

What is a problem statement?

Problem statements lead the reader from a shared context to the perception of a problem, and on to a proposed solution.

Three key points to get from this definition are:

1. Context — Establish a context for your audience
2. Problem — Define the problem within this context
3. Solution — Propose a solution to this problem

The five elements of a problem statement

Status Quo

The *status quo* refers in general to things as they are. To persuade people to change their minds or their actions, you must first convince them to reexamine the status quo. Stating the status quo creates common ground between the writer and the reader and establishes certain shared information and assumptions. It also helps readers and listeners to place the problem you introduce in the context of your larger argument and their larger experience.

Destabilizing Moment

In general terms, the *destabilizing moment*

- expresses a question or predicament
- motivates a change in thought or action
- introduces a cost
- demonstrates a need
- reveals inadequacies
- assesses difficulties
- projects benefits

Questions

It is important to anticipate questions your audience may have regarding your discussion early on. Focus on answering the question: “so what?” Show the reader that this discussion is worthwhile and significant.

Consequences

For an argument to sway audiences, readers need to recognize their own priorities and concerns in the costs, consequences, or benefits you present to them. Readers recognize as persuasive consequences those effects that would cause them either to benefit or to suffer in some way.

Solution

The *solution* is your response to the problem introduced by your claim. It can be a resolution or a proposed resolution of the issues introduced by the problem statement. Especially in business, professional, and technical situations, if you have stated the consequences in terms of costs, the solution should present the benefits of your proposed course of action. You need to answer the question, “How does this solution eliminate the perceived problem?”

Think:

- What does your audience need to know to appreciate the solution you propose?
- What makes it easy or difficult to accept?
- What are the benefits/disadvantages of your solution over other ones?

Example

“The properties of water at the nanoscale are crucial in many areas of biology, but the confinement of water molecules in sub-nanometre channels in biological systems has received relatively little attention. Advances in nanotechnology make it possible to explore the role played by water molecules in living systems, potentially leading to the development of ultrasensitive biosensors,” (Mertens, J., et al.).

Identify:

1. status quo
2. destabilizing moment
3. solution

References

1. Cain Project in Engineering and Professional Communication. “Writing Module Two: Problem Statements, Introductions, and Issues of Audience.” Connexions module: m17223. 17 July 2008. <http://cnx.org/content/m17223/1.1/>.
2. Mertens, J., et al. “Label-free Detection of DNA Hybridization based on Hydration Induced Tension in Nucleic Acid Films.” *Nature Nanotechnology* 3 (2008): 301- 307.