

Crafting Quality Problem Statements

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At the beginning of each block, you are required to submit a problem statement to either your AS or mentor for approval before continuing work on Assignment #1. This is one of the most important and challenging steps of each block. This document is intended to help you understand the importance and characteristics of a good problem statement.

A problem statement is:

- **Concise.** The essence of your problem needs to be condensed down to a single sentence. A reader of your assignment should be able to point to the PS and say “AHA! Now I understand the problem addressed by this inquiry.”
- **Specific.** The PS focuses your thinking, research, and solutions toward a single population or issue.
- **Measurable.** Think of the PS as a description of the discrepancy between what is and what should be. The goal of the inquiry is to lessen this discrepancy by the careful research and implementation of effective solutions. The only way to know if this has been accomplished is to measure the results and compare them with the initial discrepancy.
 - Problems can be measured in terms of degree and frequency. The strongest problem statements incorporate measurable aspects of both the degree and frequency of the problem as it exists (see examples below).
 - The problem statement should also identify the population affected by the problem and any potential solutions.

A problem statement is not:

- **A solution.** Describe the problem rather than a solution you have in mind. The solutions come from the research, not the other way around.
- **A symptom.** If the concern is how much time the students spend talking instead of listening, this could be indicative of a more essential problem, namely that the students are not engaged in the lesson itself.

A carefully crafted problem statement focuses and directs the entire inquiry project. This is why approval of the PS is required before you continue the first assignment.

The inquiry project for each MATL block is designed to be responsive action research (researching several potential solutions to a specific problem) rather than proactive action research (implementing a given solution and measuring the results). For this reason, the problem statement should be written about the problem as it exists, not to facilitate a specific solution. Let the research determine the solutions you will implement. The end results of responsive and proactive action research are often the same, but the process is slightly different.

Here are some examples of problem statements that fit the above criteria:

- 45% of the middle school students are off task 50% of the time during direct instruction.
- 90% of the time, only 10% of the 4th grade students complete their homework assignments on time.
- 60% of the choir students are not actively engaged in rehearsal activities 80% of the time.

Progress toward addressing these problems can be measured in two ways: by reducing the number of students in the situation (degree) or the amount of time it occurs (frequency). Note that the second example takes a different approach: since it measures the number of students *not* experiencing the problem, progress would be measured by increasing the degree percentage or reducing the frequency.