

## **Research Methods and Master's Project**

## Introduction

Amílcar Moreira and Inês Faria 28/01/2024, 18:00-19:30 FRANCESINHAS 2, Sala 2.08



#### Presentation

#### **1. Objectives**

- 2. Program
- 3. Bibliography
- 4. Evaluation
- 5. Support
- 6. Managing your Supervisor





#### **1. Objectives:**



#### 1. Objectives:

- Help students to choose the (type of) Master's Project they will carry out.
- Help students to choose the topic of their Master's Project.
- Provide students with foundational methodological skills to successfully complete their Master's Project.
- Provide students with necessary skills to collect, qualitative and quantitative, data for their Masters' Project.



#### <u>ACTIVITY</u>: #1

Acede a

#### www.menti.com





Code: 6733 5801

#### WHAT: Name one skill you consider important to successfully conclude your Master's Project

WHERE: Menti.com

WHO: Groups of 2

**HOW LONG: 2** Minutes





#### By the end of this Course Unit, you should:

- Have chosen the type of Master Project and the topic you will be working on.
- Be able to conduct an Exploratory Bibliographic Search, and write 'Annotated Bibliographies', which will help you in narrowing the topic of your Master's Project.
- Be able to conduct a Systematic Bibliographic Search, and to use an 'Article Matrix' to systematize evidence in literature.
- Be able to define the Research Question (and Hypothesis) that will guide the data collection and analysis in your Master's Project.
- Know what are the key approaches for collecting (qualitative and quantitative) data and how to implement them.



- **1. Introduction**
- 2. Gaining Information on Your Topic of Interest
- 3. Conducting a Review of The Literature
- 4. Objectives, Research Question & Hypothesis
- 5. Choosing a Research Design
- 6. Data Collection Strategies (Parts I & II)
- 7. Data Collection Strategies (Part III & IV)
- 8. Getting the Message Out



#### 2. Program Structure

#### **1. Introduction**

- 2. Gaining Information on Your Topic of Interest
- 3. Conducting a Review of The Literature (Parts I & II)
- 4. Objectives, Research Question & Hypothesis
- 5. Choosing a Research Design
- 6. Data Collection Strategies (Parts I & II)
- 7. Data Collection Strategies (Part III & IV)
- 8. Getting the Message Out

- Familiarize students with the objectives, structure and evaluation model of the Course Unit.
- Familiarize students with the types of Master's Project that they can choose to develop.
- Familiarise students with the rationale of conducing a Master's Project.
- Familiarise students with the issues concerning the choice of, and relationship with a Supervisor.



- **1. Introduction**
- 2. Gaining Information on Your Topic of Interest
- 3. Conducting a Review of The Literature (Parts I & II)
- 4. Objectives, Research Question & Hypothesis
- 5. Choosing a Research Design
- 6. Data Collection Strategies (Parts I & II)
- 7. Data Collection Strategies (Part III & IV)
- 8. Getting the Message Out

- Sources of Inspiration for Choosing your Topic.
- Conducting an Exploratory Bibliographic Search.
- How to Read a Scientific Paper.
- Writing an Annotated Bibliography.
- Referencing Rules.



- 1. Introduction
- 2. Gaining Information on Your Topic of Interest
- 3. Conducting a Review of The Literature (Parts I & II)
- 4. Objectives, Research Question & Hypothesis
- 5. Choosing a Research Design
- 6. Data Collection Strategies (Parts I & II)
- 7. Data Collection Strategies (Part III & IV)
- 8. Getting the Message Out

- Narrowing the Topic.
- Types of Reviews.
- Structuring a Review of Literature.
- How to Identify Gaps in the Literature.



- **1. Introduction**
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- 3. Conducting a Review of The Literature (Parts I & II)
- 4. Objectives, Research Question & Hypothesis
- 5. Choosing a Research Design
- 6. Data Collection Strategies (Parts I & II)
- 7. Data Collection Strategies (Part III & IV)
- 8. Getting the Message Out

- Conducting a Systematic Bibliographic Search.
- Introducing students to the 'EBSCO Discovery Service'.
- Creating an 'Article Matrix' as a tool for systematizing information.



- 1. Introduction
- 2. Gaining Information on Your Topic of Interest
- 3. Conducting a Review of The Literature (Parts I & II)
- 4. Objectives, Research Question & Hypothesis
- 5. Choosing a Research Design
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- 7. Data Collection Strategies (Part III & IV)
- 8. Getting the Message Out

- Gaps vs. Objectives vs. Research Question
- How to write the Research Question: the PICO and PEO models
- The Conceptual Model: Causal relations and the definition of research hypothesis



- 1. Introduction
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- 8. Getting the Message Out

- Defining the Research Design
- Qualitative Research Designs
- Quantitative Research Designs



- **1. Introduction**
- 2. Gaining Information on Your Topic of Interest
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- 7. Data Collection Strategies (Part III & IV)
- 8. Getting the Message Out

- Qualitative Primary Data (Semi-Directive Interview; Focus Groups; Journey Mapping & Participant Observation Techniques)
- Participatory Research tools
- Digital Ethnography Methods
- Image-Based Data Collection Methods
- Ethical issues in the collection of qualitative primary data.



