

1 Master thesis – structuring your thoughts

Personal information

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One main part of writing a master thesis is finding your own research question. Your research question will be the starting point of your thesis. The purpose of this form is to help you with this task.

While you should find your own question, there are a few restrictions. A main focus of the chair is experimental economics. Your question should, hence, relate closely to experimental economics. Your question should be interesting. Your question should also have the potential to be answered with a laboratory experiment.

Other research methods, e.g. surveys, may be interesting, too, but I lack the expertise in this field. To develop a research question you can take a look at already existing studies and consider small modifications.

I recommend that you start looking for your question in the library. Current research can be inspiring. Read, e.g., current issues of *Econometrica*, *American Economic Review*, *Review of Economic Studies*, etc. and find out what researchers are currently discussing (not all articles in these journals deal with experiments. Do not forget that your question should relate to a laboratory experiment.) If you have the feeling that the current discussion leaves questions aside and that these questions can be answered with an experiment then you might have a starting point.

It can also be inspiring to discuss your research question with an artificial intelligence.

Please make sure that your research question clearly relates to the existing experimental or game theoretic literature (see also Section 1.2 below). Many students start from too ambitious, too complicated problems. A complicated problem requires too much time. The difference between your question and the literature should be noticeable, but should not be too large.

1.1 What is your research question?

- Your research question is usually one sentence, and it is actually a question, i.e. it ends with a question mark. Keep in mind: “The efficiency of mechanisms” is not a question. “Is the ABC mechanism more efficient than the DEF mechanism?” is a question.
- Your question should be relevant for economics. Your work should have the potential to make one (even modest) contribution to increasing efficiency, reducing inequality, improving stability, etc. (see Section 1.3).

A simple way to decide whether your question is relevant for economics is the following: Find at least one publication (see Section 1.2) from a well ranked journal in economics which raises a similar question. Keep in mind: In your project you have to cover the entire distance between what science knows today and the issue you want to investigate. If the distance between the literature you can find and your research question is too large, you will have too much work to do. If you find references only in journals from other fields,

chances are that your topic is not really relevant for economics (the topic might still be relevant for other fields, but your project should be in economics).

- Use simple words and standard terminology to describe your research question. If you find yourself using terms that need explanation, perhaps your question is too specific. It might be better to ask a broad question and give a specific answer than to ask a specific question and give only a broad answer.

1.2 Starting point

Which article is closest to your research question? Give a reference! This article should be published in a well ranked economic journal (see the list in Section 3) and it should be based on a controlled experiment.

1.3 Innovation

What is the major difference between your question and the article you mentioned in Section 1.2? (There should be a new aspect in your research question, but the difference between your question and the literature should not be too large.)

1.4 Background

What else do you know about answers to this question?

Briefly summarise what you already know. Include, if possible, approaches from different fields of economics (include theory, field data, experiments). Briefly summarise the literature: E.g.

"Tentative answers to the above question have been given by Evelyn Smith (2001) and by John Miller (2002). Smith finds ABC more efficient than DEF, Miller finds the opposite. Both seem to neglect the influence of GHI..." Please do not forget to include full references to the literature. Visit the library to answer this question, use your favourite search engine, have a look at related papers you find at the IDEAS/RepEC database. If your question has already been answered, please find a new question.

1.5 Alternatives

What alternative possibilities (experimental, theoretical, field data), different from your approach, does one have to find an answer to your question?

Include approaches from all fields of economics (field data, theory, experiments). Present what you know in a structured way. "While Smith makes a theoretical argument, Miller presents some field data. Additional insight could be gained from a laboratory experiment which studies the influence of GHI on ABC and DEF as follows. If participants with similar GHI levels play both mechanisms in random order..."

1.6 Details of your proposed work

Explain briefly the cornerstones of your approach. "In contrast to the approach of Frank (2004), who just randomizes over different GHI levels, I plan to manipulate GHI with the help of a pre-experimental stimulus as follows..."

1.7 Advantages and disadvantages of your approach

Could one answer your research question differently (with theory or with field data or with an experiment)? Explain why your approach is more suitable. If you find that your approach has more disadvantages than advantages, please change your approach or move to a different question.

1.8 Is it possible that your approach yields a surprising answer?

Here briefly explain why and how different outcomes are possible. "Smith (2001) comes to the conclusion that GHI should affect positively the performance of ABC. If this is the case, ABC should have a clear advantage over DEF. The evidence of Miller (2002) suggests that GHI can also have a negative impact. Then DEF has a chance to outperform ABC..."

If you conclude that your question can't have a surprising answer, please find a different question.

1.9 Is this the simplest possible way to answer your question?

Please go through all aspects of your approach, e.g. the number of treatments in an experiment, the number of players, etc., and explain why a smaller number of treatments, a smaller number of player types, a simpler game, etc., does not allow to answer your question. If your approach is not the most simple approach, make it more simple.

Please check your spelling, your syntax and the presentation of your text carefully.

2 Textbooks

- Charles A. Holt; Markets, Games & Strategic Behavior; Pearson, 2007.
- J. H. Kagel and A. E. Roth; The Handbook of Experimental Economics; Princeton University Press, 1995.
- Daniel Friedman, Shyam Sunder; Experimental Methods: A Primer for Economists; Cambridge Univ Press, 1994
- Douglas D. Davis and Charles A. Holt; Experimental Economics; Princeton University Press, 1993.

3 Well ranked journals

I do realise that ranking journals is a difficult matter. It is next to impossible to provide a perfect ranking. Still, we need a simple rule. If you find an article in a journal from the following list, let us hope that it is a good article, an article with the potential to stimulate further research – in particular your research question.

The following list is taken from the Handelsblatt Ranking 2015.

3.1 A+ ranked journals

American Economic Review, Econometrica, Journal of Finance, Journal of Financial Economics, Journal of Monetary Economics, Journal of Political Economy, Nature, Quarterly Journal of Economics, Review of Economic Studies, Science

3.2 A ranked journals

American Political Science Review, Annals of Statistics, Economic Journal, European Economic Review, Games and Economic Behavior, International Economic Review, International Organization, Journal of Accounting and Economics, Journal of Business and Economic Statistics, Journal of Business, Journal of Econometrics, Journal of Economic Theory, Journal of Health Economics, Journal of International Economics, Journal of Labor Economics, Journal of Public Economics, Journal of the American Statistical Association, Journal of the European Economic Association, Journal of the Royal Statistical Society. Series B Statistical Methodology, Management Science, RAND Journal of Economics (formerly: Bell Journal of Economics), Review of Economics and Statistics, Review of Financial Studies, Statistical Science.