Improving participation in safety By Joshua H. Williams

THE FIRST STEP in increasing employee involvement for safety is hiring conscientious employees who care about safety. Organizations with elite employees normally offer competitive salaries and often use an array of selection tools, such as personality tests, biodata instruments, assessment center exercises, vocation tests (when appropriate), structured interviews and cognitive ability tests (Schmidt & Hunter, 2004; Spector, 1996). Structured interviews involve managers asking all prospective employees standardized questions that are behaviorally anchored and based on prior job analyses (Cascio, 1998).

Once employees are in place, effective training and development are needed to cultivate and maintain desirable employee behaviors and attitudes. This is especially true with safety. Optimizing safety culture requires active employee engagement for safety. Employees must provide each other corrective feedback when risky behavior is identified, especially since shortcuts are often perceived to be faster and easier, and because supervisors are not always present. This corrective feedback also sets the norm that safe behavior is expected.

In some organizations, safety shortcuts become the norm ("Forget what the trainer said. This is how we really do things around here"). To counter this, specific safety efforts should target safety culture improvement and hourly employees should be heavily involved in these efforts. This helps increase personal responsibility and employee buy-in for

safety (Geller, 2005).

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Innovative Programs Increase Employee Involvement

Organizations must find creative ways to increase employee involvement for safety. For example, one Virginia company used funds it had budgeted to purchase safety posters and gave it to select employees via a poster design contest. Specifically, the site shut down all operations for conferences and is the coeditor of 2 hours and brought in all employees to Keys to Behavior-Based Safety. create their own safety posters. Prizes

were given out for first (\$100), second (\$50) and third place (\$25) as voted by employees. The company provided flipchart pages and markers/crayons and employees were allowed to make as many posters as they wanted.

The winning poster was created by a maintenance worker who drew Forrest Gump running down the road wearing safety glasses (and other PPE) under the caption, "Safety IS as Safety DOES." Completed posters were displayed around the facility. According to the safety director, the posters helped increase employees' awareness for safety.

In another example, a company in West Virginia was struggling to increase employee participation in completing environmental audits and behavioral observation cards. At the time, only about 1 in 5 employees regularly completed these tasks. The company decided to donate \$0.10 for each completed card to the local Boys' Club. A safety committee member reported that within 6 months the company had donated nearly \$40,000 and participation rates had climbed to nearly 90%.

This means employees were observing and providing each other safety feedback at much higher rates than before the new initiative. Those involved believe that this improvement would lead to safety culture improvements and reduced injuries (although site-specific injury data are not available). These results suggest that special programs focused on community service and family can help to increase employee involvement for safety.

Other organizations emphasize wellness programs. For example, a company in California conducts regular safety fairs where employees go (with their families) to sample healthy food, and receive back and foot massages and various health checks (e.g., blood pressure, cholesterol). This organization also has a state-of-the-art gymnasium and offers employees incentives to use it.

In addition, the company plays new-age music every 2 hours. For 2 to 3 minutes, employees stop what they are doing and stretch (to combat fatigue and repetitive motion injuries). When the music stops, employees return to work. Although this program is fairly new, those involved believe that these efforts could help to reduce repetitive motion injuries in the future.

Mentoring **New Employees**

Mentoring between experienced and inexperienced emplovees can also facilitate employee engagement in safety. This is especially true when companies have large numbers of retiring employees who may (or may not) pass on their detailed, craft knowledge to new hires. Also, many companies no longer backfill these

positions, which leaves remaining employees to do more work with fewer people.

To formalize mentoring, one organization implemented a buddy-for-a-week system. In this system, an experienced employee (one with high job knowledge and a good safety attitude) spent 1 week with a new hire, working together, having lunch, etc. According to a safety committee member at this facility, the process helped to pass on job-specific knowledge, provide hands-on training and improve rapport between newer and older employees. The safety committee member also believes the company's safety culture has improved as a result of this effort, although he was unsure whether injury numbers had improved during this time.

Behavioral Aspects of Injury Prevention

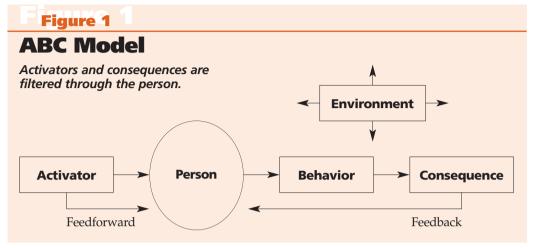
Employee involvement in safety can be increased through behavioral safety efforts as well. Such efforts can also help organizations reduce at-risk behaviors that lead to injuries (Williams & Geller, 2000).

