▷ DEKRA

System-Focused Behavior-Based Safety: Why It Works

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The pandemic has created a new set of challenges, but many challenges remain the same. Organizations and employees still work hard to succeed. Work still needs to be done, customer needs still must be met, and engaging employees in safety is still essential. Employee engagement has never been more important — it affects not only safety but also the employee experience, a factor that directly impacts worker retention.

> The purpose of this paper is to clarify the requirements for an effective BBS initiative, review research findings, examine the factors that can cause a BBS process to struggle or fail — and then present factors it takes to succeed.

If done well, Behavior-Based Safety (BBS) can be a powerful mechanism to deliver better safety performance. It has the potential to not only dramatically reduce injuries and accidents (including SIF events) but also strengthen organizational functioning, increase productivity, and create meaningful employee engagement.

However, BBS must include specific principles and basic attributes. What are they?

At DEKRA, we believe in building solutions that:

Improve
Focus on supporting and improving the systems that run the organization.

Adapt
Are adaptable to each customer's unique needs and culture.

Deliver
Deliver results that are sustainable.

Science-based
Are science-based and validated in the field.

Reduce
Seek to reduce the exposures that lead to incidents.

A well-designed BBS system must include:

- Clear objectives and aligned resources

- Employee engagement at all levels

- Initial and ongoing analysis of incidents and hazards

- Data collection, which includes input by employees that avoids placing blame

- Leaders who engage in problem-solving with a systems perspective to control or remove exposures

- Ongoing communication of actions taken and corresponding results

- Targeted knowledge and skills training

Evidence suggests that a BBS process must encompass the entire safety system to sustain itself and reduce injuries each year.

A System-Focused BBS Process Produces Results

Indeed, there is abundant evidence that BBS is successful if it is system-focused, actively championed by leadership, and appropriately resourced and sustained by management.

What does system-focused mean? It means a holistic approach that encompasses behavior, tools/equipment, work processes, and all levels of employees. In other words, the whole system of work. This systemic approach is also sustainable, because BBS is not a stand-alone safety effort but an integrated component of how the work happens. Here's some of the evidence.

Cambridge University Study:
In 2018, Britain's Cambridge University analyzed incident data from 88 organizations that implemented DEKRA's system-focused BBS process (BAPP® Technology.) The research found that the reduction in injury rates averaged 25% in Year 1, 35% in Year 2, and 45% in Year 3. The study also found, on average, a 1/3 standard deviation positive change in culture every year for several years.

Researchers concluded that DEKRA's system-focused BBS process is the most robust culture improvement process they had ever encountered.

Safety Science. June 1999: Injury data from 73 organizations that utilized a system-focused BBS process found an average reduction of 26% in medical cases (recordable and reportable injuries) in Year 1 and 69% in Year 5.

The research also suggests that a BBS process reduces injuries significantly, because it addresses the behavioral dynamics of preventing injuries. For the same reason, it can be effectively applied to other domains of occupational safety, including ergonomics, human error prevention, incident analysis, hazard identification, corrective action, and training (Geller, et al., 2004).

We found occasional opinion pieces suggesting that some BBS programs place too much emphasis on playing the blame game, such as finding the "guilty parties" or "fixing employee behavior." In our experience, BBS systems that are

punitive or are primarily focused on "fixing the employee" are self-defeating. They have the potential to engender fear and distrust, they do not create learning, and they create a culture lacking openness and undermining employee morale, while not producing sustainable results.

Aside from failing because they are punitive or not system-focused, there are additional reasons that some BBS programs are not successful. The most common reason is a "check the box" implementation. This usually happens when the implementation has not been well planned or carried out, when trust is lacking — most commonly between workers and management — or when conditions are unstable (e.g., people are worried about keeping their jobs).

Other Issues That Need Addressing. A system-focused BBS process can struggle in an environment where the relationship between leaders and employees is strained or where leadership has not demonstrated its own commitment to safety. When an organization launches a BBS process without addressing trust issues, the program usually ends up owned solely by front-line employees. They are, after all, the people most affected by uncontrolled exposure. Even if these employees have a high personal safety ethic, they cannot sustain the process without the active support of leadership and the acceptance by the rest of the front-line group.

Similarly, if leadership fails to address issues that make it difficult for people to work safely, an otherwise promising BBS effort may not survive the inevitable employee credibility questions: "Is management really serious about this?" and "Does management really think we don't understand what is happening?"

Many exposures that lead to accidents and injuries are the unintended byproducts of organizational systems. If leadership fails to resolve those issues, it is directly impacting the employee experience and inviting workforce resistance and apathy. There is no question that this is hard work. Likewise, there is not a question that BBS, when performed correctly, works.

The good news is that BBS can increase employee feelings of empowerment, build trust, and cultivate a sense of teamwork and well-being (Geller, 2005). In other words, engaging employees and strengthening the employee experience has never been more critical than today, a time when every organization is striving to keep its most important asset—its workforce.

What makes an implementation well planned? A system-focused BBS process with clear objectives, appropriate resources, people equipped with needed skills and knowledge, and above all, leadership committed to personally championing the effort over the long term.

There are different reasons why a system-focused BBS process, after a successful start, may begin to struggle several years into the implementation, even if the process has reduced injury rates. The reasons include:

Moving Away From Core Principles. A well-designed system is built on a set of underlying principles. An approach based on goal setting, identifying and defining behaviors, providing feedback, and effectively measuring safety behaviors needs to be properly applied (Choudhry, 2014). These principles need to remain constant. Flexibility in the system comes from the adaptation of preferences. It is important that an organization clarify which elements of the system are principles and which are preferences.

Loss of Institutional Knowledge. A big challenge to sustain ability is the loss of institutional knowledge. This can occur when highly trained individuals get promoted or change roles, when leadership turns over, or when the organization stops seeing the value of ongoing learning and development. This can also take place when new leadership is intent on putting its own distinctive brand on the organization.

Failure to Reinvest and to Adapt the System. Research shows that most system-focused BBS processes are successful. When injury rates and culture improve, success breeds support, converting skeptics and building more success. Even so, the organization must periodically review its safety objectives and make adaptations to the process. BBS works when it is focused on the exposures of the time. When exposures change, BBS must adapt and incorporate them into the strategy. Additionally, the organization needs to consider what can be done to improve the process' efficiency, that is, to achieve its objectives in a less resource-intensive manner.

The Cambridge researchers did more than examine injury rates; they analyzed system variables to determine which process attributes delivered the best results. They found that organizations deriving the most benefit from system-based BBS shared the following best practices:

- A small number of observers who observe frequently

- Observers active in work areas where they know the people and/or the work

- A periodic rotation of observers

- Regular coaching of observers

- The collection and analysis of data

Summary

In Behavior-Based Safety, the factors that make organizations successful are easily recognized.

They are:

- Leadership commitment

- Resources

- A supportive culture

- Data

- Training and time

An organization with these attributes can use system-focused Behavior Based Safety to significantly reduce injury rates, improve culture, and engage employees in controlling exposure for themselves and for others.

Research shows that most system-focused BBS processes are successful. When injury rates and culture improve, success breeds support, converting skeptics and building more success.

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Learn More

For more information on how to customize or implement an effective system-focused BBS program at your organization.

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