



University of Vermont Graduate Writing Center Science Writing 101: The Introduction

Functions of the introduction:

- To awaken the reader's interest by making clear that the topic is important and that the question/proposed study has promise in addressing a key unknown or gap about this topic.
- To provide the reader (including readers who are not specialists in the field) with enough information to understand the paper's purpose, direction, and potential significance.
- To present, by telling the story of a critical gap in what's known about a given topic, the question the paper intends to answer.

Beyond this introductory guide, also see Mimi Zeiger's *Essentials of Writing Biomedical Research Papers* and choose one or two "mentor" texts from your field to examine how, paragraph by paragraph, the introduction builds a compelling and focused story leading to the paper's key question(s).

How to organize the introduction with the "funnel" approach:

- The first sentence names and signals the significance of the paper's topic: e.g., "X has long fascinated researchers ..." or "X is a widely used treatment in ..."
- Subsequent sentences and paragraphs narrow by appropriate scientific logic from what is "known" to "unknown": e.g., "While X is a widely used treatment in Y, its potential application for Z has not yet been studied ..."
 - Keep the number of references to the known information to a minimum. Select references that reflect the key work leading to your question. Further narrow if needed by selecting papers describing the first, most important, most elegant, and most recent studies.
 - Be sure the unknown or gap is strongly stated or implied, signaling the significance of your paper/contribution.
- The question is the specific focus of the paper and the end of the funnel, the end of the introduction's known-to-unknown-to-question storyline: e.g., "This study sets out to answer two questions: Does Z respond to treatment X? If yes, at what dose does Z?"
- The question may be followed with a statement of the experimental approach: e.g., "To answer these questions, we"
- The introduction *should not* end with the answer found to the question. Including the answer in the introduction would duplicate the work of the paper's abstract and seal off the paper from the rest of the story it will tell: *how* we designed a way to answer this question (methods), what happened when we enacted these methods (results), and how this work answers the question and what's significant and changed as a result (discussion).

