Session No. 786

Case Study: Organic Growth of a Strong Safety Culture

John Austin, PhD
Nicole Gravina, PhD
Reaching Results

Introduction

Behavioral safety is an approach grounded in 80 years of scientific research and theory (Sulzer-Azaroff & Austin, 2000). The science tells us that the local environment (i.e., office, home, or job site) influences behavior and changing that environment changes behavior. The local environment means those things that are around you right now, and these include the behavior of the people who are present (i.e., what they are saying and doing). Immediate environment and immediate consequences exert more pressure on your behavior than they should, and this makes it more punishing for leaders to do the right thing.

As behavioral safety has grown in popularity it has manifested as a set of techniques, such as peer observations and group feedback. Often, these techniques are employed without regard for the organization's unique local environment and culture. And, although these techniques may have an impact on employee behavior, it is debatable whether it improves safe practices when no one is watching, in many cases the workforce resists the process, and it may be difficult to sustain (Lebbon, Sigurjonsson, & Austin, 2012). Further improvements are possible and more sustained change is likely if the local environment is fully considered in the selection and use of behavior change tools.

One way to help organizations leverage the full strength of behavioral safety strategies is to teach leaders within an organization the fundamental tools of behavioral science and then support them in practicing those tools in their workplace. The success of the Behavior Management Techniques (BMT) approach (Lees & Austin, 2010) is predicated on the notion that the leaders create the environments in which employees work. When leader behavior shifts, that shift resonates throughout the organization. BMT supports leaders in driving change.

The BMT approach is uniquely flexible. And, because it is less rigid than a traditional behavior-based safety rollout, it allows employees and leaders at all levels to couple their knowledge of the work environment with behavioral science to develop customized techniques that will be more likely to succeed over the long term. The current case study below describes the approach in more detail.

The Course

Leaders and safety professionals ranging from the site leader to front line supervisors from one site of an international manufacturing company attended a BMT Safety Course comprised of six half-day modules with two weeks between each module. Employees were divided into groups of up to 15. In-class time involved some lecture, discussion, hands-on learning activities and examples. Participants also completed homework between modules. Homework consisted of reading short booklets, commenting on material, and practicing the tools described in the course. Although the homework was not required, scores were given on assignments, and most participants completed most or all of the homework.

The content of the course included:

- Introduction to behavior and environment
- Drivers of behavior
- Antecedents and their impact on behavior
- Consequences and their impact on behavior
- Feedback
- Effective communication
- Shaping behavior
- Coaching
- Behavioral leadership
- Employee engagement

The course described in this case study contains a combination of behavioral science and project management aspects. One of our assumptions in delivering the course is that results in business are driven through excellent project management: planning, forecasting, expediting, and mitigating. Another is that one of the primary difficulties leaders report in delivering results is following a plan that includes setting expectations and following through with appropriate consequences.

When leaders or associates get too busy, the result is often lack of planning, diverted attention and multi-tasking (which decreases effectiveness), and lack of follow-up to check that expectations were fulfilled. The behavior of leaders in the business often leads to the creation of this sort of culture. Teaching leaders about behavior science helps them to better recognize their role in creating the existing environment and gives them ideas for how to change it something more productive.

Coaching

As part of the project, most senior managers and a number of middle operations managers received coaching from the authors. The coaching sessions occurred outside of the BMT course sessions, were one-on-one, and were generally problem-focused. For example, the recipient of coaching would come with a goal in mind and the coach and manager would together search for a solution that was both behaviorally sound and advanced business objectives. Although most

managers were encouraged to try it, the coaching was a voluntary endeavor and people continued it only if they valued it.

Most members of the senior team participated in the coaching and reported that it helped them to better apply to behavioral science techniques to relevant work and home challenges. In addition to live coaching sessions, the authors also in many cases delivered brief and anonymous leadership behavioral surveys to the direct reports of the coaching recipients. After the surveys were returned to the authors, a summary was produced for the coaching recipients and they were debriefed in individualized sessions.

Behavior Improvement Projects

Near the end of the course, each attendee selected one work behavior or condition to measure and attempted to influence it using the strategies they learned in the course. During the last module, course attendees presented their projects in brief presentations to the group and to senior managers (who also completed and presented projects).
A small sample of safety projects included:

- Operators completing audits
- Hoses rolled up after each shift
- Proper wearing of PPE
- Increasing close call reporting
- Increasing one-to-one meetings that focused on safety
- Using the right tool for the job
- Improving tool box talks
- Improving housekeeping
- Fork truck checklist completion

Over the course of a year, more than 200 improvement projects were completed across the site by individuals at all level of management. More than 90% resulted in substantial improvements, based on a visual inspection of the project data. Data from three successful projects are presented below, as illustrative cases.

Sample of BMT Project Data

Tool board project

The problem that was addressed by this project was that tools were not being put away on a regular basis. This resulted in trip hazards and difficulty locating appropriate tools for the workforce. The associate who conducted the project decided to measure the percentage of tools in tool boards across 4 of his teams.

The solution that he designed and implemented involved discussing and agreeing on expectations with his teams, measuring the percent of tools in boards, giving groups feedback on results, congratulating teams with successes, and sending results to leaders who also congratulated teams. The result was a 51% increase in tools in tool board after the course.

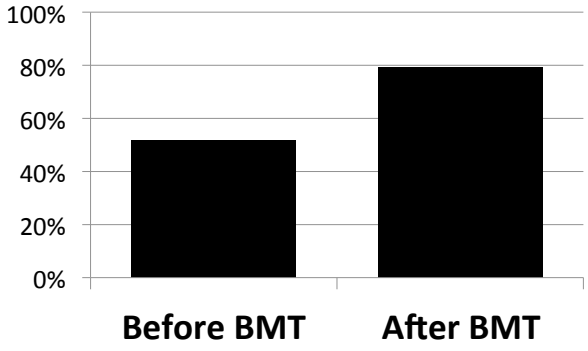

Figure 1. The percentage of tools on tool boards, averaged across 4 teams in 4 weeks before and after the BMT course.

