

Atti del 5° Congresso Europeo sulla Behavior-Based Safety
Milano, Università degli Studi 16-17 giugno 2011

**Dal sistema
ispettivo-sanzionatorio
alla cultura della sicurezza**

**From a control-sanction
based system to an effective
safety culture**

Sommario degli atti

LEZIONI MAGISTRALI.....	5
<i>Accreditation of Behavioral Practices</i>	6
<i>Learning Safe Behaviors: The Role of Applied Behavior Analysis and Instructional Design.</i>	8
<i>Enhancing Your Safety Culture with Visible Safety Leadership.....</i>	10
SIMPOSIO Legislazione, sistemi di gestione e B-BS	21
<i>Use of a cooperative model to sustain safety culture within many small employers.....</i>	22
<i>Il ruolo dei SGSL nell'ambito del sistema prevenzionistico</i>	23
<i>L'integrazione possibile tra la normativa e le leggi scientifiche del comportamento</i>	31
<i>Obbligo di vigilanza per il datore di lavoro: il contributo del processo di osservazione nel protocollo di B-BS</i>	48
<i>L'integrazione necessaria tra SGSL e B-BS.....</i>	57
<i>Il futuro dei Sistemi di Gestione Aziendale.....</i>	67
<i>Gestione del rischio biologico e comportamenti di sicurezza</i>	72
SIMPOSIO Stress lavoro-correlato	81
<i>Valutazione Stress lavoro-correlato secondo le linee guida ISPESL: un'analisi degli interventi a 6 mesi dell'entrata in vigore e risultati aziendali</i>	82
<i>Una nuova scala per la misura dello stress da lavoro nei lavoratori bancari.....</i>	90
SIMPOSIO La B-BS per Piccole e Medie Imprese (PMI)	97
<i>La B-BS nelle PMI: comprimere il protocollo senza tradirlo</i>	98
<i>L'applicazione del protocollo per le PMI: il caso di Bono Energia</i>	100
<i>"Sicuri per mestiere": costruire la sicurezza</i>	102
<i>Evidenze sperimentali di un protocollo standardizzato per le PMI.....</i>	111
SIMPOSIO Accreditamento dei siti industriali e certificazione delle competenze in tema di B-BS	118
<i>Livelli di padronanza di un esperto di B-BS, un quadro di certificazione professionale.....</i>	119
<i>Esperti e consulenti in B-BS: ruolo, competenze ed etica</i>	122

Behavioral Safety Accreditation with CCBS: What it is and how it sustains outstanding safety performance..... 127

I sistemi di qualificazione delle imprese, la certificazione degli standard contrattuali e organizzativi e la nuova formazione per la sicurezza..... 128

LEZIONI MAGISTRALI

PUBLIC LECTURES

Accreditation of Behavioral Practices

Philip N. Chase

Cambridge Center for Behavioral Studies - Executive Director

ABSTRACT

The Cambridge Center for Behavioral Studies (hereafter, Center) provides two kinds of accreditation for organizations that meet world-class standards of behavioral practices. The first is our Accreditation of Safety Programs Based on the Principles of Behavior. Accreditation of safety programs aids in the reduction of injuries and illnesses of workers through applications of behavior analytic research to human performance in the workplace. To accredit the best safety programs, the Center established a commission of safety experts, an accreditation process, and a registry of accredited programs. The commission is composed of Drs. Mark Alavosius, Timothy Ludwig, Dwight Harshbarger, John Austin, Joseph Dagen, Nicole Gravina, and Sigurd Sigurdsson. The process involves completing an application kit, meeting a set of standards, and hosting a site visit that allows the commissioners to assure that our standards are being met. The registry includes a list of all companies that have been accredited, a description of their safety programs, and their safety performance data. This accreditation is a three-year award that is given to companies in recognition of exemplary performance in meeting the Center's behavioral safety standards.

