

How to Write a Problem Statement

All research proposals are designed to persuade someone, such as a funding agency, educational institution or supervisor, that your project is worthwhile.

Objectives of the research proposal:

- Relevance: Convince the reader that your project is interesting, original and important
- Context: Show that you know the field, that you understand the current state of research on the subject and that your ideas have a solid academic basis
- Approach: Introduce your methodology showing that you have thought carefully about the data, tools and procedures you will need to conduct the research
- Feasibility: Confirming that the project is feasible within the practical limits of the program, institution, or funding

For this, we must answer the four points.

Relevance and context

An effective problem statement is concise and concrete. It should:

- Putting the problem in context (what do we already know?)
- Describe the specific problem the research will address (what do we need to know?)
- Show the relevance of the problem (why do we need to know this?)
- Set the research objectives (what will you do to find out?)

In academic research, writing a problem statement can help you contextualize and understand the importance of your research problem. A problem statement can be several paragraphs long and serve as the basis for your research proposal, or it can be condensed into just a few sentences in the introduction of your paper or thesis.

The problem statement should frame your research problem in its particular context and provide an overview of what is already known about it.

The problem statement should also address the relevance of the research: why is it important that the problem be solved?

It doesn't mean you have to do something revolutionary or change the world. It's more important that the problem be researchable, doable, and clearly address a relevant issue in your field.

We will see how to write the context of your scientific work.

- For a first paragraph, focus on the concrete details of the situation:
- Where and when does the problem occur?

- Who does the problem affect?
- What attempts have been made to solve the problem?

Voter turnout in Region X has steadily declined over the past ten years, unlike other parts of the country. According to surveys conducted by Organization Y, participation is lowest among those under 25 and those on low incomes. There have been some effective attempts to involve these groups in other regions, and in the last two elections Parties A and B have stepped up their campaigning efforts in Region X, but these interventions have not yet had any impact. significant effect on participation.

Context is directly relevant to a specific issue that affects an organization, institution, social group, or society more broadly. To fully understand why your research problem is important, you can ask yourself:

- What will happen if the problem is not solved?
- Who will feel the consequences?
- Does the issue have broader relevance (eg, are similar issues found in other contexts)?

Low voter turnout has been shown to have negative associations with social cohesion and civic engagement, and is becoming a growing 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. Solving this problem will have practical benefits for the X region and contribute to the understanding of this widespread phenomenon.

Remember to focus on the scientific, social, geographical and/or historical context:

- What do we already know about the problem?
- Is the problem limited to a certain period or to a geographical area?
- How has the problem been defined and discussed in the scientific literature?

Over the past decade, the “gig economy” has become an increasingly important segment of the labor market. Those under 30 are more likely to engage in freelance, contract or zero-hour work arrangements instead of traditional full-time jobs. Research on the reasons for and consequences of this change has focused on objective measures of income, hours of work, and employment conditions, but there has been little work exploring the subjective experiences of youth in the workplace. job saving.

Sometimes theoretical questions have clear practical consequences, but sometimes their relevance is less immediately obvious. To identify why the problem is important, ask yourself:

- How will solving the problem advance understanding of the topic?
- What benefits will this have for future research?
- Does the problem have direct or indirect consequences for society?

In the literature on the gig economy, these new forms of employment are sometimes characterized as a flexible active choice and sometimes as a last resort of exploitation. To better understand why young people are engaging in the gig economy, in-depth qualitative research is needed. Focusing on the experiences of workers can help develop stronger theories of flexibility and precariousness in contemporary employment, as well as potentially informing future policy goals.

Finally, the problem statement should frame how you intend to solve the problem. Your goal should not be to find a conclusive solution, but to investigate the reasons behind the problem and come up with more effective approaches to solving or understanding it.

The purpose of the research is the general purpose of your research. It is usually written in the infinitive form:

- The aim of this study is to determine...
- This project aims to explore...
- I aim to investigate...

The purpose of this research is to investigate effective engagement strategies to increase voter turnout in Region X. It will identify the most significant factors of non-voting through surveys and interviews, and conduct experiments to measure the effectiveness of different strategies.

This project aims to better understand the experiences of young people in the gig economy. Qualitative methods will be used to better understand the motivations and perceptions of under 30s engaged in self-employment and zero hours in various sectors. These data will be contextualized with a review of recent literature on labor economics and a statistical analysis of changes in workforce demographics.

Define the problems

Once you have done your research and answered the questions above, you should have a clearer idea of what in particular you want to address inside the problem. The next step is therefore to transform this point into an issue that clearly explains the problem you are going to solve, and proves the relevance of your research.

