

# Research Methods for Economics and Policy

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Part of the material is based on the Economic Research Process Course at U Gothenburg

# Something about me

- ▶ I joined Tor Vergata this year after 4 years at the University of St Andrews. I obtained my PhD at Queen Mary University in London
- ▶ My research focuses on issues in economics of education and urban economics. This is my website:  
<https://sites.google.com/view/lorenzoneri/home-page>
- ▶ In a set of projects I study how public housing programs affect student achievement in more deprived neighbourhoods
- ▶ In other projects I study how management and governance affects the performance of students attending state-funded schools that are independent
- ▶ Lately I have been working on issues in Environmental Economics (the effect of air pollution on children's outcomes) and ethnic discrimination

# The admin stuff

- ▶ All lectures will be regularly held in-person; lecture slides will be posted on the course page
- ▶ **THERE IS NO EXAM :**
  - Research Proposal (70%); due May 30th.
  - Attendance/engagement (5%).
  - Presentation (5%); week 4.
  - Presentation (20%); week 6.
- ▶ There are no seminars/classes - everything will be held during regular lecture times. However, this course includes a mix of “traditional” and interactive lectures
  - Please look at the calendar carefully
- ▶ **Office hours:** please email me if you'd like to meet
- ▶ **Contact:** [lorenzo.neri@uniroma2.it](mailto:lorenzo.neri@uniroma2.it)

# Module Outline

Week 1a Generating research ideas and conducting a literature review

Week 1b Reading an economic paper

Week 2a Data and methods

Week 2b Coding session

Week 3a Coding session

Week 3b Academic writing

Week 4 Academic presenting

Week 5 1-1 meetings

Week 6 Student presentations

# Learning outcomes

On successful completion of the course, the student will be able to:

- ▶ Plan a relevant research project contributing to existing knowledge in economics
  - State a feasible and testable economic research question(s)
  - Motivate the scientific relevance of the question(s) using economic theory and research
  - Propose relevant data to analyze the question(s)
  - Propose suitable econometric approach(es) to analyze the chosen empirical research question
- ▶ Communicate the planned research project in an accessible way
  - Write a clear and well-structured research proposal
  - Present the research proposal
- ▶ Critically assess scientific projects and the suitability of research methods applied to a chosen research problem
- ▶ Demonstrate knowledge about relevant legislation for research and research ethical codes.

## Generating Research Ideas

# Structure and components of (applied) research

- ▶ A relevant research idea based on an underlying economic framework
  - Economic- and Policy-relevance are important
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- ▶ A clean identification strategy

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- ▶ Look at current and planned studies: pre-analysis repositories (e.g., [AER RCT Registry](#)), [SSRN](#)
- ▶ Look at platforms disseminating research and policy-relevant works/pieces: [faculti](#), [VoxEU](#), [project syndicate](#)

# Sources of research ideas: thinking critically

**Read and think critically.** A lot of research is wrong, and hardly anything is optimal

- ▶ What is the underlying “big” question? Does the article’s example illustrate the most important aspect of this bigger question?
- ▶ Can you think of better data/empirical method?
- ▶ Can you think of an interesting policy or policy change, or a novel data source? Has anything changed recently in society?
- ▶ Are assumptions correct, the conclusions warranted and is the overall interpretation sound?
- ▶ External validity: Is the question relevant in other contexts?
- ▶ Is there something that the authors do *not* do? This could be, for instance, particular aspects of a policy or, more broadly, of the topic that could not be addressed fully/coherently in the paper

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  - One project was born in cooperation with a parents' association that was implementing a new program within local schools in Camden
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- ▶ I tend to pay lots of attention to the policies that are being discussed and the current debates, but interactions with policy-makers, other researchers and friends are important

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- ▶ Look at your own experience/interestes: a friend from Palma de Mallorca proposed to study a policy that included housing confiscations in the Balearic Islands; we are now studying ethnic discrimination in fantasy football...
- ▶ Then, many research ideas arise because of identifiable gaps in the existing literature



## Getting to concise and precise research question

- ▶ When you know what “big” question you want to study, what then?
- ▶ Need to get from a broad idea to a precise, testable, research question (this is not easy)
  - What precise dimension of your bigger idea should you explore?
  - What precise context is a good illustration of this dimension?
  - What phenomenon/setting/population is relevant to study exactly?
  - Where can we find exogenous variation (or relevant correlational settings) and measure an effect?
- ▶ Sometimes there is a trade-off between a clear identification vs real world relevance. You need to make a motivated choice.

