How to write a problem statement (with three examples)

If you've ever been asked to solve a problem or work on an improvement project, you know how important it is to get the support you need. You may have noticed a problem at work that you want to address, but need sign-off from your leadership team first. This is where a well-crafted problem statement can not only help you get support, but guide your research too.

If you need to write a problem statement and aren't sure where to begin, we'll walk you through it. Here, we share the key components of a problem statement, give you tips on making it effective and provide examples to get you started.

What is a problem statement?

A problem statement is a short, concise summary outlining a key issue, its impacts, supporting evidence and why it is crucial for the problem to be addressed. It's a formal way to say, 'Hey, this is a problem, this is what that problem is costing us, and this is why we need to solve it.' You may need to write a research problem statement if you:

- Are tasked with an improvement project
- Need to pitch action for a challenge or problem
- See an area in need of improvement
- Are writing a research paper

If you're leading an investigation or need to get support to resolve a challenge, a problem statement helps communicate the issue. Before writing your statement, consider whether you need to do more investigation. It's important to include any specific, measurable impact it has on a business, community or group. This will be crucial for writing an effective problem statement.

Five components of a problem statement

There are five key components of a problem statement:

1. The problem description
2. The purpose statement
3. The scope
4. The methodology
5. The significance of the study

While it may feel like a lot of information, a problem statement is usually only two to three sentences long, so it isn't as daunting as it may sound. In some cases, you can expand it to add more information, but it should be no more than 300 words.

Problem description

One of the most important parts of a problem statement is the problem description. This is a clear, to-the-point description of the problem or challenge being faced, including what it is, who it involves and potentially when it arose. It's crucial you get the problem description right as this is what you're aiming to resolve or investigate.

Purpose statement

Your problem statement should have a very specific purpose, which should be included in your problem description. Why does the problem need investigating and solving? The description includes what the problem is, but the purpose states why it's an issue.

Scope

An effective problem statement includes evidence to support any unbiased claims. This evidence should demonstrate the scope of the problem, such as the loss it's causing, a decrease in activity, staff attrition or other specific and measurable problems it is causing. Being measurable is important as you'll need to measure the effectiveness of the solution when the time comes.

Methodology

Your problem statement should allow the reader to understand if the applied methods

for investigating and resolving the problem are appropriate. Where possible, depending on the stage of research, include the methodology behind the research, giving the reader an idea of the approach that will be taken for the problem.

Significance of the study

A problem statement needs to be clear on how significant the problem is. While data can help support the claims, ending with the impacts of the problem if it were to continue will help cement why the research and investigation need to happen.

How to write a problem statement

Writing a problem statement can feel intimidating, but if you know what the problem is and why it's important, the hard part is done. By breaking your writing process into four steps, you can ensure your problem statement ticks all the boxes and is effective in getting the attention it deserves.

Step one: Start with who, what, when, where, why and how

To start your problem statement, list who the problem impacts, what it is, where it is, why it matters and how it's been making an impact. You may find some of these areas are not as strong as others. By starting with this information, you can ensure what you include is doing the most justice for demonstrating how powerful the challenge is and why it needs to be looked into.

Step two: Add your supporting data

Every problem statement should have measurable data to prove why it is a problem. This may be a percentage, the number of people impacted, revenue, dates or other data to support the statement. This information will ideally be used as a benchmark for defining the success of amending the problem, so finding the right information is vital.

Step three: Select a method for investigation

There are many ways to investigate a problem, so it's important to choose research and approaches that make the most sense. This is a great place to use your critical thinking skills

, showing the readers of the problem statement that you have invested time and effort into this problem. Examples of methods for investigation may include focus groups, surveying, analytical research, applied research and more.

Step four: Describe the significance of the study

What will happen if the research is not done and the problem continues? This is the end note to drive your problem statement home. Explain the impact this matter could have, such as increasing profits, decreasing statistics and more.

Common mistakes to avoid

To write an effective research problem statement, there are some things you should avoid. With only two or three sentences to prove your point and get the reader on board, every word needs to be carefully chosen to define and support your claim. To do this, you should avoid:

- **Being vague.** Your problem statement needs to be specific about the issue and its impact, including who it impacts and at what scale.
- **Failing to address the problem.** The reader should finish your statement and be able to say, 'This is the problem.' If not, you haven't defined it clearly enough.
- **Having too narrow parameters.** Your problem statement will guide your research. Make your scope too narrow and it will limit the data you can use to solve the problem.
- **Being unclear about the research question.** A research question should not be able to be answered with yes or no. This limits the scope of the research and you may leave stones unturned that could have significant impact.
- **Ignoring the significance of the study.** When researching a problem, look beyond the obvious issue. Is there potentially a bigger problem brewing further down the line and this is just the first domino to fall?

