

The Writer's Challenge: Credibility, Argument, and Structure in Public Health Writing

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As you've probably already discovered in your academic and professional lives, the audience for almost everything you write, whether it is a professor, teaching assistant, grant administrator, journal editor, colleague, program administrator, policy-maker, scientist or public health activist, is likely to view your work skeptically. In fact, reader skepticism is likely to increase in direct proportion to the importance of what's at stake.

And why not? The world is a complex place, and even the experts commonly disagree on many matters of public health research, policy and practice. How then can you convince your readers that your conclusions are valid and your proposals sound? And how can readers be assured of the credibility of what you write? One crucial element in this is the quality and weight of your evidence. But the question here is, once you have collected and weighed the evidence, how can you best *communicate* it to skeptical readers? This is the challenge that all writers face.

To meet this challenge, authors must first critically evaluate all the relevant evidence, and then present the entire story as a *logical sequence of reasons and evidence* in support of a conclusion or *claim*. In other words, writers need to frame their work as *critical arguments*. And as a writer at HSPH, you need to do the same, regardless of whether you are writing a paper, thesis, dissertation, grant proposal, program application, policy memo, research study, oral presentation, budget, scientific poster, conference talk or job cover letter.

This paper will therefore examine the key structures of texts and critical arguments in public health writing. Much of what will be covered here is terrain that you are already familiar with. However, by providing you with a slightly different perspective on things you already know, I hope to demonstrate the vital importance of communicating your ideas clearly to your readers, and provide you with tools and strategies for understanding and fulfilling your role as a writer at Harvard School of Public Health and as a member of the global public health community.

Argument Function

The word "argument" has its roots in the Latin *arguere*, to make clear. At the heart of the concept, therefore, is the idea of bringing clarity to an issue. In modern terms, the function of a critical argument is to evaluate various types of evidence for validity, especially in the light of conflicting findings and arguments.

In their most basic form, arguments consist of three elements: claims, reasons, and evidence. A *claim* is often referred to as the thesis, main point, conclusion, or "answer" to the question you have been investigating. However, if your claim is to be more than mere opinion, it must be supported by both *reasons* and *evidence*. Your reasons must be logical and, if you hope to frame a persuasive argument, you must use the strongest and most pertinent evidence available. None of this is terribly new. As you can see, we use the same elements to make decisions all the time.

To put this in a public health context, let's assume that you've been researching mother-to-child transmission (MTCT) of HIV in a sub-Saharan African country. In the course of your investigation, you've concluded that (*claim*) the country's maternal programs for HIV counseling and infant nutrition should be integrated, because (*reason*) this could be more efficient in decreasing MTCT, improving child nutrition, and using scant resources. Your evidence might consist of your and other researchers' findings, as well as new WHO guidelines. This, too, is pretty straightforward.

But now that you have collected and analyzed your data and thoroughly reviewed all the other pertinent information, how do you best communicate your findings to decision-makers in the Ministry of Health? These are very busy people with many responsibilities and no time to waste. How therefore can authors best organize and communicate their arguments so that their intended audience can fully and accurately assess them and give their proposals due consideration?

Argument-Text Structures

Figure 1. Basic argument-text structure

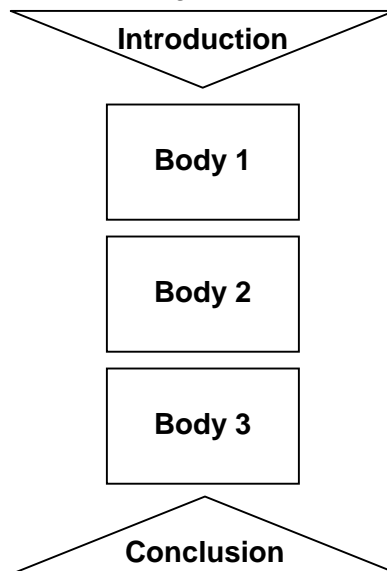


Figure 1 illustrates the well-known Introduction–Body–Conclusion (IBC) format for organizing and structuring the flow of written information. Almost anything you write is going to follow this form or some variation of it. Many of us are so familiar with it that we often overlook what a powerful reader-centric engine it is for developing and critiquing arguments. By “reader-centric” I mean that this format gives authors a narrative structure that responds to *readers’* concerns, in that it provides the information to answer readers’ questions as they arise in the course of following the argument’s development (*logical sequence*), allowing them to efficiently and accurately assess the argument.