To understand how this might work, one must understand some fundamentals regarding employees' safety behaviors and why they take shortcuts (Geller, 2005):

- It is often perceived to be faster, easier and more comfortable to perform tasks in a risky manner.
- Organizations may encourage risky behaviors by scheduling excessive overtime, not fixing equipment problems or providing insufficient safety training.
- Despite the temptation to take shortcuts or take risks encouraged by the system, employees often operate safely because they do not want to be injured and/or because they take pride in doing things safely (even if it takes longer).
- Managers can influence safety by selecting good employees, training them well and encouraging peer feedback.

The ABC Model

Behavioral psychologists (especially in the safety field) frequently use the activator-behavior-consequence (ABC) model to explain at-risk (and safe)



behaviors (Geller, 2008; 1998). Basically, activators or antecedents get a person's attention to behave in a certain way. This leads to consequences (which ultimately motivate behavior) (Figure 1).

Activators include such things as safety signs, meetings and rules. Behaviors (safe or at-risk) are observable actions and include actions such as using a safety harness or locking out an energy source. Positive consequences include going home from work safely and personal pride (for safe work practices). Negative consequences include injuries and reprimands (for risky work practices). In addition, consequences can be strong or weak. Strong consequences are probable, soon and significant, while weak consequences are improbable, delayed and insignificant.

Consider this quick analysis using the ABC model to help explain an at-risk behavior (grinding without a face shield). Activators that encourage an employee to use a protective face shield include safety signs, training and supervisor presence. Activators that encourage an employee not to use a face shield include time pressure, damaged gear and a lack of availability.

Consequences that encourage face shield use include not getting an eye injury and not getting in trouble. However, since it is improbable that an employee will be injured or get in trouble for grinding without a face shield (although these consequences would be soon and significant), these consequences lack strength.

On the other hand, consequences that discourage face shield use include saving time, better vision and more comfort. These consequences are probable, soon and significant, which means they are strong (and, thus, the related behavior will likely be exhibited). In other words, the natural consequences are stronger for not wearing face shields than for wearing them. In many cases, the natural consequences for risky behavior outweigh the natural consequences for safe behavior. This is true for numerous behaviors such as safety harness use, driving a forklift too fast or smoking cigarettes. This helps explain why employees may take safety shortcuts.

Abstract: Organizations are increasingly seeking ways to improve employee engagement for safety in order to reach the next level of safety performance. This article reviews strategies that organizations can implement to achieve this, including the use of innovative programs for safety, providing mentoring to newer employees and implementing behaviorbased safety initiatives.

Behavior-Based Safety

In any workplace, it is important that employees watch out for others' safety. Behavior-based safety (BBS) can help increase employee involvement for safety because it encourages peers to provide safety feedback to one another. By observing safety-related behaviors, employees point out risky behaviors that may lead to injury. They also praise and reinforce safe behaviors. In addition to one-on-one feedback, group data in the form of graphs and charts can help reduce risky behavioral trends and reinforce safe behavioral trends (Geller & Williams, 2001).

The basic implementation steps of a BBS initiative are as follows:

- Train managers and supervisors on the principles and practical applications of BBS to improve safety culture.
- •Form a steering team to manage the process. This team should have representation from hourly employees (and union leaders where applicable). The team receives comprehensive training which includes BBS process development (e.g., creating an observation card, determining rules for using the card, defining roles and responsibilities of key groups to make the process successful).

Supporting BBS

Management's Role

To show its support of these initiatives, management should do the following:

- •Ensure that the steering team has necessary resources (time, money) to be effective.
- Discuss observation process metrics monthly.
- •Communicate one-on-one with employees about BBS
- Recognize individual and team accomplishments.
- Actively work with supervisors to support
- Allow the steering team to manage the process.
 - •Show patience.

Supervisor's Role

Supervisor support for the safety initiative is also critical to long-term success. To show their support, supervisors should do the following:

- Attend training.
- Discuss the process in safety meetings.
- Allow time for observations.
- •Offer to be observed.
- •Help use BBS data to remove barriers.
- Keep up-to-date on process information (e.g., number of observations per month, percentage of employee participation, percent safe scores)
 - Celebrate process successes.
 - Praise employees for participation.

