

RESEARCH METHODS AND DISSERTATION WRITING

13/11/2023

LECTURE OVERVIEW

- Definition of Research problem
- Importance of Research problem
- Identification of Research problem
- Formulate problem statement
- Examples-problem statement

RESEARCH METHODS

DEFINING RESEARCH PROBLEM

Define research problem:

- In research process, the first and foremost step happens to be that of:
 - **Selecting and defining a research problem.**
- **A researcher must find the problem and formulate it so that it becomes susceptible to research.**
- Like a medical doctor, a researcher must examine all the symptoms (presented to him or observed by him) concerning a problem before he can diagnose correctly.

To define a problem correctly, a researcher must know: what a problem is?

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DEFINING RESEARCH PROBLEM

What is a research problem?

- **A research problem**, in general, refers to some difficulty which a researcher experiences in the context of either a theoretical or practical situation and wants to obtain a solution for the same.
- **A research problem** is a specific issue or gap in existing knowledge that you aim to address in your research. You may choose to look for practical problems aimed at contributing to change, or theoretical problems aimed at expanding knowledge.
- Some research will do both of these things, but usually the research problem focuses on one or the other.

The type of research problem you choose depends on your broad topic of interest and the type of research you think will fit best.

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DEFINING RESEARCH PROBLEM

Why research problem is important?

- Having an **interesting topic** isn't a strong enough basis for academic research.
- Without a well-defined research problem, you are likely to end up with;
 - An **unfocused** and **unmanageable** project.
 - **Repeating** what other people have already said, or
 - Doing research **without a clear purpose** and justification.
- You need a **clear problem** in order to do research that contributes new and relevant insights.

Whether you're planning your thesis, starting a research paper, or writing a research_proposal, the research problem is the first step towards knowing exactly what you'll do and why.

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DEFINING RESEARCH PROBLEM

Component of a research problem:

1. There must be an individual or a group which has some difficulty or the problem.
2. There must be some objective(s) to be attained at.

If one wants nothing, one cannot have a problem.

3. There must be alternative means (or the courses of action) for obtaining the objective(s) one wishes to attain.

This means that there must be at least two means available to a researcher for if he has no choice of means, he cannot have a problem.

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DEFINING RESEARCH PROBLEM

Component of a research problem:

4. There must remain some doubt in the mind of a researcher with regard to the selection of alternatives.

This means that research must answer the question concerning the relative efficiency of the possible alternatives.

5. There must be some environment(s) to which the difficulty pertains.

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IDENTIFICATION OF RESEARCH PROBLEM

Step 1: Identify a broad research problem area:

- As you read/search about your topic, look for;
 - Under-explored aspects or areas of concern,
 - Conflict, or controversy.

Your goal is to find a gap that your research project can fill.

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IDENTIFICATION OF RESEARCH PROBLEM

Step 1: Identify a broad research problem area:

- **Practical research problems** (build knowledge for useful practice)

If you are doing practical research, you can identify a problem by **reading reports**, following up on **previous research**, or **talking to people** who work in the **relevant field** or organization.

- **You might look for:**
 - Issues with performance or efficiency
 - Processes that could be improved
 - Areas of concern among practitioners
 - Difficulties faced by specific groups of people

RESEARCH METHODS

IDENTIFICATION OF RESEARCH PROBLEM

Step 1: Identify a broad research problem area:

- **Practical research problems (build knowledge for useful practice)**
- **Examples of practical research problems**
 - Voter turnout in New England has been decreasing, in contrast to the rest of the country.
 - The HR department of a local chain of restaurants has a high staff turnover rate.
 - A non-profit organization faces a funding gap that means some of its programs will have to be cut.

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IDENTIFICATION OF RESEARCH PROBLEM

Step 1: Identify a broad research problem area:

- **Theoretical research problems (based on the existing knowledge)**
- If you are doing theoretical research, you can identify a research problem by reading **existing research**, **theory**, and **debates** on your topic to find a gap in what is currently known about it
- **You might look for:**
 - A phenomenon or context that has not been closely studied
 - A contradiction between two or more perspectives
 - A situation or relationship that is not well understood
 - A troubling question that has yet to be resolved

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IDENTIFICATION OF RESEARCH PROBLEM

Step 1: Identify a broad research problem area:

- **Theoretical research problems (based on the existing knowledge)**
- **Examples of theoretical research problems**
 - The effects of long-term Vitamin D deficiency on cardiovascular health are not well understood.
 - The relationship between gender, race, and income inequality has yet to be closely studied in the context of the millennial gig economy.
 - Historians of Scottish nationalism disagree about the role of the British Empire in the development of Scotland's national identity.