Put yourself in the role of a reader. The first things you generally need to know when you critically review any document are, “What’s the problem?” “Why is it important?” (these two often form the argument’s *reasons*), and “What does the author

propose be done about it (*claim*)?” As readers, we need to know up front what authors propose so that we can then evaluate how the authors deal with all the evidence in the body of the paper, including conflicting reports, before we can decide whether their inferences, recommendations, and conclusions are justified.

This is precisely the flow of information our readers in the Ministry of Health need. If the purpose of your report is to argue for integrating the two health programs, they need to know this at the beginning so they can then critically assess your argument and how you handle all its elements. A good part of your job as a writer, therefore, is to *navigate readers* through your argument to a justified conclusion, providing them with the best possible evidence *as they need it*, so that they can accurately assess your work.

Properly used and understood, this is precisely what the IBC format does. It is a narrative structure that can be directly traced back 2400 years to Aristotle, who first described it in his analysis of the elements that go into the plots of tragedies. For Aristotle, any story must have a beginning (incentive), middle (climax) and end (resolution). He also considered the plot to be most important element in writing. In other words, how the author arranges and introduces information to the audience was paramount for Aristotle. And that is, of course, the writer’s challenge: Once we have an “answer,” how can we best communicate the argument to the audience so that they will see that the findings are valid, the conclusions sound, and what we conclude credible?

The IBC format has persisted for more than two millennia because it is a simple, flexible, scaleable and powerful tool for providing critical readers with the information they need when they need it. And it is still being developed. In the 1970s, the editors of the BMJ, Lancet, JAMA, NEJM and other medical journals adopted an IBC variant, the IMRAD format (Introduction, Methods, Results and Discussion) for the reporting of all original research, as its clear format facilitates peer review. In doing so they followed the lead of physicists, who adopted the IMRAD format in the 1950s (Sollaci, Pereira; 2004). IMRAD is now almost universally used to report all scientific research.

Narrative Form and Flow

The graphical shapes of the different sections in Figure 1 also illustrate how the information can best be arranged in writing an argument. The introduction starts wide and rapidly narrows to a point, which demonstrates how it often begins by presenting background or contextual information (e.g., the basic epidemiology of a disease). In their invaluable book on writing arguments, Booth, Colomb and Williams (2003) describe this as establishing “common ground” between the writer and reader on what in general will be discussed. The introduction then identifies a specific problem or issue embedded in that wider context (e.g., a population that is suffering an undue, largely unrecognized burden from the disease), and then proposes some sort of action or response to the issue (*the claim*), depending on the author’s purpose and audience. This could be a statement of what the author thinks should be done (e.g., integrate the HIV counseling and infant nutrition programs), a justification for conducting additional research, or in some cases it is an overview of what will follow in the paper, leading to a justified conclusion or claim at the end. Not all writers strictly follow the format.

Introductions are therefore complex arguments in themselves, in that they have at least three core functions that provide readers with the key information they need up front

so they can critically analyze the argument as it unfolds: the background to the problem, the identification of the problem, and a response of some sort as to what the author thinks will or should follow.

In public health writing, introductions also usually include an additional element: the health and perhaps financial costs of not taking action. This can be understood as an answer to the implicit “So what” question that is often foremost in the skeptical reader’s mind: “What’s the relevance of this issue, how important is it, and why should I care?” Together, the problem and its importance often constitute the argument’s reason in support of the claim.

In writing an introduction, the key technique for identifying a problem that needs to be addressed is to reveal some sort of gap, usually in health (e.g., discrepancies between different groups), practice (e.g., health services or information are not being delivered adequately to a certain population) or knowledge (e.g., because research on the subject conflicts, or little or none has been conducted). This “gap” method is very important and is used in almost all fields.