- •Team members (in-house trainers) are taught how to provide BBS training to hourly employees (or outside consultants provide this training). Once all hourly employees are trained, formal observations begin. All hourly employees should be observed and should be encouraged to observe.
- Employees begin observing coworkers and providing safety feedback.
- •Steering team members collect observation cards, enter observation information into a database and analyze the results.
- •Monthly BBS data are provided to managers/supervisors/employees (e.g., through safety meetings, bulletin boards). The steering team identifies improvement activities from the data. Progress is assessed periodically, and the process is streamlined and adjusted as needed.

When implementing these processes, it is crucial that they be employee designed and led, anonymous and confidential, nonpunitive (no-name/noblame) and focused on long-term success (as opposed to changing program focus frequently or expecting immediate results).

One Example: The DO IT Process

One way to follow up on problem areas is a 4-step process known by the DO IT acronym—D = Define, O = Observe, I = Intervene, T = Test. The steering team defines behaviors that need improvement from a baseline of observation data. The team works with hourly (and other) employees to develop interventions to improve the defined behaviors, then tests whether the interventions worked. If so, the team defines other behaviors to address. If not, the group brainstorms new intervention ideas to try.

For example, an oil company noted low levels of glove use among employees. Three months of observations revealed that employees wore their gloves only 25% of the time (D = glove use, O = observe for3 months to find percentage of use).

Rather than mandate glove use at all times, the steering team elected to talk with employees to learn how to get them to wear gloves more often. The team brainstormed and implemented the following interventions (I):

- provide better fitting gloves;
- make the gloves more accessible;
- provide hand injury testimonials at tailgate meetings;
 - set a goal of 85% glove use for 6 months;
- convince the safety director to shave his head if the goal is met.

The last criterion was most strongly embraced by employees (and begrudgingly accepted by the safety director). Within the first month, percent safe scores climbed from 25% to nearly 100%—results that were maintained for 6 months. To celebrate, the company closed the site for an afternoon, served food and drinks, and recruited an hourly employee to shave the safety director's head. Morale was reported to be high.

The steering team continued to test (T) glove use

for several months following the celebration. Although glove use dropped to around 75%, this level was considered an improvement compared to the baseline data of 25%. In addition, the company indicated that the number of reported hand cuts/lacerations decreased approximately 85% during this time. These improvements were attributed to the combination of the noted interventions.

Benefits to Be Gained

Implementing and sustaining a successful BBS process is not easy. Employees may be initially skeptical that the process is anonymous and nonpunitive. Steering team members may get discouraged by employee cynicism. It can also be difficult to keep the process evergreen once it is underway. Super-

visors may allow production demands to supersede the safety effort. Managers expecting immediate results may try to control the process as well.

Despite this, when implemented effectively, the process can deliver positive benefits in that it.

- •focuses employee attention on safe and at-risk work behaviors:
- •gives employees a reason to provide safety feedback to coworkers;
- •leads to more praise for safe work practices;
- •fosters open communication between employees about safety;
- •improves the quality and quantity of safety communication in the workplace;
- •serves as a constant reminder of workplace safety;
- •increases employee involvement for safety;
- •allows employees to learn from each other.

Improving Safety Communication

One main benefit of BBS is improved communication in the organization. Improving safety communication fosters a more positive and healthy organizational safety culture (Williams, 2003) and reduces the chances that employees will get injured on the job.

With this in mind, a safety culture survey can be used to assess employees' beliefs and attitudes regarding safety communication. This survey, which should be part of a larger evaluation of organizational safety culture, measures management support for safety, peer support for safety, personal responsibility for safety and overall safety management systems (see Assessing Safety Culture sidebar on p. 44).

The survey should also address communication issues such as employees' opinions about cautioning coworkers when they observe them performing atrisk behaviors. Statements such as the following can help gather those opinions:

- •Employees should caution coworkers when observing them perform at-risk behaviors.
- •I am willing to caution coworkers when observing them perform at-risk behaviors.
- •I caution coworkers when observing them perform at-risk behaviors.