Clarity when writing a problem statement doesn't just impact the influence it has on other people. It also keeps your research on track to the goals you outlined and what you set out to achieve.

Writing a problem statement that's effective

We know how to write a problem statement and what not to do, but let's look at the

finishing touches that make it as persuasive as it can be. Having an effective problem statement will help you stay focused and guide your collaboration with others to get closer to the goal.

Top tips for writing an effective problem statement

- **Start with a clear research question.** It should be an open-ended question that pinpoints exactly what you want to find out from your work. For example: how does user experience impact e-commerce conversions?
- **Use simple language.** Remember, not all readers of the statement will have industry knowledge. They may be a senior stakeholder, a member of another team aiding the project, clients or members of the public. This is why you want to use simple language that's free of jargon.
- **Be specific and concise.** A good problem statement is very specific about the issue being researched. Too broad, and you'll create too many paths to explore, blowing out the project or losing sight of a cohesive outcome.
- **Consider your audience.** When phrasing your problem statement, consider who the readers of it are and what they are most likely to feel is the most powerful data. For example, a shareholder will be more concerned by revenue, while a manager may be more concerned with performance.
- **Set SMART goals.** Make sure your goals are realistic and well thought out. These goals can define the overall aim of the research, break down the process into smaller goals and be used when evaluating the success of the project.
- **Seek feedback and revise accordingly.** Before sending your statement to the intended audience, have at least one other person check over your work. Ideally, have someone who does not have much knowledge of the problem as they can help you ensure the language is simple and your statement powerful.

Three problem statement examples

To help you write your problem statement, we have developed some audience and management problem statement examples to give you starter ideas. In these examples, we have provided a short summary in italics with a longer problem statement to show you both methods. Each follows a similar structure to help you write your own.

Example 1: Improving employee satisfaction in a healthcare organisation

Example problem summary

A 2022 employee satisfaction survey revealed a 62% decline in the happiness of Healthcorp employees across the board in the past 12 months. Investigation into what changes have led to this decrease in employee satisfaction and what implementations may reverse this will be crucial to increasing staff happiness and reducing turnover.

Example problem statement

Of Healthcorp's 274 employees across customer support, IT, sales and service providers, 170 employees said they rated workplace culture below two out of five, compared to 13 of 182 staff the year prior. This timeline coincides with an increase in performance issues being raised to HR, a 3% decrease in new patients and a 34% increase in staff turnover. Independent research shows organisations enjoy 26% higher revenue per satisfied employee.

Investigating the causes for the sudden downturn and what resolutions may increase employee satisfaction will help drastically impact results, pressures on the HR department and, ultimately, revenue.

Example 2: Reducing carbon emissions in urban areas

Example problem summary

Studies estimate 75% of global C02 emissions are created by urban areas and cities, largely attributed to the transport and construction sectors. While the Queensland Government is aiding councils in reaching a 50% renewable energy target by 2030 and reducing 2005 emissions by 30% by 2030, our regional council is below target by more than 150%. An investigation into the highest contributing C02 emissions in the region will help determine what plans will need to be in place to meet our requirements by 2030.

Example problem statement

By 2020, Queensland had already achieved 20% of its renewable energy target. Despite the majority of councils reducing their region's emissions and increasing options for renewable energy, our region is still producing significantly higher emissions with very few renewable energy sources.

To help ensure we are on track for the state target, an investigation into leading causes of CO_2 emissions in the region and what initiatives can drive renewable energy usage is essential.

Example 3: Enhancing the user experience of a mobile application

Example problem summary

Recent reports show the Fashion Hut app has a 92% higher cart abandonment rate than the Fashion Hut website. Preliminary customer feedback research shows investing in user experience may significantly improve the sales on the mobile app. Further investigation is needed to determine what elements would have the most impact.

Example problem statement

Of 5,000 visitors to the Fashion Hut app who added items to their cart in the past 12 months, 4,600 abandoned their cart. There has been a 32% increase in paid advertising to attempt to recoup this loss, with only a 0.5% success rate.

