

Overview

Accidents that occur in the workplace affect company profits in several ways. There are direct costs such as the cost to repair or replace property and equipment; costs for medical treatment for injured workers; and legal and administrative costs. These costs are relatively easy to determine and track.

There are also **indirect costs** of accidents such as lost production, higher labor cost (replacing an injured worker with someone paid overtime), as well as administrative and support costs to handle claims. In high-risk workplaces these costs can slash company profits.





The Role of Behavior In Accidents

The insurance industry began to research the role of employee behavior in accidents during the 1930s. After a review of thousands of accident reports the researchers concluded that 88% of all accidents were the result of worker errors.

Since then, many companies have developed extensive accident investigation procedures that attempt to find the root causes of accidents and injuries.

"Behavior-based" safety processes go a step further and seek to determine the actions that put the employee at risk of an accident and injury.





The Role of Positive Reinforcement in Changing Behavior

Behavioral psychology has established that humans engage in behaviors because of their consequences. If a person engages in a behavior and the result is a consequence they like it is very likely—in fact almost certain—that they will repeat the behavior. Consequences that the performer likes are "positive reinforcement", i.e.: they reinforce the behavior, making it very likely that the behavior will be repeated.

In safety, many of the consequences for safe work practices are negative from the worker's perspective. For example: wearing safety equipment may be uncomfortable and interfere with getting a job done quickly.

Likewise, the consequences for skipping safety procedures or breaking safety policies are often positive from the worker's perspective. For example: exceeding the speed limit when there is little chance of getting a ticket may result in increased production, i.e.: more service calls. When the worker makes more service calls they may get praise from their manager and/or higher compensation.





The Goal of Behavior-Based Safety Processes

Behavior-based safety processes seek to identify both the actions that put employees at risk, and the actions that reduce or eliminate that risk. The process begins by stratifying or sorting accidents and injuries in categories, focusing on the most costly. Then–for those accidents and injuries–the behaviors that put employees at risk AND that eliminate that risk are identified.

An observation process is designed to establish a "baseline" of performance; for example: what percentage of employees observed are wearing the correct Personal Protective Equipment? The behaviors that eliminate risk are discussed with employees and managers.

Managers and employees are encouraged to observe each other and speak up when they see unsafe behaviors taking place. Improvement towards the goal-perhaps 100% compliance with PPE-is communicated regularly to employees.



The Smartcard Process

The SmartCard process is a six-step process that uses several tools to change employee behavior and improve performance:

Pinpointing

Workers and managers review accident data and determine what behaviors to focus on. Pinpointing typically involves 3-5 line workers and 1-3 managers.

Pinpointing can take as little as several hours or as much as several days, depending on the scope of the project.

Establishing a Baseline

"Score" cards record observations of safe and at-risk behaviors. These observations are done in an informal manner, recording what is actually taking place at the job site.



The Smartcard Process, Continued

Discussing Safe Behaviors That Reduce/Eliminate Risk

"Learn" cards discuss safe behaviors that reduce and/or eliminate risk. These cards are used by managers in safety meetings to reinforce management's commitment to safe work practices.

Delivering Positive Reinforcement

"Excel" cards are used by managers and other observers to deliver positive reinforcement when safe work practices are observed. For example: on a "ride along" a trainer observes a worker putting on the appropriate PPE before starting a job.

The trainer complements the worker and awards an "Excel" card. The worker earns points by entering the observation data into AwardofExcellence.com, the interaction is tracked and reported.



The Smartcard Process, Continued

"Score" tracking posters are used to communicate progress towards the goal. This is a powerful form of feedback.

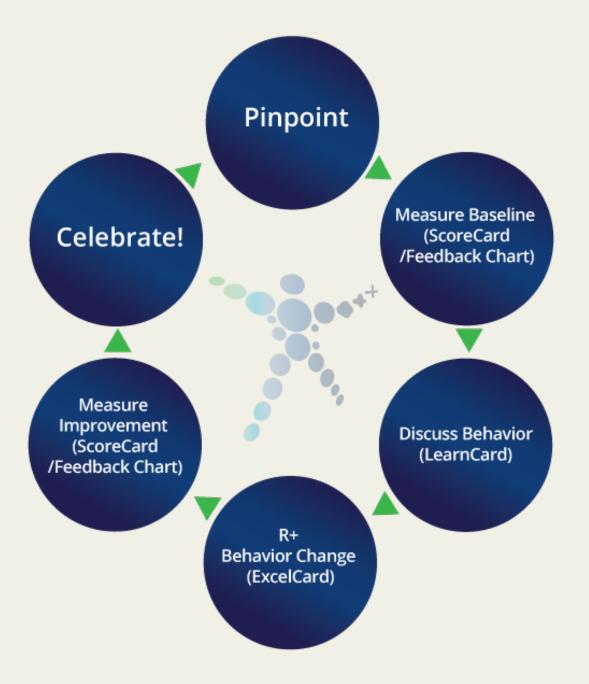
"Celebrate" cards are used to deliver positive feedback to groups of workers for meeting downstream goals. For example: reaching 100% "safe" on a pinpointed behavior, or working for a period of time with no accidents or injuries.

Conclusion

The SmartCard process is firmly based on the science of human behavior. Using this science organizations can AND DO make rapid changes in their worker's behavior, improving performance in vital areas.



The SmartCardTM Process







Construction - Southwest

Reduced OSHA Recordable Accidents by 44% in first 6 months of program. Reduced claims costs by 86%. Sustained gains past 3 years. (Savings in first six months paid for program for next 2-1/2 years.)

Food Manufacturing (Baking) - National

Reduced OSHA Recordable Accidents by 50% in first 6 months of program. Sustained gains past 2 years until enterprise sold.

Transportation

Reduced "chargeable" motor vehicle claims by 43%, workers' compensation claims by 36% within first four months of effort.

Aluminum Manufacturing - Southeast

Reduced number of claims by 41% and costs of claims by 97% in first 12 months of program. Sustained gains until operation sold to foreign owners.

Chemical Manufacturing – Southeast

Attained 98% employee engagement in safety improvement efforts in first 6 months of program. Sustained gains until mandated downsizing due to Chinese competition.





Paper Manufacturing - Northwest

Reduced OSHA Recordable Accidents by 88% and Lost Time Accidents by 67% in first 3 months of program. Reduced incidents of property or product damage by 46%. Sustained gains for life of effort.

Maritime Shipping - Global

Reduced Lost Workday Injuries by 46% in 24 months. Sustained gains past 3 years. As most vessels are governed under "Jones Act" savings are estimated to exceed \$1 Million.

Nuclear Waste Remediation - Northeast

Generated 183 employee ideas which resulted in \$2.2 Million in cost avoidance and savings during first 18 months of program. Sustained gains past 3 years.

Thoroughbred Horse Racing - West

Reduced claims cost by 50% for a savings of \$2 Million within first 12 months of program. Sustained gains past 5 years. (Savings in first 12 months paid for program over next 5 years.





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