

Writing Research Papers

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- **What?**

A 5000 word Applied Economics paper

- **Why?**

It is an opportunity for a student to pursue a topic in great depth, perhaps to learn more about it than anybody else on campus, and be a kind of expert. The goal is the development of the ability to persist, to be independent and to use your own judgement based on what you have learned over the last 2 or 3 years.

- **How?**

Work hard, don't fall behind, do something you genuinely find interesting and stay focused on what it is you want to do.

Choosing a Topic

- Selecting a topic is the first, and perhaps most, important step in writing a research paper. One of the better ways to choose a topic is to review material you have already studied to discover what unanswered questions you are interested in pursuing.
- Choose carefully! If it is not something you are really interested in you will lose enthusiasm for it! You will be working in this topic for several months.
- Don't be overly ambitious.

You will present your project at various stages along the way. The first presentation is to be a fairly substantial proposal. Your proposal should:

- Provide a clear, concise statement of the thesis topic, preferably in the form of a hypothesis or theory which you hope to test or a question you hope to answer.
- Show why the topic is worth pursuing.
- Locate your paper in the literature
- Explain what kind of data you need and show where you will find those data
- Outline how you will you test your hypothesis or answer your research question
- Propose appropriate methodology for use in your analysis

Structure of the Dissertation

Tell them what you are going to tell them

- Title
- Abstract
- Introduction

Structure of the Dissertation

Tell them

- Literature Review
- Description of the Data
- Discussion of the Methodology
- Presentation of the Results

Structure of the Dissertation

Tell them what you told them

- Conclusion & Implications

- Clear, concise
- State your research question/answer
- Only be witty if its genuinely witty
- On second thought, forget witty and just stick with clear and concise.

- This is a BRIEF summary of your paper
- State your motivation, purpose and findings
- Why should someone read your paper?

Example

We investigate the extent to which negative alcohol use coefficients in GPA regressions reflect unobserved heterogeneity rather than direct effects of drinking, using 2001 and 2003 Youth Risk Behavior Survey data on high school students. Results illustrate that omitted factors are quite important. Drinking coefficient magnitudes fall substantially in regressions that control for risk and time preference, mental health, self-esteem, and consumption of other substances. Moreover, the impact of binge drinking is negligible for students who are less risk averse, heavily discount the future, or use other drugs. However, effects that remain significant after accounting for unobserved heterogeneity and are relatively large for risk averse, future oriented and drug free students suggest that binge drinking might slightly worsen academic performance. Consistent with this, the relationship between grades and drinking without bingeing is small and insignificant on the extensive margin and positive on the intensive margin.

- Present the basic problem of the paper
- Why this problem is important/interesting?
- What will a reader learn from this paper?
- Briefly layout the contents that will follow in the next sections

Literature Review

What it is

Your research idea is not new. So, you need to recognize the relevant work that came before. This does not mean you need to review all of Economics. Identify the key concepts you are interested in and inform the reader of the major relevant findings. You need to at least include papers which have sought to answer the same question as you. You will also want to include some discussion of the Econometric literature from which your empirical methods come. Remember old papers are not necessarily irrelevant papers!

Literature Review

How to write one

- Read as much as you can on areas related to your topic. This will include both Economic (The question you are asking) and Econometric (How you will answer it) papers. Often both issues will be covered in a single paper.
- Cast a wide net! Read lots and lots of abstracts, then read lots of papers that seem relevant (jstor.com, nber.org, ideas.repec.org), but focus on the Economics literature.
- Be critical. If something was published in the Northern Wales Journal of Economics, you may want to be a bit wary of its findings. But at the same time don't be a snob! If that same paper is widely cited, it is probably a significant contribution to the literature you are interested in.
- Be organised and keep notes. If you find something interesting in a paper don't assume you will remember where its from later. Make a note of it!
 - 1 Programs like Zotero and Endnote can help you with this
- Citations: Consistent and Complete

You are all writing Applied Economics papers and so you will all have data. Data are very particular things. No two data sets are the same. It is essential that you describe your data clearly to the reader. Where is it from? Is it a sample? From a survey? Is it representative of the population? Is it collected by a reputable source? What reservations do you have concerning the data? You will want to provide some descriptive analysis in this section as well. At a minimum give the mean, median, and standard deviation of the key variables in a table to give the reader an idea of their distributions.

