

Problem Statement (required)

As part of your proposal you need to write a problem statement. This is essentially a quick sales job, by the end of it--your reader should be sold on a problem that needs solving. This is structured around a classic syllogism but goes past that general form. As a pre-writing exercise you might write out something along these lines.

Pre-writing sample 1:

- Major premise: Calculating effect sizes is a critical part of conducting a meta-analysis (Borenstein et al., 2008).
- Minor premise: Despite its importance, many graduate students are unaware of how to perform effect size calculations (citation pending).
- Conclusion: A mechanism to support (scaffold) graduate student calculations of effect sizes is needed.

Comment: Warning: Examples are NOT exemplars, and these are **pre-writing exercises** not finished problem statements.

You might come up with alternatives to research based support. Perhaps your organization has a pressing need and less formal references will work (such as personal communications, internal documents, or media references). Perhaps you need a combination of statements to convey a more complex idea.

Pre-writing sample 2:

- Major premise: Cache Valley Utah has a recognized and pressing problem with clean air ((Opsahl, 2013))
- Major premise (continued): Humans, and driving in particular, play a critical role in reducing air quality (Opsahl, 2013).
- Minor premise: Despite the dangers, many citizens remain of their own individual role in reducing it (citation pending).
- Conclusion: An effort needs to be made to promote awareness of and change in behaviors that reduce air quality.

Comment: Internal document or technical report, personal communication

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Comment: Depending on complexity you may need multiple major/minor premises to promote more complex conclusions.

Both of these examples need revision and expansion into a more parenthetical form. But they are a good start.

Purpose (required)

The purpose is a resolve to solve the stated problem. It remains high level, containing few details and is more of an elevator speech on what you attempt to accomplish. It should be clearly stated as a purpose (use bold to make it stand out) and by the time you reach that point in the document it should be so obvious that the reader could write it themselves.

Writing Sample 1

The purpose of this creative project is to develop a scaffold that will help students to calculate effect sizes based on primary research reports.

Comment: Make sure you don't introduce new information

Objectives (optional)

If the purpose is more high level, objectives are more specific, sub-components of the purpose broken down into more bit-sized chunks. They should translate easily into deliverables, which can be evaluated to determine how well the project went. These are optional and it can be tricky to avoid having objectives overlap with the purpose but they can also lay the ground work for remaining sections of the proposal.

Writing Sample 1

In pursuit of the purpose, the following creative project will address the following objectives:

1. Identification of the general process for calculating effect sizes
2. Identification of specific effect size calculations
3. Analysis of what students are able to currently do on their own
4. Identification of which parts of the general or specific calculation process students need assistance with
5. Storyboards for an educational scaffold on effect size calculation which target the greatest student need(s)

Questions (optional)

Questions have more of an impact on guiding the project implementation. It is generally difficult to have questions and objectives without covering similar territory and I recommend going with one or the other rather than both.

Writing Sample 1

In pursuit of the purpose, the following questions will be addressed during project implementation:

1. What is the general process for calculating an effect size?
2. What are the specific process for calculating different effect sizes?
3. What are typical students able to do on their own when calculating effect sizes?
4. Which general or specific processes for calculating effect sizes do students need assistance with?
5. What are some of the supports students are seeking when calculating effect sizes?
6. What are some of the most effective ways to present supports to students attempting to calculate effect sizes?

Comment: Not good candidate questions – simple re-statement of objective.

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Comment: Better example of how questions might interact with objectives.