Safety communication project

The problem that was address by this project was a perceived lack of communication about safety between managers and associates. The individual who conducted this project decided to measure the number of one-to-one, face-to-face meetings he held per month.

The solutions that he devised to address the problem included: Agreeing on expectations with staff regarding frequency of meetings, clearing time in his schedule, measuring the frequency of these targeted meetings, and reporting the results to peers for accountability. The solutions resulted in an 87% increase in these targeted meetings.

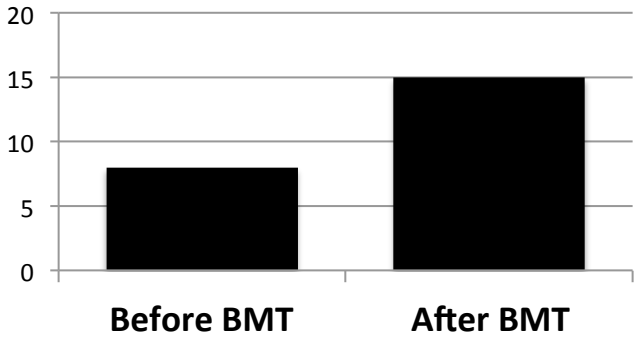

Figure 2. The frequency of safety related one-to-one meetings held per month.

Reporting of unsafe conditions project

This project addressed the problem of unsafe conditions being left unreported and therefore unfixed. The individual who completed the project measured progress by counting the average number of work orders written per month.

To solve the problem, he worked with staff to remove barriers to finding and reporting conditions, he measured work orders compared to baseline and published the results to his team. When they improved, he celebrated success by congratulating the team on a weekly basis. The results showed a massive increase in the number of safety related work orders submitted per month for the 6 months after the project began as compared to the 6 months before the project began.

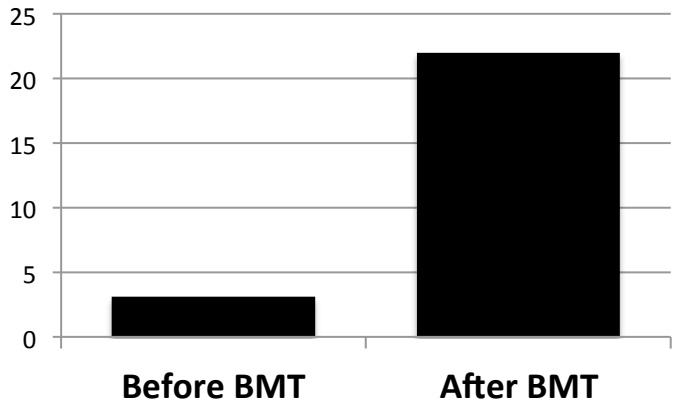

Figure 3. The average number of work orders submitted before and after the BMT project began.

Ongoing Results

Leaders continued to apply their BMT skills by conducting additional projects and using other tools from the course. The techniques used in the course became widely used in the organization and the behavioral science terms became a part of many conversations at each level in the business. At the site level, BMT became a standing agenda item and was revisited and discussed each week.

Not only were hundreds of successful improvement projects completed at the site, but safety and other related outcomes improved. The OSHA recordable rate at the site dropped by 72% in the first full year after the courses began, which more than paid for the cost of the courses and delivered the best performance the company had seen in the history of the site. Maintenance scheduling and reliability has consistently improved month to month, as has contractor safety (included in the OSHA recordable rate). The frequency of spills and other environmental measures improved. Morale at the site appeared to improve, and some massive cost savings projects were conducted.

Realizing substantial improvements like these is typical when leaders and employees participate in BMT courses. It is worth noting that this is approach is substantially different from traditional behavior-based safety. Behavior-based safety checklists and feedback are just one set of tools that BMT course participants learn to create and use. Since problems and situations across the site differ widely, a behaviorally sound approach to addressing these cultural issues calls for each one to be uniquely understood and solved. This can only happen when individuals

in those environments understand enough about behavior so that they can observe and address issues properly. Once people at each level of the business are provided fundamental knowledge and practice in behavioral science, they are able to quickly develop simple and effective strategies that positively influence behavior in their part of the organization.

As we stated above, environments drive behavior. We should add to this that business leaders create environments that drive behavior of their coworkers and associates throughout the business. Understanding behavioral science allows us to avoid costly (and sometimes deadly) errors in our day to day decisions. Senior managers create the environments that bring out the best (or not) in their direct reports. These managers in turn create environments that bring out the best (or not) in their direct reports, and so on, until we get to the workforce. Surely, the workforce also influences supervisors and managers – influence works both ways. However, we argue, giving the workforce a series of checklists and asking them to observe each other's behavior is just the tip of the iceberg in terms of what can be done to positively the safety culture of a business.

A consistent characteristic in traditional behavior-based safety programs is that they tend to underestimate the role of leaders. Most talk about leadership support, but few have defined the role of leaders in ways that take into account the dynamic jobs that most organizational leaders must fulfill. In short, creating a simple checklist for leaders to follow may be an attractive option, but there's little or no research to suggest that it will work. In our 20 years of experimentation on the subject, effectively teaching people to understand use the science is the only way to go. Behavioral science is the game changer in safety leadership, and there is still a lot of work to be done to get it to the masses.

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