Our second accreditation program is our Accreditation of Applied Behavior Analysis Human Service Programs. This accreditation focuses on programs and services that use humane applications of the principles of behavior analysis and are empirically demonstrated to be effective for their clients. Similar to the accreditation of safety programs, the Center established a commission of human service experts, a process of accreditation, and a registry of accredited programs. The commission is composed of Drs. Henry Pennypacker, Robert Littleton, Dennis Reed, Thomas Zane, and Michael Weinberg. The accreditation process involves completing an application kit, the standards of which focus on services being provided to clients. Like safety, our methods of accreditation include site visits that the commissioners use to assure that our standards are being met. The registry also lists all programs that have been accredited, a description of their human services, and sample client performance data. This accreditation is also a three-year award.

Both accreditation programs can be accessed from our website www.behavior.org, going to either the Safety or Autism Help Centers, and clicking on the Services tab. Both accreditation programs help the Center achieve its mission to advance the

scientific study of behavior and its humane applications, including the prevention and relief of human suffering.

AUTHOR



Philip N. Chase, PhD As the Executive Director of the Cambridge Center for Behavioral Studies, provides leadership for the group's mission of advancing the scientific study of behavior and its humane applications to the solution of practical problems. He is particularly focused on high-quality instruction in behavior analysis and the evaluation of educational products and services. Previously, as Professor of Psychology in the Behavior Analysis Program at West Virginia University, Dr. Chase focused on understanding the basic processes of verbal behavior and applying these basic processes to the design of teaching procedures that facilitate problem solving and conceptual behavior. Dr. Chase has published more than eighty articles, chapters, and books. He has served as an editor, associate editor, and editorial board member of many behavioral journals. He helped organize three international scientific conferences and has reviewed grants for four national agencies. Dr. Chase has also consulted with a range of public and private sector organizations. Current projects include evaluating on-line courses, supervision of practice, and research. Dr. Chase holds a Ph.D. in Psychology from the University of Massachusetts, Amherst.

Learning Safe Behaviors: The Role of Applied Behavior Analysis and Instructional Design

Mark P. Alavosius
University of Nevada, Reno- Professor

ABSTRACT

Behavioral scientists examine safety behavior as the interaction of a worker with the environment. Safety behavior, like any behavior, is learned and environmental manipulations provide an effective means to both teach and maintain desired safety practices. Unsafe conduct may result from faulty or incomplete learning. In some cases workers have not acquired the needed competencies to work safely; in other cases workers may have learned the skills but the work environment fails to maintain the required practices. Considerable research shows that behavioral instruction can effectively train health and safety behaviors required in a diverse range of industries and settings. Procedures that incorporate mastery learning, shaping, chaining, rehearsal, goal-setting, rule following, reinforcement, and feedback are repeatedly shown to be effective in establishing safety practices. Once established to mastery levels, safety behaviors can be maintained with a combination of reinforcement, feedback, rule governance and other management interventions. This paper considers several examples of molecular analyses of work safety in actual work contexts that reveal changes in behavior as a function of manipulated variables. Extending these effective interventions into large scale dissemination is considered.

AUTHOR



Mark P. Alavosius, Ph.D received his BA in psychology from Clark University in 1976 and earned his MS (1985) and Ph.D. (1987) in Psychology from the University of Massachusetts at Amherst. Currently he is an Assistant Professor of psychology in the Behavior Analysis Program at the University of Nevada, Reno. He held faculty appointments in the Behavior Analysis and Industrial/Organizational Program at Western Michigan University and the Behavior Analysis Program at West Virginia University. He is a Trustee of

the Cambridge Center for Behavioral Studies, chairperson of the CCBS commission on

accreditation of corporate safety programs and content expert of the CCBS Environmental/Green solutions area. For 13 years he worked in industry developing behavioral and instructional systems to improve work performance particularly in the areas of health and safety. Dr. Alavosius has a proven track record with NIOSH as a recipient of Small Business Innovations Research Grants to develop and test behavioral safety technologies. With over twenty-five years of experience in behavioral approaches to work and organizational behavior, Dr. Alavosius has over 140 publications and conference presentations.