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- 7. Data Collection Strategies (Part III & IV)
- 8. Getting the Message Out

- Quantitative Primary Data (Questionnaire Design, Sampling and Implementation)
- Quantitative Secondary Data (Access to proprietary and open databases; Composite Indexes & Benchmarking)
- Ethical issues in dealing with quantitative data.



- 1. Introduction
- 2. Gaining Information on Your Topic of Interest
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- 5. Choosing a Research Design
- 6. Data Collection Strategies (Parts I & II)
- 7. Data Collection Strategies (Part III & IV)
- 8. Getting the Message Out

- Good-Practices in Academic Writing.
- How to write an Introduction.
- How to write the Methodology Section.
- How to write the Findings Section.
- How to write a Conclusion.



#### 3. Bibliography \*

- Babbie, E. (2016) The Practice of Social Research. Boston: Cengage Learning.
- Bryman, A. (2012) Social Research Methods. New York: Oxford University Press.
- Cassel, C., Cunliffe, A., Grandy, G. (2018) <u>Qualitative Business and Management Research Methods: History and</u> <u>Traditions</u>. London: Sage.
- Creswell, J. W. (2013) <u>Qualitative Inquiry & Research Design: Choosing among Five Approaches</u>. London: Sage (3rd edition).
- Hennink, M., Hutter, I. and Bailey, A. (2020) <u>Qualitative Research Methods</u>. SAGE Publications Limited, Thousand Oaks.
- Kumar, R. (2012) <u>Research Methodology: A Step-by-Step Guide for Beginners.</u> London: Sage.
- Sarantakos, S. (2012) <u>Social Research.</u> London: Red Globe Press.

\* Additional (specific) bibliography will be provided per topic covered.



#### 4. Evaluation:

- Continuous Evaluation
- The 'Final Exam' route



#### 4. Evaluation: Continuous Evaluation

Students that opt for the Continuous Evaluation path will be evaluated by reference to three items:

- Submission of 6 Weekly Tasks. Students will be allowed the option to submit Tasks concerning the collection of qualitative data (Tasks 5 and 6) or the collection of quantitative data (Tasks 7 and 8). This item is worth 3 points out of 20;
- Submission of a Preliminary Research Proposal, by the 11th of March. This item is worth 7 points out of 20;
- Submission of a Research Proposal, by the 15th of May. This item is worth 10 points out of 20.



#### 4. Evaluation: The 'Final Exam' Route

- The Final Exam, which is conducted during the Repeat Assessment Period ('Época de Recurso'), will cover contents taught during the course.
- Students that, having opted for the Continuous Evaluation path, did not manage a grade equal or over 10 will have to take the Exam during the Repeat Assessment Period ('Época de Recurso').





#### 5. Support

The Course Unit Lecturers will be available to answer questions/discuss doubts on MSTeams in the following Schedule:

Fridays, between 2pm and 3pm.

Requests need to be sent until 6pm of the previous day. Requests sent after this deadline will not be attended.



## <u>ACTIVITY</u>: #2

**WHO:** Individual



WHAT: Do you have any doubts about how the Course Unit is organised?

WHERE: RMMP-MIRS S08 (TP) [2024-2025 2º Semestre] / General

2:00

**HOW LONG: 2** minutes





#### **Types of Master's Project**

#### Dissertation

Project

**Internship (Report)** 



	DISSERTATION	PROJECT	INTERNSHIP REPORT
OBJECTIVE	<ul> <li>Deals with a relevant theoretical question.</li> <li>Results can be generalizased.</li> </ul>	<ul> <li>Deals with an actual problem in the work (or organizational) environment.</li> </ul>	<ul> <li>Describe, and reflect upon, on the activities developed during the Internship.</li> </ul>
SHOULD HAVE	<ul> <li>Theoretical framework.</li> <li>Theoretical Exercise or Empirical Analysis component.</li> <li>Conclusion, w/ suggestions for future research.</li> </ul>	<ul> <li>Theoretical framework.</li> <li>Methodology .</li> <li>Empirical Analysis.</li> </ul>	<ul> <li>Describe the functions and tasks performed, by reference to a relevant theoretical framwork.</li> <li>Discuss how the academic training received during the Master was applied in the context of the intership.</li> </ul>
SUPERVISION	Lecturer or Expert.	Lecturer or Expert.	<ul> <li>Responsible in the host organization.</li> <li>Co-supervisior: Lecturer or Expert.</li> </ul>