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- ▶ Compare to a more precise question "I study how local schools affect the educational achievement of low-income students when their neighborhood changes as a result of an inflow of more affluent households"
- ▶ You should **always** be able to formulate a testable research question in one sentence!

# Evaluating the research question

- ▶ Is it a good question?
- ▶ It is subjective to a degree, but here are some guidelines:
  - Does it have important “economic” implications?
  - Is it new? Talk to other economists, check the literature
  - Can you motivate it using economic logic?
  - Can you test it?
  - Are you interested in it?
  - Are others interested it?

# Steps for empirical research

- 1 Transform research question into testable hypothesis
- 2 Study the relevant the literature: how does the research question fit?
- 3 Find suitable data (more on this next week) and methods to test the hypothesis
  - The method ultimately depends on the available data...
- 4 Start the analysis
- 5 Start writing - don't wait too long
- 6 Try to get continuous feedback about your progress

## Some final points

- ▶ Before going “full on”, try to evaluate the feasibility and potential outcome for the project
  - Besides feasibility, it is important to understand what could be the likely outcome of the project - is it likely to raise media attention? How well could it be published? Etc...
- ▶ If the effect is there, can you test it? Is the effect detectable? What effect size is it reasonable to look for?
  - The issue here is statistical power: we'll come back to this.
- ▶ Most projects and ideas “fail” and many projects turn out different from the initial set-up
  - Have started several projects that were then “killed” in the early stage, for different reasons
  - Similarly, at least 3 projects started and then developed in a different fashion
  - Important not to get frustrated and be prepared to “re-optimize”
- ▶ Find a topic you like, you are likely to be “stuck” with it for a long time...



## Conducting a literature review

# Where do we start?

- ▶ **Handbooks.** For a broad overview of the topic you are interested in and the existing work on its different aspects, start with handbooks. Some examples:
  - [Handbook of Labor Economics](#)
  - [Handbook of Public Economics](#)
- ▶ **Review Journals.**
  - [Journal of Economic Literature](#)
  - [Journal of Economic Perspectives](#)
- ▶ **Published research articles.**
  - Google Scholar, EconLit, JSTOR, IDEAS

# Which journals you should consider?

- ▶ **Journal ranking:** a quick (generalized and imperfect) guide
  - Top 5 journals: American Economic Review, Quarterly Journal of Economics, Econometrica, Journal of Political Economy, Review of Economic Studies
  - Second tier general journals: e.g., Review of Economics and Statistics, American Economic Journal: Applied Economics/Economic Policy/Macroeconomics/Microeconomics, Journal of the European Economic Association, Economic Journal. . .
  - Top field journals: e.g., Journal of Labor Economics, Journal of Public Economics, Journal of International Economics, Experimental Economics, Journal of Environmental Economics and Management. . .
  - Top sub-field journals: e.g., Journal of Urban Economics, Journal of Law and Economics, Economics of Education Review. . .
- ▶ Interesting reading on publishing in academia: [Social ties in academia: A friend is a treasure](#)

# What about unpublished works?

- ▶ **Discussion and working papers:** a quick (generalized and imperfect) guide
  - Google Scholar, SSRN, IDEAS, RePEc, other sources (e.g., X, Bluesky)
  - Well-known WP series: National Bureau of Economic Research (NBER), Centre for Economic Policy Research (CEPR), Institute for the Study of Labor (IZA), CESifo, SSRN.com...
  - Author webpages - see, e.g., [mine](#)
  - Recent theses, online libraries...