Enhancing Your Safety Culture with Visible Safety Leadership

Terry E. McSween

Quality Safety Edge - President & CEO

ABSTRACT

Everyone agrees that leadership support is a critical element in organizational change. For many years a standard part of QSE's implementation process has been to carefully define (or pinpoint) the role of leaders by describing what they must do to support of safety and behavior based safety improvement efforts. Historically, QSE consultants have used leadership checklists to prompt and track such behaviors. In the past couple of years, thanks in part to Atul Gawande's book, The Checklist Manifesto, our consultants have seen greater acceptance of this approach to building leadership accountability. During this past year, QSE made a change in how we approach integrate leadership accountability. While the traditional checklist is still appropriate for some clients, our consultants have found great utility and better acceptance of clearly defining critical safety leadership behaviors then building the review of those practices into the standard agenda for existing meetings within the client's organization.

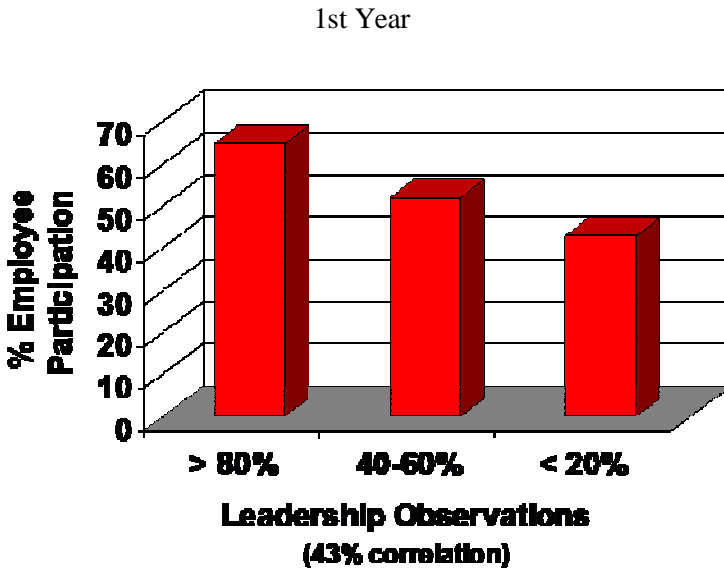
BUILDING ACCOUNTABILITY FOR LEADERSHIP

Safety is about leadership: that's not a new concept. Yet, for many years, leadership as it relates to safety has often been defined as support, which at times translates to just don't impede the process. Traditionally, leaders at the highest levels of an organization have fulfilled their mandate for such support by including safety in the corporate mission statement and the operational budget. Of course, behavior-based safety (BBS) professionals have known for quite a while that the success of our efforts hinges upon how adept we are in building leadership support for BBS systems. However, over the years, our interest in, focus on, and definition of leadership support has evolved . . . and for good reason.

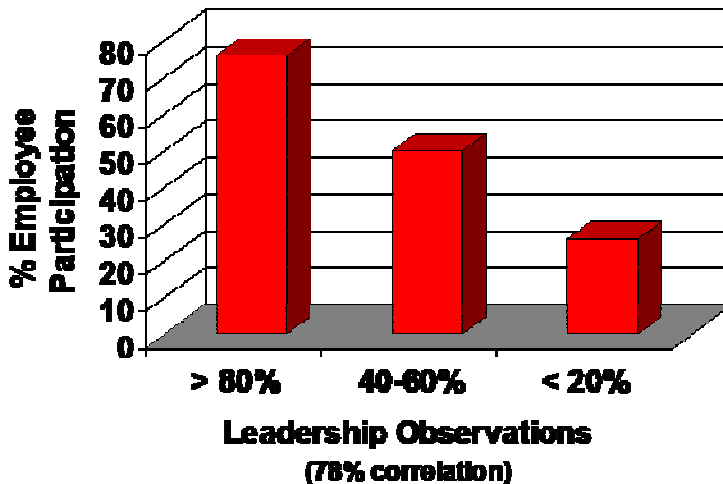
From real-life experience and on-site research we have discovered that leadership safety support — from supervisors to CEO — must be actively visible to be optimally effective. As our company, Quality Safety Edge (QSE), has grown and acquired both large national and international clients, we have changed our requirements of leadership. Why? Because the evidence reveals that doing so is absolutely necessary. For example, the data from one of our early studies, published in Professional Safety magazine, shows that when leaders perform the safety observations/walk arounds in

their facilities and are actively engaged in those observations, they attain higher levels of participation in safety observations from employees, a key part of a successful BBS process. (McSween, 2000, see graphs below)

