

# Four Steps to an Applied Micro Paper

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## Abstract

This note outlines a four-step process for writing an applied micro paper. Appendices discuss formulating a research question and structuring a paper's introduction.

### Step 1: Aspirational introduction.

Write an introduction for the paper you aspire to write. Feel free to make up your results, within reason.

When you think you are done, ask yourself: if I write the paper outlined in this introduction, will I be happy with it?

If so, move to step 2. If not, stay on this step. Chances are that if imaginary results don't excite you, neither will real ones.

### Step 2: Research.

Do your research.

You will be tempted to work first on the most straightforward aspects of the project. Instead, start by working on whatever aspect is least clear to you, or seems most likely to prevent you from achieving your goals.

Return frequently to the introduction. It is your compass.

When you think you have your main findings in place, move to step 3.

### Step 3: Robot.

Write the body of your paper as if you were writing it for a robot. Don't try to convince the robot you are right. Just state your assumptions, methods, and findings.

Be linear: If the robot encounters concepts that have not yet been defined, it breaks.

Be clear: If the robot encounters concepts that do not make sense, it breaks.

Be plain: The robot does not understand fancy talk and is not impressed by it.

Be formal: The robot has no problem with mathematics as long as it is correct.

As you write, you will find gaps in your analysis. These will require you to occasionally return to step 2. When these gaps are closed and the robot is happy, move to step 4.

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**Step 4: Contractual introduction.**

Rewrite the introduction. Now it is a contract between you and the reader. The reader agrees to be excited about your paper, provided the paper delivers what the introduction promises.

As you write, you will find you want claim some things that your research does not really deliver. When this happens, return to steps 2-3.

When the paper delivers on a contract you are happy with, stop. This is your first draft.

## A Formulating the Research Question

There are many different types of research questions. Here is one set of desirable properties, originally written for PhD students in industrial organization.

- *The question has an answer.* We may not know what the answer is, but we can agree that an answer exists. “What is the effect on quantity sold of imposing a price ceiling on ketchup?” has an answer. “What is the nature of firm and consumer behavior in the ketchup industry?” does not.
- *The answer is not obvious.* We cannot readily determine the answer to the question based on logic, common sense, or existing evidence. “Would making ketchup available only on Tuesdays improve consumer welfare?” has an answer, but we can probably guess what it is.
- *The answer is actionable.* If we knew the answer, someone (say, a policymaker, firm, or NGO) might care to do things differently. “What is the effect on consumer welfare of imposing uniform wholesale pricing on the ketchup market?” seems actionable, because in fact ketchup is subject to uniform wholesale pricing restrictions in the US, and a policymaker might be interested to know whether such restrictions are a good idea. “What is the effect on consumer welfare of a technology that instantly transports ketchup to your fries whenever you need it?” seems more hypothetical.

## B Writing the Introduction

- Paragraphs 1-2: Motivation. After reading these paragraphs a reader in any field of economics should believe that if you answer your research question your paper will make an important contribution.
- Paragraphs 3-4: Challenges. These paragraphs explain why your research question has not already been answered, i.e., what are the central challenges a researcher must tackle to answer this question.
- Paragraph 5: This Paper. This paragraph states in a nutshell what the paper accomplishes and how.
- Paragraphs 6-7: Model. Summarize the key formal assumptions you will maintain in your analysis.
- Paragraphs 8-9: Data. Explain where you obtain your data and how you measure the concepts that are central to your study.
- Paragraphs 10-11: Methods. Explain how you take your model to the data and how you overcome the challenges you raised in paragraphs 3-4.
- Paragraphs 12-13: Findings. Describe the key findings. Make sure they connect clearly to the motivation in paragraphs 1-2.
- Paragraphs 14-15: Literature. Lay out the two main ways your paper contributes to the literature. Each paragraph should center around one contribution and should explain precisely how your paper differs from the most closely related recent work.

## C Further Reading

Cochrane, J.. 2005. Writing tips for PhD students.

McCloskey, D. 1985. Economical writing.