

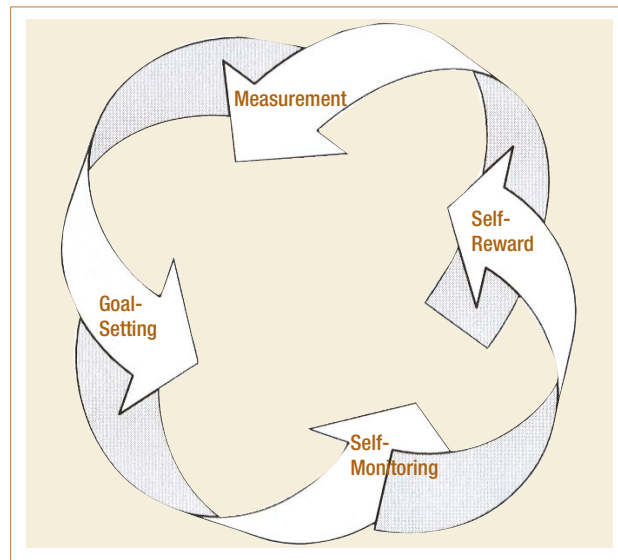
Safety Self-Management for Drivers and Carriers

By Ronald R. Knipling, Safety Researcher & Consultant

A blind man can learn to bowl if given feedback on his performance. Feedback – knowledge of results – consistently facilitates learning and performance change. Feedback improves human performance of all kinds, whether the performance is organizational (e.g., motor carrier) or individual (e.g., driver). Feedback is most effective when it is timely, objective, and constructive. “Constructive” means emphasizing the path to improvement rather than blame for failure.

Who should provide safety feedback? A safety manager can provide feedback to drivers. A carrier's operations director or safety director can provide safety feedback to other managers and employees. These are proven methods. But another way to set up the safety feedback process is to have people provide feedback to themselves. Drivers can monitor safety indicators in their driving, and managers can measure and monitor safety indicators for their fleet. This is called *safety self-management*.

Whether we are talking about safety or other aspects of human performance, self-management is a technique for individuals to break bad habits, establish good ones, and raise performance levels.



Self-management involves four main elements or steps:

- *Objective measurement* of behavior or performance
- *Goal-setting* to motivate improvement
- *Self-monitoring* (giving feedback to yourself) to review progress
- *Self-rewards* and recognition for success.

Figure 1 illustrates the four elements of self-management in the context of daily exercise. Simply measuring and writing down your amount of daily exercise will tend to motivate you and keep you on-track. You can measure

exercise in minutes, miles (walking, running, biking), or using some other metric. If you designate a daily exercise goal, you will find yourself striving to that goal.

When you record your exercise daily, you are also giving yourself feedback. A special treat (e.g., dessert after dinner), sharing your success with others, or just congratulating yourself are all ways to reinforce your progress and establish good habits for the future. Rewards don't have to be tangible. Positive recognition and personal satisfaction are often the most powerful rewards for adults. These are called *intrinsic* rewards because they affect a person's feeling about himself or herself, rather than a material benefit. Material benefits like extra pay for safe driving aren't necessarily bad, but they don't always help drivers to *internalize* the motivation to drive safely.

The example in Figure 1 involves self-management to increase exercise. Let's apply the same principles to truck driver safety. Drivers can monitor elements of their driving and strive to increase safe behaviors while decreasing unsafe ones. Safe behaviors include safety belt use, turn signal use, proper speed selection on curves and grades, and maintaining safe following distances. Unsafe behaviors (or their immediate consequences) include hard braking events, sign/signal violations, aborted maneuvers (e.g., lane changes), curb strikes, and red light violations.

For individuals, the best safety performance measures quantify driving *behaviors* that can be changed. That's why onboard safety monitoring (OBSM)



Figure 1. Personal self-management in the context of exercise: measurement, goal-setting, monitoring, reward/recognition of success.

can be so effective. OBSM can measure driving speed, rapid accelerations, and hard braking events. Simply monitoring driver fuel consumption is worthwhile, because it often correlates with risky driving habits. More advanced sensors can continuously monitor forward headway, lane-keeping, proximity to loading docks during backing, and even driver alertness. Drivers receiving regular, clear feedback on specific safety-related driving behaviors will often establish their own behavioral goals and strive to reach them. In one study, drivers reduced their rollover risk on curves by 33% after receiving feedback from an in-vehicle Roll Stability Advisor. Most people, including drivers, are motivated toward mastery of their jobs. Fleet safety managers can facilitate this personal striving by designing the driving job to include frequent and meaningful feedback, and other elements supporting individual self-management. In-vehicle technologies

can provide the most precise feedback, but any kind of objective safety feedback improves driver performance.

In regard to self-management, organizations can function very much like individuals. The same four elements listed above apply – measurement, goal-setting, self-monitoring, and self-rewards. Various fleet safety metrics constitute measurement. For each of your safety metrics, try to set a benchmark goal. Safety psychologist E. Scott Geller has listed five key elements of “SMART” goal setting, as shown in the textbox. Once goals are set, monitor performance by maintaining up-to-date data on drivers and other aspects of safe operations. Rewards for employee success can be extrinsic, such as quarterly bonuses, but they can also be intrinsic. Intrinsic rewards include recognition, awards, and collective celebration of success. This process can also be called *internal benchmarking*, where carriers compare current, past, and desired performance levels. An advantage of having multiple safety metrics is that together they cover more aspects of safety behavior and performance. An organization can simultaneously build on its strengths while correcting deficiencies.

For individuals, behavioral measures (e.g., hard braking events) are better than outcome measures (accidents). That's because they are closer to the “source” of risk. The same is true for organizations. The best carrier safety performance measures are *leading* indicators rather than *lagging* indicators. A carrier's DOT SafeStat score is a lagging indicator. It's important, but on a daily basis managers should be more concerned about violation rates, traffic violations, fuel economy, incidents and crashes of all severities, not just DOT-reportables. If your vehicles are equipped with OBSM, the distributions and averages of your driver statistics may be the very best leading indicators of risk.

SMART Goal Setting

Specific behavior(s) selected

Motivationally effective rewards

Attainable; Challenging but achievable

Relevant; Important to overall safety

Trackable; can be measured or counted, and recorded.

For an organization, whether it is a whole company or just one small terminal, safety self-management is a group process and group commitment. Try to involve as many drivers and other employees as possible in the process of organizational safety self-management. Try to develop safety esprit-de-corps. Getting drivers involved in carrier safety management and benchmarking makes them more likely to take those goals to heart. It also makes both individual and group success more personally rewarding to them. Recognition and celebration of safety success can be both individual and collective. Communicate group goals and progress to drivers frequently, and in multiple ways, to maintain their safety awareness and focus.

Editor's Note: Dr. Ron Knippling is the author of *Safety for the Long Haul; Large Truck Crash Risk, Causation, & Prevention*. He is a researcher, consultant, and trainer with 30 years experience in large truck safety.