The problem of your thesis is not necessarily limited to a single sentence (title). It can fit in a small paragraph (title with objectives).

Once the problem statement has been written, you are ready to formulate your central research question and the sub-questions that will be part of it.

Attention, although the problem and the central research question are linked, they are nevertheless two very distinct things.

There is indeed a difference between problematic and central research question, even if sometimes the distinction is not very clear.

The problem will be written in the affirmative form:

Middle school teachers lack the skills to recognize and guide gifted students in class.

The central research question is the question that the thesis will answer. It stems from the problem, which it encountered, in highlighting a “problem”. Central questions are generally broken down into sub-questions and/or hypotheses. The research question will be written as a question:

What practical techniques can teachers use to better identify and guide gifted students?

This implies defining practical techniques, the identification of gifted students, methods to guide them, metrics to quantify or qualify the fact of identifying and guiding and surely many other questions to ask about protocols and clinical tests!

A good problematic is based on a reflection around a SINGLE problem and its definition. It should be clearly stated:

- When does the problem arise?
- What is the problem ?

Relevant sources

It's important to show that you know the most important research on your topic. A thorough analysis of the literature convinces the reader that your project rests on a solid foundation of existing knowledge or theories. It also shows that you're not just repeating what other people have already done or said.

In this section, aim to demonstrate exactly how your project will contribute to conversations in the field.

- Compare and contrast: what are the main theories, methods, debates and controversies?
- Be critical: what are the strengths and weaknesses of the different approaches?
- Show how your research fits into the framework: how will you develop, challenge or synthesize the work of others?

If you're not sure where to start, read our guide on how to write a literature review.

By going through the different sections of an article, you can try to find simple answers to "What", "How" and "Why". Follow the list to understand which answers you should try to find in each section of a research paper:

- Introduction:

- What is the research question and how does the author try to answer it?
- Does the author make a hypothesis in the introductory part?
- Methods :
 - What type of methods have been adopted?
 - What was the sample size for data collection and how was it analyzed?
- Results :
 - What were the most vital findings from the experiments conducted?
 - Do the results confirm the hypothesis that was made?
- Discussion/Conclusion
 - What is the final solution to the research paper's problem statement?
 - What is the author's explanation for the results obtained?
 - What is the inference drawn from the observations?
 - What recommendations does the author make?
 - What are the various limitations of the study conducted?

Much like the abstract, the purpose of an abstract for the research paper will be to give the audience a brief overview of what this study says. You will need to find out what information is relevant and explain it briefly but completely.

All early drafts of your review articles should follow the order of the original article. The structure would look like this:

- State the research question and explain why it is important.
- Indicate the hypotheses that were tested.
- Describe the methods in a few paragraphs (participants, design, procedure, materials, independent and dependent variables, how they analyzed the data)
- Talk about the results and explain why they were significant.
- Indicate what the main implications were and do not overstate the importance of their conclusions.
- The results and their interpretation should be directly related to the hypothesis.

This first draft of writing the abstract of the research paper should focus on content rather than length. There is a good chance that you will need to condense more, but this will have to be done after several proofreading to condense the information that will be useful to you.

A very important step is your discussion of the article. Any research work can be interpreted differently depending on the researchers and the context of the research. Thus, you must remain critical of the summary you propose. The last paragraph of your summary is therefore a critique or an interpolation of the paper in relation to your context and your problem.

Scheduling

In some cases, you may need to include a detailed project schedule, explaining exactly what you will do at each stage and how long it will take. Check the requirements of your program or funding organization to see if this is necessary.

Research phase	Objectives	Deadline
1. Background research and literature review	<ul style="list-style-type: none"> • Meet with supervisor for initial discussion • Conduct a more extensive review of relevant literature • Refine the research questions • Develop a theoretical framework 	20th February
2. Research design planning	<ul style="list-style-type: none"> • Design questionnaires • Identify online and offline channels for recruiting participants • Finalize sampling methods and data analysis methods 	13th March
3. Data collection and preparation	<ul style="list-style-type: none"> • Recruit participants and send out questionnaires • Conduct semi-structured interviews with selected participants • Transcribe and code interviews and clean survey data 	24th April
4. Data analysis	<ul style="list-style-type: none"> • Statistically analyze survey data • Conduct thematic analysis of interview transcripts • Draft the results and discussion chapters 	22nd May
5. Writing	<ul style="list-style-type: none"> • Complete a full thesis draft • Meet with supervisor to discuss feedback and revisions 	17th July
6. Revision	<ul style="list-style-type: none"> • Redraft based on feedback • Get supervisor approval for final draft • Proofread • Print, bind and submit 	28th August