

# Term Paper Proposal

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This is where we put the abstract. . .

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## Introduction

What is the topic of your dissertation? What were the reasons for choosing this topic? What is your research hypothesis? How do you define the central terms of your hypothesis? Why and for whom is it important to answer these questions?

- Motivate (one paragraph).
- Summarize what we know (one paragraph).
- Third paragraph: Tell us what you are doing!
- Describe research design.
- Value added.
- Summarize key findings.
- DO NOT write a “roadmap”.
- No subsections in the Introduction

## Literature

(We contribute to the literature on digitalization, job tasks, training, and job mobility.)

Becker (1962) distinguished between two kinds of on-the-job training: specific and general. Specific training increases the marginal product of a worker within one specific firm while general training increases her productivity in many other firms. In a perfect labor market workers are paid their marginal product. In such case, firms would not invest into general training of their employees as they could leave the firm and look for a better paid job. Instead, workers would pay for their general training as an investment into higher future wages. Acemoglu and Pischke (1999) argue that firms still invest in general training due to their monopsony power. Wages increase by less than the marginal productivity and firms can profit. Konings and Vanormelingen (2015) find

that an increase in the share of trained workers by 10 percentage points raises the productivity by 1.7 to 3.2 percent while wages only increase by 1.0 to 1.7 percent.

Evidence on job mobility behaviour of workers is more mixed. Zweimüller et al. (2003) findings support Becker (1962)'s human capital theory. Workers who received firm specific training quit less often and show less job searching behaviour. Workers who received general training increased their job searching activities and quit more often. Dietz and Zwick (2020) use German employer-employee data and find that training increases the retention probability. These studies focus on on-the-job training.

Lynch (1991) and Lynch (1992) compares on-the-job to off-the-job training. She focuses on young workers that are particularly mobile. She finds that on-the job training tends to be firm specific in the US and thus wage raises cannot be taken along to subsequent employers. Off-the-job training by proprietary institution have little effect on wages in the current employment but raise future expected wages in subsequent employment. Lynch (1991) shows that the probability of leaving an employer varies with respect to race, gender, and educational level. Workers with disabilities, black workers and workers with a high school degree or less increased the probability of leaving the first employer. Working in a job with collective agreement or having a college degree decreased their probability of leaving the employer. The effect of training, disability, and education disappears when Lynch (1991) re-estimates the equation only for men, while these effects are particularly strong for women.

Applying a machine learning approach permits us to take a broader approach on this topic. Instead of restricting our estimation to a specific group of workers or countries, we identify the factors that drive the probability of leaving-a-job and job-switching from a set of ## variables.

## Data

What is the epistemological framework of the dissertation? For empirical studies it should be made clear: Why were the specific methods of data analysis chosen? How was the data acquired?

- Name, source, unit, time, structure, number of observations, relevant population.
- Definition of (main) sample.
- Definition and characteristics of key variables.

- Limitations and potential biases.
- Provide the data and the software code (replication).
- Plot the main empirical associations you want to study!
- Do NOT assume the reader knows anything about these data

## **Model and Methods**

- Describe how the hypothesis is linked to your estimation.
- Describe the estimation using equations.
- Discuss the parameters and variables.
- What are the identifying assumptions, what are (possible) violations and their consequences?
- What will you do about this?

## **Results**

- Tell a story!
- Guide the reader.
- Focus on the key points, not the details.
- Discuss quality and quantity.
- Discuss problems.
- Compare to the literature.

## **Further steps**

Which results can be expected? What is new? Where lies the progress for science? In what way can scientific discussion proceed / be stimulated by the thesis?

## **References**

Acemoglu, D., Pischke, J.-S., 1999. Beyond becker: Training in imperfect labour markets. The economic journal 109, 112–142.

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