

# The use of exploratory writing in scientific writing

*UW BACTER Institute, Dec. 2009*

While research is usually presented within the formal, rigid structure of the scientific paper, less formal types of writing can still play an important role in science, particularly when the goal is to generate and refine ideas. That's why we're going to practice today with a form known variously as exploratory writing, unstructured writing, free-writing or simply informal writing.

## What is exploratory writing?

Whatever term we choose, what we mean is the kind of exploratory, thinking-on-paper writing we do to discover, develop and clarify our own ideas. Exploratory writing is typically unorganized and tentative, moving off in unanticipated directions as new ideas, complications and questions strike the writer in the process of thinking and creating. Examples of exploratory writing include journals, notebooks, marginal notes in books, nonstop freewrites, reading logs, diaries, daybooks, letters to colleagues, notes dashed off on napkins, early drafts of essays, and what physicist James Van Allen, author of more than 270 scientific papers, calls "memoranda to myself."

"The mere process of writing," explains Van Allen, "is one of the most powerful tools we have for clarifying our own thinking. I seldom get to the level of a publishable manuscript without a great deal of self-torture and at least three drafts. My desk is littered with rejected attempts as I proceed. But there is a reward. I am never so clear about a matter as when I have just finished writing about it. The writing process itself produces that clarity. Indeed, I often write memoranda to myself solely for the purpose of clearing up my own thinking."

*—Engaging Ideas: A Professor's Guide to Integrating Writing, Critical Thinking and Active Learning in the Classroom, John C. Bean (2001) John Wiley & Sons, pp. 97-98.*

## Today's assignment: Focused free-writing

Write for 5 minutes about one of the figures or tables you brought with you, focusing on this question: What does this table / figure show and what do the results mean?

The goal is to think on paper rather than produce a polished piece for someone else to read. Here are a few guidelines:

1. Do not lift your pen from the paper, unless it's to relieve a hand-cramp. Try to write as quickly and continuously as possible.
2. If you're using a computer, keep your eyes off the screen or consider turning off the monitor.
3. Do not pause to correct spelling, grammar or organization, or read over what you've written. Let your ideas flow freely.
4. If you run out of things to say, simply write, "nothing to say," nothing to say," until the next thought grabs you. Or you may want to describe how you feel about the exercise.