Craft of Research (CoR): Chapter 4 - From Questions to a Problem

The 10 **salient sentence strings** presented below are lifted from the chapter without modification. They are presented in order of appearance in the chapter.

Ten Salient Sentence Strings

- 1. To make your research matter, you must address a problem that others in your community— your readers— also want to solve. To understand why, you have to understand what research problems look like. And to do that, you have to understand two other kinds of problems, what we'll call practical problems and conceptual problems. (Quote top of page 50).
- 2. Put in general terms, a practical problem is caused by some condition in the world (from spam to losing money in Omaha to terrorism) that troubles us because it costs us time, money, respect, security, opportunity, even our lives. We solve a practical problem by doing something (or by encouraging others to do something) to eliminate or at least mitigate the condition creating these tangible costs. (Quote bottom of page 50).
- 3. In research, a conceptual problem arises when we do not understand something about the world as well as we would like. We solve a conceptual problem not by doing something to change the world but by answering a question that helps us understand it better. (Quote middle of page 51).
- 4. In our everyday world, a problem is something we try to avoid. But in academic research, a problem is something we seek out, even invent if we have to. (Quote top of page 52).
- 5. Practical problems and conceptual problems have the same two-part structure: A situation or condition, and undesirable consequences caused by that condition, costs that you (or, better, your readers) don't want to pay. What distinguishes them is the nature of those conditions and costs. (Quote bottom of page 52).
- 6. When you write, readers judge the significance of your problem not by the cost you pay, but by the cost they pay if you don't solve it. So what you think is a problem they might not. (Quote bottom of page 53).
- 7. Practical problems like cancer are easy to grasp because they are concrete: when someone has cancer, we don't ask, So what? In academic research, however, your problems will usually be conceptual ones, which are harder to grasp because both their conditions and costs are abstract. (Quote middle of page 54).

- **8.** The consequence of a conceptual problem is a particular kind of ignorance: it is a lack of understanding that keeps us from understanding something else even more significant. Put another way, because we haven't answered one question, we can't answer another that is more important. (Quote middle of page 55).
- 9. We call research pure when it addresses a conceptual problem that does not bear directly on any practical situation in the world, when it only improves the understanding of a community of researchers. We call research applied when it addresses a conceptual problem that does have practical consequences. (Quote middle of page 57).
- 10. By now, all this talk about airy academic research may seem disconnected from what some call the "real world." But in business and government, in law and medicine, in politics and international diplomacy, no skill is valued more highly than the ability to recognize a problem, then to articulate it in a way that convinces others both to care about it and to believe it can be solved, especially by you. (Quote bottom of page 62).