

The Writing Center @ KUMC

The Research Paper

The thought of writing for an audience of experts/authorities is intimidating. The result of such fear is often work hampered by inappropriate notions of professional writing. Writers can do some things to overcome or avoid this pressure and to reach some useful conclusions about audience. But first, “What makes writing good? And what does it take *to be* a good writer?” Many of us don’t think about or avoid thinking about this question.

Before you write a single word of a paper/thesis, figure out not simply what your paper is going to be about. Discover what the one central and unique **contribution** of your paper is! Having a clear idea of contribution is partly what makes writing good. There’s more involved, of course, but this idea is prime. How can you figure this out? One way is to create an exploratory/personal form of writing.

Before you make a formal outline, write a single paragraph explaining what you want to do in your paper OR write a letter to a friend explaining what you want to do and why. This can help you clarify your contribution and purpose very quickly and effectively. You can even try writing to a layperson who would need more background and a different vocabulary. Ultimately, you might reach conclusions about the importance of an audience that you can visualize. You might even be able to revise for different audiences, including an authority figure for whom tact, evidence, and persuasion are **required**.

So, “What does it *take* to be a good writer?” The answer has much to do with audience. Readers mainly care about the unique contribution of a paper. They come to understand this contribution word by word. This holds true even if they skim your paper. The contribution should somehow be present everywhere in the paper—not necessarily as an explicit statement, but rather as evidence of you having carefully figured out the importance of your research. Thus, the paper should start with the contribution. Don’t wait until page 2, 3, or 4, or Table 5. A good paper is not a history of your search process. It’s a demonstration of a specific contribution to research.

Once you’ve identified your unique contribution, you’re in a conversation with others about that contribution. This exchange is dynamic. First, you assume that an expert audience knows the research. You must convince them you know it too because of your research. You present the common understandings and accepted findings of the topic as part of this conversation. Second, you pull the reader away from their certainties about the subject and gently lead them into your contribution. Now they’re relying on you to help them make sense of what they thought they understood. This is a fourfold process:

1. Establish your contribution early. Use previous studies as building blocks to show your contribution, not theirs. Don't cite previous research ritualistically. Let the reader see/make sense of your contribution.

2. Draw your reader in early. Make your paper the paper the reader wants to read.

3. Define terms as you use them so that the reader isn't supplying their own definitions. Define only when and as the reader needs terms defined. The paper should not be a list of definitions. Be strategic with data.

4. Think like a reader. What does a reader need to know to make sense of your paper? If you're going to use abbreviations, figures, and tables as shortcuts, make sure the reader can make sense of these shortcuts or they will provide their own explanations of your content based on their knowledge.

Finally, the parts of a research paper are **steps in a process** that requires thought for success.

The **introduction** can be hard to write first. So, write it last when the whole paper is clear to you and hence to your reader. If you need to refocus your ideas after writing methods and results, the big picture will be clearer. But if you already have the big picture clear, a threefold approach to the intro can work.

1. Show that the topic is important, central, interesting, and problematic in some way. Introduce one or more items of research to make this clear.

2. Indicate a gap or extend previous knowledge in some way (the start of your contribution).

3. State the nature of your research by asking a question or posing a hypothesis. Then state some important finding or principle. And then you can write a roadmap sentence/para if you prefer.

The **methods** section needs to be clear-cut. Other researchers will evaluate and try to repeat your method. Details are vital. Studies show that writers often use the *passive voice* in the methods section because of the empiricism of the research. Moreover, the active voice ("we did this") may end up sounding repetitive and disruptive. Get feedback from teachers and colleagues to ensure the method is accurate and clear.

The **results** section ought to be the easiest section to write, but many writers find it harder than methods. Results should be the most objective part of the paper, the unadorned data with minimal explanation. It lets the reader form their own judgement about the meaning of the data. So, keep explanations and interpretations to a minimum. And be selective with results. Use the

standards/guidelines of your field. And if more than one analysis of the data is needed, no problem; it should engage readers more actively.

In general, start with a summary: "The clinical outcomes show that..." This is followed by statements such as "The treatment group had lower mean arterial pressure than the control group." As you work through all the data, you can use transitions (e.g., "On the one hand") as well as procedural phrases that recall the methods. These phrases often use strong verbs like "perform," "assess," "investigate," and so on. Use the active voice primarily. Handle negative results quickly. The goal is concise, direct writing.

The **discussion** section is a challenge because you must make sense of results. It will vary in length, shape, or structure depending on the findings. In general, focus on the results. Don't extrapolate too broadly. Individual studies make incremental advances, not major leaps, so keep that fact in mind as you discuss the findings. The reader is looking for value in these findings. Your job is to synthesize the new info into a broader understanding of one area of science. In general, do the following:

- 1. Highlight the overall research outcome**
- 2. Explain the specific research outcome**
- 3. State the research conclusions**

The first move can be one sentence: "This study investigated the effect of X on Y" or "This study analyzed the effectiveness of X in determining/influencing/affecting Y." Most of a discussion section is reviewing/explaining the results in detail. Use language such as "This study found" and "These findings suggest." Again, verbs to the rescue.

We learn best from both good advice and our own experimentation. As somebody put it, there's an invisible university all around us when it comes to learning. If you think of writing as only for a degree or publication, you'll miss out on an important part of the skill and satisfaction of writing. It's vital to have stages that you move through in pursuit of knowledge: there's one for research, for personal writing, for reflection, and so on. If the whole process is one indistinguishable mess, you'll learn little and become exhausted fast. But if you think of writing as a treasure hunt, it won't be a capricious or hit-and-miss deal. On the contrary, it will be like accepting an invitation to travel to a place where you drink knowledge and do good for the world.

The research paper is one type of writing skill that all students need to understand the most. There's a process and a product involved. The process is often a stumbling block, but if you're conscious of the sections of the research manuscript, you should be able to improve the quality of your writing.