Supporting BBS

Steering Team's Role

The steering team creates and manages the BBS process. To demonstrate their support, these employees should do the following:

- Regularly communicate with employees about the BBS process.
- Personally hand out observation cards to employees and request their participation in conducting observations.
- •Conduct observations in pairs with employees to a) increase their comfort level in observing others; and b) demonstrate how to conduct an observation.
- •Use various channels such as safety training, newsletters and bulletin boards to regularly update all employees on progress.
- Solicit input from employees through one-on-one communication, safety suggestion boxes and safety meetings.
- Design home observation cards to encourage family involvement in safety.
- Send supervisors memos to encourage them to discuss the initiatives with employees.
- •Schedule or coordinate observations with employees (when appropriate).
- Post reminders throughout the facility encouraging employees to participate in the process.
- •Involve employees in designing promotional items such as signs, posters and newsletters.
- Affix high-visibility tags or stickers to equipment that has been fixed as a result of the observation process.
- Display names and photos of steering team members throughout the facility, along with their contact information, so employees can contact them with questions.

Hourly Employees' Role

Hourly employees must be actively involved and can achieve that by doing the following:

- Be open minded about the process.
- Observe coworkers.
- Provide effective praise and corrective feedback after completing
 - •Be willing to be observed by others.
 - Accept observation feedback well.
 - Provide constructive feedback about the process
 - Volunteer to join the steering team.

Assessing Safety Culture

When assessing an organization's safety culture, several factors should be addressed, including management support for safety, employee support for safety, personal responsibility for safety and safety management systems. Following are some statements that might be used in a survey to assess each area.

Management Support for Safety

- •Site management is more concerned about keeping injury statistics low than with truly keeping people safe.
- •Site management is willing to invest money and effort to improve our safety performance.

Employee Support for Safety

- Employees in my work area caution each other about unsafe
- Besides working safely myself, I am willing to do other things to help improve workplace safety.

Personal Responsibility for Safety

- When I see a safety hazard, I am willing to correct it myself if
- •I am willing to put forth a little extra effort to improve workplace

Safety Management Systems

- The site uses a consistent procedure for dealing with employees who violate safety rules.
- When asked to do a new job, I receive enough training to be able to do it safely.

The first statement assesses the respondent's values; the second addresses intentions; and the third involves behavior. The author's firm has conducted more than 125,000 surveys over the past 15 years. Approximately 90% of employees agree that they should give feedback when observing a coworker performing an at-risk behavior and nearly 85% report that they are willing to give corrective feedback.

However, only about 60% say they actually *provide* such feedback. These results indicate a gap between employees' values/intentions and their actual behavior in terms of providing corrective feedback and it signals a reluctance to warn others about at-risk behaviors.

When employees are asked about this apparent reluctance to deliver corrective feedback in response to at-risk behaviors, common responses include the

- If I give someone feedback about a safety issue, s/he will get angry. I don't want to cause problems or get velled at.
- •It's not my job to give peers feedback. I'm not a
 - •I've never given peer feedback before.
- •I don't know enough about that job to give feed-
- •I don't want to give feedback to someone who has more experience than I do.
 - •I'm not sure I can give appropriate feedback.

In the author's experience with organizations that identify this gap, a BBS implementation can be an effective tool. This suggests that employees are more likely to caution one another about risky behaviors when they are involved in a BBS process.

Charting the number of behavior observations completed over time (i.e., more observations equals more conversations) helps to increase the quantity and quality of safety communication. Doing so also helps to institutionalize peer-to-peer safety feedback as a normal, established way of doing business.

The Need for **Corrective Feedback**

In addition to the natural consequences such as ease and comfort, external factors can reinforce at-risk behavior. For example, workers may feel management pressure to take safety shortcuts for production. Other factors such as fatigue from overtime, problems with the job layout or equipment,

and poor training may also contribute to risky behaviors being performed. To combat these factors, employees need corrective feedback from others to reduce their likelihood of injury. The challenge is to deliver this feedback in such a manner that it positively influences the person rather than makes him/her angry or defensive. Key considerations for providing effective corrective feedback include the

- Deliver it one-on-one and right away.
- Focus on the specific behavior observed and avoid making it personal.
- Rather than lecture, ask questions to facilitate the discussion.
- •Show genuine concern for the other person's feelings and well being.
 - Work together to find better solutions.
 - Thank the person for listening.

Receiving corrective feedback effectively is also a challenge. Considerations include the following.

- Listen actively.
- •Be objective, not defensive. Remain open and receptive.
 - Accept feedback without resentment.
- •Clarify the future desired behavior with the
- Express commitment to conduct the desired behavior in the future.
 - Thank the person for providing feedback.

The Need for Praise

In addition to increasing corrective feedback, it is important to consider the power of rewarding safety feedback to increase safe work practices (Williams, 2002). Praising people for safe work practices: a) increases the probability that these work practices will be performed safely in the future; and b) builds a more open, positive safety culture.