In facilities where leaders do 80 percent of the observations they are scheduled to do, those facilities average better than 60 percent voluntary employee participation in conducting BBS observations. Our research also reveals that this type of active leadership involvement isn't only important during the first year of our implementation; it becomes even more important for sustaining such initiatives (see the second graph below). We have replicated this correlation in a variety of other organizations. From my perspective, this correlation is not so much about leadership modeling the behavior, but rather it appears to affect a leader's credibility. In other words, when the leaders asked their reports to participate by conducting safety observations and feedback, the credibility of that request is higher if the employees see that the leaders make time to conduct safety observations and feedback.



2nd Year



Picture 1 Leadership is Important: Employee Participation as a Function of Leadership Observations in the year 1 and 2

THE BBS UMBRELLA

This discovery was a big deal in the early stages of behavior-based safety because in those early days many of our competitors were implementing behavioral observation systems that only involved employees. (Some BBS consultants still take that approach.) However, with data supporting our approach, we began to routinely track leadership participation. Today, if a company wants a behavior-based safety process but they don't want us to work with leadership, the bare minimum we will do is track leadership participation in conducting observation. A basic report allows us to see who is doing observations and the number of total observations they've done over any period of time ranging from one month to twelve months. With this report, we can also look at designated observers and/or supervisors, and possibly incorporate that information into the performance appraisal. Typically, this remains the bare minimum of our intervention in working with leadership when implementing a BBS process, and we still do some of implementations that take that approach. More typically however, we now bundle an intervention focused on leaders throughout the organization, and on getting them more engaged in promoting safety, parallel to the implementation of our behavioral safety efforts. In other words, our projects have a dual, separate but equal focus on BBS and safety leadership.

In his article “Exploratory Analyses of the Effects of Managerial Support and Feedback Consequences on Behavioral Safety Maintenance” published in the Journal of Organizational Behavior Management, Dominic Cooper makes the overall point that employees need to see leaders doing something to support safety every week. In the case of BBS, it is probably not as critical that the something is a safety observation, but employees need to see leaders at every level engaged in activities that promote safety; whether they ensure that a safety related work order gets addressed, do a safety observation and feedback, host a safety meeting, or participate in a safety committee meeting. The takeaway from his work is that we really need to focus on visible safety leadership.

CHECKLISTS & AGENDAS

I was very pleased when Atul Gawande’s excellent book, *The Checklist Manifesto: How to Get Things Done Right* was published, even though I admit I was a bit disappointed that he didn’t mention behavior-based safety. In the BBS field, we have used checklists extensively for some time, including those around leadership behaviors (sometimes as simple as a yes/no pertaining to doing a certain behavior or a frequency count). One of the things I liked about Gawande’s book is the explanation of the many different ways to structure checklists. As I read this book, I began thinking about our approach to safety leadership and it occurred to me that there are other forms of checklists. I have found it easier, when talking with leaders, to talk about structuring their agenda for safety and what they’re going to cover in their staff meetings, rather than talk about the leadership checklists we have been using for the past fifteen years.

Now I’m talking their language! Senior managers find it more acceptable to talk about a creating a systematic review of a structured, recurring agenda at each level of the organization, rather than creating and reviewing data from leadership checklists at each level of the organization. The way we talk about it has changed, the format of the checklists has changed, but the process creates the same, or better, level of accountability for leadership practices in support of safety.

Granted, at times a leadership checklist may be more appropriate, for example when there are a variety of kinds of behaviors, the checklist may provide a better prompt or provide better guidance, but I have had better success with structuring the agendas at different levels of the organization. Additionally, agendas have some advantages over checklists. With leadership checklist we are tracking leadership behavior the same way we are tracking the safety practices of employees: entering the data into computers, creating reports, and so forth. When we use a structured agenda, we can basically set that up as a paper-and-pencil effort. Give leaders a notebook with dividers for each meeting or direct report, agenda forms for each section, and they can more conveniently track their safety activities. This approach also provides other advantages, flexibility being one of them. Leaders may be talking about lock out/tag out issues this month, but (possibly driven by the observation data or near miss data or, worse case, incident data) they can easily change the focus for the following

month. They can cascade this method in a systematic way down through the organization, increasing alignment and accountability for both safety and BBS. The table below summarizes the key considerations in each approach.

