

RESEARCH WRITING

(adapted from Sebranek, Meyer, and Kemper, 1995 and Lindon and Raber, 1993)

It's time to put together all that you now know about your topic and share it with others. The following steps should make the process easier.

1. **Gather** all the material that you have collected on your topic. Organize it by category: pictures, diagrams, maps, sketches, cross-sections, etc.; expert sources such as books, pamphlets, brochures, videos, interviews, and library resources (including electronic); observational notes (while you were watching the crayfish, this is what you saw that relates to your question); experimental data (when you did your experiment, this is what happened); graphs showing what happened. Look it over to insure that you have at least one entry in each category

2. On a sheet of paper **List** words and phrases that you know and that are important to your topic. For example, if I'm writing about crayfish swimming, I will include uropod (tail) and swimmerets (small legs beneath the body that assist with locomotion) in my list. However, neither of those words may be needed if my topic is crayfish eating preferences. There I may list cheliped (pincer), antennule, sense of "smell", etc.

Begin by writing your **research question**. Connect ideas and phrases to it. The research question becomes your thesis or overall idea for the paper. It is the point you are trying to make. Your thesis may have one or several main ideas connected with it. List supporting details you can provide for your main ideas. State your main ideas and supporting details.

This list will serve as your guide or map of important ideas to include in your writing.

3. **Draft** your research story.

Start your story at the beginning and share with your readers everything important that happened until your research was completed.

Divide your paper into **five** parts:

a. **What I knew:** Begin by explaining why you picked this topic and what you did and didn't know before you started.

b. **What I wanted to know:** Explain what you hoped to find out from your research. This is your question and hypothesis.

c. **What I did:** Explain how and why you set up your research as you did, the expert sources you consulted, the conditions you imposed, the tools you used and/or designed, the sequence you followed, the data you collected.

d. **What I found out:** Follow with the story of your research.

Include all important parts of the experience from first observation to determining which graph to display data on. Tell it with emotion. Use

photographs with captions, sketches, charts, maps, cartoons, and brochures.

e. **What I learned:** Close by sharing with your reader what you learned or didn't learn and the evidence you have for your conclusions.

Write your story as though you're talking to a friend about what you wondered, what you did, what you found out, and what it all means. Try to convince them of your conclusions. Construct your arguments carefully by organizing your inferences, reasons, and evidence to build your case. Use dialogue, personal feelings, and lots of vivid details to maintain your readers' interest. (adapted from Sebranek, Meyer, and Kemper, 1995, section 270)

4. **Revise** your story. Begin with a strong **introduction**. Think of an introduction as similar to someone meeting you for the first time. You want them to know something about you, to like you, to be interested in you so that you can become friends, but you have to do all the talking.

Here, you are introducing your research story. Some ways to begin are:

- a. Tell a funny story about the research or something connected with the topic to set a humorous tone.
- b. Start with a simple or interesting fact or detail that will become important later in your story.
- c. Draw your readers into your writing with a question or two, even a series of them, about your topic which you later answer.
- d. Gain your reader's attention with a startling fact, a confession, quotation, or hint of what's to come.
- e. Outline a case study pertinent to your topic.
- f. Simply identify the main points you wish to cover.

Be sure to include some reference to what the reader should expect to follow in the story and how you are going to tell it (tone). If you begin in a humorous or sensational or serious or friendly tone. Try to keep it throughout the story or at least return to it in the conclusions.

Draw conclusions from your observations, experiment data, and reading. What can you say about your topic that is undeniably true? You have "evidence" that these statements are true. You have proof.

End your story successfully. Some suggestions for writing your last or concluding paragraph(s) are:

- a. Summarize and/or paraphrase ideas from the essay. Restate important ideas and findings using different words.
- b. Comment on issues you encountered using your own beliefs and opinions.
- c. Future view - tell what will happen next.

- d. List other questions that your research suggested to be answered.
- e. Include a quotation from an expert in your topic that is pertinent.
- f. Return to the technique you used in your introduction.
- g. Use a combination of any of the above.