



PROBLEM STATEMENT

We consider “Urbanism” a multidisciplinary area of research and practice, gathering urban design, spatial planning, data analysis and modelling, urban studies and sustainable technology, among others. Each area of knowledge asks different (but complementary) questions anchored on different ontology and epistemology. Different questions demand different methods to answer them. Sometimes, the same question can be answered from different perspectives. The Methodology Sheets give an overview of methods used in Urbanism.

WHAT DOES THIS METHOD ‘DO’?

Any academic endeavour starts with a question. There is ALWAYS something one wants to explain, unveil, prove, or disprove. In design-based disciplines, the academic endeavour generally aims at testing, implementing, or solving something. But there is always a question lurking somewhere. This question generally comes from a PROBLEM one wants to address. But you’d be surprised to know that, at its origin, a problem was not always a negative thing. Originally, the word problem meant a riddle or a question for academic discussion, from the Greek problēma, mean-

ing a “task”, “a proposition”, or simply a “question”¹. In this sense, the “problem” is at the root of the research. But in order to explain this problem, you need to do a bit of research (let’s call it “pre-research”) to explain to yourself and your audience what the problem is. A problem statement is a statement of a current issue or problem that requires action. This statement concisely explains what the issue is. The problem statement is generally an objective description of a situation that needs to be addressed, and may contain numbers

or other factual information that illustrate it. In this sense, you can look at the problem statement as a long paragraph summarising a complex problem that (at least in urban studies) has several dimensions. Most often, we deal with “wicked problems” that do not admit an immediate, clear and well-defined solution, but they are even more challenging and exciting. In your work as an urbanist, the problem statement serves as a summary of the challenges you will face in your research and design. It directs and shapes your attention and the attention of your audience.

¹ [HTTPS://WWW.ETYMONLINE.COM/WORD/PROBLEM](https://www.etymonline.com/word/problem)

WHY DO WE NEED THIS METHOD?

As we explained above, the problem statement directs and shapes your attention and that of your audience. Precisely because most urban and regional problems are so complex, it is impossible to state a common problem-solution continuum. You need to describe that complexity and the best way to do that is through factual, evidence-based description of the context and the challenges at hand. **A problem statement is a communication tool and helps you focus.** For example, you could describe the Province of South Holland from many perspectives, including for example, its economic vigour, or its ecological make-up, or as a cultural and political unit. It faces several challenges at once, but you can’t address all challenges simultaneously. That’s why you will direct the attention of your audience to a particular problem or a particular set of interconnected problems. Take the housing sector, for instance. It is not enough to say that the province has a deficit of 300.000 houses. Where does this number come from? Is it true? How big is this deficit predicted to be in 10 or 20 years? (In other words, what are the trends?). What are the causes of the deficit? Do we need 300.000 luxury homes, or maybe we need affordable homes? And what about the energy transition? Should the new houses be energy neutral? How feasible is this? So many questions... An interesting characteristic of the PS is that it makes you ASK QUESTIONS! Maybe some are **research questions!**

IT’S A COMMUNICATION TOOL

LIMITATIONS

Describing complexity is necessary, but there’s a limit to what can be tackled in a feasible project. As we mentioned, wicked problems are common in Urbanism. You need to focus, which means that some things must be left out. The more focused your problem statement, the more chances you have to ask the right questions and to be able to answer them with your research. An important point is: the problem statement should not point at solutions. Solutions will come later. For now, you need to understand **the drivers and the causes of the problem**, and also point at the **consequences of the problem**, even pointing at the consequences of inaction (What happens if we don’t act?). The temptation is there to rush to a solution. We sometimes have a good idea about what the solution is, but it is important to keep an open mind and to conduct research that will point the way to possible and desirable solutions that maybe were not so evident at the outset. Since problems are often “wicked”, sometimes there are multiple solutions possible, or possible courses of action. So, hold your horses! It’s best to explore the problem well before proposing solutions. In this sense, the circular economy is not a **panacea** that will solve all urban problems. You need to investigate what literature says about possible lines of enquiry (*see literature review) and possible solutions down the line.

HOLD YOUR HORSES!

HOW DO YOU DO IT?



The following text is adapted from McCombes, S. (2019). Write a Problem Statement for your Research in 3 Steps. At Scribbr. Available at <https://www.scribbr.com/research-process/problem-statement/>

After you have identified a **research problem** for your project, the next step is to write a **problem statement**. An effective problem statement is concise and concrete. It should:

- Put the problem in context (what do we already know?)
- Describe the precise issue that the research will address (what do we need to know?)
- Show the relevance of the problem (why do we need to know it? Or in other words, why should we care?)
- Set the objectives of the research (what will you do to find out?)

Step 1: Contextualize the problem

The problem statement should frame your research problem in its particular context and give some background on what is already known about it.

Practical research problems (HOW questions)

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?

Theoretical research problems (WHAT questions)

For theoretical research, think about the scientific, social, geographical and/or historical background:

- What is already known about the problem?
- Is the problem limited to a certain time period or geographical area?
- How has the problem been defined and debated in the scholarly literature?

Step 2: Show why it matters (establish the relevance)

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

This doesn't mean you have to do something ground breaking or world-changing. It's more important that the problem is researchable, feasible, and clearly addresses a relevant

issue in your field.

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 (e.g. are similar issues found in other contexts)?

Theoretical research problems

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

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

Step 3: Set your aims and objectives

Finally, the problem statement should frame how you intend to address the problem. Your goal should not be to find a conclusive solution, but to seek out the reasons behind the problem and propose more effective approaches to tackling or understanding it.

- The aim is the overall purpose of your research. It is generally written in the infinitive form:
- The aim of this study is to determine...
- This project aims to explore...
- I aim to investigate...

The objectives are the concrete steps you will take to achieve the aim:

- Qualitative methods will be used to identify...
- I will use surveys to collect...
- Using statistical analysis, the research will measure...

FURTHER READING



Bwisa, H. (2018) The basics of writing a statement of the problem for your research proposal. Editage. Available from: <https://www.editage.com/insights/the-basics-of-writing-a-statement-of-the-problem-for-your-research-proposal>

Cottrell, S. (2005) Critical Thinking Skills: Developing Effective Analysis and Argument. Palgrave.

McCombes, S. (2019). Write a Problem Statement for your Research in 3 Steps. At Scribbr. Available at <https://www.scribbr.com/research-process/problem-statement/>

Okasha, S. (2002). Philosophy of science: a very short introduction. Oxford University Press.

Sheffield University. (2020). How to: Write a Problem Statement. Available from: https://www.sheffield.ac.uk/polopoly_fs/1.440722!/file/HowtoWriteaProblemStatement.pdf