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IDENTIFICATION OF RESEARCH PROBLEM

Step 2: Learn more about the research:

- Next, you have to find out what is already known about the problem, and
 - **Pinpoint the exact aspect that your research will address.**
- **A: Context and background**
 - Who does the problem affect?
 - Is it a newly-discovered problem, or a well-established one?
 - What research has already been done?
 - What, if any, solutions have been proposed?
 - What are the current debates about the problem? What is missing from these debates?

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IDENTIFICATION OF RESEARCH PROBLEM

Step 2: Learn more about the research:

- Next, you have to find out what is already known about the problem, and
 - **Pinpoint the exact aspect that your research will address.**
- **B: Specificity and relevance**
 - What particular place, time, and/or group of people will you focus on?
 - What aspects will you not be able to tackle?
 - What will the consequences be if the problem is not resolved?

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IDENTIFICATION OF RESEARCH PROBLEM

Step 2: Learn more about the research:

Example of a specific research problem

- A local non-profit organization focused on alleviating food insecurity has always fundraised from its existing support base. It lacks understanding of how best to target potential new donors. To be able to continue its work, the organization requires research into more effective fundraising strategies.

Context and background

Specificity and relevance

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IDENTIFICATION OF RESEARCH PROBLEM

Next steps:

- Once you have narrowed down your research problem, the next steps are;
 - Formulate a problem statement,
 - Formulate research questions or hypotheses.
 - Write research objectives
 - **Develop a research proposal**

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IDENTIFICATION OF RESEARCH PROBLEM

When should you write a problem statement?

In the business world:

- Is often the first step in kicking off an improvement project.
- In this case, the problem statement is usually a stand-alone document.

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IDENTIFICATION OF RESEARCH PROBLEM

When should you write a problem statement?

In academic research:

- It can help you contextualize and understand the significance of your research problem.
- It is often several paragraphs long, and
- Serves as the basis for your research proposal.
- Alternatively, it can be condensed into just a few sentences in your introduction.

A problem statement looks different when dealing with a practical, real-world problem or a theoretical issue. Regardless, all problem statements follow a similar process.

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FORMATION OF PROBLEM STATEMENT

How to write a problem statement?

A **problem statement** is a concise and concrete summary of the research problem you seek to address.

- The problem statement should be able to:
 1. Contextualize the problem. **What do we already know?**
 2. Describe the exact issue your research will address. **What do we still need to know?**
 3. Show the relevance of the problem. **Why do we need to know more about this?**
 4. Set the objectives of the research. **What will you do to find out more?**

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FORMATION OF PROBLEM STATEMENT

**I.Context and
Background**

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graph TD; A[I.Context and Background] --> B[3.Relevance/Significance]; B --> C[4. Objectives];
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3.Relevance/Significance

4. Objectives

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IDENTIFICATION OF RESEARCH PROBLEM

Steps in writing a problem statement

- **Step I: Contextualize the problem**

The problem statement should frame your research problem, giving some **background on what is already known**.

A: Practical research problems

For practical research, focus on the concrete details of the situation:

- Where and when does the problem arise?**
- Who does the problem affect?**
- What attempts have been made to solve the problem?**

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IDENTIFICATION OF RESEARCH PROBLEM

Steps in writing a problem statement

- Step 1: Contextualize the problem

A: Practical research problems

Example

Voter turnout in the Southeast has been decreasing steadily over the past ten years, in contrast to other areas of the country. According to surveys conducted by local nonprofits, turnout is lowest among those under 25 years of age. There have been some effective attempts at engaging these groups in other regions, and in the last two elections, major parties increased their campaigning efforts. However, these interventions have yet to have any significant effect on turnout.

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IDENTIFICATION OF RESEARCH PROBLEM

Steps in writing a problem statement

- Step 1: Contextualize the problem

A: Practical research problems-Example

Voter turnout in the Southeast has been decreasing steadily over the past ten years, in contrast to other areas of the country.

According to surveys conducted by local nonprofits, turnout is lowest among those under 25 years of age.

There have been some effective attempts at engaging these groups in other regions, and in the last two elections, major parties increased their campaigning efforts. However, these interventions have yet to have any significant effect on turnout.

