

Problem-Solution Texts

The Problem-Solution pattern is not only one of the most important organizational structures in *scientific* and *engineering* texts but also in *newspaper* and *magazine articles*. The problem-solution pattern reflects a form of critical thinking that tends to

be more argumentative and evaluative. You may find this pattern useful in writing *introductions*, research reports and proposals. In its simplest form, the Problem-Solution pattern consists of two parts: a *problem* and a *solution*. However, most problem-solution texts involve four steps.

SITUATION

The first sentence provides *background information* and the *setting* for the problem. In this step, the writer attempts to orient the writer by showing the *importance* or *relevance* of the current situation to the reader's world. To emphasize the current relevance, writers typically use the **present perfect** tense (has/have –ed) and **positive evaluation** to stress the importance:

Adjectives: major, important, popular, common, many

PROBLEM

Next, the writer points out either a *problem* or a *weakness* in the current situation, commonly signaled using the following types of words:

Contrast: However, despite, unfortunately, although, but **Negative connotation:** *limited, few, little, no, not, none* **Synonyms for "problem":** danger, drawback, disadvantage, weakness, need, shortcoming, obstacle

Sometimes, the present situation may be presented as the problem, or these first two steps can even be presented in reverse order. Describing a problem also entails commenting on the *history*, possible *causes and effects* of the problem, the *limitations* of any *current/previous solutions*, as well as the *criteria* for a good solution.

SOLUTION

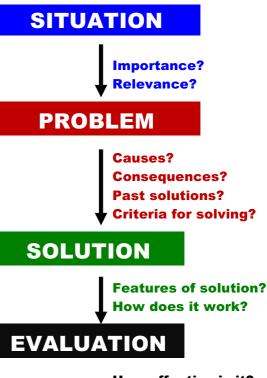
Once the reader understands the *importance/relevance* of this topic and the *problems* arising from it, the next step introduces a **solution** to the problem. This step is often signaled using the words below:

Nouns: solution, answer, approach, strategy, improvement **Verbs:** solve, address a problem, work out, develop **Causative connectors:** therefore, as a result, thus

EVALUATION

When presented with a possible solution, readers naturally wonder whether this solution is effective in light of the criteria described in the problem step. Therefore, the final step should *evaluate* the solution. If the evaluation is *negative* (i.e., the solution is ineffective), then your reader will expect an *explanation* as to why it will not work. Alternatively, a *positive* evaluation supports a successful solution, and the positive features of the solution would be signaled by **positive language**:

Nouns: benefit or advantage **Verbs:** provide, offer, enable, allow **Adjectives:** effective, efficient, reliable, safe, useful, robust



How effective is it? Meet criteria?