### **Master's Project: Format and Size**

Size (max.):

- 35 pages/ 10 000 words (excluding annexes, table of contents and references)
- 50 pages/10 000 (including annexes)

**Referencing: Harvard** 



#### **Types of Master's Project**

Get to know them better:

- ISEG Masters' regulation
- Guide for Master's Project developmet, p. 5-6
- Rules for the presentation of written work ISEG/UL



### <u>ACTIVITY</u>: #3

2:00

Acede a

#### www.menti.com





Code: 2238 0452

#### **WHO: Individual**

WHAT: What kind of Master's Project would you like to pursue?

- Dissertation
- Project
- Internship Report
- 'Don't Know'

WHERE: www.menti.com

**HOW LONG: 2** Minutes



## **Planning to Write a Dissertation?**





## Planning to Write a Dissertation? What options do you have?

Let's explore <u>Dissertations from previous</u> years ...



## What options do you have?

• Quantitative Study, using Survey or Secondary Quantitative Data



What options do you have?

MASTER ECONOMICS AND MANAGEMENT OF SCIENCE, TECHNOLOGY AND INNOVATION

> MASTER'S FINAL WORK DISSERTATION

 Quantitative Study, using Survey or Secondary Quantitative Data

DETERMINANTS OF PUBLIC CHARGING INFRASTRUCTURE FOR PLUG-IN ELECTRIC VEHICLES IN THE EUROPEAN UNION - USING FUZZY-SET QUALITATIVE COMPARATIVE ANALYSIS (FSQCA)

TIAGO VIEIRA PESSOTTI RANGEL

SUPERVISION: PROFESSOR RICARDO FIGUEIREDO BELCHIOR, PHD



# What options do you have?

 Quantitative Study, using Survey or Secondary Quantitative Data MASTER ECONOMICS AND MANAGEMENT OF SCIENCE, TECHNOLOGY AND INNOVATION

> MASTER'S FINAL WORK DISSERTATION

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## What options do you have?

• Qualitative Study, using data from interviews, focus groups, etc..



# What options do you have?

LISBON SCHOOL OF ECONOMICS & MANAGEMENT UNVERSIONE DE CESSON

> MESTRADO ECONOMIA E GESTÃO DE CIÊNCIA, TECNOLOGIA E INOVAÇÃO

#### TRABALHO FINAL DE MESTRADO DISSERTAÇÃO

• Qualitative Study, using data from interviews, focus groups, etc..

LISBOA SMART CITY: UM ESTUDO SOBRE DIMENSÕES E A PARTICIPAÇÃO DOS CIDADÃOS.

MARIA ELIZA DE NADAL

NOVEMBRO - 2020



### What options do you have?

• Qualitative Study, using data from interviews, focus groups, etc..



MESTRADO ECONOMIA E GESTÃO DE CIÊNCIA, TECNOLOGIA E INOVAÇÃO

> **TRABALHO FINAL DE MESTRADO** DISSERTAÇÃO

LISBOA SMART CITY: UM ESTUDO SOBRE DIMENSÕES E A PARTICIPAÇÃO DOS CIDADÃOS.

MARIA ELIZA DE NADAL

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## What options do you have?

• Policy Analysis, using institucional data (legislation, etc.).



## What options do you have?

ECONOMIA E GESTÃO DE CIÊNCIA TECNOLOGIA E Inovação

MASTER

MASTER'S FINAL WORK DISSERTATION

 Policy Analysis, using institucional data (legislation, etc.).

NON-PRACTICING ENTITY'S IMPACT ON CHINA'S PATENT MARKET AND INNOVATION ACTIVITIES

YU QINGFANG



## What options do you have?

ECONOMIA E GESTÃO DE CIÊNCIA TECNOLOGIA E Inovação

MASTER

MASTER'S FINAL WORK DISSERTATION

 Policy Analysis, using institucional data (legislation, etc.).

NON-PRACTICING ENTITY'S IMPACT ON CHINA'S PATENT MARKET AND INNOVATION ACTIVITIES

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## What options do you have?

 Policy Analysis, using institucional data (legislation, etc.).

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#### What options do you have?

• Systematic Review of Literature.



What options do you have?



MASTER MASTER IN ECONOMICS AND MANAGEMENT OF SCIENCE, TECHNOLOGY AND INNOVATION

> MASTER'S FINAL WORK DISSERTATION

• Systematic Review of Literature.

A BIBLIOMETRIC ANALYSIS OF THE COVID-19 PANDEMIC IMPACT ON STI LITERATURE

BERNARDO MOTTA MONTEIRO

DECEMBER - 2022



## What options do you have?

• Systematic Review of Literature.