For instance, in research writing, authors usually begin by reviewing the literature and showing what is known or generally accepted on a given subject. To identify the gap, they then show where the common knowledge breaks down and research findings conflict. As their response (claim) they give an overview of what they did (“We therefore conducted a longitudinal study using data from the Nurses’ Health Study to examine...”). This is often an implicit claim that they can shed light on the issue due to their study design and data, thereby justifying the research. In medicine and most other fields, simply identifying a knowledge gap is sufficient justification for carrying out the research. However, public health researchers usually go a step further and state the importance of addressing the gap they have identified, thereby underscoring our commitment to both science and public service.

The narrative sequence of almost any introduction you are going to write will usually follow one of two very similar paths:

Figure 2. Context-Problem Introduction Narrative

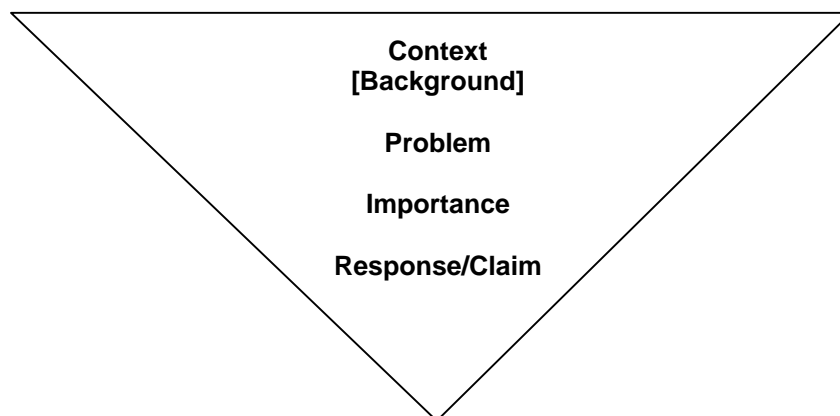
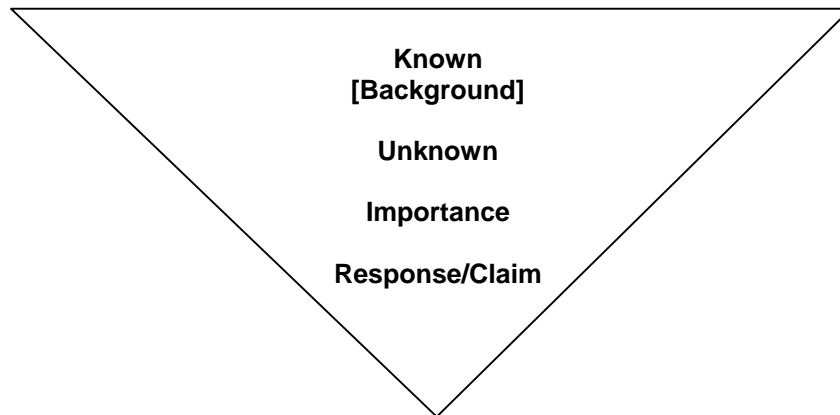


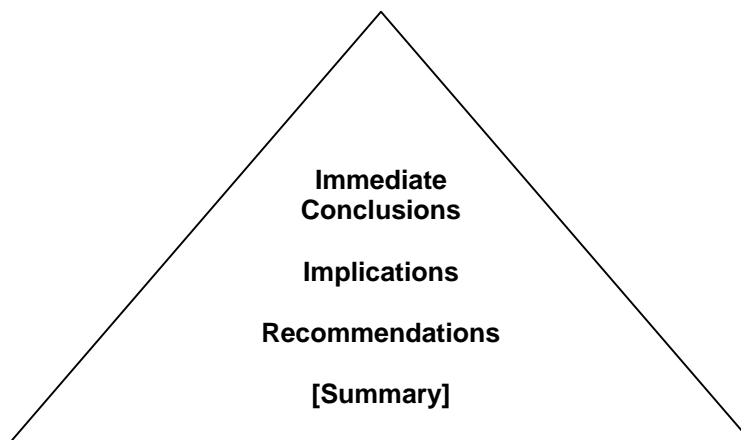
Figure 3. Known-Unknown Introduction Narrative