## Browsing the literature

- ▶ There is a lot to read, and some of it technical and takes time to read
- ▶ Start with the abstract: Question/method/data relevant to you? Structure material based on importance
- ▶ Skim the introduction: what is the main idea or question, how central is it to your question?
- ▶ Skim tables, figures, equations: how is the main analysis done?
- ▶ Check references: same strand of literature?
- ▶ Make list/overview of relevant articles
- ▶ Read only articles relevant to your topic in detail

# Structuring the literature review (1)

Useful template when reading:

- ▶ Reference and link to source
- ▶ What is the main message of the article? Highlight key points in an organised way (e.g., keywords or bulleted list)
- ▶ Relevance: how does it relate to your question?
- ▶ Literature: how does it relate to other articles in the area of research?
- ▶ Audience: for whom is the article written, what is the purpose, is there an agenda of some kind?

I actually tend to build a word document with the relevant works, but you can put together an excel sheet and list and structure articles there. And/or you can write notes in referencing programmes such as Endnote or Zotero

## Structuring the literature review (2)

Make sure you understand the following aspects:

- ▶ What economic theories are the most frequently used?
- ▶ What assumptions are frequently made?
- ▶ What empirical methods and data are frequently used?
- ▶ How have methods and knowledge developed over time?

## Aim of the literature review

- ▶ Informing the reader what is already known about the research area
- ▶ Revealing unanswered questions in that research area (“What is the gap that you fill?”)
- ▶ Helping motivating what you are doing and clarifying your contribution
- ▶ Putting your research into context and “positioning” it in relation to the existing knowledge (with respect to topic, method, data etc.)
- ▶ Providing the background against which your study should be evaluated



## So - how do we write it?

You should make sure to:

- ▶ Identify and explain the main findings of the closest studies
- ▶ Mention strengths and weaknesses and give credit to previous work that shares features with yours. Simplify for the reader to understand the literature
- ▶ Explain, based on the above, how your thesis contributes to the literature

In your literature review, what should stand aside is - What do you do that is new, different or better?

You can either have it as a long list of papers (boring) or have something that is more embedded in the paper's narrative and more informative

## So - where do we put it?

Generally, you have two options: as part of introduction or as separate section

- ▶ Part of the introduction: generally more “modern” and nicer, but Intro may get long or may be hard to mention all relevant papers in a concise intro
- ▶ Separate section: hard not to repeat yourself, and some literature may have to be in intro, it may become a very dry section of your paper etc.

What should you do?

- ▶ In general, most people prefer to have the literature in the Intro
- ▶ In your case, I would say that it depends. In a master dissertation, it can be easier/more natural to have a separate Section. For the Proposal, I would not have a preference, but it is important that you convey your contribution

# Referencing

- ▶ Check the recommended format
- ▶ There are different styles: e.g., see [Google Scholar](#)
- ▶ In-text: Author (year), (Author, year); For more than 2 authors, you can use uthor 1 et al. (year)

In the reference list at the end of the dissertation (most ways work, just be consistent):

- ▶ **Book:** Author, initials (year). Title of book. Edition (only if not first edition). Place of publication: Publisher.
  - Ashenfelter, O., and Card, D. (Eds.). (2010). Handbook of labor economics. Elsevier.
- ▶ **Journal article:** Author, initials (year). Title of article. Full title of journal, volume number (issue/part number), page numbers.
  - Battistin, E., and Neri, L. (2024). School Performance, Score Inflation, and Neighborhood Development. Journal of Labor Economics, 42(3), 753-792.
- ▶ **Working paper:** Author, initials (year). Title of article. Type of working paper.
  - Neri, L., Pasini, E. and Silva, O. (2024). The organizational economics of school chains. CEP Discussion Paper No. 1993.

# Tomorrow and Wednesday: Reading an economic paper

## Readings for tomorrow:

Dynarski, S., Libassi, C. J., Micheltmore, K., and Owen, S. (2021). [Closing the gap: The effect of reducing complexity and uncertainty in college pricing on the choices of low-income students](#). American Economic Review 111.6: 1721-1756.

Deshpande, M., and Li, Y. (2019). [Who is screened out? Application costs and the targeting of disability programs](#). American Economic Journal: Economic Policy, 11(4), 213-248.

## Tomorrow:

- ⇒ First part: reading and skimming an economic paper
- ⇒ Second part: discussion of research papers

## Wednesday:

- ⇒ I will assign a paper to groups of students, who have to prepare slides
- ⇒ Second part: slide presentation