

There's One Question You Must Ask Before Solving Any Problem (It's Also the Most Underrated Management Skill)

MIT Professor Nelson Repenning says this skill is the best way to enhance individual and organizational problem-solving.

By Theodore Kinni



Theodore Kinni is a veteran business writer. He has authored, ghosted, and edited more than 20 business books, including the Disney Institute bestseller *Be Our Guest: Perfecting the Art of Customer Service*. [Full bio](#)
@tedkinni

The Business Reader@tedkinni

Nelson Repenning, MIT Sloan School of Management Distinguished Professor of System Dynamics and Organizational Studies
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It's often said that most business books would make better articles, but there's an article in [Sloan Management Review](#) that turns the truism on its head. The article, titled '[The Most Underrated Skill in Management](#),' would make a great book. What is this skill? It's the ability to formulate a problem statement.

"There are few questions in business more powerful than 'What problem are you trying to solve?'" write authors Nelson P. Repenning, Don Kieffer, and Todd Astor. "In our experience, [leaders](#) who can formulate clear problem statements get more done with less effort and move more rapidly than their [less-focused](#) counterparts. Clear problem statements can unlock the energy and [innovation](#) that lies within those who do the core work of your organization."

To learn more about this most underrated skill, I interviewed [Nelson Repenning](#), MIT Sloan School of Management Distinguished Professor of Systems Dynamics and Organizational Studies and chief social scientist at [ShiftGear Work Design](#).

Kinni: Why is the ability to formulate problem statements important?

Repenning: Failing to articulate a problem statement reinforces the status quo--it's the enemy of innovation. If you don't take the time to formulate a clear problem statement, you are essentially relying on your brain's automatic processor, which is very fast, but only reaches into your library of past experiences for solutions.

Research suggests that the brain's conscious processor is the part that is capable of simulating things that have never happened. For example, somebody looked at a taxi cab, a cell phone, and a GPS system, and said, "I think there is a different way to deliver transportation." The automatic processor might give you the initial stimulus, but only the conscious processor can think up an Uber. Formulating a good problem statement ensures that we engage the automatic and conscious processors in our brains.

Why are problem statements underused?

The short answer is they do not come naturally. If you've done a job for a long time and you are confronted with a problem, your automatic processor will almost immediately supply a potential solution. Whereas formulating a problem statement and thinking it through is a lot of work. So, your brain actively resists it and it takes a little discipline to make yourself do it.

You have to take a detour out of your well-grooved habits and think about the problem you are trying to solve. Problem statements force that detour.

What does a good problem statement look like?

We look for three key elements: There needs to be a clear target--a desired state; a clear view of the current state; and a clear gap between them. Research in psychology suggests that it's the gap

that is the key to change. For example, we want to deliver new products in three months, we're doing it in six months, so we've got to cut it by three months.

What are the most common mistakes you see in problem statements?

By far, the biggest mistake is formulating a problem statement that is a solution in disguise. You must separate the problem from the potential solution, which may or may not be right. A clear problem statement gives you and your team the opportunity to evaluate all the solutions and pick the best one.

Another big mistake is skipping the problem statement all together. It goes like this, "C'mon Ted, you and I have worked here for years. We don't have to waste time on a problem statement. We know what's important, so let's just get going." And you're back to relying on your automatic processor.

The third mistake is a lack of quantification. A troublesome problem statement says, "The morale around here is bad." A clear one says, "We want our [net promoter score](#) to be X and now it's Y, and here's the gap between them."

Once I have a clear problem statement, what's next?

Scope it down to a specific manifestation where you can make progress fast. You will make a lot more headway if you do twelve, fast, one-month projects versus one, year-long project. If you can get quick hits and generate early wins, it builds motivation.

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