Safety Leadership Checklists	Recurring Agenda Items
<ul style="list-style-type: none"> • Distinct checklist of critical safety leadership practices 	<ul style="list-style-type: none"> • Agenda defines a few critical behaviors
<ul style="list-style-type: none"> • Strive for consistency 	<ul style="list-style-type: none"> • Flexible, can change focus
<ul style="list-style-type: none"> • Adds recording and reporting tasks 	<ul style="list-style-type: none"> • Recording done in meeting minutes
<ul style="list-style-type: none"> • Computerized reporting 	<ul style="list-style-type: none"> • Recording done in meeting minutes
<ul style="list-style-type: none"> • Formal reports 	<ul style="list-style-type: none"> • Paper/binder based

CASCADED COACHING

One of our clients experienced an interesting problem: all of their incidents in one division occurred when a supervisor wasn't present. This may sound odd, but this particular division was comprised largely of remote workers, usually out in the field and separated by many miles. During the assessment, we looked at the points of contacts between each level of leadership and the next, from the Director down through the front line employees. The Director had a weekly staff meeting with his managers. During this meeting, the first agenda item was always safety. They routinely went beyond the reviewing incidents and discussed safety observations, near misses and safety action items. Managers routinely talked with leads via cell phone or in person to discuss daily schedules and assignments. These discussions also routinely included the above mentioned topics, often adding encouragement to their leads to conduct safety observations. The leads always started each day with a tailgate safety meeting that would include a review of JSA's, discuss the potential hazards and how to mitigate those hazards. Leads often had multiple jobs, so one the tailgate was complete they would designate an employee to take lead on the job and then would take a portion of the crew and go to another jobsite. Finally, late in the day the lead would place a cell phone call to the designated employee to check progress on the job.

They were doing many things right, but we worked with them to fine tune each point of contact to address practices that would help prevent injuries when the supervisors were not present. We positioned this as leadership development and asked each level to review the quality of the safety efforts at each level, with an objective of improving the quality of observations and discussions about safety on the job. The Director began to ask managers about the discussion they had with their leads around safety and the quality of the tailgates. The managers began to talk with the leads about the quality of the conversations that took place at the tailgate meetings. Did they think that people were involved? How did the employees respond to the discussion? What did you the leads see them doing differently? How did what the designated employee telling you about their observations compare with what the lead observed when doing

similar observations? Part of the purpose of the conversations between the lead and the designated employee was to explicitly to help the designated employee develop their safety leadership skills, and to more explicitly enlist and define their help in preventing injuries.

Finally, and this was perhaps most significant, we added a safety component to the final cell phone call from the lead to the designated employee at the end of the day. We had the leads routinely start these phone calls with a discussion about the designated employees efforts to prevent injury. The leads asked if the steps discussed in the tailgate were successful in mitigating the hazards they had identified in their discussion. Further, they asked if conditions changed from what they had planned, and if so, what kind hazards the change created, what kind of discussion they had with coworkers about the new hazards, what worked for them and what they might do differently the next time they had a similar job. As with the other levels, we provided a formal agenda to prompt these discussions, though the leads were allowed to adapt the questions to the context of the job. Sample agenda forms are provided at the end of this article.

CLOSE CALLS (OR NEAR MISS REPORTING)

Another thing we've done is to add close calls (or more traditionally, near misses) to the BBS observation process. During the feedback discussions, observers simply ask their coworkers if they've seen any near misses. This seems to be a much better way of capturing near misses. Observers then write the details in the comments section of the observation form. The details then get entered into the computer, and at the end of the month, they generate a list of all of the comments so that the safety committee has the opportunity to review each one of them and take do further analysis and take action when necessary. This is fairly easy to do and provides a much higher rate of data on near misses, close calls, and minor first-aid kinds of injuries than our clients ever got from any kind of paper recording system even when compared to providing incentives for reporting these kinds of events. Reporting close calls in conversation is easier for the employees than filling out a formal report of the near incident.