DO NOT UNDER ANY CIRCUMSTANCES
UNDERESTIMATED THE AMOUNT OF TIME
THAT WILL BE REQUIRED TO PREPARE YOUR
DATA FOR ANALYSIS

I'M SERIOUS

Data

Where to find it

- Before you look for data, think about what it is you would ideally have
 - Distinguish between what is essential and what is desirable
 - Then find your data
- 1 Warwick Library Databases
 - 2 UK Data Archive
 - 3 PSID, BHPS
 - 4 ONS, Communities and Local Government
- Once you have your data, spend some time with it. Get to know it by exploring it, looking at descriptive statistics, look at coverage of variables, correlations etc

In this section you will outline your model and your estimator. You want to discuss your model *specification*; which variables are included on the right-hand side and in what form (e.g. logs, polynomials). You need to be clear about the basic assumptions of the theory you are testing or the hypothesis you have posited. Then state the hypotheses that are being tested. For example: "I estimate a consumption function $C = \beta Y + \alpha$. Utility maximization theory tells us that income Y affects private consumption C and that $0 \leq \beta \leq 1$. Our hypothesis is that $\beta = 0.76$."

You will also discuss your preferred Econometric or other empirical approach (e.g. probit, Heckman, game). Try to keep things simple and don't use unnecessary jargon. You need to be clear about the assumptions of the econometric approach you are using and about why you prefer it to other methods. If you design a classroom game or survey you need to consider a number of potential problems. This is not an econometrics paper, so you do not need to delve into all the underlying theory of, say, a Maximum Likelihood estimator. However, you need to understand the assumptions of your preferred approach and the consequences of any violations of those assumptions.

Results

Finally!

Present the results, preferably in a table so the reader can view them more easily. Discuss them fully. What do they mean? Are they what you expected? How do they compare to results in other, similar papers? Are the results statistically significant? Are they significantly different from some other threshold (e.g. unitary price elasticity)? Link the results with the hypotheses you formulated and the questions you asked. It may not be obvious to the reader how your results relate to the question/aims of the paper.

Results

Finally!

- Coefficients, size and sign
- Statistical significance
- Specification tests!

Conclusion and Implications

Give a very short summary of your entire paper. What conclusions can we draw from your research? Has the research question you asked been answered? Can we conclude something about the hypothesis you posited? If so, what are the implications of your findings for policy makers and other researchers interested in your topic? What are the limitations of what a reader should conclude from your findings? You will want to discuss possible extensions of your paper.

- Back up often and in multiple places.
- Keep your bibliography up to date as you go
- Work as systematical as possible to keep your ideas straight
- Don't look for something
- Use .do files for Stata so all your work is in one place
- Spell check
- Get a smart friend to read it
- Give yourself a deadline that is at least a week before the actual deadline.

The Most Important Hints

- Ask me questions
- Listen to me
- Get started ASAP
- Care
 - I will care 3% more than you.

What next?

- December 2nd: Submit a draft literature review and detailed proposal (c. 1500 words)
- Weeks 2 and 3 of Term 2: Data and Theory
- Weeks 9 and 10 of Term 2: Final Presentation

What next?

- No class on November 4th. Office hours on the 3rd.
- Term 1 we will alternate weeks starting next week.
- Term 2 you will be broken up in to two groups and we will meet at two different times every week.
- Come whenever you want. Email whenever you want.

Groups

Weeks 3, 5, 7, 9, 10:	Weeks 4, 6, 8, 10:
Ben Marsh	Nimisha Mistry
Rafael Joseph	Denita Bruwer
Wei Wu	Uzma Ahmad
Elena-Maria Angeli	Joshua Rosario
Ella Reid-Norris	Shuhui Zhang
Si Wang	Samil Shah
Thomas Wise	Nimisha Mistry
Theodora Leonidou	Hassan Maitla
	Anurag Sharma

- By our next meeting, please email me one or two paragraphs on your idea(s) for this project.