With this in mind, consider asking employees the following questions:

- •If you do something risky, what is the likelihood that a coworker will warn you about it?
- •If you complete a given task completely safe, what is the likelihood that a coworker will praise or thank you?

In the author's experience, responses to the first question vary greatly, but often average around 50% to 60%. Responses to the second question vary from laughter to perhaps 5%. In general, many employees report that they receive insufficient praise for working safely. BBS initiatives encourage employees to notice, then praise others for working safely.

Through ongoing training and process implementation, employees build the skills and develop the motivation to provide effective peer-to-peer feedback on a regular basis. This allows companies to trend behavioral data to assess current strengths and weaknesses. Together, this one-on-one feedback and group data help to optimize safety culture and reduce injuries.

Increasing Participation

Increasing employee participation in any safety process is crucial. Following are some strategies that can be used to achieve this.

Using Training to Educate & Promote BBS

- Provide BBS training to all managers, supervisors and employees.
- Provide ongoing training for new hires (and contractors when appropriate).
- Provide regular refresher training to all managers, supervisors and employees.
- Provide regular minirefresher training sessions (e.g., no more than 30 minutes) to all managers, supervisors and employees to reinforce key tenets such as 1) positive; 2) anonymous; and 3) employee driven.

Data Analysis & Dissemination

- •Regularly present BBS data to employees, supervisors and managers in safety meetings, newsletters, bulletin boards and other communica-
- Present data that reflect employees' comments, suggestions and requested action items from the observation cards.
- Conduct DO ITs and ABC analyses based on
- •Include a box titled "follow-up action required" on the observation card (if appropriate).
- •Regularly advertise program successes (e.g., increased involvement, improved percent safe

Effective

Communication Skills Enhance Observations

- Do not interrupt the person.
- Maintain good eye contact.
- Ask open-ended questions to clarify meaning and facilitate discussion.
 - Maintain an even, vocal tone.
 - Be an active, involved listener.

scores, equipment and facilities improvements, injury reduction numbers).

• Advertise successes through various channels (e.g., safety meetings, bulletin boards, newsletters).

Rewards & Recognition

- Provide one-on-one positive feedback for employees who are actively involved in the process.
- Send thank-you cards to employees who frequently provide high-quality observations.
- Provide group celebrations (e.g., pizza parties) for achievements.
- Provide tokens of appreciation (e.g., hardhat stickers) and surprise gifts (e.g., caps, shirts) to employees who are actively involved in the process.

Conclusion

Optimizing safety culture requires active employee engagement for safety. As a result, most organizations are seeking ways to increase employee involvement in safety efforts. The strategies described in this article—including the development of innovative programs for safety (such as wellness programs and community support initiatives), mentoring of new employees and BBS initiatives—can be used to achieve that end.

References

Cascio, W.F. (1998). Applied psychology in human resource management (5th ed.). Englewood Cliffs, NJ: Prentice Hall.

Geller, E.S. (1998). Understanding behavior-based safety: Step-bystep methods to improve your workplace (2nd ed.). Neenah, WI: J.J. Keller & Associates Inc.

Geller, E.S. (2002). The participation factor: How to increase involvement in occupational safety. Des Plaines, IL: ASSE

Geller, E.S. (2005). People-based safety: The source. Virginia Beach, VA: Coastal Training Technologies Corp.

Geller, E.S. (2008). Leading people-based safety: Enriching your culture. Virginia Beach, VA: Coastal Training Technologies Corp.

Geller, E.S. & Williams, J.H. (Eds.). (2001). Keys to behavior based safety from Safety Performance Solutions. Rockville, MD: Government Institutes

Schmidt, F.L. & Hunter, J. (2004). General mental ability in the world of work: Occupational attainment and job performance. Journal of Personality and Social Psychology, 86(1), 162-173

Spector, P.E. (1996). Industrial and organizational psychology: Research and practice. New York: John Wiley & Sons.

Williams, J.H. (2002, April). Improving safety leadership with industrial/organizational psychology. Professional Safety, 47(4), 43-47.

Williams, J.H. (2003, Feb.). People-based safety: Ten key factors to improve employees' attitudes. Professional Safety, 48(2), 32-36.

Williams, J.H. & Geller, E.S. (2000). Behavior-based interventions for occupational safety: Critical impact of social comparison feedback. Journal of Safety Research, 31, 135-142.