THE SAFETY LEADERSHIP (R)EVOLUTION

I tell companies that if you only put safety first on the agenda, that makes you about a "C" student. Almost all companies that we work with do this even before we start working with them. However, the way most companies do it is by asking, "Did we have any injuries? Was there an incident or near miss?" and then if the answer is no, they go on to talk about other things, such as quality, production, and costs. I have often said that behavioral safety is as much about safety leadership behaviors as it is about employee behaviors. We want every level of leadership asking their reports "What have you done to promote safety in the last week and what are you going to do in the coming week?"

Company leaders at every level need to be visible and having conversations about safety with the employees in their workplace, and they need to talk about the

behaviors that promoting safety in their meetings at every level. In staff meetings, we want the Director or Site Manager to ask each of his direct reports what they did last week and what they are going to do this week to improve or promote safety. That's much more important than communicating expectations and talking about mission statements. Preaching and talking about expectations is not as critical as first asking about safety and reviewing what is being done to promote safety, and only then providing direction or feedback -- thus signaling the importance of safety. These kinds of activities need to occur every week. Therefore, we are very explicit about the purpose of BBS and leadership's role in creating a culture where we take care of one another.

REFERENCES

- 1) Cook, S., and McSween, T.E. (2000) The Role of Supervisors in Behavioral Safety Observations. *Professional Safety*, October, 33-36.

DIVISION MANAGERS STAFF MEETING - MEETING AGENDA

Date									
-------------	--	--	--	--	--	--	--	--	--

Weekly/Monthly

Asked Managers about coaching their leads. What are they asking and talking about? Discuss quality of start of work meetings and prejob discussions conducted by leads.									
Review & discuss progress on safety action plans & critical safety practices of managers (what is on their list, what is done, etc.)									
Review and share safety information coming from other Divisions									
Problems or concerns to be shared with Teams and other Managers									
Discuss and review BBS observations and identify focus areas, as well as quantity and quality of observations									
Discuss and review efforts on focus areas									
Anyone I should recognize?									

Quarterly

Arrange to visit different job sites (at least once per month, all every month or perhaps once a quarter)									
Participate/have a piece of team's quarterly safety meetings									

NON-RECURRING TASK & NOTES

Date	Notes/Tasks

AGENDA FOR MANAGER’S - INDIVIDUAL CONFERENCE WITH LEADS

Date									
-------------	--	--	--	--	--	--	--	--	--

Weekly

Asked lead what safety issues he is observing on jobs. Discuss quality of start of work meetings and prejob discussions conducted by leads. How engaged are employees?									
Problems or concerns that should be shared with Teams and other Managers									
Discuss and review BBS observations and identify focus areas, as well as quantity and quality of observations									
Discuss and review efforts on focus areas									
Discuss Leads discussion of checkpoints and mandated stops in project (for hazard identification and safety review)									
Review how much time leads are spending with crews									
Review work for day, job or week and lessons learned, what went well, communicate changes/improvements to others									
Anyone I should recognize?									

Quarterly

Arrange to visit different job sites (at least once per month, all every month or perhaps once a quarter)									
Participate/have a piece of team’s quarterly safety meetings									

NON-RECURRING TASK & NOTES

Date	Notes/Task

AUTHOR



Terry E. McSween, PhD is President and CEO of Quality Safety Edge, an organization that helps improve business success and profitability through behavioral safety and safety leadership. He has developed an original method for creating ownership for organizational change through local-level, employee involvement in the design process. His approach results in increased participation in safety improvement efforts, minimizing resistance to organizational change.

Dr. McSween has received numerous awards for his work in safety improvement. He received the 2009 Life Time Achievement and 2001 Significant Contribution awards from the Organizational Behavior Network. He also was awarded the Johnson & Higgins Scrivener Award for his article “Improve your safety program with a behavioral approach” published in *Hydrocarbon Processing* from American Society of Safety Engineers for the outstanding technical article on safety and health published outside of the society. His book, *The Values-Based Safety Process*, second edition, was published in 2003 by John Wiley & Sons of New York, NY.