The *body* sections are much more tightly circumscribed, as they deal with specific matters of evidence. While large sections of the body often begin with a brief overview of the material contained in that section and end with a brief summary, it is here that the real sifting of the evidence occurs. The body is the longest section of the paper and can be the most complex. The point I wish to emphasize here, however, is that it is in the body that the counter-arguments and counter-evidence are dealt with. An author who does not deal with these has produced nothing more than opinion and will have no credibility. After all, the decision-makers in the Ministry of Health need to know, “What do you have to say about what researchers [X] and [Y] report? Why do your recommendations differ from theirs? Why should we change the way we are already doing things?” The author who does not deal with the main counter-arguments or counter-evidence, or does not successfully respond to their challenges, will have no credibility in the reader’s eye.

Conclusions are to some extent the mirror image of introductions, in that they often progress from an immediate conclusion that “fits” with the introduction, to then discuss their wider public health implications, often ending with recommendations or a summary of the entire argument. Their narrative pathway often looks something like this:

Figure 4. Simple Conclusion Narrative



The conclusion and introduction book-end the entire argument. Furthermore, as one can see from their inverse shapes, the conclusion and introduction complement one another. This is also attested to by the fact that nothing should appear in the conclusion that has not already been mentioned or at least implied in the introduction. Their other key similarity is their intense narrativeness, in that each constitutes arguments in its own right. At the very least, the introduction needs to identify a problem that warrants action, while the conclusion needs to sum up the entire argument accurately, thereby justifying the claim and the recommendations.

Summing Up and Looking Forward

It is a truism that writers must know their audience if they are going to be able to communicate to them appropriately. Similarly, it is widely understood that becoming a better writer involves becoming a better reader. But by synthesizing these two propositions, one can arrive at a new understanding of what constitutes “good” writing, at least for most things we write in public health and in many other disciplines.

Simply put, a key characteristic of good writing is reader-centricity, in that it places the reader’s concerns at its core, giving the reader the information they need in a logical sequence that anticipates their questions, thereby facilitating their ability to effectively and efficiently critique and interpret the information. This reader-centricity is enhanced by the simple yet very flexible argument and narrative structures contained in the three-part IBC format, which is embedded in the minds and linguistic expectations of readers of English and many other languages, whether native or non-native speakers.

I like to remind those who describe IBC as a simplistic or traditional discourse pattern that in music, a similar “simplistic” three-part pattern of the tonic, subdominant and dominant, which has ancient roots in European and African music, is the basis for the blues, rock, jazz and many other genres. It may be simple, but it can be very powerful and lends itself to infinite improvisation—though, of course, this also depends on the skills and knowledge of the performer-composer-writer. In writing, IBC can facilitate clarity and precision, qualities that are very important in public health communication.

Arguments are the basis on which we make our most important decisions on almost everything, including health: Which programs and research should we fund? Which policies should we follow? What should our priorities be in the face of overwhelming needs and scarce resources? Yet no matter how brilliant an idea is, if it is not communicated well, it may not receive the recognition it deserves. In the end, style and content cannot be separated; words and writing matter.

Advancing public health requires clear and accurate communication among a wide array of different audiences, including researchers, health providers, administrators, policy-makers, journalists, educators, and populations at risk. It’s difficult to imagine a public health career in which both writing and public speaking are not vital skills, and improving your professional communication skills will therefore be an important part of your education at Harvard School of Public Health. This point brings us to my final variation on the public health writer’s challenge.

The fact is, in many cases we already know what needs to be done to improve the lives of the world’s poorest and most vulnerable, and where the resources need to come

from. And it's equally obvious that, here too, having "the answers" is not enough. How then can we bring about the change necessary to saving the lives and improving the health of the 3 billion people who live on less than two dollars a day? One of the things that can make the critical difference is the ability of those in public health to educate, reason, and persuade. Communication is therefore not only a means of creating and exchanging critical arguments, but a key component of public health leadership.

References

Sollaci L, Pereira M. The IMRAD Structure: a Fifty-year Survey. *J Med Lib Assoc*, July 2004;92:3

Booth W, Colomb G, Williams J. *The Craft of Research*. University of Chicago Press, 2003