Where and when does the problem arise?

Who does the problem affect?

What attempts have been made to solve the problem?

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IDENTIFICATION OF RESEARCH PROBLEM

Steps in writing a problem statement

- **Step 2: Relevance of the problem (Show why it matters)**

The problem statement should also address the relevance of the research. Why is it important that the problem is addressed?

A: Practical research problems

Practical research is directly relevant to a specific problem that affects an organization, institution, social group, or society more broadly. To make it clear why your research problem matters, you can ask yourself:

- What will happen if the problem is not solved?
- Who will feel the consequences?
- Does the problem have wider relevance? Are similar issues found in other contexts?

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IDENTIFICATION OF RESEARCH PROBLEM

Steps in writing a problem statement

- Step 2: Relevance of the problem (Show why it matters)

A: Practical research problems

Example

Low voter turnout has been shown to have negative associations with overall civic engagement. It is becoming an area of increasing concern in many European democracies. When specific groups of citizens lack political representation, they are likely to become more excluded over time, leading to an erosion of trust in democratic institutions. Addressing this problem will have practical benefits for the Southeastern US as well, and will contribute to understanding of this widespread phenomenon.

RESEARCH METHODS

IDENTIFICATION OF RESEARCH PROBLEM

Steps in writing a problem statement

- Step 2: Relevance of the problem (**Show why it matters**)

A: Practical research problems

Example

Low voter turnout has been shown to have negative associations with overall civic engagement. It is becoming an area of increasing concern in many European democracies.

When specific groups of citizens lack political representation, they are likely to become more excluded over time, leading to an erosion of trust in democratic institutions.

Addressing this problem will have practical benefits for the Southeastern US as well, and will contribute to understanding of this widespread phenomenon.

What will happen if the problem is not solved?

Who will feel the consequences?

Does the problem have wider relevance?

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IDENTIFICATION OF RESEARCH PROBLEM

Steps in writing a problem statement

Practical I (show context and relevance in the following problem)

ABC company is facing a significant challenge in managing their customer service on-hold times. In the past, the company had been known for its efficient and timely customer service, but due to a combination of factors, including understaffing and increased customer demand, the on-hold times have exceeded five minutes consistently. This has resulted in frustration and dissatisfaction among customers, negatively impacting the company's reputation and customer loyalty.

Reducing the on-hold times for customer service callers is crucial for ABC company. Prolonged waiting times have a detrimental effect on customer satisfaction and loyalty, leading to potential customer churn and loss of revenue. Additionally, the company's declining reputation in terms of customer service can have a lasting impact on its competitive position in the market. Addressing this problem is of utmost importance to improve customer experience and maintain a positive brand image.

- i. Where and when does the problem arise?
- ii. Who does the problem affect?
- iii. ~~What attempts have been made to solve the problem?~~

- i. What will happen if the problem is not solved?
- ii. Who will feel the consequences?
- iii. Does the problem have wider relevance?

RESEARCH METHODS

IDENTIFICATION OF RESEARCH PROBLEM

Steps in writing a problem statement

Example 4 (show context and relevance in the following problem)

- ABC company faces the challenge of generating a 5% increase in net revenue for its premium product line of widgets in the upcoming fiscal year. Currently, the company lacks the required workforce to drive this growth. Without adequate staff in the marketing, PR, and product development departments, the company's ability to effectively promote, position, and innovate its premium product line will be hindered. To achieve this kind of growth, it is essential that ABC expands teams, enhances capabilities, and strategically taps into the existing pool of loyal customers.
- Increasing net revenue for the premium product line is crucial for ABC company's overall business success. Failure to achieve the targeted growth rate can lead to missed revenue opportunities and stagnation in the market. By expanding the marketing and PR teams, ABC company can strengthen its brand presence, effectively communicate the value proposition of its premium product line, and attract new customers.
- Additionally, expanding the product development teams will enable the company to introduce new features and innovations, further enticing existing and potential customers. Therefore, addressing the workforce shortage and investing in the necessary resources are vital for achieving the revenue growth objective.

- i. Where and when does the problem arise?
- ii. Who does the problem affect?
- iii. What attempts have been made to solve the problem? (can be made)

- i. What will happen if the problem is not solved?
- ii. Who will feel the consequences?
- iii. Does the problem have wider relevance?

END
LECTURE-02

06/11/2023