Successful Relationship Diagrams

by **Lisa Boisvert**

Revealing the relationships among all the elements of a problem allows a quality improvement team to focus on the one or two elements most strongly driving the problem—the root causes. This makes sense, yet it's not a very popular concept. Choosing a focus, one or two things among several that will be prioritized, means we might not do something else. One of the most effective tools to help a team focus and prioritize is a relationship diagram (see Figure 1).

Loretto provides residential and health services to the aged population in New York. Its director of process improvement, Cindy Oehmigen, helped a team use this tool to focus on the increasing number of claims made for worker's compensation. The team identified a lack of awareness about safety and how equipment should be used as the key element influencing the problem.

Loretto's worker's compensation team reported a year-to-date drop of nearly 25% in the Occupational Safety and Health Administration incident rate for the facilities included in the project. With changes in safety training and reporting and a campaign to educate employees on the financial implications of safety incidents, the team moved from 45 incidents in the period between January and June 2002 to 32 incidents in the same period in 2003.

Applying a relationship diagram is often not simple or neat, but the outcome, a collective focus on what is driving a problem, is generally closer to right than wrong. The tool invites structured conflict and dialogue, and can be an endurance test for a group of people not used to working issues through to resolution. The result is usually good measurable results and a better quality of consensus than can be

achieved with straight discussion.

Whether or not resources are short, it's a good business practice to direct improvement efforts toward areas

Focus on the problems that will produce the greatest return on investment.

likely to provide the best return on investment. The relationship tool provides support for achieving this focus by consensus.

How To Use the Tool

1. Write each problem or strategy area on a sticky note, and place the notes in a circle on a flipchart.
2. Start at the top item and, moving clockwise, ask, "Is there a relationship between these two items?" If yes, ask, "Which item is driving or causing the other?"
3. Draw an arrow between the two items indicating the direction of influence.
4. After relating each item to every other item, count the number of arrows going in and the number of arrows going out of each item.
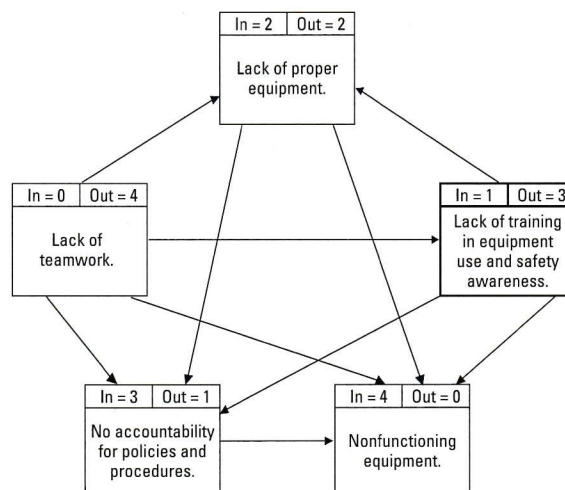
The item with the most outgoing arrows is the driver. A team will usually end up with two or three top drivers, which it must discuss before deciding what to work on first. Factors such as organizational constraints, resources and expertise come into play here.

Keys to Successful Use

- Keep the content of individual items distinct from each other. Overlap in meaning or content between items will make it difficult to decide which is the driver.
- Don't use two-directional arrows. The group must decide which item most drives the other, even if the relationship could go either way.
- Don't move back to relationships you've already addressed. Though it may be tempting to skip a difficult one and come back to it later, press on until you get consensus.
- Complete the tool in one sitting. It's difficult to recreate the momentum, and the journey to consensus can be delicate. Stay on the path until you arrive at the destination.

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Please comment

FIGURE 1 Loretto's Relationship Diagram

Note: The numbers stand for the number of arrows leading into and out of each problem.