The last update to the design of the app was in 2017, with more than 900 customer complaints regarding the app user experience in the last 12 months alone. With only one app developer versus 15 website maintenance team members, we should investigate the impacts of investing in the user experience of the app and its impacts on sales. An increase in user experience satisfaction will increase sales and allow us to significantly reduce our paid advertising efforts.

How to use a problem statement

Look at the reason for your problem statement – and its intended audience – to help you decide on what to include and how long to make it. These factors will determine whether it should be a concise two-to-three sentence summary or a longer two-to-three paragraph statement.

For example, you may use a shorter problem statement to raise a discussion about a problem to your company's main stakeholders. On the other hand, if your research team will be using the statement as a guide, a longer, more detailed report will help them know what their end goal is.

Top reasons for using a problem statement

A problem statement can be used to help bring key decision-makers on board. Their role is to help invest in finding a resolution for a challenge or issue, or shape an entire research project. Some of the top reasons for using a problem statement include:

- Developing research objectives and hypotheses
- Guiding research design and methodology
- Providing a framework for data analysis and interpretation
- Pitching the research or investigation of a problem to stakeholders, clients or other key audience members

Your problem report statement can also be used by media to inform a broader audience or community about the work and why it's being done.

Problem statements are essential if you're conducting research into a business challenge. For your statement to be effective, you need to ensure it is clear, concise and clearly outlines the problem, its scope and what will happen if nothing is done. It's a big responsibility to be tasked with writing a problem statement. With the tips in this guide, you'll be able to create a framework for your statement and ensure you're representing it correctly to win support and guide your research team.

FAQs

What is the purpose of a problem statement?

The purpose of a problem statement is to identify a key concerning issue and succinctly describe why it needs to be addressed. It gives insight into a problem so it can be easily analysed, dissected and remedied. With this information, a person, team or business can identify problems and work towards optimising performance or fixing issues that are interfering with results.

What are the components of a problem statement?

There are five key components of a problem statement:

1. Problem description, outlining what the problem is
2. Purpose statement, detailing why the problem should be addressed
3. Scope, telling the impacts of the problem
4. Methodology, giving the method of solving the problem or the claim
5. Significance of the study, and its further impacts if not resolved

The information in a problem statement can help those addressing the issue find the cause and potential solutions. It should be detailed enough to provide insight, but brief enough to quickly absorb.

How do I write a problem statement?

When writing a problem statement, keep it to 300 words at most. It needs to be easy to understand no matter whose desk it lands on. Make sure you concisely identify the problem, who it impacts and what those impacts are, backed by data. Most importantly, outline why this issue is important to investigate and what may happen if it is not resolved.

What are some common mistakes to avoid when writing a problem statement?

Some of the most common mistakes when writing a problem statement include:

- Writing in industry jargon that other departments in the business may not understand
- Including unnecessary information that doesn't address the problem
- Making unsupported claims or statements
- Including personal reflections or opinions
- Lacking compelling information as to why the problem should be addressed

Anyone reading your problem statement should be able to understand the problem, why it's important and the exact impact it has on the people involved.

How can I ensure that my problem statement is effective?

To ensure your problem statement is effective, it needs to be very clear in what the problem is and help others understand its impact. When outlining the issue, ensure you answer the who, what, when, where, why and how of the problem, providing resources and evidence for each of them. Include any information relevant to finding the cause of the problem.

To finish, you need to include the consequences of not addressing the issue. Again, provide as much proof as you can for this, such as case studies, data or other evidence-based insights. You should also avoid using jargon, as those addressing the problem or working on the matter may not properly understand.

By following these steps, you can ensure your problem statement is effective and provides a clear and compelling description of the issue you want to address.

Can you provide examples of problem statements?

Example of a problem statement for an e-commerce business:

> *The online store for the business has experienced a steadily increasing abandonment of carts, resulting in a 36% decrease in online sales this quarter. A cause for this must be identified and a solution implemented to increase sales through the online store.*

Example of a problem statement for research about a decrease in student attendance:

> *The attendance rate for year 10 students has decreased by 62% year-on-year, which has coincided with poor end-of-semester results. We need to investigate the cause of absenteeism at the year 10 level to increase class attendance rates and find any links between absence and poor grades.*

How can I use a problem statement in my research?

A problem statement is an essential step in outlining the importance of research into an issue at work. It helps guide the research and gives early leads for investigation, while helping to keep everything on track. If other teams or departments are needed to support the research, an effective problem statement can help get stakeholders and other interested parties on board.