraduate Research Poster Presentations, at: [http://research.berkeley.edu/ucday/abstract.html](http://research.berkeley.edu/ucday/abstract.html) and the insights of the Task Force on Undergraduate Research at Mount Union College in 2009.

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