MASTER MASTER IN ECONOMICS AND MANAGEMENT OF SCIENCE, TECHNOLOGY AND INNOVATION

MASTER'S FINAL WORK

DISSERTATION

A BIBLIOMETRIC ANALYSIS OF THE COVID-19 PANDEMIC IMPACT ON STI LITERATURE

BERNARDO MOTTA MONTEIRO

DECEMBER - 2022

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#### **Master's Project: Dissertation**

#### **Typical Structure**

- Introduction
- Literature review
- Methodology and Data
- Analysis and Findings
- Conclusion (limitations, key findings & contributions, directions for future research).





#### Planning to Conduct a Project?

#### What options do you have?

Let's explore **Projects from previous years** ...





## What options do you have?

• Project

MESTRADO EM ECONOMIA E GESTÃO DE CIÊNCIA, TECNOLOGIA E INOVAÇÃO

TRABALHO FINAL DE MESTRADO

TRABALHO DE PROJETO

Plano de negócio para comercializador retalhista de energia renovável no Brasil

Karine Rodrigues Bueno

2024





#### What options do you have?

• Project.

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Karine Bueno - Plano de negócio para comercializador retalhista de energia renovável no Brasil

#### MESTRADO EM ECONOMIA E GESTÃO DE CIÊNCIA, **TECNOLOGIA E INOVAÇÃO** TRABALHO FINAL DE MESTRADO TRABALHO DE PROJETO Plano de negócio para comercializador retalhista de energia renovável no Brasil

Karine Rodrigues Bueno

2024



#### **Master's Project: Project**

#### **Typical Structure**

- Introduction
- Literature review
- Methodology and Data
- Analysis and Findings
- Conclusion (limitations, key findings & contributions, directions for future research).





#### Planning to do an Internship?



#### Planning to do an Internship?

#### What options do you have?

Let's explore <u>Internship Reports from</u> previous years ...



# What options do you have?



**MESTRADO EM** ECONOMIA E GESTÃO DA CIÊNCIA, TECNOLOGIA E INOVAÇÃO

> TRABALHO FINAL DE MESTRADO RELATÓRIO DE ESTÁGIO

• Internship Report.

APLICAÇÃO DA METODOLOGIA DE HORIZON SCANNING NO ÂMBITO DA INOVAÇÃO NUMA EMPRESA ENERGÉTICA

ANDRÉ FILIPE MARQUES RIBEIRO

ORIENTADORES: PROFESSOR DOUTOR PAULO MIGUEL NUNES SOEIRO DE CARVALHO ENGENHEIRA SUSANA LUDOVINO

OUTUBRO - 2022



# What options do you have?

•	Internship	<b>Report.</b>
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**Mestrado em** Economia e Gestão da Ciência, Tecnologia e Inovação

> TRABALHO FINAL DE MESTRADO RELATÓRIO DE ESTÁGIO

APLICAÇÃO DA METODOLOGIA DE HORIZON SCANNING NO ÂMBITO DA INOVAÇÃO NUMA EMPRESA ENERGÉTICA

ANDRÉ FILIPE MARQUES RIBEIRO

ORIENTADORES: PROFESSOR DOUTOR PAULO MIGUEL NUNES SOEIRO DE CARVALHO ENGENHEIRA SUSANA LUDOVINO

OUTUBRO - 2022

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### **Master's Project: Internship Report**

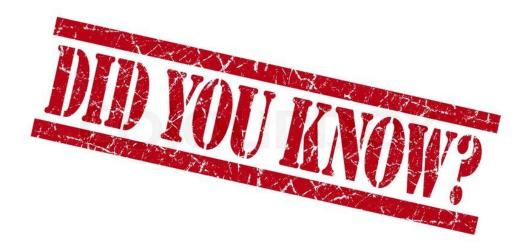
#### **Typical Structure**

- Introduction
- Theoretical Framework
- Methods
- Description of Functions(s) and Tasks
- Discussion (Reflection on how academic training received during the Master was applied in the context of the Intership)



#### 6. Managing your Supervisor





One of the key aspects of successfully completing your Master's Project is a good relationship with your Supervisor?





HOW TO BUILD A GOOD RELATIONSHIP WITH YOUR SUPERVISOR?



- Think carefully about your topic before the first approach.
- Schedule regular meetings and prepare notes of the meetings.
- Submit texts/documents on agreed dates.
- Be autonomous & pro-active.
- Be clear about the type of support you need.

- Not complying with what was agreed with the Supervisor.
- Missing meetings scheduled in advance.
- Submit low quality work.
- Submit small pieces of text, with little context.
- Not being honest about the reason for delays in submitting work.